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ЛАБОРАТОРИЯ ВЫЧИСЛИТЕЛЬНОЙ ТЕХНИКИ
И АВТОМАТИЗАЦИИ



I.Berceanu, S.Berceanu, T.Besliu , A.Mihul

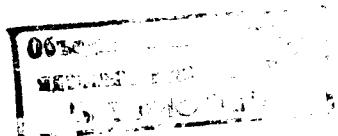
**COMPILED OF CROSS SECTIONS
FOR STRANGE PARTICLE PRODUCTION
IN π^- p INTERACTIONS**

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**COMPILATION OF CROSS SECTIONS
FOR STRANGE PARTICLE PRODUCTION
IN π^- p INTERACTIONS**



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§ I INTRODUCTION

Lately the number of publications on strange particle production has become rather large. In order to use the published data efficiently it is necessary to collect and order them. Due to the large number of involved reactions and measured quantities, it is necessary to use the modern system of handling data by electronic computers.

For this reason we started the ordering the existing information on partial cross sections for strange particle production. We present here only cross sections for the interactions of the negative pions with protons, which were published before January 1971.

In the first part some notes (§ 2- 7) explain how to use the compilation.

In order to give a more intuitive view of the variation of the cross section with energy, plots of the cross section versus momentum of the incident pion in a log- log scale are given for the reactions where there are more than 5 data points.

The present paper should be considered as a test and a starting point for a more complete collection of data including also other reactions with strange particle production such as Kp, pp and other measured quantities such as $\frac{d\sigma}{dt}$, $\frac{d\sigma}{dM}$,

We plan to bring this compilation up to date every year.

We apologize for all omissions and errors and any corrections or suggestions are welcome.

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§ 2 DESCRIPTION OF THE TABLES OF COMPILED REACTIONS

In the following we list the quantities used in the table of cross sections (table 2):

- The date of printing
- The ordering number of the reaction and its title
- Threshold = the threshold energy of the reaction in CMS (GeV); the threshold kinetic energy of the incident particle in lab.syst. (GeV); the threshold momentum of the incident particle in lab.syst. (GeV/c).
- N = The ordering number of cross sections in increasing order with incident pion energy.
- ECMS = The total energy of the system in CMS (GeV)
- DE+ = The positive error of the total energy in CMS (GeV)
- DE- = The negative error of the total energy in CMS (GeV)
- PIAB = The momentum of the incident particle in lab.syst. (GeV/c)
- DP+ = The positive error of the momentum of the incident particle in lab.syst. (GeV/c)
- DP- = The negative error of the momentum of the incident particle in lab.syst. (GeV/c)
- SIGMA = The cross section (microbarns)
- DS+ = The positive error of the cross section (microbarns)
- DS- = The negative error of the cross section (microbarns)
- REFERENCE = The bibliographical reference contains:
 - the first six letters of the first author name
 - four letters for the publication (for the code, see list 2)
 - the volume
 - the page
 - the last two figures of the year

- the detection method used (see list 3)
- COM = the number of the corresponding comments (see list 4)

REMARKS:

1. If the errors for the variable (eg: energy or cross section) were not given, 0 is printed.
2. If there are no comments, 0 is printed.
3. When the values for cross sections for one experiment were given in a preprint and at the same time in a journal or review, we compiled the data from the review. When for the same experiment more preliminary results were available, we preferred the last results.
4. When in the same experiment, different data referring to the same reaction were published in a review or a journal, all published results are compiled.
5. The errors, in the cross sections calculated from the published results, were obtained by adding the published errors giving overestimates of the errors. We proceeded in this way observing that, generally the given errors were underestimated..
6. Generally, the errors are only statistical, but we introduced the corresponding comment only if the author specified this.

§ 3. THE RULES USED IN "ORDERING"

Rule	Ordering quantity	Order in which the rule acts
A	multiplicity	increasing
B	mass	increasing or decreasing
C	charge	(+,-,0):(+-):-:0:S:I,

Explanations and conventions

- I. The notions of "order", "multiplicity", and the cases when rule B acts in increasing or decreasing order will be defined further.

2. We took for the mass the value given in the Rosenfeld tables (1) for a particle or resonance. All the members of the same iso-multiplet were considered having the same mass.

3. $(+, -, 0)$ or $(+, -)$ represents a sum over the charge states included in parentheses. S and L refer only to kaons (short-lived and long-lived ones respectively).

4. When we say that "the hierarchy" is AB, we mean that rule A acts first and rule B acts after rule A has been satisfied.

§ 4 TYPES OF COMPILED REACTIONS

Type	Particles in the final state
E = Exclusive	All are detected (for details, see ref.2)
I = Inclusive	Only some are detected (for details, see ref.2)
T = Topological	Only charged (prongs) observed
P = Phenomenological	All with a common "physical" character

All these definitions are rough (especially the last one). For a better understanding of the types of compiled reactions, see § 7.

Of course, the inclusive, topological and phenomenological types are practically combined, but in order to simplify the terminology, we have not introduced mixed terms.

§ 5 RULES USED IN WRITING THE TITLES OF THE REACTIONS

For writing the titles of reactions, we introduced the following types of titles:

EI. Exclusive reactions with one baryon

- E2. Exclusive reactions with antibaryon production
- E3. Exclusive reactions with an intermediate state (resonance)
- E4. Exclusive reactions with an intermediate state and a specified final state

T+P. Topological and phenomenological

I. Inclusive reactions.

In writing the title of a reaction, to "order" means to arrange the particles using the given rules, from left to right. In this case the rule B acts decreasingly.

Type	Particle in the title of the reaction	Hierarchy	Examples
EI	Final state	BC	a
E2	Baryons	arbitrary*	b
	Mesons	BC	
E3	Intermediate state	BC	c
E4	Intermediate state	BC	d
	Final state	BC	
T+P			e
I	Detected particles	BC	f
	...	BC	

* The arbitrary hierarchy is: light baryon, heavy baryon, antibaryon.

For the symbols for particles and resonances and for conventions, see list 1.

§ 6 ORDERING OF REACTIONS

"To order" the reactions, means to give them consecutive numbers. The rule B acts increasingly. The hierarchy is ABC and has to be satisfied for the first particle in the title, after

this for the second particle and so on (example g).

For reaction	By multiplicity, we mean
E	Number of particles in the final state
T+P	Number of prongs (in title) + number of observed part. (in title)
I	Number of detected particles

Remarks:

1. The states which are superposition of states are ordered by the lightest particle in the superposition (example g).
2. For phenomenological reactions, if more "general" is the character of the reaction, then smaller number is attributed (example i).
3. The threshold enhancement (TE) and the enhancement (EN) are introduced as resonance.
4. ZO is considered as a particle.

S 7 EXAMPLES

a) $\text{PI- P} = \text{P K+ K- PI PIO}$

Explanation: rule B impose the order P, K, PI. Rule C implies the order K+ K- for K, PI- PIO for PI.

b) $\text{PI- P} = \text{N L AL K+ K- PI+ PI- PIO}$

Explanation: arbitrary hierarchy for baryons and BC hierarchy for mesons.

c) $\text{PI- P} = \text{Y(1385)0 K(890)0}$

d) $\text{PI- P} = \text{Y(1385)0 K(890)0} = \text{L K+ PI- PIO PIO}$

e) Examples of phenomenological reactions:

$\text{PI- P} = \text{STRANGE PARTICLES}$

$\text{PI- P} = \text{Y(+,-) ...}$

Examples of topological reactions:

$\text{PI- P} = \text{2 PRONGS KS KS}$

f) $\text{PI- P} = \text{L ...}$

g) The reactions with multiplicity 4 of type EI are ordered

as follows:

x $\text{PI- P} = \text{P K+ K- PI}$

x+1 $\text{PI- P} = \text{P K- KO PIO}$

x+2 $\text{PI- P} = \text{P K- KO ZO}$

For reactions of types E3 and E4, the order is:

x $\text{PI- P} = \text{L KO PI+ PI-}$

x+1 $\text{PI- P} = \text{L K(890)+ PI-}$

x+2 $\text{PI- P} = \text{L K(890)+ PI-} = \text{L K+ PI- PIO}$

x+3 $\text{PI- P} = \text{L K(890)+ PI-} = \text{L KO PI+ PI-}$

For type I, the order is:

x $\text{PI- P} = \text{KO ...}$

x+1 $\text{PI- P} = \text{Y ...}$

x+2 $\text{PI- P} = \text{Y(+,-) ...}$

h) $\text{x PI- P} = \text{L KO}$

x+1 $\text{PI- P} = (\text{L/SO}) \text{ KO}$

i) $\text{x PI- P} = \text{STRANGE PARTICLES}$

x+1 $\text{PI- P} = \text{VO ...}$

x+2 $\text{PI- P} = \text{O PRONGS (L/SO)}$

Explanation: the number of the reaction is smaller if the "generality" is "higher".

Acknowledgements

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REFERENCES

1. Particle data group, Reviews of Modern Physics, 43 (1971), 1.
2. R.P. Feynman, Physical Review Letters, 23 (1969), 1415.

LIST 1

Symbols for particles and resonances

Mesons

PI	= pion	F	= $F^0(1260)$
K	= kaon	D	= $D(1285)$
KS	= K_S^0	$K(1175)$	= $K_A^-(1175)$
KL	= K_L^0	A2	= $A_2^+(1300)$
K(725)	= K(725)	K(1320)	= $K^*(1320)$
OM	= $\omega(783)$	K(1400)	= $K_N^*(1420)$
K(890)	= $K^*(890)$	E	= $E(1420)$
PHI	= $\phi(1019)$	F(1500)	= $f(1500)$
S(1070)	= $S^*(1070)$	KS KS(1440)	= $K_S^0 K_S^0(1440)$
A1	= $A_1(1070)$	G	= $g(1650)$

Baryons

P	= proton	Y(1700)	= $\Lambda(1700)$
N	= neutron	Y(1820)	= $\bar{\Lambda}(1820)$
L	= Λ	Y(1385)	= $\Lambda(1385)$
S	= Σ	Z(1300)	= $Z(1300)$
XI	= Ξ	Z(1950)	= $Z(1950)$
OM-	= Ω^-	XI(1530)	= $\Xi(1530)$
Y	= hyperon	TE	= Threshold enhancement
Y(1405)	= $\Lambda(1405)$	Z0	= Missing neutrals
Y(1520)	= $\Lambda(1520)$	EN	= Enhancement
Y(1670)	= $\Lambda(1670)$		

Conventions

VO	= Visible decay of a neutral strange particle
N PRONGS	= N charged particles in the final state
(L/S0)	= Λ or Σ^0
(K PI)+	= $K^0 \pi^+$ and $K^+ \bar{\pi}^0$
PI(+,-)	= π^+ or $\bar{\pi}^-$
•••	= Sum over all final states which include the given state
2PI+	= $\pi^+ \bar{\pi}^+$
AL	= $\overline{\Lambda}$
AXI+	= Ξ

LIST 2
Abbreviation
Preprints

BNL UPTON, N.Y. USA BROOKHAVEN NAT. LAB.
CERN CTPH GENEVA, SWITZERLAND EUROPEAN ORGANISATION FOR NUCL.
RESEARCH
CERN DPH GENEVA, SWITZERLAND EUROPEAN ORGANISATION FOR NUCL.
RESEARCH
DUBNA DUBNA, URSS JOINT INST. FOR NUCL. RESEARCH
HE BUCHAREST, ROMANIA INSTITUTE FOR ATOMIC PHYSICS
SLAC STANFORD, CAL., USA STANFORD LIN. ACC. CENTER
WISC MADISON, WISC., USA UNIV. OF WISCONSIN

Journals, reviews

BAPS BULLETIN OF THE AMERICAN PHYSICAL SOCIETY
IAF IADERNAYA FIZIKA (in russian)
JETP JURNAL EKSPERIMENTALNOI I TEORETICHESKOI FIZIKI (in russian)
LNC LETTERE NUOVO CIMENTO
NC NUOVO CIMENTO
NP NUCLEAR PHYSICS
PL PHYSICS LETTERS
PR PHYSICAL REVIEW
PRL PHYSICAL REVIEW LETTERS
RMP REVIEWS OF MODERN PHYSICS
RRP REVUE ROUMAINE DE PHYSIQUE
THES THESIS

Conference proceedings

CERNCONF 58 1958 ANNUAL INTERNATIONAL CONFERENCE ON
HIGH ENERGY PHYSICS AT CERN
KIEVCONF 59 1959 NINTH INTERNATIONAL ANNUAL CONFERENCE
ON HIGH ENERGY PHYSICS
ROCHCONF 60 1960 INTERNATIONAL CONFERENCE ON HIGH
ENERGY PHYSICS AT ROCHESTER
AIX CONF 61 1961 THE AIX-EN-PROVENCE INTERNATIONAL
CONFERENCE ON ELEMENTARY PARTICLES

CERNCONF	62	1962 INTERNATIONAL CONFERENCE ON HIGH ENERGY PHYSICS AT CERN
ATHECONF	63	1963 ATHENS TOPICAL CONFERENCE ON RESONANT PARTICLES
VIENCONF	68	1968 14 th INTERNATIONAL CONFERENCE ON HIGH ENERGY PHYSICS VIENNA
KIEVCONF	'70	1970 XV INTERNATIONAL CONFERENCE ON HIGH ENERGY PHYSICS KIEV

LIST 3

Measurement techniques

- D DEUTERIUM CHAMBER
- H HYDROGEN BUBBLE CHAMBER
- P PROPANE BUBBLE CHAMBER
- T SCINTILLATION COUNTER
- S SPARK CHAMBER
- V DOUBLE VEE MAGNETIC SPECTROMETER
- W DIFFUSION CLOUD CHAMBER
- U EMULSION AND HYDROGEN CHAMBER

LIST 4

Comments

- I. The errors on the energy (momentum ...) are estimated by us from the indication of the author.
- 2. The author specifies that the errors of the cross section are only statistical.
- 6. The data are quoted by the authors from another paper, not found by us.
- 7. Total production cross section of strange particles without corrections for the pair $K_S^0 \bar{K}_S^0$.
- 9. Observed only in the state $K^+ \pi^-$ with visible / and corrected for $K^0 \bar{K}^0$.
- 10. Observed only in the state $K^- K_S^0$ and corrected by the author.
- 13. The (ΛK^+) mass enhancement is in the range (1.60 - 1.95)

GeV/c^2 . It is suggested the interpretation of this enhancement as $N(1688)$.

14. The mass of the ($\Xi^- K^+$). Enhancement is in the range of $(1.7 - 2.2) \text{GeV}/c^2$.

15. It is supposed that the cross section for $(\bar{K}\bar{K}) = 4$ cross section for $(K^0 \bar{K}^0)$.

16. It is supposed that the cross section for $(YK^0) =$ cross section for (YK^+) .

18% Upper limit given by the author.

19. It is supposed that the cross section for $(\bar{K}\bar{K}) =$ cross section (cross section $(K^0 \dots) - 1/2$ cross section $(Y\dots)$).

21. The mass of the $\text{EN}(\Lambda K^+) = (1.700 \pm 0.025) \text{ GeV}/c^2$. Cut in $t_{p-\text{EN}}$ at $0.4(\text{GeV}/c^2)^2$.

22. Cross section obtained by integration of differential cross section $d\sigma/dt$ over a given interval of t .

23. Cross section obtained by integration of differential cross section $d\sigma/du$ over a given interval of u .

25. Compiled by us from the published data of the author.

26. For details for the determination of the cross section, see the paper.

27. Strange particle cross section determined from events with two visible decays per event, corrected for neutrals (only K_g^0).

28. Strange particle cross section determined from events with a single decay per event, by indirect observation and statistical assumptions.

30. Cross section determinated in the region of mass: $(0.988 - 1.100) \text{ GeV}/c^2$ for the $K^* K^-$ system and a given interval of $t(t_{\min} - 0.5(\text{GeV}/c^2)^2)$ (for the third decimal in the cross section, see the paper).

TABLE I
TABLE OF COMPILED REACTIONS

1 -	PI- F = STRANGE PARTICLES
2 -	PI- F = V0 ...
3 -	PI- F = 0 PRONGS (L / S0)
4 -	PI- F = K0 ...
5 -	PI- F = Y ...
6 -	PI- F = Y(+,-) ...
7 -	PI- F = (L / S0) ...
8 -	PI- F = AL ...
9 -	PI- F = S+ ...
10 -	PI- F = S- ...
11 -	PI- F = XI- ...
12 -	PI- F = OM- ...
13 -	PI- F = 0 PRONGS KS KS
14 -	PI- F = 0 PRONGS (L / S0) KS
15 -	PI- F = K AK ...
16 -	PI- F = K(+,-) KS ...
17 -	PI- F = K(+,-) KL ...
18 -	PI- F = K+ K- ...
19 -	PI- F = K0 AK ...
20 -	PI- F = K0 K0 ...
21 -	PI- F = KS KS ...
22 -	PI- F = KS KL ...
23 -	PI- F = L K0
24 -	PI- F = L K0 (BACKWARD)
25 -	PI- F = L AS(-,+)
26 -	PI- F = L AXI+ ...
27 -	PI- F = L AXIO ...
28 -	PI- F = (L / S0) K+ ...
29 -	PI- F = (L / S0) K0 ...
30 -	PI- F = (L / S0) KS ...
31 -	PI- F = (L / S0) KS ...
32 -	PI- F = S(+,-) AL ...
33 -	PI- F = S(+,-) AS(-,+)
34 -	PI- F = S+ K+ ...
35 -	PI- F = S+ K0 ...
36 -	PI- F = S+ KS ...
37 -	PI- F = S- K+ ...
38 -	PI- F = S- K+
39 -	PI- F = S- K0 ...
40 -	PI- F = S- KS ...
41 -	PI- P = S0 K0
42 -	PI- P = AY KS ...
43 -	PI- P = Z(1300)+ K-
44 -	PI- P = XI- AS ...
45 -	PI- P = Z(1950)+ K-
46 -	PI- P = 2 PRONGS STRANGE PARTICLES
47 -	PI- P = 2 PRONGS (L / S0)
48 -	PI- P = K0 K0 Z0
49 -	PI- P = KS KS Z0
50 -	PI- P = P K- K0
51 -	PI- P = P K- KS
52 -	PI- P = P A1- = P K- K0
53 -	PI- P = P A2- = P K AK
54 -	PI- P = P A2- = P K- K0
55 -	PI- P = P G- = P (K AK)-
56 -	PI- P = (P / N) Y AY ...
57 -	PI- P = (P / N) (A2- / A20) = (P / N) (KS K- / KS KS)

5b - $P_1^- P = \pi^- K^+ K^-$
 59 - $P_1^- P = \pi^- K^0 \bar{K}^0$
 60 - $P_1^- P = \pi^- K S \bar{K} S$
 61 - $P_1^- P = \pi^- K S \bar{K} L$
 62 - $P_1^- P = \pi^- K \bar{\Phi} I$
 63 - $P_1^- P = \pi^- N \bar{\Phi} I = N K^+ K^-$
 64 - $P_1^- P = \pi^- T F(K A K) = N K S \bar{K} S$
 65 - $P_1^- P = \pi^- S(1070) = N \bar{L} S \bar{K} S$
 66 - $P_1^- P = \pi^- F = N K A K$
 67 - $P_1^- P = \pi^- F = N K S \bar{K} S$
 68 - $P_1^- P = \pi^- A2 = N K A K$
 69 - $P_1^- P = \pi^- A2 = N K S \bar{K} S$
 70 - $P_1^- P = \pi^- K S K S(1400) = N K S \bar{K} S$
 71 - $P_1^- P = \pi^- F(1500) = N K A K$
 72 - $P_1^- P = \pi^- L \bar{A} L$
 73 - $P_1^- P = \pi^- Y K \bar{P} I$
 74 - $P_1^- P = \pi^- Y K(890)$
 75 - $P_1^- P = \pi^- L K^+ \bar{P} I^-$
 76 - $P_1^- P = \pi^- L K^0 \bar{P} I^0$
 77 - $P_1^- P = \pi^- L K^0 Z^0$
 78 - $P_1^- P = \pi^- L K S \bar{P} I^0$
 79 - $P_1^- P = \pi^- L K(890)0$
 80 - $P_1^- P = \pi^- K(1400)0 = \pi^- (K \bar{P} I) 0$
 81 - $P_1^- P = (\pi^- / S^0) K^+ \bar{P} I^-$
 82 - $P_1^- P = (\pi^- / S^0) K^0 \bar{P} I^0$
 83 - $P_1^- P = (\pi^- / S^0) K^0 Z^0$
 84 - $P_1^- P = (\pi^- / S^0) K(890)$
 85 - $P_1^- P = (\pi^- / S^0) K(1400)0$
 86 - $P_1^- P = S^0 (+,-) K S \bar{P} I(-,+)$
 87 - $P_1^- P = S^0 K^0 \bar{P} I^-$
 88 - $P_1^- P = S^0 (K \bar{P} I) +$
 89 - $P_1^- P = S^0 K^+ \bar{P} I^0$
 90 - $P_1^- P = S^0 K^+ Z^0$
 91 - $P_1^- P = S^0 K^0 \bar{P} I^+$
 92 - $P_1^- P = S^0 K(725) +$
 93 - $P_1^- P = S^0 K(890) +$
 94 - $P_1^- P = S^0 K^+ \bar{P} I^-$
 95 - $P_1^- P = S^0 K^0 \bar{P} I^0$
 96 - $P_1^- P = S^0 K(890)0$
 97 - $P_1^- P = S^0 K(890)0 = S^0 K^+ \bar{P} I^-$
 98 - $P_1^- P = S^0 K(1400)0$
 99 - $P_1^- P = C N(L K^+) \bar{P} I^-$
 100 - $P_1^- P = C N(L K^0) \bar{P} I^0$
 101 - $P_1^- P = C N(S K^+) + \bar{P} I^-$
 102 - $P_1^- P = C N(S K^0) \bar{P} I^0$
 103 - $P_1^- P = X I^- K K \dots$
 104 - $P_1^- P = X I^- K^+ K^0$
 105 - $P_1^- P = X I^0 K^0 K^0$
 106 - $P_1^- P = Y(1385) - K^+$
 107 - $P_1^- P = Y(1385) - K^+ = L K^+ \bar{P} I^-$
 108 - $P_1^- P = Y(1385)0 K^0$
 109 - $P_1^- P = Y(1385)0 K^0 = L K^0 \bar{P} I^0$
 110 - $P_1^- P = Y(1385)0 K(1400)0$
 111 - $P_1^- P = Y(1405) K^0$
 112 - $P_1^- P = Y(1405) K^0 = (S \bar{P} I) 0 K^0$
 113 - $P_1^- P = Y(1405) K^0 = (S^+ \bar{P} I^- / S^- \bar{P} I^+) K^0$
 114 - $P_1^- P = Y(1405) K^0 = S^+ \bar{P} I^- K^0$
 115 - $P_1^- P = Y(1520) K^0$
 116 - $P_1^- P = Y(1520) K^0 = ((P / N) A K) 0 \bar{P} I^0$
 117 - $P_1^- P = Y(1520) K^0 = (S \bar{P} I / P K^-) K^0$
 118 - $P_1^- P = Y(1520) K^0 = (S \bar{P} I) K^0$
 119 - $P_1^- P = Y(1675) K^0 = (S \bar{P} I) K^0$
 120 - $P_1^- P = Y(1820) K^0 = (N / P K) K^0$
 121 - $P_1^- P = 2 P R O N G S K^0 A K$
 122 - $P_1^- P = 2 P R O N G S (+ S K S$
 123 - $P_1^- P = 2 P R O N G S (L / S^0) K S$
 124 - $P_1^- P = P K^+ K^- \bar{P} I^-$
 125 - $P_1^- P = P K^+ K^0 \bar{P} I^0$
 126 - $P_1^- P = P K^+ K^0 Z^0$
 127 - $P_1^- P = P K^0 K^0 \bar{P} I^-$
 128 - $P_1^- P = P K S K S \bar{P} I^-$
 129 - $P_1^- P = P K S K I \bar{P} I^-$

130 - $P = P K(890) - \bar{K} 0$
 131 - $P = P (K \bar{K}(890) / \bar{K} K(890))$
 132 - $P = (P / N) K(890) \bar{K} 0$
 133 - $P = (P / N) K(890) (-,+) \bar{K} K = (P / N) K \bar{K} \bar{K} \bar{K}$
 134 - $P = (P / N) K(890) K+ \bar{K} 0 \bar{K} \bar{K}$
 135 - $P = (P / N) K(890) K+ \bar{K} 0 \bar{K} \bar{K}$
 136 - $P = (P / N) K(890) K+ \bar{K} 0 \bar{K} \bar{K}$
 137 - $P = (P / N) K(890) K+ \bar{K} 0 \bar{K} \bar{K}$
 138 - $P = (P / N) D = N (K+ \bar{P} I- / K- \bar{P} I+) K 0$
 139 - $P = (P / N) E = N (K+ \bar{P} I- / K- \bar{P} I+) K 0$
 140 - $P = (P / N) F(1500) = N (K \bar{P} I) K 0$
 141 - $P = (P / N) (K \bar{K}(890) / \bar{K} K(890))$
 142 - $P = Y(117-) = Y K \bar{P} I \bar{P} I$
 143 - $P = Y(117-) = Y K \bar{P} I \bar{P} I$
 144 - $P = Y(117-) = Y K \bar{P} I \bar{P} I$
 145 - $P = Y(117-) = Y K \bar{P} I \bar{P} I$
 146 - $P = Y(117-) = Y K \bar{P} I \bar{P} I$
 147 - $P = Y(117-) = Y K \bar{P} I \bar{P} I$
 148 - $P = L K(890) + \bar{P} I- = L K+ \bar{P} I- \bar{P} I 0$
 149 - $P = L K(890) + \bar{P} I- = L K 0 \bar{P} I+ \bar{P} I-$
 150 - $P = L K(890) + \bar{P} I- = L (Y \bar{P} I) \bar{P} I 0$
 151 - $P = L K(890) \bar{P} I 0 = L K+ \bar{P} I- \bar{P} I 0$
 152 - $P = L K(890) \bar{P} I 0 = L K+ \bar{P} I- \bar{P} I 0$
 153 - $P = L K(890) \bar{P} I 0 = L K+ \bar{P} I- \bar{P} I 0$
 154 - $P = L K(890) \bar{P} I 0 = L K+ \bar{P} I- \bar{P} I 0$
 155 - $P = L K(890) \bar{P} I 0 = L K+ \bar{P} I- \bar{P} I 0$
 156 - $P = L K(890) \bar{P} I 0 = L K+ \bar{P} I- \bar{P} I 0$
 157 - $P = L K(890) \bar{P} I 0 = L K+ \bar{P} I- \bar{P} I 0$
 158 - $P = L K(890) \bar{P} I 0 = L K+ \bar{P} I- \bar{P} I 0$
 159 - $P = L K(890) \bar{P} I 0 = L K+ \bar{P} I- \bar{P} I 0$
 160 - $P = L K(890) \bar{P} I 0 = L K+ \bar{P} I- \bar{P} I 0$
 161 - $P = L K(890) \bar{P} I 0 = L K+ \bar{P} I- \bar{P} I 0$
 162 - $P = S K(890) \bar{P} I$
 163 - $P = S(+,+) K S \bar{P} I(-,+) \bar{P} I 0$
 164 - $P = S(+,+) K S \bar{P} I(-,+) \bar{Z} 0$
 165 - $P = S(+,+) K S \bar{P} I(-,+) \bar{Z} 0$
 166 - $P = S+ K+ \bar{P} I-$
 167 - $P = S+ K 0 \bar{P} I- \bar{P} I 0$
 168 - $P = S+ K 0 \bar{P} I- \bar{Z} 0$
 169 - $P = S+ K(890) \bar{P} I-$
 170 - $P = S+ K(890) \bar{P} I- = Z 0$
 171 - $P = S+ K+ \bar{P} I+ \bar{P} I-$
 172 - $P = S+ K 0 \bar{P} I+ \bar{P} I 0$
 173 - $P = S+ K 0 \bar{P} I+ \bar{Z} 0$
 174 - $P = S 0 K+ \bar{P} I- \bar{P} I 0$
 175 - $P = S 0 K 0 \bar{P} I+ \bar{P} I-$
 176 - $P = S 0 K 0 \bar{P} I+ \bar{P} I-$
 177 - $P = S 0 K(890) + \bar{P} I-$
 178 - $P = Y(1385) + \bar{K} 0 \bar{P} I- = L K 0 \bar{P} I+ \bar{P} I-$
 179 - $P = Y(1385) + \bar{K} 0 \bar{P} I- = (L / S 0) K 0 \bar{P} I+ \bar{P} I-$
 180 - $P = Y(1385) + \bar{K} 0 \bar{P} I- = L K+ \bar{P} I- \bar{P} I 0$
 181 - $P = Y(1385) - \bar{K} 0 \bar{P} I- = (L / S 0) K+ \bar{P} I- \bar{P} I 0$
 182 - $P = Y(1385) - \bar{K} 0 \bar{P} I- = L K+ \bar{P} I- \bar{P} I 0$
 183 - $P = Y(1385) - \bar{K} 0 \bar{P} I+ = L K 0 \bar{P} I+ \bar{P} I-$
 184 - $P = Y(1385) - \bar{K} 0 \bar{P} I+ = (L / S 0) K 0 \bar{P} I+ \bar{P} I-$
 185 - $P = Y(1385) - \bar{K} 0 \bar{P} I+ = (L / S 0) K 0 \bar{P} I+ \bar{P} I-$
 186 - $P = Y(1385) - \bar{K} 0 \bar{P} I+ = L (K \bar{P} I) + \bar{P} I-$
 187 - $P = Y(1385) - \bar{K} 0 \bar{P} I+ = (L / S 0) (K \bar{P} I) + \bar{P} I-$
 188 - $P = Y(1385) - \bar{K} 0 \bar{P} I+ = (L / S 0) K \bar{P} I + \bar{P} I 0$
 189 - $P = Y(1385) - \bar{K} 0 \bar{P} I+ = L K+ \bar{P} I- \bar{P} I 0$
 190 - $P = Y(1385) - \bar{K} 0 \bar{P} I+ = L K 0 \bar{P} I+ \bar{P} I-$
 191 - $P = Y(1385) + K+ \bar{P} I-$
 192 - $P = Y(1385) + K+ \bar{P} I- = L K+ \bar{P} I- \bar{P} I 0$
 193 - $P = Y(1385) + K(890) \bar{P} I 0$
 194 - $P = Y(1385) + K(890) \bar{P} I 0 = L (K \bar{P} I) \bar{P} I 0$
 195 - $P = Y(1385) + K(890) \bar{P} I 0 = L K+ \bar{P} I- \bar{P} I 0$
 196 - $P = Y(1405) + K \bar{P} I$
 197 - $P = Y(1405) + K 0 \bar{P} I 0$
 198 - $P = Y(1405) + K(890) \bar{P} I 0$
 199 - $P = Y(1405) + K(890) \bar{P} I 0 = (S \bar{P} I) (K \bar{P} I) \bar{P} I 0$
 200 - $P = Y(1405) + K(890) \bar{P} I 0 = (K \bar{P} I) = P K- (K \bar{P} I)$
 201 - $P = Y(1405) + K(890) \bar{P} I 0 = (S \bar{P} I) (K \bar{P} I)$

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202 - PI- P = Y(1520) K0 = ( L PI PI ) K0
203 - PI- P = Y(1520) K(890)0 = ( S PI ) ( K P )
204 - PI- P = Y(1670) K(890)0 = ( S PI ) ( K P )
205 - PI- P = XI- K+ K+ PI-
206 - PI- P = XI- K- K0 PI0
207 - PI- P = XI- K0 K0 PI+
208 - PI- P = XI0 K- K0 PI-
209 - PI- P = XI(1530)0 K0 K0 = XI- K0 K0 PI+
210 - PI- P = 4 PRONGS ( L / S0 )
211 - PI- P = P K+ K- PI- PI0
212 - PI- P = P K+ PI0 PI-
213 - PI- P = P K- K0 PI+ PI-
214 - PI- P = P K0 K0 PI- PI0
215 - PI- P = P K0 K0 PI- Z0
216 - PI- P = P KS KS PI- PI0
217 - PI- P = N ( K PI )+ K- Z0
218 - PI- P = N K+ ( K PI )- Z0
219 - PI- P = N K+ K- PI+ PI-
220 - PI- P = N K0 K0 PI+ PI-
221 - PI- P = N KS KS PI+ PI-
222 - PI- P = L K+ PI+ PI- PI-
223 - PI- P = L K0 PI+ PI- PI0
224 - PI- P = L K0 PI+ PI- Z0
225 - PI- P = ( L / S0 ) K+ PI+ 2PI-
226 - PI- P = ( L / S0 ) K0 PI+ PI- PI0
227 - PI- P = ( L / S0 ) K0 PI+ PI- Z0
228 - PI- P = S(+,-) KS (3PI)(-,+)
229 - PI- P = S+ K+ 2PI- PI0
230 - PI- P = S+ K0 PI+ 2PI-
231 - PI- P = S- K+ PI+ PI- PI0
232 - PI- P = S- K0 PI+ PI+ PI-
233 - PI- P = S0 K+ PI+ 2PI-
234 - PI- P = S0 K0 PI+ PI- PI0
235 - PI- P = Y(1385)+ K(890)0 PI-
236 - PI- P = Y(1385)0 K(890)+ PI-
237 - PI- P = Y(1405) K(890)+ PI-
238 - PI- P = 4 PRONGS' K0 AK
239 - PI- P = 4 PRONGS KS KS
240 - PI- P = 4 PRONGS ( L / S0 ) KS
241 - PI- P = P K+ K- PI+ 2PI-
242 - PI- P = P K+ K0 2PI- PI0
243 - PI- P = P K- K0 PI+ PI- PI0
244 - PI- P = P K0 K0 PI+ 2PI-
245 - PI- P = P KS KS PI+ 2PI-
246 - PI- P = N K+ K0 PI+ 2PI-
247 - PI- P = N K- K0 2PI+ PI-
248 - PI- P = N K0 K0 PI+ PI- Z0
249 - PI- P = L K+ PI+ 2PI- PI0
250 - PI- P = L K0 2PI+ 2PI-
251 - PI- P = L K0 PI+ PI- 2PI0
252 - PI- P = ( L / S0 ) K+ PI+ 2PI- PI0
253 - PI- P = ( L / S0 ) K+ PI+ 2PI- Z0
254 - PI- P = ( L / S0 ) K+ K- K0 PI+ PI-
255 - PI- P = ( L / S0 ) K0 2PI+ 2PI-
256 - PI- P = ( L / S0 ) ( K PI )+ PI+ 2PI- Z0
257 - PI- P = S(+,-) KS (3PI)(-,+) PI0
258 - PI- P = S(+,-) KS (3PI)(-,+) Z0
259 - PI- P = S+ ( K PI )+ 2PI- Z0
260 - PI- P = S+ K+ PI+ 3PI-
261 - PI- P = S+ K0 PI+ 2PI- PI0
262 - PI- P = S+ K0 PI+ 2PI- Z0
263 - PI- P = S- ( K PI )+ PI+ PI- Z0
264 - PI- P = S- K+ 2PI+ 2PI-
265 - PI- P = S- K0 2PI- PI- Z0
266 - PI- P = S- K0 2PI+ PI- PI0
267 - PI- P = S0 K0 2PI+ 2PI-
268 - PI- P = 6 PRONGS ( L / S0 )
269 - PI- P = ( L / S0 ) K0 2PI+ 2PI- PI0
270 - PI- P = ( L / S0 ) K0 2PI+ 2PI- Z0
271 - PI- P = S(+,-) KS (5PI)(-,+)
272 - PI- P = S- K0 3PI+ 2PI-
273 - PI- P = 6 PRONGS K0 AK

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274 - PI- P = 6 PRONGS KS KS
275 - PI- P = 6 PRONGS (L / S0) KS
276 - PI- P = (L / S0) K0 3PI+ 3PI-
277 - PI- P = S(+,-) KS (5PI)(-,+) PI0
278 - PI- P = S(+,-) KS (5PI)(-,+) Z0
279 - PI- P = S+ K0 2PI+ 3PI- PI0
280 - PI- P = S+ K0 2PI+ 3PI- Z0
281 - PI- P = S- K0 3PI+ 2PI- PI0
282 - PI- P = S- K0 3PI+ 2PI- Z0
283 - PI- P = 8 PRONGS (L / S0)
284 - PI- P = S(+,-) KS (7PI)(-,+)
285 - PI- P = (L / S0) K0 3PI+ 3PI- PI0
286 - PI- P = (L / S0) K0 3PI+ 3PI- Z0
287 - PI- P = 8 PRONGS K0 AK
288 - PI- P = 8 PRONGS KS KS
289 - PI- P = 8 PRONGS (L / S0) KS
290 - PI- P = L K0 4PI+ 4PI-
291 - PI- P = S(+,-) KS (7PI)(-,+) PI0
292 - PI- P = S(+,-) KS (7PI)(-,+) Z0
293 - PI- P = 10 PRONGS (L / S0)
294 - PI- P = (L / S0) K0 4PI+ 4PI- PI0
295 - PI- P = (L / S0) K0 4PI+ 4PI- Z0

TABLE 2.

TABLE OF CROSS SECTIONS FOR STRANGE PARTICLES
PRODUCTION IN $\pi^- p$ INTERACTIONS

01/10/71 REACTION 1 $\bar{p} + p \rightarrow$ STRANGE PARTICLES										01/10/71 REACTION 2 $\bar{p} + p \rightarrow V_0 + \pi^+$																			
N	ECMS	DE+	DE-	T LAB	D T+	D T-	PLAB	NP+	DP+	SIGMA	US+	DS+	REFERENCE	COM	N	ECMS	DE+	DE-	T LAB	D T+	D T-	PLAB	NP+	DP+	SIGMA	US+	DS+	REFERENCE	COM
1	6.13	.041	.001	.768	.002	.002	.997	.002	.002	.994	.002	.002	THRESHOLD		1	6.13	.041	.001	.768	.002	.002	.997	.002	.002	.994	.002	.002	BERTAN	PRL
2	1.618	.001	.001	.793	.002	.002	.996	.002	.002	.992	.002	.002	THRESHOLD		2	1.618	.001	.001	.793	.002	.002	.996	.002	.002	.992	.002	.002	BERTAN	PRL
3	0.000	0.000	0.000	.796	0.000	0.000	.927	0.000	0.000	.927	0.000	0.000	THRESHOLD		3	0.000	0.000	0.000	.796	0.000	0.000	.927	0.000	0.000	.927	0.000	0.000	BERTAN	PRL
4	1.668	.001	.001	.829	.002	.002	.958	.002	.002	.958	.002	.002	THRESHOLD		4	1.668	.001	.001	.829	.002	.002	.958	.002	.002	.958	.002	.002	STEIN	CERNCONF
5	1.672	.001	.001	.871	.002	.002	.987	.001	.002	.987	.001	.002	THRESHOLD		5	1.672	.001	.001	.871	.002	.002	.987	.001	.002	.987	.001	.002	BERTAN	PRL
6	1.716	.273	.273	.930	.500	.500	.991	.100	.100	.991	.100	.100	THRESHOLD		6	1.716	.273	.273	.930	.500	.500	.991	.100	.100	.991	.100	.100	WALKER	PR
7	1.721	.005	.005	.960	.010	.010	.981	.001	.010	.981	.001	.010	THRESHOLD		7	1.721	.005	.005	.960	.010	.010	.981	.001	.010	.981	.001	.010	LEIPUN	PR
8	1.726	.000	.000	.969	.000	.000	.989	.000	.000	.989	.000	.000	THRESHOLD		8	1.726	.000	.000	.969	.000	.000	.989	.000	.000	.989	.000	.000	EISLER	NC
9	1.727	.000	.000	.970	.000	.000	.990	.000	.000	.990	.000	.000	THRESHOLD		9	1.727	.000	.000	.970	.000	.000	.990	.000	.000	.990	.000	.000	CRAMFO	GAPPS
10	1.730	.000	.000	.970	.000	.000	.990	.000	.000	.990	.000	.000	THRESHOLD		10	1.730	.000	.000	.970	.000	.000	.990	.000	.000	.990	.000	.000	STEIN	CERNCONF
11	1.932	.000	.000	.970	.000	.000	.990	.000	.000	.990	.000	.000	THRESHOLD		11	1.932	.000	.000	.970	.000	.000	.990	.000	.000	.990	.000	.000	FOWLER	PR
12	1.973	.000	.000	.970	.000	.000	.990	.000	.000	.990	.000	.000	THRESHOLD		12	1.973	.000	.000	.970	.000	.000	.990	.000	.000	.990	.000	.000	GOOSU	NC
13	2.112	.089	.089	.976	.199	.199	.970	.2	.2	.970	.2	.2	THRESHOLD		13	2.112	.089	.089	.976	.199	.199	.970	.2	.2	.970	.2	.2	SLAUGHTER	PR
14	2.444	.011	.011	.984	.028	.028	.984	.028	.028	.984	.028	.028	THRESHOLD		14	2.444	.011	.011	.984	.028	.028	.984	.028	.028	.984	.028	.028	MILLER	PR
15	2.483	.000	.000	.985	.000	.000	.985	.000	.000	.985	.000	.000	THRESHOLD		15	2.483	.000	.000	.985	.000	.000	.985	.000	.000	.985	.000	.000	GOOSU	NC
16	2.526	.000	.000	.986	.000	.000	.984	.000	.000	.986	.000	.000	THRESHOLD		16	2.526	.000	.000	.986	.000	.000	.984	.000	.000	.986	.000	.000	WANGLE	PR
17	2.596	.000	.000	.986	.000	.000	.986	.000	.000	.986	.000	.000	THRESHOLD		17	2.596	.000	.000	.986	.000	.000	.986	.000	.000	.986	.000	.000	WANGLE	PR
18	2.727	.000	.000	.987	.000	.000	.987	.000	.000	.987	.000	.000	THRESHOLD		18	2.727	.000	.000	.987	.000	.000	.987	.000	.000	.987	.000	.000	BARTSC	NC
19	3.611	.000	.000	.987	.000	.000	.987	.000	.000	.987	.000	.000	THRESHOLD		19	3.611	.000	.000	.987	.000	.000	.987	.000	.000	.987	.000	.000	DICIN	CERNCONF
20	3.666	.132	.132	.987	.662	.662	.987	.662	.662	.987	.662	.662	THRESHOLD		20	3.666	.132	.132	.987	.662	.662	.987	.662	.662	.987	.662	.662	SOLOVYOV	KOCHCONF
21	4.455	.127	.127	.987	.600	.600	.987	.600	.600	.987	.600	.600	THRESHOLD		21	4.455	.127	.127	.987	.600	.600	.987	.600	.600	.987	.600	.600	HIGI	NC
22	5.527	.085	.085	.987	.500	.500	.987	.500	.500	.987	.500	.500	THRESHOLD		22	5.527	.085	.085	.987	.500	.500	.987	.500	.500	.987	.500	.500	BARTKE	NC
23	6.915	.000	.000	.987	.000	.000	.987	.000	.000	.987	.000	.000	THRESHOLD		23	6.915	.000	.000	.987	.000	.000	.987	.000	.000	.987	.000	.000	WATERS	NP

01/10/71

REACTION

4

 $P(\pi^+ \rho = K\eta)$

COH

N	FCMS	UF+	UF-	T LAB	DT+	DT-	PLAB	DP+	DP-	SIGMA	DS*	DS*	REFERENCE
1	4.53	.019	.019	3.63						.897			
2	4.91	.061	.061	1.20	.060	.060	.000	.000	.000	1.580	.00	.00	
3	4.631	.06	.06	10.061	1.20	1.20	1.500	1.500	1.500	17.70	.00	.00	
4	5.527	.085	.085	15.661	.50	.50	.50	.50	.50	20.00	.00	.00	

01/10/71

REACTION

5

 $P(\pi^+ \rho = Y)$

COH

N	FCMS	UF+	UF-	T LAB	DT+	DT-	PLAB	DP+	DP-	SIGMA	DS*	DS*	REFERENCE
1	4.63			7.68						.897			
2	4.721	.005	.005	.980	.010	.010	.000	.000	.000	1.010	.00	.00	
3	2.444	.011	.011	2.54	.028	.028	.000	.000	.000	1.160	.00	.00	
4	2.556	.000	.000	2.864	.000	.000	.000	.000	.000	1.145	.00	.00	
5	4.900	.000	.000	3.843	.000	.000	.000	.000	.000	1.130	.00	.00	
6	4.105	.021	.021	4.512	.000	.000	.000	.000	.000	1.100	.00	.00	
7	4.495	.127	.127	5.51	.176	.176	.100	.100	.100	1.100	.00	.00	
8	5.527	.085	.085	15.661	.50	.50	.50	.50	.50	1.050	.00	.00	

01/10/71

REACTION

6

 $P(\pi^+ \rho = Y')$

COH

N	FCMS	UF+	UF-	T LAB	DT+	DT-	PLAB	DP+	DP-	SIGMA	DS*	DS*	REFERENCE
1	4.63			9.65						1.055			
2	4.520	0.000	0.000	2.84	0.000	0.000	0.500	0.500	0.500	3.000	0.00	0.00	
3	2.900	.000	.000	3.863	.000	.000	.000	.000	.000	1.000	.00	.00	
4	3.103	.021	.021	4.512	.176	.176	.100	.100	.100	1.090	.00	.00	
5	4.455	.127	.127	5.51	.176	.176	.100	.100	.100	1.070	.00	.00	
6	5.527	.085	.085	15.661	.50	.50	.50	.50	.50	1.050	.00	.00	
7	4.915	0.000	0.000	24.861	0.000	0.000	25.000	25.000	25.000	-0.000	-0.000	-0.000	

01/10/71

REACTION

7

 $P(\pi^+ \rho = C_L / S_U)$

COH

N	FCMS	UF+	UF-	T LAB	DT+	DT-	PLAB	DP+	DP-	SIGMA	DS*	DS*	REFERENCE
1	4.613	0.000	0.000	0.000	2.864	0.000	0.000	1.000	0.000	3.100	0.000	0.00	
2	2.900	0.000	0.000	3.863	0.000	0.000	0.000	0.000	0.000	1.000	0.00	0.00	
3	2.900	.021	.021	4.512	.176	.176	.100	.100	.100	1.060	.00	.00	
4	3.103	.021	.021	4.512	.176	.176	.100	.100	.100	1.060	.00	.00	
5	3.103	.021	.021	4.512	.176	.176	.100	.100	.100	1.060	.00	.00	
6	4.435	.127	.127	5.51	.176	.176	.100	.100	.100	1.060	.00	.00	
7	4.601	.085	.085	10.661	.50	.50	.50	.50	.50	1.000	.00	.00	
8	5.527	.085	.085	15.661	.50	.50	.50	.50	.50	1.050	.00	.00	

9 6.199 0.000 0.000 19.861 0.000 0.000 20.000 -0.000 +0.000 190.00 310.00
 10 6.115 0.000 0.000 24.861 0.000 0.000 25.000 -0.000 +0.000 195.00 312.00
 10 6.115 0.000 0.000 24.861 0.000 0.000 25.000 -0.000 +0.000 195.00 312.00
 10 6.115 0.000 0.000 24.861 0.000 0.000 25.000 -0.000 +0.000 195.00 312.00
 10 6.115 0.000 0.000 24.861 0.000 0.000 25.000 -0.000 +0.000 195.00 312.00

***** 01/10/71 REACTION 8 PI= P = AL ***

REACTION 8									REFERENCE					COM				
N	ECHS	DE+	DE-	T LAB	DT+	DT-	PLAB	DP+	DP-	SIGMA	DS+	DS-						
3 1.71		4.739		4.877		THRESHOLD		3.00	-0.00	+0.00			KANCH	JETF	11	97.6	P	-0
1 3.419	130	6.362	500	6.500	500		500	50.00	30.00	30.00			KERBEL	NC	20	121.4	H	18
2 4.401	130	6.661	1.500	1.500	1.500	1.500	1.500	50.00	30.00	30.00			BARTKE	NC	24	87.6	H	18
3 5.287	105	0.085	15.861	15.861	15.861	15.861	15.861	50.00	20.00	0.00			BARTKE	NC	66	70	H	66
4 6.199	0.000	0.000	19.861	0.000	0.000	20.000	-0.000	7.20	-0.00	-0.00			BALEA	ME				

***** 01/10/71 REACTION 9 PI= P = S+ ***

REACTION 9									REFERENCE					COM				
N	ECHS	DE+	DE-	T LAB	DT+	DT-	PLAB	DP+	DP-	SIGMA	DS+	DS-						
1 1.27		1.159		1.292		THRESHOLD		102.00	-0.00	-0.00			MANGLE	PR	8137	41.4	G5	25
1 2.956	0.000	0.000	2.966	0.000	0.000	3.000	-0.000	-0.000	-0.000	-0.00			BARTSC	NC	A43	101.0	66	H
2 2.900	0.000	0.000	3.063	0.000	0.000	4.000	-0.000	-0.000	-0.000	-0.00			BARTAN	PR	130	78.6	H	25
3 3.103	0.051	0.051	4.512	0.170	0.170	4.450	0.170	0.170	0.170	0.00			BRANDT	CERNCPH	20	63	H	4
4 4.35	127	127	9.861	6.00	10.000	6.00	6.00	600	600	100.00	30.00	30.00	BARTKE	MC	24	87.6	H	66
5 5.567	0.085	0.085	19.861	0.500	0.500	19.861	0.500	0.500	0.500	360.00	60.00	60.00						

***** 01/10/71 REACTION 10 PI= P = S+ ***

REACTION 10									REFERENCE					COM				
N	ECHS	DE+	DE-	T LAB	DT+	DT-	PLAB	DP+	DP-	SIGMA	DS+	DS-						
1 1.61		1.905		1.135		THRESHOLD		224.00	-0.00	-0.00			MANGLE	PR	8137	41.4	G5	25
1 2.536	0.000	0.000	2.864	0.000	0.000	3.000	-0.000	-0.000	-0.000	-0.00			BARTSC	NC	A43	101.0	66	H
2 2.900	0.000	0.000	3.863	0.000	0.000	4.000	-0.000	-0.000	-0.000	-0.00			BARTAN	PR	130	78.6	H	25
3 3.103	0.051	0.051	4.512	0.170	0.170	4.450	0.170	0.170	0.170	0.00			SOLOVY	RGMCONF	388	60	P	4
4 3.696	152	152	6.662	6.00	6.800	6.00	6.00	600	600	100.00	20.00	20.00	SOLOVY	CERNCPH	22	63	H	4
5 4.35	127	127	9.861	6.00	8.00	10.000	6.00	6.00	6.00	340.00	20.00	20.00	BARTKE	MC	24	87.6	H	66
6 5.527	0.085	0.085	15.861	500	500	15.861	500	500	500	280.00	50.00	50.00						

***** 01/10/71 REACTION 11 PI= P = X1- ***

REACTION 11									REFERENCE					COM				
N	ECHS	DE+	DE-	T LAB	DT+	DT-	PLAB	DP+	DP-	SIGMA	DS+	DS-						
1 2.113		2.232		2.367		THRESHOLD		1.750	-0.00	-0.00			ATAYAN	IAP	7	349	G6	P
1 2.900	0.019	0.019	3.063	0.060	0.060	4.000	-0.000	-0.000	-0.000	-0.00			BARTSC	NC	A43	101.0	66	H
2 2.900	0.000	0.000	3.063	0.000	0.000	4.000	-0.000	-0.000	-0.000	-0.00			BARTAN	DIGN	P1	176.4	G9	P
3 3.026	0.029	0.029	4.962	0.100	5.100	5.100	5.100	1.100	1.100	2.90	1.40	1.40	FOILER	NC	11	426	G9	P
4 3.350	0.000	0.000	5.162	0.000	0.000	5.162	-0.000	-0.000	-0.000	-0.00			FOILER	JETF	40	73.4	G6	P
5 3.686	0.52	0.52	6.662	0.000	6.000	6.000	6.000	0.000	0.000	3.30	1.40	1.40	KANCH	JETF	40	73.4	G6	P
6 3.989	0.000	0.000	7.062	0.000	0.000	6.000	-0.000	-0.000	-0.000	-0.00			BARTKE	JETF	40	73.4	G6	P

卷之三

REACTION 12 PISOM-1

WAN
DABANGAN

01240771
UNIVERSITY OF TORONTO LIBRARY SYSTEM

	COM	REFERENCE
	DS- REF	DS- REF
FMS	DE*	DE*
DF*	DF*	DF*
TIAH	TIAH	TIAH
DTS	DTS	DTS
DTG	DTG	DTG
PIAR	PIAR	PIAR
DEA	DEA	DEA
DPB	DPB	DPB
SIGMA	SIGMA	SIGMA
NSC	NSC	NSC

1.935 - 1.327 - 1.510 - INNESWOLD

卷之三

0121071 REACTION 14 P1= P = PROGS (L / SD) KS

1613 0 000 0 000 14 628 6 000 0 000 21 620 0 000 0 000 0 000 0 000 0 000

卷之三

RELATION 15 PLEAK

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

卷之三

REACTION 16 $P = P \times K_{(P \rightarrow P)}$ KS

1,930 1,366 1,499 THRESHOLD
1,935 0,000 0,000 24,861 0,000 0,000 25,000 -0,000 25,000 -0,000 924,00 120,00 120,00
WATERS NP B17 445 70 H 28

01/10/71 REACTION 17 PI= P = K(****) KL !!!
N ECMS DE= TLAB DT= PLAB DP= SIGMA DS= REFERENCE COM

1,930 1,366 1,499 THRESHOLD
1,935 0,000 0,000 24,861 0,000 0,000 25,000 -0,000 824,00 120,00 120,00
WATERS NP B17 445 70 H 0

01/10/71 REACTION 18 PI= P = K* K* !!!
N ECMS DE= TLAB DT= PLAB DP= SIGMA DS= REFERENCE COM

1,927 1,360 1,493 THRESHOLD
1,935 0,000 0,000 24,861 0,000 0,000 25,000 -0,000 652,00 56,00 56,00
WATERS NP B17 445 70 H 28

01/10/71 REACTION 19 PI= P = K0 AK !!!
N ECMS DE= TLAB DT= PLAB DP= SIGMA DS= REFERENCE COM

1,927 1,360 1,493 THRESHOLD
1,933 ,051 ,051 4,512 ,170 4,650 ,170 970,00 -0,00 0,00
3,696 ,152 ,152 6,662 ,600 ,600 ,600 1200,00 300,00 300,00
3,6199 0,000 0,000 19,861 0,000 0,000 20,000 -0,000 +0,000 2690,00 520,00 520,00
BERTAN PR 130 786 63 H 0
SOLOV' ROCHCRNF 386 90 P 0
BALEA RRP 15 587 70 H 0

01/10/71 REACTION 20 PI= P = K0 K0 !!!
N ECMS DE= TLAB DT= PLAB DP= SIGMA DS= REFERENCE COM

1,927 1,367 1,493 THRESHOLD
1,930 ,019 ,019 3,863 ,060 4,000 ,060 386,00 50,00 50,00
2,4001 ,306 ,306 10,661 1,500 10,800 1,500 98,00 70,00 70,00
3,6199 0,000 0,000 19,861 0,000 20,000 -0,000 +0,000 790,00 320,00 320,00
BANNIK DUBN3682 28 1214 63 P 0
FEBEL NC 28 587 70 H 0
BALEA RRP 15 587 70 H 0

01/10/71 REACTION 21 PI= P = KS KS !!!
N ECMS DE= TLAB DT= PLAB DP= SIGMA DS= REFERENCE COM

1,935 1,377 1,510 THRESHOLD

1.6.915 0.000 0.000 24.861 0.000 0.000 25.000 0.000 0.000 163.00 14.00 14.00
 1.6.915 0.000 0.000 24.861 0.000 0.000 25.000 0.000 0.000 326.00 28.00
 WATERS NP R17 445 70 H 0

R17/07/71 REACTION 22 Pl. ♦ = KS KL ..,

N ECMS DE- TLAB DT- PLAB DP- SIGMA DS- REFERENCE COM

	1.035	1.377	1.510	THRESHOLD
1.035	1.001	.002	.002	.002
2.1.026	.003	.005	.005	.005
2.1.027	.001	.002	.002	.002
4.1.031	.000	.000	.000	.000
5.1.033	.003	.005	.005	.005
6.1.048	.001	.001	.029	.005
7.1.051	.003	.005	.005	.005
8.1.068	.003	.003	.003	.005
9.1.072	.002	.002	.001	.005
10.1.083	.001	.001	.001	.003
11.1.084	.006	.003	.003	.005
12.1.084	.003	.003	.003	.005
13.1.088	.000	.000	.000	.005
14.1.091	.000	.000	.000	.005
15.1.094	.005	.005	.005	.005
16.1.096	.003	.003	.003	.005
17.1.122	.016	.014	.014	.014
18.1.122	.015	.014	.014	.015
19.1.122	.005	.005	.005	.010
20.1.123	.003	.003	.003	.005
21.1.124	.000	.000	.000	.005
22.1.127	.000	.000	.000	.005
23.1.127	.000	.000	.000	.005
24.1.142	.011	.011	.011	.011
25.1.150	.003	.003	.003	.005
26.1.177	.003	.003	.003	.005
27.1.179	.000	.000	.000	.005
28.1.179	.000	.000	.000	.005
29.1.179	.000	.000	.000	.005
30.1.179	.010	.010	.010	.020
31.1.179	.010	.010	.010	.020
32.1.181	.010	.010	.010	.020
33.1.184	.010	.010	.010	.020
34.1.186	.006	.006	.006	.012
35.1.188	.006	.006	.006	.013
36.1.193	.024	.024	.024	.050
37.1.193	.004	.004	.004	.050
38.1.197	.003	.003	.003	.050
39.1.198	.024	.024	.024	.050
40.2.202	.023	.023	.023	.050
41.2.202	.023	.023	.023	.050
42.2.193	.022	.022	.022	.050
43.2.193	.022	.022	.022	.050

R17/07/71 REACTION 23 Pl. ♦ = L K0

N ECMS DE- TLAB DT- PLAB DP- SIGMA DS- REFERENCE COM

	1.013	1.748	1.904	THRESHOLD
1.013	.001	.002	.002	.002
2.1.026	.003	.005	.005	.005
2.1.027	.001	.002	.002	.002
4.1.031	.000	.000	.000	.000
5.1.033	.003	.005	.005	.005
6.1.048	.001	.001	.029	.005
7.1.051	.003	.005	.005	.005
8.1.068	.003	.003	.003	.005
9.1.072	.002	.002	.001	.003
10.1.083	.001	.001	.001	.001
11.1.084	.006	.003	.003	.010
12.1.084	.003	.003	.003	.010
13.1.088	.000	.000	.000	.010
14.1.091	.000	.000	.000	.010
15.1.094	.005	.005	.005	.010
16.1.096	.003	.003	.003	.010
17.1.122	.016	.014	.014	.010
18.1.122	.015	.014	.014	.010
19.1.122	.005	.005	.005	.010
20.1.123	.003	.003	.003	.010
21.1.124	.000	.000	.000	.010
22.1.127	.000	.000	.000	.010
23.1.127	.000	.000	.000	.010
24.1.142	.011	.011	.011	.012
25.1.150	.003	.003	.003	.010
26.1.177	.003	.003	.003	.010
27.1.179	.000	.000	.000	.010
28.1.179	.000	.000	.000	.010
29.1.179	.000	.000	.000	.010
30.1.179	.010	.010	.010	.020
31.1.179	.010	.010	.010	.020
32.1.181	.010	.010	.010	.020
33.1.184	.010	.010	.010	.020
34.1.186	.006	.006	.006	.012
35.1.188	.006	.006	.006	.013
36.1.193	.024	.024	.024	.050
37.1.193	.004	.004	.004	.050
38.1.197	.003	.003	.003	.050
39.1.198	.024	.024	.024	.050
40.2.202	.023	.023	.023	.050
41.2.202	.023	.023	.023	.050
42.2.193	.022	.022	.022	.050
43.2.193	.022	.022	.022	.050

BERTN PRL 6 332 62 H 0
 BERTN PRL 23 50 62 S 1
 STEINB CERNCONF 147 58 H 6
 DYCK PRL 23 50 62 S 1
 BERTN PRL 23 50 62 S 1
 DYCK PRL 23 50 62 S 1
 BERTN PRL 23 50 62 S 1
 STEINB CERNCONF 143 58 H 6
 KEREN PR b133 457 64 H 0
 KEREN PR b133 468 62 H 0
 DYCK PRL 23 50 62 S 1
 STEINB CERNCONF 443 59 H 6
 ANDRS CERNCONF 271 62 H 0
 EISLER NC 10 468 56 H 1
 CRAFTO BPLS 3 23 50 62 S 1
 STEINB CERNCONF 443 59 H 6
 STEINB CERNCONF 147 58 H 6
 BINFOR PR 183 134 60 H 0
 DYCK PRL 23 50 62 S 1
 STEINB CERNCONF 443 59 H 6
 STEINB CERNCONF 58 P 6
 BROWN PR 108 1036 57 P 1
 STEINB CERNCONF 147 58 H 6
 BINFOR PR 183 1334 60 H 0
 STEINB CERNCONF 183 1334 60 H 0
 EISLER NC 10 468 56 H 1
 DYLDR YDLR 163 1377 62 H 6
 YODER PR 132 1774 62 S 1
 GOUSSU PR 142 1606 62 H 0
 DYLDR PR 163 1377 62 H 0
 SMITH ATHECONF 67 63 H 0
 DYLDR PR 163 1377 62 H 0
 DYLDR PR 163 1377 62 H 0
 DYLDR PR 163 1377 62 H 0

01/10/71 PL. P. L. R. (24*)
REACTION 24
N ECHS DFE DF+ TLAB DT+ DFE DPA DPA DP+ SIGMA US* DS* REFERENCE COM
1.633 1.633 1.633 1.633 1.633 1.633 1.633 1.633 1.633 1.633 1.633 1.633 1.633 1.633 1.633
2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3

01/11/71 PL. P. L. R. (24*)
REACTION 25
N ECHS DFE DF+ TLAB DT+ DFE DPA DPA DP+ SIGMA US* DS* REFERENCE COM
1.633 1.633 1.633 1.633 1.633 1.633 1.633 1.633 1.633 1.633 1.633 1.633 1.633 1.633 1.633
2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3

01/11/71 PL. P. L. R. (BACKWARD)
REACTION 24
N ECHS DFE DF+ TLAB DT+ DFE DPA DPA DP+ SIGMA US* DS* REFERENCE COM
1.633 1.633 1.633 1.633 1.633 1.633 1.633 1.633 1.633 1.633 1.633 1.633 1.633 1.633 1.633
2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3

01/11/71 PL. P. L. R. (24*)
REACTION 24
N ECHS DFE DF+ TLAB DT+ DFE DPA DPA DP+ SIGMA US* DS* REFERENCE COM
1.633 1.633 1.633 1.633 1.633 1.633 1.633 1.633 1.633 1.633 1.633 1.633 1.633 1.633 1.633
2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3

01/11/71 PL. P. L. R. (24*)
REACTION 24
N ECHS DFE DF+ TLAB DT+ DFE DPA DPA DP+ SIGMA US* DS* REFERENCE COM
1.633 1.633 1.633 1.633 1.633 1.633 1.633 1.633 1.633 1.633 1.633 1.633 1.633 1.633 1.633
2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3

01/11/71 PL. P. L. R. (24*)
REACTION 24
N ECHS DFE DF+ TLAB DT+ DFE DPA DPA DP+ SIGMA US* DS* REFERENCE COM
1.633 1.633 1.633 1.633 1.633 1.633 1.633 1.633 1.633 1.633 1.633 1.633 1.633 1.633 1.633
2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3

01/11/71 PL. P. L. R. (24*)
REACTION 24
N ECHS DFE DF+ TLAB DT+ DFE DPA DPA DP+ SIGMA US* DS* REFERENCE COM
1.633 1.633 1.633 1.633 1.633 1.633 1.633 1.633 1.633 1.633 1.633 1.633 1.633 1.633 1.633
2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3

1 6.015 0.000 0.000 24.861 0.000 0.000 25.000 -0.000 0.000 ;70 ,70 ,70 ,70 ,70 ,70 ,70 ,70 ,70 ,70 ,70 ,70 ,70 ,70 ,70 ,70

01/10/71 REACTION 27 PI = P = L AXIO !!!

N	ECMS	DE+	DE-	TLAB	DT+	PLAB	DP+	SIGMA	DS+	REFERENCE	CORR
3.062	0.000 0.000 24.861	0.000 0.000 25.000	-0.000 0.000 7.470	THRESHOLD							
1.6.015 0.000 0.000 24.861	0.000 0.000 25.000	-0.000 0.000 7.470	THRESHOLD								

01/10/71 REACTION 28 PI = P = (L / 50) K+ !!!

N	ECMS	DE+	DE-	TLAB	DT+	PLAB	DP+	SIGMA	DS+	REFERENCE	CORR
1.749	1.019 .019 .019	3.063 .063 .063	.060 .060 .060	4.000 .000 .000	1.142 THRESHOLD						
1.2.000 1.019 .019	2.4.055 .127 .127	9.861 .661 .661	.660 .660 .660	10.000 .000 .000	1.060 .060 .060	370.00 50.00	50.00				
3.6.915 0.000 0.000	24.861 0.000 0.000	24.861 0.000 0.000	25.000 0.000 0.000	25.000 0.000 0.000	422.00 127.00	127.00					
					350.00 75.00	75.00					

01/10/71 REACTION 29 PI = P = (L / 50) KO !!!

N	ECMS	DE+	DE-	TLAB	DT+	PLAB	DP+	SIGMA	DS+	REFERENCE	CORR
1.6.3	1.019 .019 .019	3.063 .063 .063	.060 .060 .060	4.000 .000 .000	0.997 THRESHOLD						
2.4.455 .127 .127	9.861 .661 .661	.660 .660 .660	10.000 .000 .000	1.060 .060 .060	520.00 40.00	40.00					
3.4.601 .306 .306	10.861 1.500 1.500	10.800 1.500 1.500	1.500 1.500 1.500	1.500 1.500 1.500	472.00 48.00	48.00					
					120.00 80.00	80.00					

01/10/71 REACTION 30 PI = P = (L / 50) KN !!!

N	ECMS	DE+	DE-	TLAB	DT+	PLAB	DP+	SIGMA	DS+	REFERENCE	CORR
1.613	1.019 .019 .019	3.063 .063 .063	.060 .060 .060	4.000 .000 .000	0.997 THRESHOLD						
1.2.556 0.000 0.000	2.664 0.000 0.000	3.863 0.000 0.000	.060 .060 .060	4.000 .000 .000	59.00 39.00	39.00					
2.2.910 0.000 0.000	3.010 0.000 0.000	4.863 0.000 0.000	.060 .060 .060	4.000 .000 .000	90.00 -0.00	-0.00					
3.3.113 .031 .031	4.512 .000 .000	4.850 .170 .170	.060 .060 .060	4.000 .000 .000	40.00 -0.00	-0.00					
4.3.487 .000 .000	5.162 .000 .000	4.000 .000 .000	.060 .060 .060	4.000 .000 .000	43.00 4.00	4.00					
5.3.487 .000 .000	5.162 .000 .000	4.000 .000 .000	.060 .060 .060	4.000 .000 .000	43.50 6.00	6.00					
6.3.999 0.000 0.000	7.662 0.000 0.000	6.000 0.000 0.000	.060 .060 .060	4.000 .000 .000	26.50 4.00	4.00					
7.3.999 0.000 0.000	7.662 0.000 0.000	6.000 0.000 0.000	.060 .060 .060	4.000 .000 .000	20.50 6.00	6.00					
8.4.455 .127 .127	9.861 .661 .661	.660 .660 .660	10.000 .000 .000	10.000 .000 .000	20.30 3.00	3.00					
9.4.455 .127 .127	9.861 .661 .661	.660 .660 .660	10.000 .000 .000	10.000 .000 .000	26.00 3.00	3.00					
10.4.662 0.000 0.000	11.061 0.000 0.000	11.000 0.000 0.000	.060 .060 .060	4.000 .000 .000	18.60 3.00	3.00					
11.6.915 .030 0.000	24.861 0.000 0.000	24.861 0.000 0.000	25.000 0.000 0.000	25.000 0.000 0.000	1.50 -0.00	-0.00					

01/10/71

REACTION 31 PI = a * (L / S0) KS ***

N	ECHS	DE*	DF*	TLAB	DT*	PLAB	DP*	SIGMA	DS*	DS*	REFERENCE	COM
1	1.613		24.768	'897								
1	1.915	0.000	0.000	24.861	0.000	0.000	25.000	0.000	200.00	17.00	WATERS NP R17 445 70 H 28	

01/10/71 REACTION 32 PI = S(***,*) AL ***

N	ECHS	DE*	DF*	TLAB	DT*	PLAB	DP*	SIGMA	DS*	DS*	REFERENCE	COM
3	3.384		5.465		5.622		THRESHOLD					
1	6.915	0.000	0.000	24.861	0.000	0.000	25.000	0.000	4.70	1.50	WATERS NP R17 445 70 H 0	

01/10/71 REACTION 33 PI = S(***,*) AS(***,*) ***

N	ECHS	DE*	DF*	TLAB	DT*	PLAB	DP*	SIGMA	DS*	DS*	REFERENCE	COM
3	3.318		5.249		5.387		THRESHOLD					
1	6.915	0.000	0.000	24.861	0.000	0.000	25.000	0.000	1.00	.60	WATERS NP R17 445 70 H 0	

01/10/71 REACTION 34 PI = S+ K+ ***

N	ECHS	DE*	DF*	TLAB	DT*	PLAB	DP*	SIGMA	DS*	DS*	REFERENCE	COM
1	1.662		1.433		1.567		THRESHOLD					
1	1.435	.127	.127	9.861	.500	.400	10.000	.000	.600	.92.00	41.00	BIGI NC 33 1205 64 H 0
2	6.915	0.000	24.861	0.000	0.000	25.000	0.000	0.000	66.00	18.00	WATERS NP R17 445 70 H 28	

01/10/71 HEATN 35 PI = P + S+ K0 ***

N	ECHS	DE*	DF*	TLAB	DT*	PLAB	DP*	SIGMA	DS*	DS*	REFERENCE	COM	
1	1.627		1.159		1.292		THRESHOLD						
1	1.435	.127	.127	9.861	.500	.400	10.000	.000	.600	.97.00	17.00	BIGI NC 33 1205 64 H 0	

01/10/71 REACTION 36 PI = P + S+ KS ***

N	ECHS	DE*	DF*	TLAB	DT*	PLAB	DP*	SIGMA	DS*	DS*	REFERENCE	COM
---	------	-----	-----	------	-----	------	-----	-------	-----	-----	-----------	-----

N	ECS	DE*	DE*	T _{LAB}	DT*	PLAB	DP*	DP*	SIGMA	DS*	DS*	REFERENCE	COM
3.493	5.882	6.020	6.020	26.000	THRESHOLD								
1.615	0.000	0.000	0.000	25.000	0.000	*0.000							
1.754	1.066	1.227	1.227	25.000	0.000	*0.000							
1.3969	0.000	0.000	0.000	8.000	0.000	*0.000							
3.956	7.721	7.859	7.859	25.000	0.000	*0.000							
1.615	0.000	0.000	0.000	24.861	0.000	0.000							
01/10/71	43	P1 = 2(15000) * K*											
01/10/71	42	P1 = P * AY AS ***											
01/10/71	44	P1 = XI = AS ***											

01/10/71	REACTION	45	P1= P = Z(1950)* K*								
N	ECMS	DE*	UE*	TLAB	DT*	PLAB	DP*	SIGMA	DS*	REFERENCE	
2,444	0,000	0,000	2,564	0,000	0,000	2,700	THRESHOLD	1,40	1,90	,50	
1,399	0,000	0,000	7,862	0,000	0,000	8,000	*0,000	0,000		ANDERS PL B29 136 69 S 18	
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	
01/10/71	REACTION	46	P1= P = 2 PRONGS STRANGE PARTICLES								
N	ECMS	DF*	UE*	TLAB	DT*	PLAB	DP*	SIGMA	DS*	REFERENCE	
1,893	0,000	0,000	1,290	0,000	0,000	1,423	THRESHOLD				
1,269	0,000	0,000	2,125	0,000	0,000	2,260	-0,000	*1,000	750,00	40,00	
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	
01/10/71	REACTION	47	P1= P = 2 PRONGS (L / SD)								
N	ECMS	DE*	DE*	TLAB	DT*	DT*	PLAB	DP*	SIGMA	DS*	REFERENCE
1,76	0,000	0,000	1,031	0,000	0,000	1,112	THRESHOLD				
1,399	0,000	0,000	19,891	0,000	0,000	20,000	-0,000	*1,000	290,00	150,00	
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	
01/10/71	REACTION	48	P1= P = K0 K0 20								
N	ECMS	DF*	DE*	TLAB	DT*	DT*	PLAB	DP*	SIGMA	DS*	REFERENCE
2,00	0,01	,051	1,665	0,01	0,000	1,759	THRESHOLD	170	190,00	*0,00	BERTAN PR 130 786 63 H 10
1,310	,051	4,512	170	,170	,170	4,660	-170				
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	
01/10/71	REACTION	49	P1= P = KS KS 20								
N	ECMS	DE*	DE*	TLAB	DT*	DT*	PLAB	DP*	SIGMA	DS*	REFERENCE
2,070	,011	2,964	1,665	0,01	0,000	1,799	THRESHOLD				
1,244	,011	2,700	0,28	,028	,028	2,700	,028		6,00	3,00	MILLER PR 8140 360 69 H *0
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	
01/10/71	REACTION	50	P1= D = P K* K0								

COM

REFERENCE

DS*

DS

PLAB

DP*

DP

SIGMA

DS*

THRESHOLD

1.199

0.000

0.000

0.000

0.000

0.000

0.000

0.000

N	ECHS	DE+	DE-	T LAB	DT+	DT*	PLAB	DP*	DP	SIGMA	DS*	DS	REFERENCE
1	1.930	0.000	0.000	1.366	1.199	0.000	2.00	2.00	2.00	1.00	1.00	1.00	GOUSSU NC A42 66 H -0
2	1.935	0.024	0.024	1.481	0.050	0.050	1.615	0.050	0.050	1.60	1.60	1.60	DAML PR 163 1377 67 H -0
3	2.014	0.023	0.023	1.556	0.050	0.050	1.690	0.050	0.050	1.50	1.50	1.50	SMITH PR 163 1377 67 H -0
4	2.020	0.023	0.023	1.556	0.050	0.050	1.690	0.050	0.050	1.50	1.50	1.50	DAML PR 163 1377 67 H -0
5	2.093	0.022	0.022	1.716	0.050	0.050	1.850	0.050	0.050	1.00	1.00	1.00	DAML PR 163 1377 67 H -0
6	2.133	0.022	0.022	1.805	0.050	0.050	1.940	0.050	0.050	1.00	1.00	1.00	DAML PR 163 1377 67 H -0
7	2.137	0.022	0.022	1.815	0.050	0.050	1.950	0.050	0.050	1.00	1.00	1.00	DAML PR 163 1377 67 H -0
8	2.150	0.022	0.022	1.845	0.050	0.050	1.980	0.050	0.050	1.00	1.00	1.00	DAML PR 163 1377 67 H -0
9	2.181	0.021	0.021	1.915	0.050	0.050	2.050	0.050	0.050	1.00	1.00	1.00	SMITH ATHECONF 67 H -0
10	2.181	0.021	0.021	1.915	0.050	0.050	2.050	0.050	0.050	1.00	1.00	1.00	DAML PR 163 1377 67 H -0
11	2.181	0.021	0.021	1.915	0.050	0.050	2.050	0.050	0.050	1.00	1.00	1.00	DAML PR 163 1377 67 H -0
12	2.192	0.021	0.021	2.005	0.050	0.050	2.140	0.050	0.050	1.00	1.00	1.00	DAML PR 163 1377 67 H -0
13	2.223	0.021	0.021	2.115	0.050	0.050	2.150	0.050	0.050	1.00	1.00	1.00	DAML PR 163 1377 67 H -0
14	2.26	0.021	0.021	2.115	0.050	0.050	2.150	0.050	0.050	1.00	1.00	1.00	DAML PR 163 1377 67 H -0
15	2.27	0.021	0.021	2.125	0.050	0.050	2.164	0.050	0.050	1.00	1.00	1.00	DAML PR 163 1377 67 H -0
16	2.310	0.020	0.020	2.125	0.050	0.050	2.360	0.050	0.050	1.00	1.00	1.00	DAMI PR 163 1377 67 H -0
17	2.409	0.019	0.019	2.474	0.050	0.050	2.610	0.050	0.050	1.00	1.00	1.00	DAMI PR 163 1377 67 H -0
18	2.444	0.011	0.011	2.564	0.028	0.028	2.700	0.028	0.028	1.00	1.00	1.00	MILLER PR 8140 360 65 H -0
19	2.463	0.000	0.000	2.614	0.000	0.000	2.750	0.000	0.000	1.00	1.00	1.00	GOUSSU NC A42 360 65 H -0
20	2.505	0.019	0.019	2.724	0.050	0.050	2.860	0.050	0.050	1.00	1.00	1.00	DAMI PR 163 1377 67 H -0
21	2.556	0.000	0.000	2.864	0.000	0.000	3.000	0.000	0.000	1.00	1.00	1.00	DAMI PR 163 1377 67 H -0
22	2.560	0.018	0.018	2.874	0.050	0.050	3.000	0.050	0.050	1.00	1.00	1.00	MANGLE PR 8137 444 65 H -0
23	2.563	0.014	0.014	2.994	0.050	0.050	3.130	0.050	0.050	1.00	1.00	1.00	DAMI PR 163 1377 67 H -0
24	2.562	0.016	0.016	3.063	0.050	0.050	3.200	0.050	0.050	1.00	1.00	1.00	DAMI PR 163 1377 67 H -0
25	2.562	0.016	0.016	3.073	0.050	0.050	3.210	0.050	0.050	1.00	1.00	1.00	DAMI PR 163 1377 67 H -0
26	2.584	0.016	0.016	3.753	0.050	0.050	3.890	0.050	0.050	1.00	1.00	1.00	DAMI PR 163 1377 67 H -0
27	2.591	0.016	0.016	3.865	0.050	0.050	4.000	0.050	0.050	1.00	1.00	1.00	BARTSC NC A33 1010 65 H -0
28	2.644	0.016	0.016	4.023	0.050	0.050	4.160	0.050	0.050	1.00	1.00	1.00	DAMI PR 163 1377 67 H -0
29	2.644	0.016	0.016	4.063	0.050	0.050	4.200	0.050	0.050	1.00	1.00	1.00	CHUNG PR 18 100 65 H -0
30	3.103	0.000	0.000	4.512	0.170	0.170	4.650	0.170	0.170	1.00	1.00	1.00	BERTAN PR 130 786 65 H -0
31	3.107	0.000	0.000	4.862	0.000	0.000	5.000	0.000	0.000	1.00	1.00	1.00	WEISBA KIE CONF 1194 66 H -0
32	3.970	0.000	0.000	7.782	0.000	0.000	7.920	0.000	0.000	1.00	1.00	1.00	EMRIC PR 152 1194 66 H -0

N	ECHS	DE+	DE-	T LAB	DT+	DT*	PLAB	DP*	DP	SIGMA	DS*	DS	REFERENCE
1	1.940	0.000	0.000	1.366	1.199	0.000	2.00	2.00	2.00	1.00	1.00	1.00	CRENE PL R28 136 68 H -0
1	3.487	0.000	0.000	5.862	0.000	0.000	6.000	-0.000	10.00	+0.00	+0.00	+0.00	

N	ECHS	DE+	DE-	T LAB	DT+	DT*	PLAB	DP*	DP	SIGMA	DS*	DS	REFERENCE
1	1.940	0.000	0.000	1.366	1.199	0.000	2.00	2.00	2.00	1.00	1.00	1.00	CRENE PL R28 136 68 H -0
1	3.487	0.000	0.000	5.862	0.000	0.000	6.000	-0.000	10.00	+0.00	+0.00	+0.00	
1	3.481	0.081	0.081	3.863	0.250	0.250	4.000	0.250	0.250	0.00	0.00	0.00	
1	3.481	0.081	0.081	3.863	0.250	0.250	4.000	0.250	0.250	0.00	0.00	0.00	

REACTION 53 PI+ D = P A2+ + P K AK

N	ECHS	DF+	T _{LAB}	DT+	PLAB	DP+	DO+	SIGMA	DS+	DS*	REFERENCE	COM
2.738	2.051	2.186	THRESHOLD								CHUNG	PRL 15 325 65 H 10
1.290 ,065	1.065	1.863	200	,200	4,000	,200	,200	20,00	,0,00	,0,00	FOLEY	PRL 26 413 71 V 10
2.632 ,0,000	1.0,000	1.8,000	0,000	0,000	0,000	0,000	0,000	,10	,0,00	,0,00		

***** 011071 REACTION 54 PI+ D = P A2+ + P K AK

N	ECHS	DF+	T _{LAB}	DT+	PLAB	DP+	DO+	SIGMA	DS+	DS*	REFERENCE	COM
2.234	2.051	2.146	THRESHOLD								DAHL	PN 163 1377 67 H 0
1.253 ,060	1.060	250	,250	3,100	,250	,250	,250	4,00	,0,00	,0,00	CHUNG	PRL 16 100 67 H 0
2.642 ,018	1.018	1,003	,020	1,000	,020	,020	,020	4,00	,0,00	,0,00	DAHL	PN 163 1377 67 H 0
3.200 ,001	1.001	3,063	,050	3,063	,050	,050	,050	4,00	,0,00	,0,00	CHUNG	PRL 18 100 67 H 0
4.294 ,063	1.063	4,050	,050	4,050	,050	,050	,050	4,00	,0,00	,0,00	DAHL	PN 18 100 67 H 0
5.535 ,0,000	1.0,000	5,000	0,000	5,000	0,000	,0,000	,0,000	4,00	,0,00	,0,00	DEUTSC	CERN DPH 43 70 H 0

***** 011071 REACTION 55 PI+ D = P (Y AK).

N	ECHS	DF+	T _{LAB}	DT+	PLAB	DP+	DO+	SIGMA	DS+	DS*	REFERENCE	COM
2.648	3.007	3.143	THRESHOLD								CRENNE	PL 82N 136 68 H 0
1.347 ,0,000	0,000	5,892	0,000	0,000	6,000	-0,000	-0,000	4,00	-0,00	-0,00		

***** 011071 REACTION 56 PI+ D = (P / N) YAY

N	ECHS	DF+	T _{LAB}	DT+	PLAB	DP+	DO+	SIGMA	DS+	DS*	REFERENCE	COM
3.171	4,739	4,877	THRESHOLD								WATERS	NP 817 445 70 H 27
1.443 ,127	0,127	0,841	0,000	0,000	0,000	0,000	0,000	1,00	,0,00	,0,00		

***** 011071 REACTION 57 PI+ D = (P / N) (A2+ / A20) * (P / N) (YKS K+ / KS K-)

N	ECHS	DF+	T _{LAB}	DT+	PLAB	DP+	DO+	SIGMA	DS+	DS*	REFERENCE	COM
2.738	2.051	2.186	THRESHOLD								WEISBA	KIEVCONF
1.3207 ,0,000	0,000	4,862	0,000	0,000	5,000	-0,000	-0,000	24,00	,7,00	,7,00		

***** 011071 REACTION 58 PI+ D = N K+ K-

N	ECHS	DF+	T _{LAB}	DT+	PLAB	DP+	DO+	SIGMA	DS+	DS*	REFERENCE	COM
2.738	2.051	2.186	THRESHOLD								WEISBA	KIEVCONF
1.3207 ,0,000	0,000	4,862	0,000	0,000	5,000	-0,000	-0,000	24,00	,7,00	,7,00		

***** 011071 REACTION 58 PI+ D = N K+ K-

N	ECHS	DF+	T _{LAB}	DT+	PLAB	DP+	DO+	SIGMA	DS+	DS*	REFERENCE	COM
2.738	2.051	2.186	THRESHOLD								WEISBA	KIEVCONF
1.3207 ,0,000	0,000	4,862	0,000	0,000	5,000	-0,000	-0,000	24,00	,7,00	,7,00		

N	ECHS	DE+	DE-	T _{LAB}	T _{TR}	D _{TR}	PLAB	D _P	SIGMA	LS*	CS*	REFERENCE	COM	
1	1.972	0.000	0.000	1.360	1.451	-	THRESHOLD			6.00	6.00	GOUSSI	NC A42 604 66 H -0	
1	1.973	0.000	0.000	1.427	0.000	0.000	1.590	0.000	0.000	11.00	0.00	DAHL	PR 163 1377 67 H 6	
2	2.113	0.201	-0.201	1.762	0.554	-0.494	1.893	0.55	-0.493	3.00	10.00	DAHL	PR 163 1377 67 H 6	
3	2.202	0.002	0.001	1.965	5.000	-0.000	2.100	0.000	-0.000	139.00	14.00	BOYD	PR 163 1377 67 H 26	
4	2.444	-0.11	0.11	2.164	0.248	-0.24	2.000	0.12	-0.028	6.00	4.00	MILLER	PR 0140 360 65 H -0	
5	2.463	0.000	0.000	2.164	0.000	0.000	2.750	0.000	-0.000	250.00	90.00	GOUSSI	NC A42 360 65 H -0	
6	2.526	0.100	-0.100	2.164	0.000	0.000	3.000	0.000	-0.000	250.00	72.00	WANSL	PR 0137 383 67 H -0	
7	2.535	-0.05	0.05	2.166	0.000	0.000	2.500	0.000	-0.000	250.00	72.00	DAHL	PR 163 1377 67 H 6	
8	2.664	0.15	-0.15	3.753	0.550	-0.550	3.894	0.550	-0.550	170.00	130.00	BARTSC	NC A43 1040 65 H -0	
10	3.103	0.521	-0.521	4.512	0.170	-0.170	4.650	0.170	-0.170	110.00	72.00	BERTAN	PR 130 286 65 H -0	
11	3.207	0.300	-0.300	4.862	0.100	-0.100	5.000	0.100	-0.100	124.00	80.00	WIBSA	KIEVENOF	PR 70 70 H -0
***** REACTION 59 PLAB = N MO KO														
N	ECHS	DE+	DE-	T _{LAB}	T _{TR}	D _{TR}	PLAB	D _P	SIGMA	LS*	CS*	REFERENCE	COM	
1	1.955	1.377	-1.377	1.457	0.000	0.000	1.590	0.000	-0.000	41.00	16.00	GOUSSI	NC A42 606 66 H -0	
1	1.973	0.000	0.000	1.554	0.550	-0.550	1.690	0.550	-0.550	29.00	11.00	SMITH	ATMCONF 67 63 H -0	
3	2.181	0.221	-0.221	1.915	0.550	-0.550	2.050	0.550	-0.550	29.00	11.00	SMITH	ATMCONF 67 63 H -0	
4	2.310	0.000	0.000	2.225	0.550	-0.550	2.360	0.550	-0.550	99.00	18.00	GOUSSI	NC A42 363 67 H -0	
5	2.463	0.000	0.000	2.614	0.000	0.000	2.750	0.000	-0.000	108.00	35.00	BARTSC	NC A43 1040 65 H -0	
6	2.935	0.000	0.000	3.468	0.000	0.000	4.000	0.000	-0.000	176.00	62.00	BUDIG	PR 152 1194 66 H -0	
7	3.235	0.029	-0.029	4.962	0.000	0.000	5.100	0.000	-0.000	71.00	20.00	DAHL	PR 163 1377 67 H -0	
8	3.970	0.000	0.000	7.745	0.000	0.000	7.920	0.000	-0.000	52.00	0.00	EHRLIC	PR 152 1194 66 H -0	
***** REACTION 61 PLAB = N MS KS														
N	ECHS	DE+	DE-	T _{LAB}	T _{TR}	D _{TR}	PLAB	D _P	SIGMA	LS*	CS*	REFERENCE	COM	
1	1.955	1.377	-1.377	1.457	0.000	0.000	1.590	0.000	-0.000	10.00	4.00	GOUSSI	NC A42 606 66 H -0	
1	1.973	0.100	-0.100	1.437	0.121	-0.121	1.525	0.125	-0.125	4.00	2.00	DAHL	PR 163 1377 67 H -0	
3	2.180	0.221	-0.221	1.915	0.550	-0.550	1.690	0.550	-0.550	29.00	11.00	DAHL	PR 163 1377 67 H -0	
5	2.135	0.122	-0.122	1.815	0.550	-0.550	1.920	0.550	-0.550	29.00	11.00	DAHL	PR 163 1377 67 H -0	
6	2.137	0.122	-0.122	1.815	0.550	-0.550	1.920	0.550	-0.550	29.00	11.00	DAHL	PR 163 1377 67 H -0	
7	2.150	0.122	-0.122	1.815	0.550	-0.550	1.920	0.550	-0.550	29.00	11.00	DAHL	PR 163 1377 67 H -0	
8	2.151	0.122	-0.122	1.815	0.550	-0.550	1.920	0.550	-0.550	29.00	11.00	DAHL	PR 163 1377 67 H -0	
9	2.154	0.122	-0.122	1.815	0.550	-0.550	1.920	0.550	-0.550	29.00	11.00	DAHL	PR 163 1377 67 H -0	
10	2.219	0.521	-0.521	2.005	0.550	-0.550	2.140	0.550	-0.550	21.00	7.00	DAHL	PR 163 1377 67 H -0	
11	2.243	0.521	-0.521	2.005	0.550	-0.550	2.150	0.550	-0.550	21.00	7.00	DAHL	PR 163 1377 67 H -0	
12	2.266	0.022	-0.022	2.115	0.020	-0.020	2.250	0.020	-0.020	33.00	7.00	DAHL	PR 163 1377 67 H -0	
13	2.306	0.022	-0.022	2.115	0.020	-0.020	2.250	0.020	-0.020	38.00	7.00	DAHL	PR 163 1377 67 H -0	
14	2.409	0.521	-0.521	2.474	0.550	-0.550	2.610	0.550	-0.550	30.00	6.00	DAHL	PR 163 1377 67 H -0	
15	2.443	0.022	-0.022	2.564	0.028	-0.028	2.700	0.028	-0.028	33.00	7.00	MILLER	PR 0140 360 65 H -0	
16	2.463	0.022	-0.022	2.612	0.028	-0.028	2.750	0.028	-0.028	33.00	7.00	GOUSSI	NC A42 363 67 H -0	
17	2.526	0.022	-0.022	2.724	0.050	-0.050	2.850	0.050	-0.050	58.00	24.00	WANSL	PR 163 1377 67 H -0	
18	2.526	0.022	-0.022	2.724	0.050	-0.050	2.850	0.050	-0.050	58.00	23.00	WANGF	PR 0137 434 65 H -0	
19	2.560	0.022	-0.022	2.874	0.050	-0.050	3.120	0.050	-0.050	40.00	8.00	DAHL	PR 163 1377 67 H -0	
20	2.694	0.022	-0.022	2.944	0.050	-0.050	3.130	0.050	-0.050	49.00	7.00	DAHL	PR 163 1377 67 H -0	

21	2.629	.018	.018	3.063	.050	.050	.050	.050	.050	.050	.050	4.10	4.10	CHUNG	PRL	1A	100	67	H
32	2.612	.018	.018	3.073	.050	.050	.050	.050	.050	.050	.050	5.00	5.00	DAHL	PRL	163	1377	67	H
23	2.614	.016	.016	3.753	.050	.050	.050	.050	.050	.050	.050	6.00	6.00	DAHL	PRL	163	1377	67	H
24	2.900	0.000	0.000	3.863	0.000	0.000	0.000	0.000	0.000	0.000	0.000	4.10	4.10	DAHL	PRL	163	1010	66	H
25	2.951	.016	.016	4.023	.050	.050	.050	.050	.050	.050	.050	5.00	5.00	DAHL	PRL	163	1377	67	H
26	2.954	.016	.016	4.023	.050	.050	.050	.050	.050	.050	.050	5.00	5.00	DAHL	PRL	163	1377	67	H
27	2.917	0.000	0.000	4.182	0.000	0.000	0.000	0.000	0.000	0.000	0.000	4.20	4.20	CHUNG	PRL	1A	100	67	H
28	3.447	0.000	0.000	5.182	0.000	0.000	0.000	0.000	0.000	0.000	0.000	5.10	5.10	WEISBA	KLEVENHOF	1A	70	70	H
29	3.935	0.000	0.000	2.481	0.000	0.000	0.000	0.000	0.000	0.000	0.000	5.10	5.10	CREENE	PRL	R2A	136	68	H
														WATERS	TESIS/C		69	69	H

01/10/71 PI+ P = N KS KL
REACTION 61

N	ECMS	DE+	DE-	TLAB	DT+	DT-	PLAB	DP+	DP-	SIGMA	DS+	DS-	REFERENCE	COM				
1	1.935			1.377			1.510			THRESHOLD								
1	2.444	.011	.011	2.564	.028	.028	2.700	.028	.028	23.00	10.00	10.00	MILLER	PRL	8140	360	65	H

01/10/71 PI+ P = N PHI
REACTION 62

N	ECMS	DE+	DE-	TLAB	DT+	DT-	PLAB	DP+	DP-	SIGMA	DS+	DS-	REFERENCE	COM				
1	1.950	.024	.024	1.423	1.511	.115	1.645	.115	.115	29.00	12.00	15.00	DAHL	PRL	163	1377	67	H
1	1.990	.024	.024	1.865	.254	.254	2.000	.255	.255	30.00	19.00	6.00	DAHL	PRL	163	1377	67	H
3	2.209	.111	.111	1.865	0.000	0.000	2.100	0.000	0.000	19.00	9.00	6.00	BOYD	PRL	166	1450	66	H
4	2.215	0.000	0.000	1.995	0.000	0.000	2.140	-0.000	-0.000	24.00	6.00	6.00	BOLIN	NIC	541	69	T	
5	2.242	0.000	0.000	2.466	.075	.075	2.605	.075	.075	27.00	9.00	9.00	DHAL	PRL	163	1377	67	H
6	2.593	.090	.090	2.664	.125	.125	3.100	.125	.125	6.00	6.00	6.00	DHAL	PRL	163	1377	67	H
7	2.900	.081	.081	3.863	.250	.250	4.000	.250	.250	15.00	20.00	20.00	DHAL	PRL	163	1377	67	H
8	4.649	0.000	0.000	17.901	0.000	0.000	11.040	-0.000	-0.000	1.3	.03	.03	HYAMS	NP	B22	149	76	S

01/10/71 PI+ P = N PHI + N K e K ^v
REACTION 63

N	ECMS	DE+	DE-	TLAB	DT+	DT-	PLAB	DP+	DP-	SIGMA	DS+	DS-	REFERENCE	COM				
1	1.950			1.425			1.559			THRESHOLD			BOYD	PRL	166	1450	68	H
1	2.202	0.000	0.000	1.985	0.000	0.000	2.100	0.000	0.000	9.00	4.00	4.00	BOLIN	NIC	A60	541	69	T

01/10/71 PI+ P = N TE (K AR) + N KS KS
REACTION 64

N	ECMS	DE+	DE-	TLAB	DT+	DT-	PLAB	DP+	DP-	SIGMA	DS+	DS-	REFERENCE	COM				
2	2.000			1.512			1.643			THRESHOLD			DHAL	PRL	163	1377	67	H
1	2.159	.106	.106	1.865	.249	.249	2.000	.250	.250	7.00	2.00	2.00	DHAL	PRL	163	1377	67	H
2	2.593	.090	.090	2.064	.250	.250	3.100	.250	.250	7.00	2.00	2.00	DHAL	PRL	163	1377	67	H
3	2.900	.081	.081	3.863	.250	.250	4.000	.250	.250	9.00	3.00	3.00	DHAL	PRL	163	1377	67	H

1	3.207	0.300	0.300	4.662	0.600	0.600	5.000	-0.000	0.000	3.350	1.120	1.04	DEUSCH	PL	A25	357	67	S	=0
2	3.247	0.300	0.300	4.662	0.600	0.600	5.000	-0.000	0.000	2.930	1.70	1.70	DEUSCH	PL	B25	357	67	S	=0
3	3.439	0.300	0.300	11.861	0.300	0.300	12.000	-0.000	0.000	1.42	.33	.24	DEUSCH	PL	A25	357	67	S	=0

01/20/71 FRACTION 70 PI = P(KS51144) = N, S, K

N	ECS	DE+	DE-	T LAB	DT+	DT-	PLAB	DP+	DP-	SIGMA	S134	S2*	DS*	REFERENCE	COM				
1	2.160				2.197		2.194			1.110	.60	.50							
1	3.007	0.200	0.200	4.162	0.600	0.600	5.000	-0.000	0.000	1.110	.60	.50	DEUSCH	PL	A25	357	67	S	=0
2	3.047	0.200	0.200	6.162	0.200	0.200	7.000	-0.000	0.000	1.110	.33	.24	DEUSCH	PL	B25	357	67	S	=0
3	3.439	0.200	0.200	11.861	0.300	0.300	12.000	-0.000	0.000	1.25	.21	.14	DEUSCH	PL	B25	357	67	S	=0

N	ECS	DE+	DE-	T LAB	DT+	DT-	PLAB	DP+	DP-	SIGMA	US*	DS*	REFERENCE	COM					
1	2.454				2.505		2.725			1.110	4.90	4.00							
1	2.593	.750	.650	2.065	.250	.100	.250	.250	.000	1.110	.50	.33	DAML	PR	163	1377	67	H	=0
2	2.900	.361	.061	3.463	.250	.150	.250	.250	.000	1.110	.50	.33	DAML	PR	163	1377	67	H	=0

N	ECS	DE+	DE-	T LAB	DT+	DT-	PLAB	DP+	DP-	SIGMA	US*	DS*	REFERENCE	COM					
1	3.711				4.739		4.677			1.05	-0.00	-0.00	DEUSCH	PL	R28	211	68	S	=0
1	3.207	0.300	0.300	4.662	0.600	0.600	5.000	-0.000	0.000	2.350	1.20	1.20	BULAGO	KLEVCONF	211	68	P	=0	
2	3.236	.029	.029	4.962	.100	.100	5.000	-0.000	0.000	2.350	.150	.07	DEUSCH	PL	B28	211	68	S	=0

N	ECS	DE+	DE-	T LAB	DT+	DT-	PLAB	DP+	DP-	SIGMA	US*	DS*	REFERENCE	COM					
1	1.749				1.010		1.141			1.05	-0.00	-0.00	DAML	NC	A49	1	67	H	=0
1	2.463	.006	.006	2.614	.015	.015	2.750	.015	.015	1.400	100.00	100.00	DAML	PR	163	1377	67	H	=0

N	ECS	DE+	DE-	T LAB	DT+	DT-	PLAB	DP+	DP-	SIGMA	US*	DS*	REFERENCE	COM					
1	1.749				1.010		1.141			1.05	-0.00	-0.00	DAML	NC	A49	1	67	H	=0

2.004, 0.000 0.000 1.525
 1.291, 0.000 0.000 3.863 0.000 0.000

1.658 THRESHOLD
 4.000 -0.000 0.000 103,000 24,000 28,000
 BARTSC NC A43 1010 66 H +0

***** PI1/10/71 FRACT1N 75 PI+ P = L K+ PI+

N	ECVS	DE+	DE-	TLAB	NT+	DT+	PLAB	NP+	DP+	SIGMA	DS+	DS*	REFERENCE	COM
1	1.749	.310	.010	1.103	.020	.020	1.142	THRESHOLD	.020	6.00	6.00	6.00	BINFOR PR 183 1134 69 H +0	
2	1.919	.010	.010	1.145	.020	.020	1.235	.020	.020	6.00	5.00	5.00	BINFOR PR 183 1134 69 H +0	
3	1.894	.010	.010	1.194	.020	.020	1.227	.020	.020	6.00	5.00	5.00	BINFOR PR 183 1134 69 H +0	
4	1.336	.024	.024	1.367	.050	.050	1.326	.020	.020	6.00	11.00	2.00	BINFOR PR 183 1134 69 H +0	
5	1.932	.000	.000	1.457	.000	.000	1.453	.000	.000	6.00	9.00	9.00	DALH PR 163 1377 67 H +6	
6	1.745	.000	.000	1.494	.000	.000	1.500	-n	n	6.00	9.00	9.00	GOUSSU NC A42 606 64 H +0	
7	2.173	.000	.000	1.681	.022	.022	1.615	.000	.000	6.00	10.00	10.00	DALH PR 163 1377 67 H +0	
8	2.126	.023	.023	1.623	.020	.020	1.556	.000	.000	6.00	13.10	13.10	DALH PR 163 1377 67 H +0	
9	2.156	.000	.000	1.690	.020	.020	1.650	.000	.000	6.00	9.00	9.00	SMITH ATHECONF 67 63 H +0	
10	2.125	.022	.022	1.716	.021	.021	1.650	.000	.000	6.00	8.00	8.00	DALH PR 163 1377 67 H +0	
11	2.135	.000	.000	1.605	.020	.020	1.550	.000	.000	6.00	10.00	10.00	DALH PR 163 1377 67 H +0	
12	2.150	.022	.022	1.845	.020	.020	1.950	.000	.000	6.00	14.00	14.00	DALH PR 163 1377 67 H +0	
13	2.150	.000	.000	1.850	.025	.025	1.985	.000	.000	6.00	14.00	14.00	DALH PR 163 1377 67 H +0	
14	2.161	.021	.021	1.915	.025	.025	2.050	.000	.000	6.00	12.00	12.00	COLLEY PR 128 1910 62 H +1	
15	2.161	.021	.021	1.915	.025	.025	2.050	.000	.000	6.00	12.00	12.00	SMITH ATHECONF 67 63 H +0	
16	2.159	.021	.021	1.915	.025	.025	2.050	.000	.000	6.00	12.00	12.00	DALH PR 163 1377 67 H +0	
17	2.159	.021	.021	1.915	.025	.025	2.050	.000	.000	6.00	12.00	12.00	DALH PR 163 1377 67 H +0	
18	2.223	.021	.021	2.015	.025	.025	2.140	.000	.000	6.00	17.00	17.00	DALH PR 163 1377 67 H +0	
19	2.265	.021	.021	2.115	.025	.025	2.050	.000	.000	6.00	13.00	13.00	DALH PR 163 1377 67 H +0	
20	2.305	.020	.020	2.215	.025	.025	2.350	.000	.000	6.00	23.00	23.00	DALH PR 163 1377 67 H +0	
21	2.310	.020	.020	2.225	.025	.025	2.350	.000	.000	6.00	24.00	24.00	DALH PR 163 1377 67 H +0	
22	2.319	.019	.019	2.225	.025	.025	2.360	.000	.000	6.00	24.00	24.00	DALH PR 163 1377 67 H +0	
23	2.314	.019	.019	2.274	.025	.025	2.610	.000	.000	6.00	13.00	13.00	MILLER PR 8140 360 65 H +0	
24	2.465	.000	.000	2.014	.020	.020	2.014	.000	.000	6.00	10.00	10.00	GUSSI NC A42 385 67 H +0	
25	2.205	.019	.019	2.174	.020	.020	2.060	.000	.000	6.00	20.00	20.00	DALH PR 163 1377 67 H +0	
26	2.266	.018	.018	2.174	.020	.020	2.060	.000	.000	6.00	20.00	20.00	DALH PR 163 1377 67 H +0	
27	2.454	.018	.018	2.994	.020	.020	3.130	.000	.000	6.00	14.00	14.00	DALH PR 163 1377 67 H +0	
28	2.452	.018	.018	3.073	.020	.020	3.210	.000	.000	6.00	19.00	19.00	DALH PR 163 1377 67 H +0	
29	2.564	.016	.016	3.073	.020	.020	3.753	.000	.000	6.00	19.00	19.00	DALH PR 163 1377 67 H +0	
30	2.551	.016	.016	4.023	.025	.025	3.990	.000	.000	6.00	13.00	13.00	DALH PR 163 1377 67 H +0	
31	2.526	.020	.020	4.014	.025	.025	4.460	.000	.000	6.00	13.00	13.00	DALH PR 163 1377 67 H +0	
32	3.236	.020	.020	4.962	.020	.020	4.862	.000	.000	6.00	7.50	7.50	WEISBA KIEVCONF 70 H +0	
33	3.457	.020	.020	4.962	.020	.020	5.000	+0.000	+0.000	6.00	10.00	10.00	BUDAG KIEVCONF 70 P +0	
34	3.477	.020	.020	5.802	.020	.020	5.000	+0.000	+0.000	6.00	11.00	11.00	CHENNE PR 19 1212 67 H +0	
35	5.376	.000	.000	7.782	.000	.000	6.000	+0.000	+0.000	6.00	22.00	22.00	ERLICK PR 152 1194 66 H +0	
36	5.406	.000	.000	16.061	.000	.000	16.200	+0.000	+0.000	6.00	1.50	1.50	DEUTIC CERN DPM 43 70 H +0	

N	ECVS	DE+	DE-	TLAB	NT+	DT+	PLAB	NP+	DP+	SIGMA	DS+	DS*	REFERENCE	COM
1	1.745	.310	.010	1.103	.020	.020	1.142	THRESHOLD	.020	6.00	6.00	6.00	BINFOR PR 183 1134 69 H +0	
2	2.145	.010	.010	1.145	.020	.020	1.235	.020	.020	6.00	5.00	5.00	BINFOR PR 183 1134 69 H +0	
3	1.845	.010	.010	1.194	.020	.020	1.277	.020	.020	6.00	11.00	2.00	BINFOR PR 183 1134 69 H +0	
4	1.336	.024	.024	1.367	.050	.050	1.326	.020	.020	6.00	9.00	9.00	DALH PR 163 1377 67 H +6	
5	1.932	.000	.000	1.457	.000	.000	1.453	.000	.000	6.00	10.00	10.00	GOUSSU NC A42 60 60	
6	1.745	.000	.000	1.494	.000	.000	1.500	-0.000	+0.000	6.00	16.00	16.00	DALH PR 163 1377 67 H +6	
7	2.145	.000	.000	1.657	.000	.000	1.593	-0.000	+0.000	6.00	23.00	23.00	COLLEY PR 128 1910 62 P +0	
8	2.125	.023	.023	1.624	.025	.025	1.615	.000	.000	6.00	22.00	23.00	DALH PR 163 1377 67 H +0	
9	2.120	.023	.023	1.690	.025	.025	1.690	.000	.000	6.00	22.00	22.00	SMITH ATHECONF 67 63 H +0	

N	ECMS	DE+	DE-	T LAB	DT+	DT-	PLAB	DP+	DP-	SIGMA	DS+	DS-	REFERENCE	COM
9	2,093	.022	.022	1,716	0.50	0.50	1,850	0.50	0.50	192.00	27.00	27.00	D A H L	P R 163 1377 67
10	2,143	.022	.022	1,865	0.50	0.50	1,940	0.50	0.50	125.00	26.00	26.00	D A H L	P R 163 1377 67
11	2,137	.022	.022	1,855	0.50	0.50	1,950	0.50	0.50	121.00	25.00	25.00	D A H L	P R 163 1377 67
12	2,120	.022	.022	1,845	0.50	0.50	1,980	0.50	0.50	133.00	36.00	36.00	D A H L	P R 163 1377 67
13	2,110	.022	.022	1,945	0.50	0.50	2,050	0.50	0.50	182.00	34.00	34.00	S M I T H	A T H E C O N F 67 67
14	2,114	.021	.021	1,915	0.50	0.50	2,020	0.50	0.50	162.00	21.00	20.00	D A H L	P R 163 1377 67
15	2,111	.021	.021	1,911	0.50	0.50	1,950	0.50	0.50	164.00	21.00	20.00	D A H L	P R 163 1377 67
16	2,219	.021	.021	2,005	0.50	0.50	2,140	0.50	0.50	68.00	20.00	28.00	D A H L	P R 163 1377 67
17	2,213	.021	.021	2,005	0.50	0.50	2,150	0.50	0.50	14.00	21.00	21.00	D A H L	P R 163 1377 67
18	2,165	.021	.021	2,115	0.50	0.50	2,250	0.50	0.50	131.00	17.00	17.00	D A H L	P R 163 1377 67
19	2,116	.020	.020	2,215	0.50	0.50	2,350	0.50	0.50	120.00	29.00	29.00	S M I T H	A T H E C O N F 67 67
20	2,110	.020	.020	2,225	0.50	0.50	2,360	0.50	0.50	120.00	20.00	20.00	D A H L	P R 163 1377 67
21	2,110	.019	.019	2,474	0.50	0.50	2,610	0.50	0.50	91.00	18.00	18.00	D A H L	P R 163 1377 67
22	2,144	.011	.011	2,564	0.28	0.28	2,700	0.28	0.28	132.00	18.00	18.00	M I L L E R	P R 8140 380 65
23	2,143	.000	.000	2,664	0.00	0.00	2,700	-0.00	-0.00	160.00	40.00	40.00	G O U S S I	N C A 47 383
24	2,155	.019	.019	2,674	0.50	0.50	2,860	0.50	0.50	128.00	32.00	32.00	D A H L	P R 163 1377 67
25	2,150	.018	.018	2,874	0.50	0.50	3,000	0.50	0.50	121.00	24.00	24.00	D A H L	P R 163 1377 67
26	2,164	.018	.018	2,904	0.50	0.50	3,150	0.50	0.50	76.00	15.00	15.00	D A H L	P R 163 1377 67
27	2,162	.018	.018	3,073	0.50	0.50	3,200	0.50	0.50	97.00	15.00	15.00	D A H L	P R 163 1377 67
28	2,064	.016	.016	3,755	0.50	0.50	4,050	0.50	0.50	98.00	21.00	21.00	D A H L	P R 163 1377 67
29	2,051	.016	.016	4,073	0.50	0.50	4,160	0.50	0.50	68.00	15.00	15.00	W E I S B A	K I E V C O N F 70 65
30	2,077	0.000	0.000	4,862	0.00	0.00	5,000	-0.000	-0.000	75.00	12.00	12.00	B U D O G Q	P R 152 1194 66
31	2,136	.029	.029	4,992	0.100	0.100	5,100	0.100	0.100	72.00	16.00	16.00	E H R L I C	P R 152 1194 66
32	3,370	0.000	0.000	7,792	0.000	0.000	7,920	+0.000	+0.000	37.00	-0.00	+0.00		

HEATON 91/10/71											
REACTION A0			PI+ p = L K(1400)0 = L (K PI) 0								
N	E CMS	DF+	DE-	T LAB	NT+	DT+	PLAB	DP+	SIGMA	DS*	DS**
1	2.516	2.753	2.863	.200	.200	.200	.200	.200	7.00	2.00	2.00
2	2.000	0.655	0.655	4.862	0.000	0.000	5.000	-0.010	24.50	5.80	5.80
3	2.00	0.000	0.000	4.862	0.000	0.000	5.000	-0.000	24.50	5.80	5.80

HEATON 91/10/71											
REACTION A1			PI+ p = (l / SO) K+ PI+								
N	E CMS	DF+	DE-	T LAB	NT+	DT+	PLAB	DP+	SIGMA	DS*	DS**
1	1.749	1.011	1.142	1.142	1.142	1.142	1.142	1.142	1.142	1.142	1.142
2	2.556	0.000	1.000	2.864	0.000	0.000	3.000	-0.000	13.00	21.00	21.00
3	2.900	0.200	0.000	3.863	0.000	0.000	4.000	-0.000	13.00	21.00	21.00
4	3.03	0.051	0.051	4.512	.170	.170	4.650	.170	17.0	30.00	-0.00

HEATON 91/10/71											
REACTION A2			PI+ p = (l / SO) K0 PI0								
N	E CMS	DF+	DE-	T LAB	NT+	DT+	PLAB	DP+	SIGMA	DS*	DS**
1	1.964	1.012	1.012	1.437	.025	.025	1.437	.025	16.00	30.00	30.00
2	2.556	0.000	0.000	2.864	0.000	0.000	3.000	-0.000	14.00	33.00	33.00
3	2.900	0.000	0.000	3.863	0.000	0.000	4.000	-0.000	16.00	35.00	35.00
4	3.103	0.051	0.051	4.512	.170	.170	4.650	.170	17.0	0.00	0.00
5	4.45	1.27	1.27	9.861	.600	.600	1.000	.600	11.00	-0.00	-0.00
6	6.915	0.000	0.000	24.861	0.000	0.000	25.000	-0.000	0.000	3.40	2.70

HEATON 91/10/71											
REACTION A3			PI+ p = (l / Su) K0 Z0								
N	E CMS	DF+	DE-	T LAB	NT+	DT+	PLAB	DP+	SIGMA	DS*	DS**
1	1.883	1.771	1.771	1.771	.050	.050	1.771	.050	29.00	20.00	20.00
2	2.900	0.019	3.863	0.050	0.050	0.050	0.050	0.050	38.00	31.00	31.00
3	3.103	0.051	0.051	4.512	.170	.170	4.650	.170	17.0	-0.00	-0.00
4	4.45	1.27	1.27	9.861	.600	.600	1.000	.600	1.000	-0.00	-0.00
5	6.915	0.000	0.000	24.861	0.000	0.000	25.000	-0.000	0.000	4.60	3.20

HEATON 91/10/71											
REACTION R4			PI+ p = (l / Su) K (891)								
N	E CMS	DF+	DE-	T LAB	NT+	DT+	PLAB	DP+	SIGMA	DS*	DS**
1	1.883	1.771	1.771	1.771	.050	.050	1.771	.050	29.00	20.00	20.00
2	2.900	0.000	0.000	3.863	0.000	0.000	4.000	-0.000	0.000	31.00	31.00
3	3.103	0.051	0.051	4.512	.170	.170	4.650	.170	17.0	-0.00	-0.00
4	4.45	1.27	1.27	9.861	.600	.600	1.000	.600	1.000	-0.00	-0.00
5	6.915	0.000	0.000	24.861	0.000	0.000	25.000	-0.000	0.000	4.60	3.20

01/17/71												
REACTION 85 $P_{1+} = (L / S_0) K(1400)0$												
N	EOMS	DE*	DE*	TLAB	DT*	PLAB	DP*	DP*	SIGMA	DS*	DS*	REFERENCE
1	2.006	1.525				1,658	THRESHOLD					
1	2.526	0.000	0.000	2.844	0.000	0.000	3.000	-0.000	14.00	14.00	HANGLE	
2	2.915	0.000	0.000	2.831	0.000	0.000	25.000	-0.000	4.00	0.00	WATERS	
									4.00	0.00	THESSISC	
									69	H	6	
									69	H	18	

N	EOMS	DE*	DE*	TLAB	DT*	PLAB	DP*	DP*	SIGMA	DS*	DS*	REFERENCE
1	2.516	2.753				2,890	THRESHOLD					
1	6.915	0.000	0.000	24.661	0.000	0.000	25.000	-0.000	3.00	0.00	WATERS	
									3.00	0.00	THESSISC	
									69	H	16	

N	EOMS	DE*	DE*	TLAB	DT*	PLAB	DP*	DP*	SIGMA	DS*	DS*	REFERENCE
1	8.827	1.159				1,992	THRESHOLD					
1	6.915	0.000	0.000	24.861	0.000	0.000	25.000	-0.000	3.40	6.70	WATERS	
									6.70	0.00	THESSISC	
									69	H	25	

N	EOMS	DE*	DE*	TLAB	DT*	PLAB	DP*	DP*	SIGMA	DS*	DS*	REFERENCE
1	8.827	1.159				1,992	THRESHOLD					
1	6.915	0.000	0.000	24.861	0.000	0.000	25.000	-0.000	3.40	6.70	WATERS	
									6.70	0.00	THESSISC	
									69	H	25	

N	EOMS	DE*	DE*	TLAB	DT*	PLAB	DP*	DP*	SIGMA	DS*	DS*	REFERENCE
1	1.930	0.024	0.024	1.367	0.050	0.050	1,990	-0.000	1.90	1.90	DAHL	
2	1.973	0.000	0.000	1.657	0.000	0.000	1.990	-0.000	10.00	10.00	DAHL	
3	1.985	0.024	0.024	1.681	0.050	0.050	1.950	-0.000	1.70	1.70	DAHL	
4	2.020	0.023	0.023	1.523	0.050	0.050	1.690	-0.050	15.00	5.30	DAHL	
5	2.020	0.023	0.023	1.556	0.050	0.050	1.690	-0.050	15.00	4.00	DAHL	
6	2.093	0.022	0.022	1.716	0.050	0.050	1.690	-0.050	19.00	3.90	DAHL	
7	2.115	0.053	0.053	1.766	0.120	0.120	1.900	-0.120	12.00	12.00	DAHL	
8	2.133	0.022	0.022	1.805	0.120	0.120	1.940	-0.120	16.00	5.00	DAHL	
9	2.147	0.022	0.022	1.845	0.120	0.120	1.950	-0.120	14.00	7.00	DAHL	
10	2.150	0.022	0.022	1.845	0.120	0.120	1.980	-0.120	15.00	5.00	DAHL	
11	2.153	0.023	0.023	1.850	0.125	0.125	1.985	-0.125	17.50	9.00	DAHL	
12	2.164	0.024	0.024	1.850	0.125	0.125	2.020	-0.125	24.00	2.00	DAHL	
13	2.181	0.024	0.024	1.915	0.050	0.050	2.050	-0.050	41.00	8.00	DAHL	
14	2.181	0.024	0.024	1.915	0.050	0.050	2.050	-0.050	39.00	6.00	DAHL	
15	2.202	0.000	0.000	1.985	0.000	0.000	2.100	-0.000	38.00	10.00	MARCH	
16	2.219	0.021	0.021	2.021	0.050	0.050	2.140	-0.050	33.00	14.00	MARCH	
17	2.223	0.021	0.021	2.015	0.050	0.050	2.150	-0.050	52.00	6.00	MARCH	
18	2.265	0.021	0.021	2.115	0.050	0.050	2.250	-0.050	62.00	6.00	MARCH	
19	2.304	0.020	0.020	2.185	0.050	0.050	2.350	-0.050	65.00	9.00	MARCH	
20	2.310	0.020	0.020	2.125	0.050	0.050	2.360	-0.050	37.00	5.00	MARCH	
21	2.419	0.019	0.019	2.174	0.050	0.050	2.610	-0.050	39.00	7.00	DAHL	
22	2.444	0.011	0.011	2.564	0.028	0.028	2.700	-0.028	52.00	7.00	DAHL	
23	2.443	0.000	0.000	2.614	0.000	0.000	2.750	-0.000	30.00	10.00	MILLER	
24	2.505	0.019	0.019	2.714	0.050	0.050	2.660	-0.050	57.00	11.00	DAHL	
25	2.556	0.000	0.000	2.844	0.000	0.000	3.000	-0.000	41.00	11.00	MANGLE	
26	2.550	0.018	0.018	2.874	0.050	0.050	3.110	-0.050	41.00	11.00	DAHL	
27	2.604	0.018	0.018	2.994	0.050	0.050	3.130	-0.050	47.00	7.00	DAHL	

01/10/71 REFACTION 88														
$P_{1+} = S_{+} \cap P_{10}$														
N	ECHS	DE+	DE-	T LAB	DT+	DT-	PLAB	DP+	DP-	SIGMA	DS+	DS-	REFERENCE	COM
1	1,826			1,158			1,290			THRESHOLD			DANL	PR 163 1377 67 H
2	2,111	0,000	0,000	1,756	0,000	0,000	1,800	-0,000	0,000	170,00	30,00	30,00	GOISSU NC 442 606 67 H	DANL PR 163 1377 67 H
3	2,111	0,000	0,000	1,756	0,000	0,000	1,800	-0,000	0,000	170,00	30,00	30,00	SMITH ATHECONF 67 63 X	DANL PR 163 1377 67 H
4	2,020	0,22	0,23	1,756	0,051	0,051	1,800	-0,050	0,050	13,20	3,10	3,10	SMITH ATHECONF 67 63 X	DANL PR 163 1377 67 H
5	2,023	0,22	0,23	1,756	0,051	0,051	1,800	-0,050	0,050	17,00	4,00	4,00	SMITH ATHECONF 67 63 X	DANL PR 163 1377 67 H
6	2,093	0,22	0,22	1,756	0,051	0,051	1,800	-0,050	0,050	21,00	5,10	5,00	SMITH ATHECONF 67 63 X	DANL PR 163 1377 67 H
7	2,115	0,53	0,53	1,756	0,53	0,53	1,800	-0,53	0,53	55,00	5,00	5,00	DAHL MARCH PL 3 99 62 H	DANL PR 163 1377 67 H
8	2,115	0,52	0,52	1,756	0,52	0,52	1,800	-0,52	0,52	50,00	7,00	7,00	DAHL MARCH PL 3 99 62 H	DANL PR 163 1377 67 H
9	2,115	0,52	0,52	1,756	0,52	0,52	1,800	-0,52	0,52	50,00	6,00	6,00	DAHL MARCH PL 3 99 62 H	DANL PR 163 1377 67 H
10	2,150	0,52	0,52	1,756	0,52	0,52	1,800	-0,52	0,52	44,00	2,00	2,00	DAHL MARCH PL 3 99 62 H	DANL PR 163 1377 67 H
11	2,181	0,21	0,21	1,915	0,50	0,50	1,960	-0,50	0,50	50,00	9,00	9,00	DAHL MARCH PL 3 99 62 H	DANL PR 163 1377 67 H
12	2,181	0,21	0,21	1,915	0,50	0,50	1,960	-0,50	0,50	45,00	6,00	6,00	DAHL MARCH PL 3 99 62 H	DANL PR 163 1377 67 H
13	2,181	0,21	0,21	1,915	0,50	0,50	1,960	-0,50	0,50	51,00	8,00	8,00	DAHL MARCH PL 3 99 62 H	DANL PR 163 1377 67 H
14	2,202	0,00	0,00	1,905	0,00	0,00	2,00	-0,00	1,000	52,00	6,00	6,00	DAHL MARCH PL 3 99 62 H	DANL PR 163 1377 67 H
15	2,219	0,21	0,21	1,905	0,50	0,50	2,10	-0,50	0,50	44,00	14,00	14,00	DAHL MARCH PL 3 99 62 H	DANL PR 163 1377 67 H
16	2,223	0,21	0,21	1,905	0,50	0,50	2,150	-0,50	0,50	51,00	2,00	2,00	DAHL MARCH PL 3 99 62 H	DANL PR 163 1377 67 H
17	2,265	0,21	0,21	2,115	0,50	0,50	2,200	-0,50	0,50	56,00	5,00	5,00	DAHL MARCH PL 3 99 62 H	DANL PR 163 1377 67 H
18	2,306	0,20	0,20	2,215	0,50	0,50	2,300	-0,50	0,50	57,00	7,00	7,00	DAHL MARCH PL 3 99 62 H	DANL PR 163 1377 67 H
19	2,310	0,20	0,20	2,225	0,50	0,50	2,350	-0,50	0,50	37,00	2,00	2,00	DAHL MARCH PL 3 99 62 H	DANL PR 163 1377 67 H
20	2,444	0,19	0,19	2,474	0,50	0,50	2,610	-0,50	0,50	35,00	5,00	5,00	DAHL MARCH PL 3 99 62 H	DANL PR 163 1377 67 H
21	2,444	0,11	0,11	2,474	0,50	0,50	2,700	-0,50	0,50	42,00	6,00	6,00	DAHL MARCH PL 3 99 62 H	DANL PR 163 1377 67 H
22	2,444	0,11	0,11	2,474	0,50	0,50	2,700	-0,50	0,50	42,00	6,00	6,00	DAHL MARCH PL 3 99 62 H	DANL PR 163 1377 67 H
23	2,505	0,19	0,19	2,724	0,50	0,50	2,80	-0,50	0,50	42,00	6,00	6,00	DAHL MARCH PL 3 99 62 H	DANL PR 163 1377 67 H
24	2,596	0,18	0,18	2,864	0,50	0,50	2,90	-0,50	0,50	46,00	9,00	9,00	DAHL MARCH PL 3 99 62 H	DANL PR 163 1377 67 H
25	2,596	0,18	0,18	2,864	0,50	0,50	2,90	-0,50	0,50	40,00	6,00	6,00	DAHL MARCH PL 3 99 62 H	DANL PR 163 1377 67 H
26	2,601	0,18	0,18	2,974	0,50	0,50	3,100	-0,50	0,50	29,00	4,00	4,00	DAHL MARCH PL 3 99 62 H	DANL PR 163 1377 67 H
27	2,632	0,18	0,18	3,073	0,50	0,50	3,200	-0,50	0,50	30,00	4,00	4,00	DAHL MARCH PL 3 99 62 H	DANL PR 163 1377 67 H
28	2,864	0,16	0,16	3,753	0,50	0,50	3,800	-0,50	0,50	34,00	5,00	5,00	DAHL MARCH PL 3 99 62 H	DANL PR 163 1377 67 H
29	2,900	0,00	0,00	3,883	0,00	0,00	4,000	-0,00	0,00	12,00	5,00	5,00	BARTSC NC 443 1010 66 H	DANL PR 163 1377 67 H
30	2,951	0,16	0,16	4,023	0,50	0,50	4,100	-0,50	0,50	28,00	4,00	4,00	BARTSC NC 443 1010 66 H	DANL PR 163 1377 67 H
31	3,103	0,51	4,512	170	0,50	0,50	4,650	-0,50	0,50	60,00	-0,00	-0,00	BENTAN PR 130 786 63 H	DANL PR 163 1377 67 H
32	3,207	0,00	0,00	7,782	0,00	0,00	7,920	-0,00	0,00	5,00	0,00	0,00	WEISBA KIEFCNF 70 H	DANL PR 163 1377 67 H

REACTION 90

 $P_1 = S_4 K \cdot Z_0$

N	ECIS	DE+	LE-	TLE	DT+	PLAB	DP+	DP-	SIGMA	DS+	DS-	REFERENCE	COM
1	1.761	1.431	1.764	1.764	.026	.028	1.764	1.764	1.764	1.764	1.764	MILLER PR 814n	360 65 H -0
1	1.244	.011	2.582	.026	.028	.028	1.700	.028	3.100	2.00	2.00	MILLER PR 814n	360 65 H -0

***** G1/0/71 REACTION 91 P1 = S₄ K₄ Z₀ *****

N	ECIS	DE+	LE-	TLE	DT+	PLAB	DP+	DP-	SIGMA	DS+	DS-	REFERENCE	COM
1	1.775	1.775	1.775	1.775	1.775	1.775	1.775	1.775	1.775	1.775	1.775	DALM PR 163	1377 67 H -6
2	1.933	0.166	1.757	0.000	0.002	1.750	-0.000	0.050	21.00	5.00	5.00	GOUSII NC 442	606 66 H -0
3	1.665	.024	1.481	0.050	0.050	1.615	0.050	0.050	26.00	4.10	4.10	DALM PR 163	1377 67 H -0
4	2.322	0.023	1.556	0.056	0.056	1.690	0.050	0.050	26.00	5.00	5.00	SMITH AT&C/NF	67 63 H -0
5	2.293	0.023	1.556	0.056	0.056	1.690	0.050	0.050	26.00	6.00	6.00	DALM PR 163	1377 67 H -0
6	2.293	0.022	1.716	0.056	0.056	1.690	0.050	0.050	63.00	7.00	7.00	DALM PR 163	1377 67 H -0
7	2.115	0.053	1.766	0.056	0.056	1.766	0.120	0.120	52.00	9.00	9.00	MARCH PL 3	99 62 H 1
8	2.133	0.022	1.805	0.056	0.056	1.940	0.050	0.050	110.00	9.00	9.00	DALM PR 163	1377 67 H -0
9	2.197	0.022	1.815	0.056	0.056	1.950	0.050	0.050	194.00	7.00	7.00	DALM PR 163	1377 67 H -0
10	2.156	0.022	1.845	0.056	0.056	1.980	0.050	0.050	100.00	13.00	13.00	DALM PR 163	1377 67 H -0
11	2.153	0.053	1.850	0.075	0.075	1.985	0.075	0.075	51.00	12.00	12.00	COLLEY PR 128	1930 62 P -1
12	2.181	0.041	1.915	0.056	0.056	2.050	0.050	0.050	65.00	10.00	10.00	SMITH AT&C/NF	67 63 H -0
13	2.161	0.021	1.915	0.056	0.056	2.050	0.050	0.050	123.00	9.00	9.00	DALM PR 163	1377 67 H -0
14	2.115	0.021	1.915	0.056	0.056	2.050	0.050	0.050	120.00	12.00	12.00	DALM PR 163	1377 67 H -0
15	2.002	0.000	1.965	0.000	0.000	2.050	-0.000	0.050	120.00	12.00	12.00	MARCH PL 3	99 62 H 1
16	2.199	0.021	2.005	0.056	0.056	2.115	0.050	0.050	7.00	14.00	14.00	DALM PR 163	1377 67 H -0
17	2.223	0.021	2.021	0.056	0.056	2.115	0.050	0.050	14.00	16.00	16.00	DALM PR 163	1377 67 H -0
18	2.265	0.021	2.021	0.056	0.056	2.115	0.050	0.050	14.00	8.00	8.00	DALM PR 163	1377 67 H -0
19	2.306	0.020	2.020	0.056	0.056	2.215	0.050	0.050	138.00	11.00	11.00	DALM PR 163	1377 67 H -0
20	2.310	0.020	2.020	0.056	0.056	2.225	0.050	0.050	130.00	14.00	14.00	SMITH AT&C/NF	67 63 H -0
21	2.409	0.019	2.019	0.056	0.056	2.174	0.050	0.050	2.60	6.00	6.00	DALM PR 163	1377 67 H -0
22	2.444	0.011	2.011	0.056	0.056	2.164	0.028	0.028	1.80	7.00	7.00	MILLER PR 814n	360 65 H -0
23	2.463	0.000	2.000	0.000	0.000	2.164	0.000	0.000	2.50	0.00	0.00	BARTSC NC 442	360 65 H -0
24	2.205	0.019	2.019	0.056	0.056	2.174	0.050	0.050	73.00	11.00	11.00	DALM PR 163	1377 67 H -0
25	2.526	0.000	2.000	0.000	0.000	2.164	0.000	0.000	91.00	14.00	14.00	MANGLE PR 813	314 65 H -0
26	2.560	0.018	2.018	0.056	0.056	2.174	0.050	0.050	92.00	9.00	9.00	DALM PR 163	1377 67 H -0
27	2.504	0.016	2.016	0.056	0.056	2.194	0.050	0.050	93.00	6.00	6.00	DALM PR 163	1377 67 H -0
28	2.452	0.016	2.016	0.056	0.056	2.194	0.050	0.050	93.00	5.00	5.00	DALM PR 163	1377 67 H -0
29	2.084	0.016	2.016	0.056	0.056	2.194	0.050	0.050	120.00	6.00	6.00	DALM PR 163	1377 67 H -0
30	2.090	0.000	2.000	0.000	0.000	2.164	0.000	0.000	69.00	7.00	7.00	BARTSC NC 442	360 65 H -0
31	2.021	0.016	2.021	0.056	0.056	2.164	0.050	0.050	41.00	5.00	5.00	DALM PR 163	1377 67 H -0
32	3.103	0.051	4.512	0.170	4.650	4.650	0.170	0.170	41.00	-0.00	-0.00	BERIAN PR 130	786 63 H -0
33	3.270	0.000	4.662	0.000	5.000	5.000	-0.000	0.000	67.60	7.80	7.80	WEISBA KIECNF	786 63 H -0
34	3.270	0.000	4.782	0.000	5.000	5.000	-0.000	0.000	66.00	-0.00	-0.00	EMILIC PR 152	1194 66 H -0
35	4.455	0.127	9.861	0.020	10.000	10.000	-0.000	0.000	9.00	-0.00	-0.00	BIGI NC 33	1265 64 H -0

***** D1/10/71 REACTION 92 P1 = S₄ K(725) *****

N	ECIS	DE+	LE-	TLE	DT+	PLAB	DP+	DP-	SIGMA	DS+	DS-	REFERENCE	COM
1	1.22	0.33	0.33	1.350	0.075	1.883	0.075	0.095	6.00	2.00	2.00	MILLER PL 5	27A 63 H -0
2	2.271	0.39	0.39	2.130	0.095	2.265	0.095	0.095	3.00	1.00	1.00	MILLER PL 5	27B 63 H -0

LAT/72
DEFINITION

$\pi^- \pi^+ = S_0(K\bar{K})$.

LAT/72
DEFINITION

$\pi^- \pi^+ = S_0(K\bar{K})$.

$\pi^- \pi^+ \pi^- \pi^+$

$\pi^- \pi^+ \pi^- \pi^+$

$\pi^- \pi^+ \pi^- \pi^+$

N	ECMS	DE+	DE-	T LAB	DT+	DT-	PLAB	DP+	DP-	SIGMA	DS*	DS*	REFERENCE	COM
1	1,423	0,000	0,000	1,137				1,289						
1	1,423	0,000	0,000	1,157				1,290						
2	3,236	0,229	4,962	1,170	0,000	0,000	0,000	1,000	1,000	34,00	11,00	66	GAUSSU Budan	NC KIEVCONF 70 p 0
45	01/10/71	REACTION	96	Pi+ P = SU KIEV9010										
N	ECMS	DE+	DE-	T LAB	DT+	DT-	PLAB	DP+	DP-	SIGMA	DS*	DS*	REFERENCE	COM
1	2,052	1,229	1,08	1,692	1,465	249	249	1,200	1,250	49,40	4,40		DALI	PR 163 1377 67 H 0
1	2,052	1,229	1,08	1,692	1,465	250	250	1,200	1,250	36,40	3,80		DALI	PR 163 1377 67 H 0
2	2,052	1,229	1,08	1,692	1,465	250	250	1,200	1,250	36,40	3,80		DALI	PR 163 1377 67 H 0
3	2,052	1,229	1,08	1,692	1,465	250	250	1,200	1,250	23,10	4,30		DALI	PR 163 1377 67 H 0
4	2,052	1,229	1,08	1,692	1,465	250	250	1,200	1,250	14,10	5,20		WEISBA	KIEVCONF 70 H 0
45	01/10/71	REACTION	97	Pi+ P = SU KIEV9010 = 50 K+ Pi+										
N	ECMS	DE+	DE-	T LAB	DT+	DT-	PLAB	DP+	DP-	SIGMA	DS*	DS*	REFERENCE	COM
1	2,052	1,444	0,11	1,692	2,664	028	028	2,700	2,750	52,00	8,00		MILLER	PR d140 360 65 H 0
1	2,052	1,444	0,11	1,692	2,664	028	028	2,700	2,750	18,00	6,00		GAUSSU	NC A47 363 67 H 0
2	2,052	1,444	0,11	1,692	2,664	028	028	2,700	2,750	18,00	6,00		WEISBA	KIEVCONF 70 H 0
45	01/10/71	REACTION	98	Pi+ P = SU KIEV9010										
N	ECMS	DE+	DE-	T LAB	DT+	DT-	PLAB	DP+	DP-	SIGMA	DS*	DS*	REFERENCE	COM
1	2,553	3,207	0,000	2,963	4,662	0,000	0,000	5,000	5,000	3,80	1,40		WEISBA	KIEVCONF 70 H 0
45	01/10/71	REACTION	99	Pi+ P = EN(L K+) Pi+										
N	ECMS	DE+	DE-	T LAB	DT+	DT-	PLAB	DP+	DP-	SIGMA	DS*	DS*	REFERENCE	COM
1	1,840	1,327	0,000	1,184	4,862	0,000	0,000	5,000	5,000	6,50	1,80		WEISBA	KIEVCONF 70 H 13
2	3,437	0,000	0,000	5,882	0,000	0,000	0,000	6,000	6,000	2,60	,50		GRENE	PRL 19 1212 67 H 21
45	01/10/71	REACTION	100	Pi+ P = EN(L K+) Pi+										
N	ECMS	DE+	DE-	T LAB	DT+	DT-	PLAB	DP+	DP-	SIGMA	DS*	DS*	REFERENCE	COM

N	ECMS	UE*	UF*	T LAB	DT*	PLAY	DP*	DP*	SIGMA	DS*	DS*	REFERENCE	COM
1,4825				1,157			1,289		THRESHOLD				
1,493	0,900	0,000	0,000	1,010	0,000	0,000	1,590	-0,000	11,00	11,00	11,00	GOUSSU NC A42	006 66 H -6
2,526	0,929	0,259	4,562	1,110	.100	5,100	.100	.100	38,00	14,00	14,00	BUDAGO KIEVCONF	70 H -6
2,526	0,929	0,259	4,562	1,110	.100	5,100	.100	.100	38,00	14,00	14,00	BUDAGO KIEVCONF	70 H -6
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
01/10/71	REACTION	96											
	Pi+ P = SO K(1690)0												
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
N	ECMS	UE*	UF*	T LAB	DT*	PLAY	DP*	DP*	SIGMA	DS*	DS*	REFERENCE	COM
2,082				1,692			1,926		THRESHOLD				
2,159	1,08	1,08	1,085	2,49	.249	2,00	.250	.250	49,40	4,40	4,40	DAHL PR	163 1377 H -6
2,159	1,08	1,08	1,085	2,50	.250	3,100	.250	.250	36,40	3,80	3,80	DAHL PR	163 1377 H -6
2,159	1,08	1,08	1,085	2,50	.250	3,100	.250	.250	36,40	3,80	3,80	DAHL PR	163 1377 H -6
3,290	0,051	.001	3,663	2,50	.250	4,000	.250	.250	23,10	4,30	4,30	WEISHA KIEVCONF	70 H -6
4,3217	0,707	0,100	4,562	0,000	0,000	5,000	-0,000	0,000	14,10	3,20	3,20	WEISHA KIEVCONF	70 H -6
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
01/10/71	REACTION	97											
	Pi+ P = SU K(1690)0 = SO K+ Pi+												
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
N	ECMS	DE*	UF*	T LAB	DT*	PLAY	DP*	DP*	SIGMA	DS*	DS*	REFERENCE	COM
2,082				1,692			1,926		THRESHOLD				
2,143	0,011	.011	2,564	.028	.028	2,700	.026	.028	52,00	8,00	8,00	MILLER PR	d140 360 65 H -6
2,143	0,000	0,000	2,514	0,000	0,000	2,750	-0,000	0,000	18,00	6,00	6,00	GOUSSU NC	A47 363 67 H -6
2,143	0,000	0,000	2,514	0,000	0,000	2,750	-0,000	0,000	18,00	6,00	6,00	WEISHA KIEVCONF	70 H -6
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
01/10/71	REACTION	98											
	Pi+ P = SO K(1400)0												
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
N	ECMS	DE*	UF*	T LAB	DT*	PLAY	DP*	DP*	SIGMA	DS*	DS*	REFERENCE	COM
2,593				2,943			3,059		THRESHOLD				
3,217	0,000	0,000	4,162	0,000	0,000	5,000	-0,000	0,000	3,80	1,40	1,40	WEISHA KIEVCONF	70 H -6
3,217	0,000	0,000	4,162	0,000	0,000	5,000	-0,000	0,000	3,80	1,40	1,40	WEISHA KIEVCONF	70 H -6
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
01/10/71	REACTION	99											
	Pi+ P = ENL K+) Pi+												
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
N	ECMS	DE*	UF*	T LAB	DT*	PLAY	DP*	DP*	SIGMA	DS*	DS*	REFERENCE	COM
1,860				1,134			1,317		THRESHOLD				
1,827	0,000	0,000	4,862	0,000	0,000	5,000	-0,000	0,000	6,50	1,80	1,80	WEISHA KIEVCONF	70 H 13
2,469	0,000	0,000	5,862	0,000	0,000	6,000	-0,000	0,000	2,60	.50	.50	CRENNE PRL 19 122 67 H 21	
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
01/10/71	REACTION	100											
	Pi+ P = ENL K(1400)												
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
N	ECMS	DE*	UF*	T LAB	DT*	PLAY	DP*	DP*	SIGMA	DS*	DS*	REFERENCE	COM

REACTION 101												
$\text{Pi}^+ \rho = \text{ENI } S \text{ K } 1 \circ \text{ Pi}^+$												
N	ECMS	DE+	UE-	T LAB	D T+	PLAB	DP+	DP-	SIGMA	DS+	REFERENCE	COM
1	1.840			1.184		1.317	THRESHOLD		3.70	2.20	2.50	WEISBA
1	1.207	0.000	0.000	4.862	0.000	5.000	0.000	0.000	3.70	2.20	2.50	KIEVCONF
2	3.487	0.000	0.000	5.862	0.000	6.000	0.000	0.000	3.70	2.20	2.50	CHENNE
												PRL 19
												1212 67 H 40

REACTION 102												
$\text{Pi}^+ \rho = \text{ENI } S \text{ K } 1 \circ \text{ Pi}^+$												
N	ECMS	DE+	UE-	T LAB	D T+	PLAB	DP+	DP-	SIGMA	DS+	REFERENCE	COM
1	1.840			1.184		1.317	THRESHOLD		3.70	2.20	2.50	WEISBA
1	3.209	0.000	0.000	4.862	0.000	5.000	0.000	0.000	3.70	2.20	2.50	KIEVCONF
												70 H 14

REACTION 103												
$\text{Pi}^+ \rho = \text{Xi}^- \text{ K } K \pi^+$												
N	ECMS	DE+	UE-	T LAB	D T+	PLAB	DP+	DP-	SIGMA	DS+	REFERENCE	COM
1	1.435			1.175		1.308	THRESHOLD		12.00	4.00	4.00	WEISBA
1	3.207	0.000	0.000	4.862	0.000	5.000	0.000	0.000	12.00	4.00	4.00	KIEVCONF
2	3.207	0.000	0.000	4.862	0.000	5.000	0.000	0.000	5.50	-0.00	-0.00	WEISBA
												PRL 825 302 67 H 14

REACTION 104												
$\text{Pi}^+ \rho = \text{Xi}^- \text{ K } \pi \pi$												
N	ECMS	DE+	UE-	T LAB	D T+	PLAB	DP+	DP-	SIGMA	DS+	REFERENCE	COM
1	2.313			2.232		2.367	THRESHOLD		1.00	1.00	1.00	WANGLE
1	4.445	.127	.127	3.661	.600	4.000	.600	.600	1.00	.50	.50	R 8137
												414 65 H -0
												DANL P 163 1377 67 H -0
												DANL P 163 1377 67 H -0
												BERTAN P 130 786 63 H -0

REACTION 105												
$\text{Pi}^+ \rho = \text{Xi}^- \text{ K } \pi \pi$												
N	ECMS	DE+	UE-	T LAB	D T+	PLAB	DP+	DP-	SIGMA	DS+	REFERENCE	COM
2	3.33			2.232		2.367	THRESHOLD		1.00	1.00	1.00	WANGLE
2	3.556	0.000	0.000	2.664	0.000	3.000	-0.000	0.000	1.00	.50	.50	R 8137
2	2.649	.018	.018	3.063	.050	3.200	.050	.050	1.00	.50	.50	DANL P 163 1377 67 H -0
3	2.90	.016	.016	3.863	.050	4.000	.050	.050	1.00	.90	.90	DANL P 163 1377 67 H -0
4	3.113	.051	.051	4.112	.170	4.450	.170	.170	1.00	5.00	5.00	BERTAN P 130 786 63 H -0

01/10/71 REACTION 105 $\text{Pi}^+ \rho = \text{Xi}^- \text{ K } \pi \pi$

N ECMS DE+ UE- T LAB DT+ PLAB DP+ DP- SIGMA DS+ DS- REFERENCE COM

2,110
1,659 .018 .01A 2,225
2,040 .016 .016 3,063 .050 .050 2,361 THRESHOLD
2,040 .016 3,063 .050 .050 .050 0.00 1,00
DAHL PR 163 1377 67 H -0
DAHL PR 163 1377 67 H -0

01/10/71 REACTION 106 PI+ P = Y(13p5) K+

N	ECHS	DE+	DF-	T LAB	DT+	DT-	PLAB	DP+	DP-	SIGMA	DS+	DS-	REFERENCE	COM
1,879				1,262			1,395			THRESHOLD				
1,456 0.000 0.000	2,864 0.000 0.000			3,000 0.000 0.000			3,000 0.000 0.000			11.00	5.00	5.00	MANGE PR 8137 434 65 H -0	

01/10/71 REACTION 107 PI+ P = Y(13p5) K+ L K+ PI+

N	ECHS	DE+	DF-	T LAB	DT+	DT-	PLAB	DP+	DP-	SIGMA	DS+	DS-	REFERENCE	COM
1,979				1,252			1,395			THRESHOLD				
1,159 .198 .10A	1,865 .249 .249	2,000	.250	2,28 .028	2,700	.250	2,82 .16.0	.250	.250	4.00	4.00		DAHL PR 163 1377 67 H -0	
2,444 .011 .011	2,564 .024 .024	3,000	0.000	2,964 .024	3,100 .024	3,100 .024	2,950 .024	.024	.024	3.00	3.00		MILLER PR 8140 360 65 H -0	
3,253 .090 .090	2,950 .024 .024	3,000	0.000	2,950 .024	3,100 .024	3,100 .024	2,950 .024	.024	.024	1.00	1.00		DAHL PR 163 1377 67 H -0	
4,900 .081 .081	3,863 .250 .250	3,000	0.000	3,863 .250	4,000 .250	4,000 .250	3,863 .250	.250	.250	1.90	1.90		DAHL PR 163 1377 67 H -0	
5,327 0.000 0.000	4,862 0.000 0.000			5,000 0.000 0.000			5,000 0.000 0.000			2.40	1.20		WEISBA KIEVCONF 70 H -0	

01/10/71 REACTION 108 PI+ P = Y(13p5) K+ K0

N	ECHS	DE+	DF-	T LAB	DT+	DT-	PLAB	DP+	DP-	SIGMA	DS+	DS-	REFERENCE	COM
1,883				1,227			1,403			THRESHOLD				
1,586 0.000 0.000	2,864 0.000 0.000	3,000 0.000 0.000	3,000 0.000 0.000	3,000 0.000 0.000	3,000 0.000 0.000	3,000 0.000 0.000	18.00	11.00	11.00	WANGLE PR 8137 434 65 H -0				
2,915 0.000 0.000	2,861 0.000 0.000	25,000 0.000 0.000	25,000 0.000 0.000	25,000 0.000 0.000	25,000 0.000 0.000	25,000 0.000 0.000	3.00	3.00	3.00	MATERS THESIS 69 H -0				

01/10/71 REACTION 109 PI+ P = Y(13p5) K0 + L K0 PI0

N	ECHS	DE+	DF-	T LAB	DT+	DT-	PLAB	DP+	DP-	SIGMA	DS+	DS-	REFERENCE	COM
1,883				1,270			1,403			THRESHOLD				
1,194 .005 .035	1,375 .011 .011	1,665 .249 .249	2,000	.250	1,508 .011	2,000	.250	1,508 .011	.250	70.00	11.00		CURTIS PR 132 1771 63 S 1	
2,219 .108 .108	1,865 .249 .249	2,000	.250	1,665 .249 .249	2,000	.250	1,665 .249 .249	.250	.250	11.00	10.00		DAHL PR 163 1377 67 H -0	
3,244 .011 .011	2,564 .024 .024	3,000	0.000	2,564 .024 .024	3,100 .024	3,100 .024	2,564 .024 .024	.024	.024	13.00	13.00		MILLER PR 8140 360 65 H -0	
4,253 .090 .090	3,863 .250 .250	3,000	0.000	3,863 .250 .250	4,000 .250	4,000 .250	3,863 .250 .250	.250	.250	7.00	7.00		DAHL PR 163 1377 67 H -0	
5,290 .081 .081	3,863 .250 .250	3,000	0.000	3,863 .250 .250	4,000 .250	4,000 .250	3,863 .250 .250	.250	.250	13.00	13.00		DAHL PR 163 1377 67 H -0	
6,320 0.000 0.000	4,862 0.000 0.000			5,000 0.000 0.000			5,000 0.000 0.000			2.40	1.20		WEISBA KIEVCONF 70 H -0	

01/10/71 REACTION 110 PI+ P = Y(13p5) K0 K0

N	ECHS	DE+	DF-	T LAB	DT+	DT-	PLAB	DP+	DP-	SIGMA	DS+	DS-	REFERENCE	COM
1,883				1,270			1,403			THRESHOLD				

2,110
2,690
2,200

.018 .018 .016

3,225
3,63
3,833
3,833

.050 .050 .050 .050

2,361
2,200
.050
4,000

THRESHOLD
.050
.050
.050

0.00
0.00
0.00

1.40
2.40
2.40

UAMH
DAHL
DAHL

PR 163
PR 163
PR 163

1377 67 H 0
1377 67 H 0
1377 67 H 0

01/10/71
REACTION 106
PI+ -> Y(1335) + K+

N	ECHS	DE+	DF-	TLAB	DT+	PLAB	DP+	CP+	SIGMA	DS+	REFERENCE	COM
1	1,89	.108	.108	1,262	1,395	THRESHOLD						
2	2,466	0.000	0.000	2,864	0.000	0.000	3,000	-0.000	11.00	5.00	WANGLE	PR 8137 44 65 H 0

01/10/71
REACTION 107
PI+ -> Y(1335) + K+ + L + K + PI+

N	ECHS	DE+	DF-	TLAB	DT+	PLAB	DP+	CP+	SIGMA	DS+	REFERENCE	COM
1	1,479	.108	.108	1,262	1,395	THRESHOLD						
2	2,119	.011	.011	1,865	.249	2,000	.250	.250	42.00	4.00	DAHL	PR 163 1377 67 H 0
3	2,444	.011	.011	2,028	.028	2,700	.028	.028	16.00	3.00	MILLER	PR 8140 340 65 H 0
4	2,593	.000	.000	2,964	.250	3,100	.250	.250	5.00	1.00	DAHL	PR 163 1377 67 H 0
5	2,900	.001	.001	3,863	.250	4,000	.250	.250	1.50	1.90	DAHL	PR 163 1377 67 H 0
6	3,207	0.000	0.000	4,862	0.000	0.000	5,000	-0.000	2.40	1.20	WEISBA	KIEVENOF 70 H 0

01/10/71
REACTION 108
PI+ -> Y(1335) + K0

N	ECHS	DE+	DF-	TLAB	DT+	PLAB	DP+	CP+	SIGMA	DS+	REFERENCE	COM
1	1,883	1,270	1,420	1,403	THRESHOLD							
2	2,586	0.000	0.000	2,864	0.000	0.000	3,000	-0.000	18.00	11.00	WANGLE	PR 8137 44 65 H 0
3	2,905	0.000	0.000	2,861	0.000	0.000	25,000	-0.000	3.00	3.00	WATERS	THESSIC 69 H 0

01/10/71
REACTION 109
PI+ -> Y(1335) + K0 + L + K0 + PI0

N	ECHS	DE+	DF-	TLAB	DT+	PLAB	DP+	CP+	SIGMA	DS+	REFERENCE	COM
1	1,883	.005	.005	1,270	1,403	THRESHOLD						
2	1,934	.005	.005	1,375	.011	1,508	.011	.011	10.00	11.00	CURTIS	PR 132 1771 63 S 1
3	2,159	.108	.108	1,665	.249	2,000	.250	.250	61.00	10.00	DAHL	PR 163 1377 67 H 0
4	2,593	.003	.003	2,964	.250	3,100	.250	.250	12.00	13.00	MILLER	PR 8140 340 65 H 0
5	2,900	.001	.001	3,863	.250	4,000	.250	.250	7.00	7.00	DAHL	PR 163 1377 67 H 0
6	3,207	0.000	0.000	4,862	0.000	0.000	5,000	-0.000	12.00	5.40	WEISBA	KIEVENOF 70 H 0

01/10/71
REACTION 110
PI+ -> Y(1335) K(1400)0

N	ECHS	DE+	DF-	TLAB	DT+	PLAB	DP+	CP+	SIGMA	DS+	REFERENCE	COM
1	1,883	1,110	1,110	1,110	1,110	THRESHOLD						

N	ECOS	UF*	JF*	T LAB	DT*	PLAB	DP*	DP+	SIGMA	LS*	Ds*	REFERENCE	COR
2.705	3.514			1.310		1.443			3.00	-0.00	+0.00	MATERS THEMISC	69 h 18
1.615	0.000	0.000	24.881	0.000	0.000	25.000	-0.000						
014071	REACTION	111		P1 = $\sigma \times Y(140)$ X0									
N	ECOS	UF*	JF*	T LAB	DT*	PLAB	DP*	DP+	SIGMA	LS*	Ds*	REFERENCE	COR
1.903	1.310			1.443		1.443							
2.2553	1.08	1.08	1.08	1.865	1.249	2.000	1.050		21.00	4.70	4.70	DAHL	P 163 1377 67 h -0
2.2553	0.95	0.95	0.95	2.964	1.250	2.20	1.250		37.40	3.70	3.70	DAHL	P 163 1377 67 h -0
3.2900	0.81	0.81	0.81	3.863	1.250	4.000	1.250		30.50	4.00	4.00	DAHL	P 163 1377 67 h -0
4.3267	0.70	0.70	0.70	4.862	1.250	5.000	1.000		23.20	4.00	4.00	KIEV DNF	P 163 1377 67 h -0
5.6915	0.50	0.50	0.50	5.862	1.000	6.000	0.000		24.00	4.80	4.80	KIEV DNF	P 163 1377 67 h -0
				24.861	0.000	25.000	0.000		24.00	-0.00	-0.00	MATERS THEMISC	69 h 18
014071	REACTION	112		P1 = $\sigma \times Y(140)$ X0 = ($S P1$) X0									
N	ECOS	UF*	JF*	T LAB	DT*	PLAB	DP*	DP+	SIGMA	LS*	Ds*	REFERENCE	COR
1.903	1.310			1.443		1.443							
2.2553	1.08	1.08	1.08	1.865	1.249	2.000	1.050		21.00	4.70	4.70	DAHL	P 163 1377 67 h -0
2.2553	0.95	0.95	0.95	2.964	1.250	2.20	1.250		37.40	3.70	3.70	DAHL	P 163 1377 67 h -0
3.2900	0.81	0.81	0.81	3.863	1.250	4.000	1.250		30.50	4.00	4.00	DAHL	P 163 1377 67 h -0
4.3267	0.70	0.70	0.70	4.862	1.250	5.000	1.000		23.20	4.00	4.00	KIEV DNF	P 163 1377 67 h -0
5.6915	0.50	0.50	0.50	5.862	1.000	6.000	0.000		24.00	4.80	4.80	KIEV DNF	P 163 1377 67 h -0
				24.861	0.000	25.000	0.000		24.00	-0.00	-0.00	MATERS THEMISC	69 h 18
014071	REACTION	113		P1 = $\sigma \times Y(140)$ X0 = ($S P1$) / $S_0 P1$ X0									
N	ECOS	UF*	JF*	T LAB	DT*	PLAB	DP*	DP+	SIGMA	LS*	Ds*	REFERENCE	COR
1.903	1.310			1.443		1.443							
1.2444	0.11	0.11	0.11	2.564	1.248	2.700	1.248		37.40	4.00	4.00	MILLER	P 6140 160 05 h -0
014071	REACTION	114		P1 = $\sigma \times Y(140)$ X0 = $S P1$ X0									
N	ECOS	UF*	JF*	T LAB	DT*	PLAB	DP*	DP+	SIGMA	LS*	Ds*	REFERENCE	COR
1.903	1.310			1.443		1.443							
1.2444	0.10	0.10	0.10	2.612	0.900	2.750	0.900		20.00	-0.00	-0.00	GROUSSE	NC 4.47 363 67 h -0
014071	REACTION	115		P1 = $\sigma \times Y(152)$ X0									
N	ECOS	UF*	JF*	T LAB	DT*	PLAB	DP*	DP+	SIGMA	LS*	Ds*	REFERENCE	COR

N	ECMS	DE+	DE-	T LAB	DT+	DT-	PLAB	DP+	DP-	SIGMA	DS+	REFERENCE	COM
2.019		1.525		1.685									
1.2159	.118	.118	1.805	.249	2.000	.250	.250	.250	.250	6.00	6.00	DAHL PR 163 1377 67 H 0	
2.2556	.000	.000	2.0264	0	0.00	0.00	0.00	0.00	0.00	20.00	20.00	MANGLE PR 8137 44 65 H 0	
2.2553	.000	.000	2.1904	.250	2.100	.250	.250	.250	.250	7.00	7.00	DAHL PR 163 1377 67 H 0	
3.2593	.000	.000	2.1904	.250	2.100	.250	.250	.250	.250	7.00	7.00	DAHL PR 163 1377 67 H 0	
4.2600	.001	.001	3.8661	.250	.250	4.000	.250	.250	.250	28.00	7.00	DAHL PR 163 1377 67 H 0	

01/10/71 REACTION 116 PI = P = Y(1520) KU = ((P / N) AK) K0

N	ECMS	DE+	DE-	T LAB	DT+	DT-	PLAB	DP+	DP-	SIGMA	DS+	REFERENCE	COM
2.018		1.551		1.685									
1.2159	.118	.118	1.685	.249	2.000	.250	.250	.250	.250	20.00	5.00	DAHL PR 163 1377 67 H 0	
2.2553	.000	.000	2.964	.250	2.250	.250	.250	.250	.250	24.20	5.00	DAHL PR 163 1377 67 H 0	
3.2590	.000	.001	3.681	.250	2.250	.250	.250	.250	.250	22.20	6.00	DAHL PR 163 1377 67 H 0	

01/10/71 REACTION 117 PI = P = Y(1520) KU = (S PI / P K0) K0

N	ECMS	DE+	DE-	T LAB	DT+	DT-	PLAB	DP+	DP-	SIGMA	DS+	REFERENCE	COM
2.018		1.551		1.685									
1.2444	.011	.011	2.564	.028	.028	2.700	.028	.028	.028	42.00	7.00	MILLER PR 8140 360 65 H 0	
2.2553	.000	.000	3.8661	.000	.000	4.000	.000	.000	.000	6.00	6.00	KIEVCONF 70 H 0	

01/10/71 REACTION 118 PI = P = Y(1520) KU = (S PI) K0

N	ECMS	DE+	DE-	T LAB	DT+	DT-	PLAB	DP+	DP-	SIGMA	DS+	REFERENCE	COM
2.018		1.551		1.685									
1.2159	.108	.108	1.805	.249	2.000	.250	.250	.250	.250	23.70	2.70	DAHL PR 163 1377 67 H 0	
2.2553	.000	.000	2.1904	.250	2.100	.250	.250	.250	.250	18.70	2.10	DAHL PR 163 1377 67 H 0	
3.2593	.000	.001	3.863	.250	3.000	.250	.250	.250	.250	34.00	3.60	DAHL PR 163 1377 67 H 0	
4.2600	.000	.001	4.862	0	0.00	0.00	0.00	0.00	0.00	3.70	2.00	KIEVCONF 70 H 0	

01/10/71 REACTION 119 PI = P = Y(1520) KU = (S PI) K0

N	ECMS	DE+	DE-	T LAB	DT+	DT-	PLAB	DP+	DP-	SIGMA	DS+	REFERENCE	COM
2.018		1.551		1.685									
1.2159	.118	.118	1.805	.249	2.000	.250	.250	.250	.250	23.70	2.70	DAHL PR 163 1377 67 H 0	
2.2553	.000	.000	2.1904	.250	2.100	.250	.250	.250	.250	18.70	2.10	DAHL PR 163 1377 67 H 0	
3.2593	.000	.001	3.863	.250	3.000	.250	.250	.250	.250	34.00	3.60	DAHL PR 163 1377 67 H 0	
4.2600	.000	.001	4.862	0	0.00	0.00	0.00	0.00	0.00	3.70	2.00	KIEVCONF 70 H 0	

01/10/71 REACTION 120 PI = P = Y(1520) KU = (S PI) K0

N	ECMS	DE+	DE-	T LAB	DT+	DT-	PLAB	DP+	DP-	SIGMA	DS+	REFERENCE	COM
2.018		1.685		2.020									
1.2159	.020	.020	2.165	.050	.050	2.300	.050	.050	.050	22.00	* 0.00	DHLL PR 163 1377 67 H 0	
2.2553	.000	.000	3.863	.050	.050	4.000	.050	.050	.050	5.00	5.00	DHLL PR 163 1377 67 H 0	
3.2593	.000	.001	4.862	0	0.00	0.00	0.00	0.00	0.00	3.70	2.00	KIEVCONF 70 H 0	

01/10/71 REACTION 121 PI = P = Y(1520) KU = (N / P K) K0

N	ECMS	DE+	DE-	T LAB	DT+	DT-	PLAB	DP+	DP-	SIGMA	DS+	REFERENCE	COM
2.018		1.685		2.020									
1.2159	.020	.020	2.165	.050	.050	2.300	.050	.050	.050	22.00	* 0.00	DHLL PR 163 1377 67 H 0	
2.2553	.000	.000	3.863	.050	.050	4.000	.050	.050	.050	5.00	5.00	DHLL PR 163 1377 67 H 0	
3.2593	.000	.001	4.862	0	0.00	0.00	0.00	0.00	0.00	3.70	2.00	KIEVCONF 70 H 0	

REACTION 121											
N	ECHS	DE+	UF-	TLAB	DT+	PLAB	DP+	SIGMA	DS+	DS*	REFERENCE
2	2.318	.090	.010	2.244	.250	.250	.250	2.379	THRESHOLD	2.00	DAHL PR 163 1377 67 H -0
1	2.553	.081	.001	2.968	.250	.250	.250	2.500	THRESHOLD	6.00	DAHL PR 163 1377 67 H -0
2	2.000	.081	.001	3.663	.250	.250	.250	20.100	20.100	6.00	DAHL PR 163 1377 67 H -0

01/10/71											
REACTION 122											
N	ECHS	DE+	UF-	TLAB	DT+	PLAB	DP+	SIGMA	DS+	DS*	REFERENCE
2	0.65	1.653	1.7d7	1.7d7	1.7d7	1.7d7	1.7d7	20.000	0.000	240.00	BALEA KRP S 587 7n H -0
1	6.09 0.000	0.000	19.061	0.000	0.000	0.000	0.000	560.00	0.000	560.00	BALEA KRP S 587 7n H -0

01/10/71											
REACTION 122											
N	ECHS	DE+	UF-	TLAB	DT+	PLAB	DP+	SIGMA	DS+	DS*	REFERENCE
2	0.73	1.672	1.806	1.806	1.806	1.806	1.806	25.000	-0.000	52.00	WATERS THESIS 69 H -0
1	6.915 0.000	0.000	24.861	0.000	0.000	0.000	0.000	52.00	5.00	5.60	WATERS THESIS 69 H -0

01/10/71											
REACTION 123											
N	ECHS	DE+	UF-	TLAB	DT+	PLAB	DP+	SIGMA	DS+	DS*	REFERENCE
1	893	1.290	1.423	1.423	1.423	1.423	1.423	25.000	-0.000	64.20	WATERS THESIS 69 H -0
1	6.015 0.000	0.000	24.561	0.000	0.000	0.000	0.000	64.20	11.00	11.00	WATERS THESIS 69 H -0

01/10/71											
REACTION 124											
N	ECHS	DE+	UF-	TLAB	DT+	PLAB	DP+	SIGMA	DS+	DS*	REFERENCE
2	1.65	1.655	1.789	1.789	1.789	1.789	1.789	THRESHOLD	3.00	2.00	2.00 DAHL PR 163 1377 67 H -0
1	2.009	.019	.019	2.474	.030	.030	.030	2.610	.070	12.00	DAHL PR 163 1377 67 H -0
2	2.444	.011	.011	2.564	.028	.028	.028	2.700	.078	12.00	DAHL PR 163 1377 67 H -0
3	2.595	.013	.013	2.724	.050	.050	.050	2.860	.070	21.00	DAHL PR 163 1377 67 H -0
4	2.556	0.000	0.000	2.864	0.000	0.000	0.000	3.000	-0.000	0.000	MANGEL PR 8137 67 H -0
5	2.960	.018	.018	2.874	.050	.050	.050	3.010	.070	25.00	DAHL PR 163 1377 67 H -0
6	2.004	.090	.090	2.994	.250	.250	.250	3.110	.070	13.00	DAHL PR 163 1377 67 H -0
7	2.004	.090	.090	2.994	.250	.250	.250	3.110	.070	27.00	DAHL PR 163 1377 67 H -0
8	2.064	.018	.018	3.071	.050	.050	.050	3.210	.070	10.00	DAHL PR 163 1377 67 H -0
9	2.000	0.000	0.000	3.175	.050	.050	.050	3.390	.070	10.00	DAHL PR 163 1377 67 H -0
10	2.051	.016	.016	3.063	0.000	0.000	0.000	4.000	-0.000	-0.000	BARTH SC NC 443 1377 67 H -0
11	3.003	.051	.051	4.023	.050	.050	.050	4.160	.050	13.00	DAHL PR 163 1377 67 H -0
12	2.007	0.000	0.000	4.062	0.000	0.000	0.000	4.650	.170	17.00	BERTAN PR 130 786 63 H -0
13	5.595	0.000	0.000	16.061	0.000	0.000	0.000	5.000	-0.000	-0.000	KIEVCONF 70 H -0
14	5.568	0.000	0.000	18.361	0.000	0.000	0.000	16.200	-0.000	-0.000	DEUTSC CERN DPH 43 70 H -0
15	5.568	0.000	0.000	18.361	0.000	0.000	0.000	18.360	-0.000	-0.000	HARRIN KIEVCONF 70 H -0

01/10/71 REACTION 125 PI= p K⁺ K₀ PI⁻

N	ECMS	DE+	DE-	T LAB	DT+	DT-	PLAB	DP+	DP-	SIGMA	DS+	DS-	REFERENCE	COM
1	2.085	.021	.021	1.915	.050	.050	2.050	.050	.050	1.787	THRESHOLD		DALI PR 161 177 07 H =0	
2	2.019	.019	.021	2.005	.050	.050	2.140	.050	.050	1.750	1.10	1.10	DALI PR 163 177 07 H =0	
3	2.019	.019	.019	2.474	.050	.050	2.610	.050	.050	4.500	4.60	4.60	DALI PR 163 177 07 H =0	
4	2.444	.011	.011	2.164	.028	.028	2.000	.028	.028	12.00	5.00	5.00	MILLER PR 614n 360 65 H =0	
5	2.463	.009	.009	2.114	.014	.014	2.000	.014	.014	30.00	10.00	10.00	GUSSI NC A47 183 67 H =0	
6	2.556	.019	.019	2.724	.050	.050	2.860	.050	.050	10.00	10.00	10.00	MANDLE PR 163 177 67 H =0	
7	2.556	.009	.009	2.864	.009	.009	3.000	.009	.009	32.00	11.00	11.00	MANDLE PR 163 177 44 H =0	
8	2.560	.018	.018	2.874	.050	.050	3.010	.050	.050	28.00	7.00	7.00	DALI PR 163 177 67 H =0	
9	2.694	.090	.090	2.994	.250	.250	3.130	.250	.250	23.00	5.00	5.00	DALI PR 163 177 67 H =0	
10	2.632	.018	.018	3.073	.050	.050	3.210	.050	.050	35.00	5.00	5.00	DALI PR 163 177 67 H =0	
11	2.684	.016	.016	3.175	.050	.050	3.890	.050	.050	35.00	8.00	8.00	DALI PR 163 177 67 H =0	
12	2.960	.000	.000	3.865	.000	.000	4.000	-0.000	-0.000	64.00	21.00	21.00	HARTSC PR 143 101 66 H =0	
13	2.951	.016	.016	4.023	.050	.050	4.160	.050	.050	75.00	20.00	20.00	DALI PR 163 177 67 H =0	
14	3.103	.051	.051	4.512	.170	.170	4.650	.170	.170	90.00	-0.00	-0.00	HERMAN PR 130 786 63 H =0	
15	3.200	.000	.000	4.662	.000	.000	5.000	-0.000	-0.000	98.00	9.00	9.00	KELWANF PR 163 177 67 H =0	
16	4.882	.000	.000	11.166	.000	.000	11.200	-0.000	-0.000	70.00	11.00	11.00	PELUSI VIECHNF PR 163 177 67 H =0	
17	5.595	.000	.000	16.161	.000	.000	16.200	-0.000	-0.000	49.00	6.00	6.00	DEUTSC CERN NPAH 43 7n H =0	

***** 01/10/71 REACTION 126 PI= p K⁺ K₀ Z0

N	ECMS	DE+	DE-	T LAB	DT+	DT-	PLAB	DP+	DP-	SIGMA	DS+	DS-	REFERENCE	COM
1	2.200	.011	.011	1.960	.028	.028	2.700	.028	.028	2.095	THRESHOLD		MILLER PR b14n 360 65 H =0	
2	2.444	.011	.011	2.564	.028	.028	2.700	.028	.028	2.095	THRESHOLD		MILLER PR b14n 360 65 H =0	

***** 01/10/71 REACTION 127 PI= p K⁺ K₀ PI⁺

N	ECMS	DE+	DE-	T LAB	DT+	DT-	PLAB	DP+	DP-	SIGMA	DS+	DS-	REFERENCE	COM
1	2.073	1.672	1.806	1.806	THRESHOLD								HARTSC NC 143 101 66 H =0	
2	2.800	0.000	0.000	3.863	0.000	0.000	4.000	0.000	0.000	21.00	14.00	14.00	HARTSC NC 143 101 66 H =0	
3	3.103	0.051	0.051	4.512	0.170	0.170	4.650	0.170	0.170	20.00	-0.00	-0.00	HERMAN PR 150 786 63 H =0	
4	3.207	0.000	0.000	4.862	0.000	0.000	5.000	0.000	0.000	21.00	1.00	1.00	BUDIG KIELCNAF PR 163 177 67 H =0	
5	3.236	0.02	0.02	4.962	0.100	0.100	5.100	0.100	0.100	21.00	9.00	9.00	BUDIG KIELCNAF PR 163 177 67 H =0	
6	3.970	0.000	0.000	7.782	0.000	0.000	7.920	-0.000	-0.000	41.00	*0.00	*0.00	ERHIC PR 152 1194 66 H =0	
7	7.462	0.000	0.000	11.061	0.000	0.000	11.200	-0.000	-0.000	48.00	15.00	15.00	PELUSI VIENCNF PR 163 177 67 H =0	
8	5.595	0.000	0.000	16.061	0.000	0.000	16.200	-0.000	-0.000	57.00	14.00	14.00	DEUTSC CERN NPAH 43 7n H =0	

***** 01/10/71 REACTION 128 PI= p K⁺ KS PI⁺

N	ECMS	DE+	DE-	T LAB	DT+	DT-	PLAB	DP+	DP-	SIGMA	DS+	DS-	REFERENCE	COM
1	2.073	1.672	1.806	1.806	THRESHOLD								HARTSC NC 143 101 66 H =0	
2	2.800	0.000	0.000	3.863	0.000	0.000	4.000	0.000	0.000	21.00	14.00	14.00	HARTSC NC 143 101 66 H =0	
3	3.103	0.051	0.051	4.512	0.170	0.170	4.650	0.170	0.170	20.00	-0.00	-0.00	HERMAN PR 150 786 63 H =0	
4	3.207	0.000	0.000	4.862	0.000	0.000	5.000	0.000	0.000	21.00	1.00	1.00	BUDIG KIELCNAF PR 163 177 67 H =0	
5	3.236	0.02	0.02	4.962	0.100	0.100	5.100	0.100	0.100	21.00	9.00	9.00	BUDIG KIELCNAF PR 163 177 67 H =0	
6	3.970	0.000	0.000	7.782	0.000	0.000	7.920	-0.000	-0.000	41.00	*0.00	*0.00	ERHIC PR 152 1194 66 H =0	
7	7.462	0.000	0.000	11.061	0.000	0.000	11.200	-0.000	-0.000	48.00	15.00	15.00	PELUSI VIENCNF PR 163 177 67 H =0	
8	5.595	0.000	0.000	16.061	0.000	0.000	16.200	-0.000	-0.000	57.00	14.00	14.00	DEUTSC CERN NPAH 43 7n H =0	

REACTION 129											
PI = P * P K S K L PI*											
N	ECS	DE+	UF-	T LAB	NT+	DT+	PLAB	DP+	SIGMA	DS*	REFERENCE
01/10/71											
2.073	1.049	.019	.010	1.672	.050	.050	1.806	.050	2.10	1.60	DALI, PR 163 1377 67 H 0
2.2144	.011	.011	.011	2.1564	.028	.028	2.610	.028	4.00	2.00	MILLER PR 0140 360 65 H 0
2.2560	0.000	0.000	0.000	2.864	0.000	0.000	3.000	-0.028	10.00	5.00	MANGEL PR 0137 414 65 H 0
4.2560	0.018	.018	.018	2.874	.050	.050	3.010	.050	4.00	2.00	DALI, PR 163 1377 67 H 0
5.2604	.018	.018	.018	2.994	.250	.250	3.130	.250	7.00	2.00	DALI, PR 163 1377 67 H 0
6.2632	.018	.018	.018	3.073	.050	.050	3.210	.050	8.60	2.10	DALI, PR 163 1377 67 H 0
7.2864	.016	.016	.016	3.753	.050	.050	3.890	.050	12.00	4.00	DALI, PR 163 1377 67 H 0
8.2900	0.000	0.000	0.000	3.863	0.000	0.000	4.000	-0.000	26.00	9.00	BARTSC NC A43 1010 66 H 0
9.2951	.016	.016	.016	4.023	.050	.050	4.160	.050	1.00	5.00	DALI, PR 163 1377 67 H 0
10.595	0.000	0.000	0.000	16.061	0.000	0.000	16.200	-0.000	24.00	5.00	DEUTSC CERN NPH 43 70 H 0

REACTION 130											
PI = P * P K (P90) - K0											
N	ECS	DE+	UF-	T LAB	NT+	DT+	PLAB	DP+	SIGMA	DS*	REFERENCE
01/10/71											
2.073	1.021	.021	.021	2.005	.050	.050	2.140	.050	2.50	2.20	DALI, PR 163 1377 67 H 0
2.2219	.019	.019	.019	2.474	.050	.050	2.610	.050	3.10	1.40	DALI, PR 163 1377 67 H 0
3.244	.011	.011	.011	2.564	.028	.028	2.700	.028	2.00	2.00	MILLER PR 0140 360 65 H 0
4.2205	.011	.011	.011	2.724	.050	.050	2.860	.050	9.00	2.00	DALI, PR 163 1377 67 H 0
5.2556	0.000	0.000	0.000	2.844	0.000	0.000	3.000	-0.000	10.00	5.00	MANGEL PR 0137 414 65 H 0
6.2550	.018	.018	.018	2.874	.050	.050	3.130	.050	11.00	4.00	DALI, PR 163 1377 67 H 0
7.210	.090	.090	.090	2.994	.250	.250	3.130	.250	12.00	4.00	DALI, PR 163 1377 67 H 0
8.2342	.018	.018	.018	3.073	.050	.050	3.210	.050	14.20	2.70	DALI, PR 163 1377 67 H 0
9.2864	.016	.016	.016	3.753	.050	.050	3.890	.050	37.00	6.00	DALI, PR 163 1377 67 H 0
10.2900	0.000	0.000	0.000	3.863	0.000	0.000	4.000	-0.000	20.00	10.00	BARTSC NC A43 1010 66 H 0
11.2951	.015	.015	.015	4.023	.050	.050	4.160	.050	1.00	5.00	DALI, PR 163 1377 67 H 0
12.595	0.000	0.000	0.000	16.061	0.000	0.000	16.200	-0.000	9.00	10.00	DEUTSC CERN NPH 43 70 H 0

REACTION 131											
PI = P * P K (K80) / AK K18901)											
N	ECS	DE+	UF-	T LAB	NT+	DT+	PLAB	DP+	SIGMA	DS*	REFERENCE
01/10/71											
2.126	2.264	2.264	2.264	2.400	-0.000	0.000	2.400	-0.000	13.00	9.00	WATERS THEESIS 69 H 0
1.615	0.000	0.000	0.000	24.461	0.000	0.000	25.000	-0.000	22.00	6.00	DALI, PR 163 1377 67 H 0
2.126	.090	.090	.090	2.964	.250	.250	3.100	.250	22.00	6.00	DALI, PR 163 1377 67 H 0
2.200	.081	.081	.081	3.063	.250	.250	3.210	.250	20.00	9.00	HEISBA KLEVCNF 7n H 0
3.3107	0.000	0.000	0.000	4.462	0.000	0.000	5.000	-0.000	24.00	7.00	DEUTSC CERN NPH 43 70 H 0

COM

REFERENCE

COM

2,36	ECHS	DE+	TLAB	DT+	PLAB	DP+	DP+	SIGMA	US+	DS+	REFERENCE
1,2900	0,000	0,000	2,064	0,000	2,000	4,000	-0,000	103,00	46,00	66,00	BARTSC NC A43 1010 66 H -n

***** 01/10/71 REACTION 133 P1+ p = (p / N) K(BY0)(*,0) AK = (p / N) K AR PI

COM

REFERENCE

COM

2,372	ECHS	DE+	TLAB	DT+	PLAB	DP+	DP+	SIGMA	US+	DS+	REFERENCE
1,2916	0,000	0,000	2,255	0,000	2,390	4,000	-0,000	85,00	36,00	36,00	BARTSC NC A43 1010 66 H -n

***** 01/10/71 REACTION 134 P1+ p = N K+ K0 PI+

COM

REFERENCE

COM

2,071	ECHS	DE+	TLAB	DT+	PLAB	DP+	DP+	SIGMA	US+	DS+	REFERENCE
1,2150	0,022	0,022	1,666	0,050	1,600	0,050	0,050	1,30	1,30	1,30	DAHL PR 163 1377 67 H -n
1,2151	0,041	0,021	1,615	0,050	1,550	0,050	0,050	7,3	7,3	7,3	DAHL PR 163 1377 67 H -n
3,2449	0,049	0,019	2,474	0,050	2,610	0,050	0,050	16,00	4,80	4,80	DAHL PR 163 1377 67 H -n
3,2444	0,041	0,011	2,664	0,028	2,028	0,028	0,028	20,00	7,00	7,00	MILLER PR 163 1377 67 H -n
5,2443	0,043	0,009	0,000	2,614	0,000	0,000	0,000	20,00	7,00	7,00	GOUSSU NC A47 303 65 H -n
6,2442	0,019	0,000	0,000	2,724	0,050	2,660	0,050	0,050	39,00	13,00	DAHL PR 163 1377 67 H -n
7,2452	0,016	0,000	2,864	0,000	3,000	0,000	0,000	7,00	5,00	5,00	WANG LF PR 163 1377 67 H -n
8,2500	0,024	0,024	2,814	0,050	3,110	0,050	0,050	37,00	8,00	8,00	DAHL PR 163 1377 67 H -n
9,2504	0,019	0,004	2,994	0,050	3,130	0,050	0,050	31,00	6,00	6,00	DAHL PR 163 1377 67 H -n
10,2642	0,018	0,004	3,073	0,050	3,120	0,050	0,050	45,00	6,00	6,00	DAHL PR 163 1377 67 H -n
11,2664	0,016	0,005	3,753	0,050	3,480	0,050	0,050	74,00	16,00	16,00	DAHL PR 163 1377 67 H -n
12,2900	0,000	0,000	3,868	0,000	4,000	0,000	0,000	78,00	23,00	23,00	BARTSC NC A43 1010 66 H -n
13,2951	0,016	0,016	4,023	0,050	4,160	0,050	0,050	61,00	12,00	12,00	DAHL PR 163 1377 67 H -n
14,3103	0,011	0,011	4,512	0,170	4,650	0,170	0,170	70,00	12,00	12,00	BERTAN PR 130 786 63 H -n
15,3207	0,000	0,000	4,862	0,000	5,000	0,000	0,000	76,40	9,00	9,00	HELSBA KIEVCRN DEUTSC CERN DPH 43 70 H -n
16,5555	0,000	0,000	16,001	0,000	16,200	0,000	0,000	27,00	4,00	4,00	DEUTSC CERN DPH 43 70 H -n

***** 01/10/71 REACTION 135 P1+ p = N K+ K0 PI+

COM

REFERENCE

COM

2,071	ECHS	DE+	TLAB	DT+	PLAB	DP+	DP+	SIGMA	US+	DS+	REFERENCE
1,2071	0,019	0,019	1,666	0,050	1,800	0,050	0,050	14,00	4,40	4,40	DAHL PR 163 1377 67 H -n
2,2244	0,011	0,011	2,564	0,028	2,700	0,028	0,028	9,00	2,00	2,00	MILLER PR 163 1377 67 H -n
3,2463	0,000	0,000	2,611	0,000	2,750	0,000	0,000	21,00	7,00	7,00	GOUSSU NC A43 1010 66 H -n
4,2550	0,019	0,019	2,724	0,050	2,860	0,050	0,050	21,00	9,00	9,00	DAHL PR 163 1377 67 H -n
5,2556	0,000	0,000	2,864	0,000	3,000	0,000	0,000	31,00	8,00	8,00	WANGLE PR 163 1377 67 H -n
6,2560	0,018	0,018	2,874	0,050	3,030	0,050	0,050	31,00	7,00	7,00	DAHL PR 163 1377 67 H -n
7,2642	0,013	0,013	2,994	0,050	3,130	0,050	0,050	23,00	5,00	5,00	DAHL PR 163 1377 67 H -n
8,2700	0,013	0,013	3,753	0,050	3,860	0,050	0,050	71,00	14,00	14,00	BARTSC NC A43 1010 66 H -n
9,2751	0,016	0,016	3,863	0,050	4,000	0,050	0,050	91,00	21,00	21,00	DANL PR 163 1377 67 H -n
10,2900	0,000	0,000	4,023	0,050	4,160	0,050	0,050	69,00	13,00	13,00	DANL PR 163 1377 67 H -n

REACTION 136											
$P_{\pi^+} = N \bar{K} K \bar{D} P_{\pi^0}$											
N	ECMS	DE+	DE-	TLAB	DT+	PLAB	DP+	SIGMA	DS*	DS*	REFERENCE
12	3.163	.051	4.512	.170	4.650	.170	90.00	*0.00	*0.00	BERTAN	PR 130 786 63 H *0
13	3.077	0.000	4.082	0.000	5.000	-0.000	23.00	8.00	8.00	NEISBA	KLEVONF 70 H *0
14	3.956	0.000	4.000	0.000	4.6200	-0.0000	33.00	4.00	4.00	DEUTSC	CERN DPH 43 70 H *0

REACTION 137											
$P_{\pi^+} = N \bar{K} K \bar{D} 70$											
N	ECMS	DE+	DE-	TLAB	DT+	PLAB	DP+	SIGMA	DS*	DS*	REFERENCE
2	2.070	1.665	1.799	THRESHOLD							COM
1	5.236	.029	.020	4.962	.100	5.000	.100	14.00	18.00	18.00	BUDAGI KLEVONF 70 P *0

REACTION 138											
$P_{\pi^+} = N \bar{K} S \bar{K} \bar{P} \bar{n}$											
N	ECMS	DE+	DE-	TLAB	DT+	PLAB	DP+	SIGMA	DS*	DS*	REFERENCE
2	2.205	1.973	2.108	THRESHOLD							COM
1	2.900	.019	3.063	.060	4.000	.060	140.00	30.40	30.00	HANNIK	DUBNIAK 68 P *0
2	2.900	0.000	3.063	0.000	4.000	0.000	143.00	96.00	43.00	BARTSC	NC A43 1010 66 H *0
3	3.970	0.000	3.782	0.000	7.920	-0.0000	72.00	-0.00	*0.00	ERHLIC	PR 152 1194 66 H *0

REACTION 139											
$P_{\pi^+} = N \bar{D} = N (\bar{K} \bar{P}_{\pi^+} / \bar{K} \bar{P}_{\pi^+}) \bar{K} \bar{0}$											
N	ECMS	DE+	DE-	TLAB	DT+	PLAB	DP+	SIGMA	DS*	DS*	REFERENCE
2	1.250	1.465	1.799	THRESHOLD							COM
1	2.576	0.000	2.664	0.000	3.000	-0.0000	6.000	17.00	7.00	7.00	MANGLE PR 6437 414 65 H *0

REACTION 140											
$P_{\pi^+} = N (\bar{K} \bar{P}_{\pi^+} / \bar{K} \bar{P}_{\pi^+}) \bar{K} \bar{0}$											
N	ECMS	DE+	DE-	TLAB	DT+	PLAB	DP+	SIGMA	DS*	DS*	REFERENCE
2	3.350	2.348	2.684	THRESHOLD							COM
1	2.533	.090	2.964	.250	.250	3.100	.250	17.00	5.00	5.00	DAHL PR 163 1377 67 H *0

2 2.900 .081 .061 3.863 .250 .250 4,000 .250 3,00 2,00 2,00 DAHL PR 163 1377 67 H *0

01/10/71 PI = P + N F(150) = N (K PI) K0
REACTION 141

N	ECMS	DE*	UF*	T LAB	NT*	DT*	PLAB	DP*	DP*	SIGMA	DS*	DS*	REFERENCE	COM
2.454				2.589		2.725	THRESHOLD						DAHL PR 163 1377 67 H *0	
1 2.593 .090 .090 2.984 .250 .250 3,100 .250 3,00 0,00 1,00 1,00 DAHL PR 163 1377 67 H *0														
2 2.500 .081 .081 3.863 .250 .250 4,000 .250 3,00 0,00 1,50 1,50 DAHL PR 163 1377 67 H *0														

01/10/71 PI = P + N (K AK(890) / AK (K890)) K0
REACTION 142

N	ECMS	DE*	DF*	T LAB	NT*	DT*	PLAB	DP*	DP*	SIGMA	DS*	DS*	REFERENCE	COM
2.323				2.258		2.393	THRESHOLD						DAHL PR 163 1377 67 H *0	
1 2.593 .090 .090 2.964 .250 .250 3,100 .250 3,00 0,00 8,00 8,00 DAHL PR 163 1377 67 H *0														
2 2.500 .081 .081 3.863 .250 .250 4,000 .250 3,00 1,50 1,50 DAHL PR 163 1377 67 H *0														
3 3.500 .080 .080 4.862 0.000 0.000 5,000 .0000 5,000 0,000 5,00 5,00 WEISBA KIEVCONF														

01/10/71 PI = P + Y K(1175) = Y K PI PI
REACTION 143

N	ECMS	DE*	DF*	T LAB	NT*	DT*	PLAB	DP*	DP*	SIGMA	DS*	DS*	REFERENCE	COM
2.291				2.177		2.313	THRESHOLD						MILLER PL 15 74 65 H *0	
1 2.444 .019 .019 2.564 .050 .050 2,700 .050 ,050 20,00 10,00 10,00 MILLER PL 15 74 65 H *0														

01/10/71 PI = P + Y K(1175) = Y K PI PI
REACTION 144

N	ECMS	DE*	UF*	T LAB	NT*	DT*	PLAB	DP*	DP*	SIGMA	DS*	DS*	REFERENCE	COM
2.141				1.823		1.958	THRESHOLD						HARTSC NC 443 1010 66 H *0	
1 2.500 0.000 0.000 3.863 0.000 0,00 4,000 -0,000 4,000 0,000 10,00 3,5,40 3,3,00														

01/10/71 PI = P + Y K(1175) = Y K PI PI
REACTION 145

N	ECMS	DE*	DF*	T LAB	NT*	DT*	PLAB	DP*	DP*	SIGMA	DS*	DS*	REFERENCE	COM
1.464				1.273		1.405	THRESHOLD						DAHL PR 163 1377 67 H *0	
1 1.465 .024 .024 1.481 .050 .050 1,615 .050 1,40 1,40 1,40 DAHL PR 163 1377 67 H *0														
2 2.500 .023 .023 1.556 .050 .050 1,690 .050 1,60 1,60 1,60 DAHL PR 163 1377 67 H *0														
3 2.503 .022 .022 1.716 .050 .050 1,850 .050 1,72 1,72 1,72 DAHL PR 163 1377 67 H *0														
4 2.453 .022 .022 1.605 .050 .050 1,940 .050 1,80 1,80 1,80 DAHL PR 163 1377 67 H *0														

REACTION 146												REACTION 147											
N	ECS	DF+	UE-	TLAB	DT+	UT+	PLAB	DP+	LP+	SIGMA	U.S.	DS+	DS-	REFERENCE	COM								
2.019										1.687	THRESHOLD				MILLER	PR	d14n	360	65	H	-		
2.244	.011	.011	2.564	.028	.028	2.700	.028			2.400	4.00	4.00											
2.140/71																							
2.140/71																							
HEATFLUX	146																						
PI+ -> L K+ PI+ ->																							
0140/71																							
HEATFLUX	147																						
PI+ -> L K0 PI0 + PI+																							
N	ECS	DF+	UE-	TLAB	DT+	UT+	PLAB	DP+	LP+	SIGMA	U.S.	DS+	DS-	REFERENCE	COM								
1	1.863			1.290			1.423			1.110													
1	1.965	.024	.024	1.481	.030	.021	1.615	.030	.021	1.110													
2	1.645	.020	.020	1.960	.050	.050	1.850	.050	.050	1.110													
7	2.181	.021	.021	1.915	.050	.050	1.850	.050	.050	1.110													
8	2.119	.021	.021	2.005	.050	.050	2.140	.050	.050	2.000	4.00	4.00											
10	2.223	.021	.021	2.015	.050	.050	2.150	.050	.050	2.000	4.00	4.00											
11	2.065	.021	.021	2.115	.050	.050	2.250	.050	.050	2.000	4.00	4.00											
12	2.009	.020	.020	2.215	.050	.050	2.350	.050	.050	2.000	4.00	4.00											
13	2.009	.019	.019	2.247	.050	.050	2.610	.050	.050	2.000	4.00	4.00											
14	2.144	.011	.011	2.614	.000	0.000	2.700	.000	0.000	2.000	4.00	4.00											
15	2.186	.011	.011	2.674	.000	0.000	2.800	.000	0.000	2.000	4.00	4.00											
16	2.663	.000	0.000	2.615	.000	0.000	2.750	.000	0.000	2.000	4.00	4.00											
17	2.356	.000	0.000	2.614	.000	0.000	2.800	.000	0.000	2.000	4.00	4.00											
18	2.356	.000	0.000	2.614	.000	0.000	2.800	.000	0.000	2.000	4.00	4.00											
19	2.664	.000	0.000	2.674	.000	0.000	2.800	.000	0.000	2.000	4.00	4.00											
20	2.664	.000	0.000	2.695	.000	0.000	2.800	.000	0.000	2.000	4.00	4.00											
21	2.662	.000	0.000	2.695	.000	0.000	2.800	.000	0.000	2.000	4.00	4.00											
22	2.664	.000	0.000	2.695	.000	0.000	2.800	.000	0.000	2.000	4.00	4.00											
23	2.664	.000	0.000	2.695	.000	0.000	2.800	.000	0.000	2.000	4.00	4.00											
24	2.662	.000	0.000	2.695	.000	0.000	2.800	.000	0.000	2.000	4.00	4.00											
25	2.695	.000	0.000	2.611	.000	0.000	2.800	.000	0.000	2.000	4.00	4.00											

24 5.207 5.690 4.000 4.862 0.000 5.000 -0.000 -0.000 117.00 12.60 12.60
 25 5.256 5.122 0.020 4.962 1.100 5.100 1.000 1.000 6.00 6.00 6.00
 26 5.977 6.000 0.000 7.782 0.000 7.920 -0.000 -0.000 43.00 *0.00 0.00 0.00
 27 5.545 5.000 0.000 5.000 0.000 5.000 -0.000 -0.000 25.00 7.00 7.00 7.00
 28 5.000 5.000 14.06 0.000 0.000 0.000 16.200 -0.000 0.000 7.00 7.00 7.00

01/10/71 REACTION 148 PI+ P = L K(690) + Pi+

N	ECS	DF+	DF-	T LAB	D T+	D T-	PLAB	DP+	DP-	SIGMA	DS+	DS-	REFERENCE	COM
2.145	1.831	1.968	THRESHOLD										MILLER PR B140 360 65 H *0	
2.154 0.01	2.564 0.028	0.020	2.700 0.028	4.00 1.00	1.00	1.00	4.00 0.028	4.00 1.00	4.00 1.00	4.00 1.00	4.00 1.00		WEISBA KLEVCONF 7n H *0	
2.3207 0.000 0.000	4.862 0.000	0.000	5.000 0.000	10.000 0.000	10.000 0.000	10.000 0.000	5.000 0.000	5.000 0.000	5.000 0.000	5.000 0.000	5.000 0.000			

01/10/71 REACTION 149 PI+ P = L K(690) + Pi+ + Pi+

N	ECS	DF+	DF-	T LAB	D T+	D T-	PLAB	DP+	DP-	SIGMA	DS+	DS-	REFERENCE	COM
2.145	1.833	1.968	THRESHOLD										DANL PR 163 1377 67 H *0	
2.159 1.08 1.08	1.865 2.49	2.49	2.000 2.000	2.20 1.250	1.250 1.000	1.250 1.000	2.20 1.250	2.20 1.250	2.20 1.250	2.20 1.250	2.20 1.250	DANL PR 163 1377 67 H *0		
2.253 0.90 0.90	2.964 2.20	2.20	2.964 2.20	3.100 2.200	2.200 1.250	2.200 1.250	3.100 2.200	3.100 2.200	3.100 2.200	3.100 2.200	3.100 2.200	DANL PR 163 1377 67 H *0		
3.2900 0.081 0.081	3.863 2.20	2.20	3.863 2.20	4.000 2.250	2.250 1.250	2.250 1.250	4.000 2.250	4.000 2.250	4.000 2.250	4.000 2.250	4.000 2.250	DANL PR 163 1377 67 H *0		

01/10/71 REACTION 150 PI+ P = L K(690) + Pi+ + L K(690) + Pi+

N	ECS	DF+	DF-	T LAB	D T+	D T-	PLAB	DP+	DP-	SIGMA	DS+	DS-	REFERENCE	COM
2.145	1.833	1.968	THRESHOLD										DANL PR 163 1377 67 H *0	
2.159 1.08 1.08	1.865 2.49	2.49	2.000 2.000	2.20 1.250	1.250 1.000	1.250 1.000	2.20 1.250	2.20 1.250	2.20 1.250	2.20 1.250	2.20 1.250	DANL PR 163 1377 67 H *0		
2.253 0.90 0.90	2.964 2.20	2.20	2.964 2.20	3.100 2.200	2.200 1.250	2.200 1.250	3.100 2.200	3.100 2.200	3.100 2.200	3.100 2.200	3.100 2.200	DANL PR 163 1377 67 H *0		
3.2900 0.081 0.081	3.863 2.20	2.20	3.863 2.20	4.000 2.250	2.250 1.250	2.250 1.250	4.000 2.250	4.000 2.250	4.000 2.250	4.000 2.250	4.000 2.250	DANL PR 163 1377 67 H *0		

N	ECS	DF+	DF-	T LAB	D T+	D T-	PLAB	DP+	DP-	SIGMA	DS+	DS-	REFERENCE	COM
2.141	1.823	1.958	THRESHOLD										DANL PR 163 1377 67 H *0	
2.159 1.08 1.08	1.865 2.49	2.49	2.000 2.000	2.20 1.250	1.250 1.000	1.250 1.000	2.20 1.250	2.20 1.250	2.20 1.250	2.20 1.250	2.20 1.250	DANL PR 163 1377 67 H *0		
2.256 0.90 0.90	2.364 2.20	2.20	2.364 2.20	2.500 2.200	2.200 1.250	2.200 1.250	2.500 2.200	2.500 2.200	2.500 2.200	2.500 2.200	2.500 2.200	DANL PR 163 1377 67 H *0		
3.244 0.11 0.01	2.564 0.20	0.20	2.564 0.20	3.000 2.200	2.200 1.250	2.200 1.250	3.000 2.200	3.000 2.200	3.000 2.200	3.000 2.200	3.000 2.200	MILLER PR 8140 360 65 H *0		
4.253 0.90 0.90	2.064 2.20	2.20	2.064 2.20	2.500 2.200	2.200 1.250	2.200 1.250	2.500 2.200	2.500 2.200	2.500 2.200	2.500 2.200	2.500 2.200	DANL PR 163 1377 67 H *0		
5.2900 0.081 0.081	3.863 2.20	2.20	3.863 2.20	4.000 2.250	2.250 1.250	2.250 1.250	4.000 2.250	4.000 2.250	4.000 2.250	4.000 2.250	4.000 2.250	DANL PR 163 1377 67 H *0		

01/10/71 REACTION 151 PI+ P = L K(690) + Pi0 = L (K Pi) + Pi0

PI+ D = L K(690) + Pi0 = L K(690) + Pi0

N	E _{CM}	DE*	UF*	T _{LAB}	nT*	DT*	PLAB	DP*	DP*	SIGMA	DS*	DS*	REFERENCE	CMH	
*****01/10/71 PROTON / NUCLEUS RATIO = (L / S ₀) K ₀ PI ₊ P ₁₀															
N	E _{CM}	DE*	UF*	T _{LAB}	nT*	DT*	PLAB	DP*	DP*	SIGMA	DS*	DS*	REFERENCE	CMH	
1	1.141	0.000	0.000	1.823		1.98	THRESHOLD						GROSSI WEISBA	NC A47 KIEVCONF	363 67 H 0
1	2.463	0.000	0.000	2.154	0.000	0.000	2.750	0.000	0.000	53.00	* 0.00				
2	3.207	0.000	0.000	4.162	0.000	0.000	5.000	0.000	0.000	32.00	5.50				
*****01/10/71 PROTON / NUCLEUS RATIO = (L / S ₀) K ₀ PI ₊ P ₁₀															
N	E _{CM}	DE*	UF*	T _{LAB}	nT*	DT*	PLAB	DP*	DP*	SIGMA	DS*	DS*	REFERENCE	CMH	
1	1.141	0.000	0.000	1.271		1.415	THRESHOLD						HAGEL BARTSC BERTAN PELSI	PR B137 NC A43 PR 150 VIECONF	414 65 H 0
1	2.526	0.000	0.000	2.864	0.000	0.000	3.000	0.000	0.000	91.00	16.00				
2	3.900	0.000	0.000	3.063	0.000	0.000	4.000	0.000	0.000	93.00	17.00				
3	5.103	0.021	0.021	4.512	0.170	0.170	4.650	0.170	0.170	130.00	40.00				
4	4.482	0.000	0.000	11.061	0.000	0.000	11.200	0.000	0.000	39.00	10.00				
*****01/10/71 PROTON / NUCLEUS RATIO = (L / S ₀) K ₀ PI ₊ P ₁₀															
N	E _{CM}	DE*	UF*	T _{LAB}	nT*	DT*	PLAB	DP*	DP*	SIGMA	DS*	DS*	REFERENCE	CMH	
1	1.141	0.000	0.000	1.271		1.415	THRESHOLD						KIEZNET BAHTSC BERTAN BIGLI PFLS1 MATHERS	IAF 577 60 P 0 NC A43 1010 66 H 0 DUGNJS682 6A P 0	1010 66 H 0
2	2.019	0.000	0.000	1.553		1.687	THRESHOLD								
1	2.900	0.000	0.000	3.186	0.000	0.000	4.000	0.000	0.000	45.00	23.00				
2	2.900	0.019	0.019	3.863	0.060	0.060	4.000	0.060	0.060	310.00	40.00				
*****01/10/71 PROTON / NUCLEUS RATIO = (L / S ₀) K ₀ PI ₊ P ₁₀															
N	E _{CM}	DE*	UF*	T _{LAB}	nT*	DT*	PLAB	DP*	DP*	SIGMA	DS*	DS*	REFERENCE	CMH	
1	2.019	0.000	0.000	1.553		1.687	THRESHOLD								
1	2.900	0.000	0.000	3.186	0.000	0.000	4.000	0.000	0.000	45.00	23.00				
2	2.900	0.019	0.019	3.863	0.060	0.060	4.000	0.060	0.060	310.00	40.00				
*****01/10/71 PROTON / NUCLEUS RATIO = (L / S ₀) K ₀ PI ₊ P ₁₀															
N	E _{CM}	DE*	UF*	T _{LAB}	nT*	DT*	PLAB	DP*	DP*	SIGMA	DS*	DS*	REFERENCE	CMH	
1	1.141	0.000	0.000	1.271		1.421	THRESHOLD								
1	2.900	0.000	0.000	1.803	0.000	0.000	4.000	0.000	0.000	124.00	14.00				
2	2.900	0.000	0.000	1.803	0.000	0.000	4.100	0.000	0.000	203.00	30.00				
3	3.103	0.021	0.021	4.512	0.170	0.170	4.650	0.170	0.170	200.00	40.00				
4	4.35	1.27	1.27	9.661	0.000	0.000	19.000	0.000	0.000	34.00	8.00				
5	4.662	0.000	0.000	11.061	0.000	0.000	11.200	0.000	0.000	11.10	3.00				
6	6.215	0.000	0.000	24.861	0.000	0.000	25.000	0.000	0.000	6.00	2.70				
*****01/10/71 PROTON / NUCLEUS RATIO = (L / S ₀) K ₀ 2PI0															
N	E _{CM}	DE*	UF*	T _{LAB}	nT*	DT*	PLAB	DP*	DP*	SIGMA	DS*	DS*	REFERENCE	CMH	
1	1.803	0.760	0.760	1.271		1.404	THRESHOLD								
1	2.861	0.000	0.000	3.100	0.000	0.000	3.100	0.000	0.000	110.00	26.00				

01/10/71 FACTION 157

FACTION 157							Pi+ p = (L / Su) K0 K0		REFERENCE	COR				
N	ECMS	DE+	DE-	T LAB	DT+	DT-	PLAB	DP+	DP-	SIGMA	US+	DS+	REFERENCE	COR
2.09	0.000 0.000 0.000	3.009	0.000	3.145	0.000	3.145	0.000	3.145	0.000	38.00	26.00	38.00	BUDAG KIEVCFN	7n H +0
1.326	.029 .029	4.062	.100	.100	5.100	.100	5.100	.100	5.100	0.000	5.100	0.000		

***** 01/10/71 FACTION 158 Pi+ p = (L / Su) OH K0

N	ECMS	DE+	DE-	T LAB	DT+	DT-	PLAB	DP+	DP-	SIGMA	US+	DS+	REFERENCE	COR
2.96	0.000 0.000 0.000	2.441	0.000 0.000	2.577	0.000	2.577	0.000	2.577	0.000	24.00	12.00	24.00	HANGL PR	81.37 414 65 H +0
1.256	0.000 0.000 0.000	2.664	0.000 0.000	3.000	0.000 0.000	3.000	0.000 0.000	3.000	0.000 0.000	3.000	0.000	3.000		

***** 01/10/71 FACTION 159 Pi+ p = (L / Su) K(b90) + Pi-

N	ECMS	DE+	DE-	T LAB	DT+	DT-	PLAB	DP+	DP-	SIGMA	US+	DS+	REFERENCE	COR
2.45	0.000 0.000 0.000	1.833	0.000 0.000	1.966	0.000	1.966	0.000	1.966	0.000	2.00	2.00	2.00	WATERS THESINC	69 H +0
1.615	0.000 0.000 0.000	24.861	0.000 0.000	25.000	0.000 0.000	25.000	0.000 0.000	25.000	0.000 0.000	25.000	0.000	25.000		

***** 01/10/71 FACTION 160 Pi+ p = (L / Su) K(b90) + Pi+ Pi0

N	ECMS	DE+	DE-	T LAB	DT+	DT-	PLAB	DP+	DP-	SIGMA	US+	DS+	REFERENCE	COR
2.45	0.000 0.000 0.000	1.833	0.000 0.000	1.966	0.000	1.966	0.000	1.966	0.000	2.00	2.00	2.00	KUZNET IA F	10 577 69 P +0
1.200	0.000 0.000 0.000	3.663	0.000 0.000	4.000	0.000 0.000	4.000	0.000 0.000	4.000	0.000 0.000	4.000	0.000	4.000		

***** 01/10/71 FACTION 161 Pi+ p = (L / Su) K(b90) + Pi+ = (L / S0) K0 Pi+ Pi0

N	ECMS	DE+	DE-	T LAB	DT+	DT-	PLAB	DP+	DP-	SIGMA	US+	DS+	REFERENCE	COR
2.145	0.000 0.000 0.000	1.833	0.000 0.000	1.966	0.000	1.966	0.000	1.966	0.000	2.00	2.00	2.00	KUZNET IA F	10 577 69 P +0
1.200	0.000 0.000 0.000	3.663	0.000 0.000	4.000	0.000 0.000	4.000	0.000 0.000	4.000	0.000 0.000	4.000	0.000	4.000		

***** 01/10/71 FACTION 162 Pi+ p = (L / Su) K(b90) + Pi0 = (L / S0) K+ Pi+ Pi0

N	ECMS	DE+	DE-	T LAB	DT+	DT-	PLAB	DP+	DP-	SIGMA	US+	DS+	REFERENCE	COR
2.145	0.000 0.000 0.000	1.833	0.000 0.000	1.966	0.000	1.966	0.000	1.966	0.000	2.00	2.00	2.00	KUZNET IA F	10 577 69 P +0
1.200	0.000 0.000 0.000	3.663	0.000 0.000	4.000	0.000 0.000	4.000	0.000 0.000	4.000	0.000 0.000	4.000	0.000	4.000		

***** 01/10/71 FACTION 163 Pi+ p = (L / Su) K(b90) + Pi0 = (L / S0) K+ Pi+ Pi0

N	ECMS	DE+	DE-	T LAB	DT+	DT-	PLAB	DP+	DP-	SIGMA	US+	DS+	REFERENCE	COR
2.145	0.000 0.000 0.000	1.833	0.000 0.000	1.966	0.000	1.966	0.000	1.966	0.000	2.00	2.00	2.00	KUZNET IA F	10 577 69 P +0
1.200	0.000 0.000 0.000	3.663	0.000 0.000	4.000	0.000 0.000	4.000	0.000 0.000	4.000	0.000 0.000	4.000	0.000	4.000		

2,141 1,623 1,998 TAPEHOLD
 1 2,490 0,000 0,000 0,000 1,000 -0,000 34,50 5,90 KUZNET IAF 10 577 69 P +0

 01/10/71 REACTION 163 PI+ o = S*(LNU) PI+

N	ECMS	DF+	DF-	T LAB	DT+	PLAB	DP+	DP-	SIGMA	DS+	DS-	REFERENCE	COM	
2,222	0,000 0,000	2,013	2,146	2,013	2,146	2,013	2,146	2,013	2,146	2,013	2,146	WEISBA KIEVCONF		
1 3,207 0,000 0,000	4,862	0 0,000 0,000	5,000	0,000 0,000	5,000	0,000 0,000	5,000	0,000 0,000	5,000	0,000 0,000	5,000	0,000 0,000	70 H -0	

 01/10/71 REACTION 164 PI+ p = S*(++) KS PI(++) PI0

N	ECMS	DF+	DF-	T LAB	DT+	PLAB	DP+	DP-	SIGMA	DS+	DS-	REFERENCE	COM	
1,462	1,452	1,565	1,565	1,452	1,565	1,452	1,565	1,452	1,565	1,452	1,565	WATERS THEMISC		
1 6,915 0,000 0,000	24,861	3,000 0,000	25,000	0,000 0,000	25,000	0,000 0,000	25,000	0,000 0,000	25,000	0,000 0,000	25,000	0,000 0,000	69 H 25	

 01/10/71 REACTION 165 PI+ o = S(*)KS PI(++) 70

N	ECMS	DF+	DF-	T LAB	DT+	PLAB	DP+	DP-	SIGMA	DS+	DS-	REFERENCE	COM	
2,077	1,724	1,856	1,856	2,077	1,724	2,077	1,724	2,077	1,724	2,077	1,724	WATERS THEMISC		
1 6,915 0,000 0,000	24,861	0,000 0,000	25,000	-0,000 -0,000	25,000	-0,000 -0,000	25,000	-0,000 -0,000	25,000	-0,000 -0,000	25,000	-0,000 -0,000	69 H 25	

 01/10/71 REACTION 166 PI+ p = S+ K+ 2PI-

N	ECMS	DF+	DF-	T LAB	DT+	PLAB	DP+	DP-	SIGMA	DS+	DS-	REFERENCE	COM
1,902	1,433	1,567	1,567	1,902	1,567	1,902	1,567	1,902	1,567	1,902	1,567	DAML PR 163 1377 67 H +0	
1 2,151 .021 .021	1,915	.050 .050	2,474	.050 .050	2,610	.050 .050	2,700	.050 .050	2,700	.050 .050	2,700	DAML PR 163 1377 67 H +0	
2 2,401 .013 .013	1,915	.050 .050	2,474	.050 .050	2,610	.050 .050	2,700	.050 .050	2,700	.050 .050	2,700	DAML PR 163 1377 67 H +0	
3 2,444 .011 .011	2,564	.028 .028	2,614	.028 .028	2,614	.028 .028	2,614	.028 .028	2,614	.028 .028	2,614	GOUSSE PR 147 1377 67 H +0	
4 2,463 0,000 0,000	2,614	.000 .000	2,614	.000 .000	2,614	.000 .000	2,614	.000 .000	2,614	.000 .000	2,614	WANGLE PR 1337 414 65 H +0	
5 2,556 0,000 0,000	2,684	0,000 0,000	2,684	0,000 0,000	2,684	0,000 0,000	2,684	0,000 0,000	2,684	0,000 0,000	2,684	MILLER PR 163 1377 67 H +0	
6 2,604 0,000 0,000	2,700	0,000 0,000	2,700	0,000 0,000	2,700	0,000 0,000	2,700	0,000 0,000	2,700	0,000 0,000	2,700	DAML PR 163 1377 67 H +0	
7 2,640 .090 .090	2,994	.250 .250	3,110	.250 .250	3,110	.250 .250	3,110	.250 .250	3,110	.250 .250	3,110	DAML PR 163 1377 67 H +0	
8 2,632 .090 .090	3,073	.050 .050	3,210	.050 .050	3,210	.050 .050	3,210	.050 .050	3,210	.050 .050	3,210	DAML PR 163 1377 67 H +0	
9 2,664 .016 .016	3,755	.050 .050	3,890	.050 .050	3,890	.050 .050	3,890	.050 .050	3,890	.050 .050	3,890	YANTSC PR 163 1377 67 H +0	
10 2,700 .000 .000	3,803	0,000 0,000	4,000	0,000 0,000	4,000	0,000 0,000	4,000	0,000 0,000	4,000	0,000 0,000	4,000	DAML PR 143 1010 66 X +0	
11 2,791 .040 .040	4,004	.250 .250	4,180	.250 .250	4,180	.250 .250	4,180	.250 .250	4,180	.250 .250	4,180	DAML PR 143 1377 67 H +0	
12 3,077 0,000 0,000	4,662	0,000 0,000	5,000	-0,000 -0,000	5,000	-0,000 -0,000	5,000	-0,000 -0,000	5,000	-0,000 -0,000	5,000	WEISBA KIEVCONF 70 H +0	

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 01/10/71 REACTION 167 PI+ o = S+ K+ PI- PI0

N	ECLUS	DE*	DE	T LAB	DE*	PLAB	DP*	DP*	SIGMA	DS*	DS*	REFERENCE
1	9.92	1.19	1.19	1.432	.650	.529	1.565	1.565	.9,20	.0,00	.3,40	DAHL PR 163 1377 67 H 0
2	2.44	1.24	1.24	2.564	.621	.621	2.700	.0,00	17,40	.0,00	6,10	MILLER NC A47 360 65 H 0
3	6.44	1.24	1.24	2.613	0.650	0.650	2.726	0.000	11,00	11,00	11,00	UNISUR NC A47 383 67 H 0
4	2.97	1.24	1.24	2.654	0.650	0.650	2.750	0.000	11,00	11,00	11,00	DAHL PR 163 1377 67 H 0
5	2.79	1.24	1.24	2.722	0.652	0.650	2.846	0.050	11,00	11,00	11,00	DAHL PR 163 1377 67 H 0
6	2.52	1.24	1.24	2.854	0.650	0.650	3.000	-0.000	41,00	27,40	17,40	MANG-F PR 6137 414 65 H 0
7	2.65	1.24	1.24	2.952	0.650	0.650	3.015	0.050	38,00	10,00	10,00	DAHL PR 163 1377 67 H 0
8	2.65	1.24	1.24	2.954	0.650	0.650	3.136	0.050	25,00	23,00	6,00	DAHL PR 163 1377 67 H 0
9	2.65	1.24	1.24	3.075	0.650	0.650	3.210	0.050	27,00	5,00	5,00	DAHL PR 163 1377 67 H 0
10	2.98	1.24	1.24	3.175	0.650	0.650	3.390	0.050	34,00	9,00	9,00	DAHL PR 163 1377 67 H 0
11	2.99	1.24	1.24	3.483	0.650	0.650	4.000	-0.000	8,00	6,00	6,00	DAHL PR 163 1377 67 H 0
12	2.99	1.24	1.24	3.494	0.650	0.650	4.116	0.050	6,00	0,00	0,00	DAHL PR 163 1377 67 H 0
13	2.72	1.24	1.24	4.882	0.650	0.650	5,000	0.050	6,00	2,00	5,00	KELVINS NC 33 1265 64 H 0
14	1.45	1.24	1.24	5,511	0.650	0.650	10,000	0,00	46,00	-0,00	-0,00	BIGI

K11/17/2
RELATION: Inv P1- D = S* K* P1+ 70

N ECLUS DE* DE T LAB DE* PLAB DP* DP* SIGMA DS* DS* REFERENCE COM

N	ECLUS	DE*	DE	T LAB	DE*	PLAB	DP*	DP*	SIGMA	DS*	DS*	REFERENCE	COM
1	10.7	1.72	1.72	1.858	1.858	1.858	1.858	1.858	7,00	8,00	7,00	HARTSC NC A43 1010 66 H 0	
2	4.91	1.61	1.61	3.861	0.600	0.600	4,000	-0.000	11,00	0,00	0,00	EHRIC PR 152 1194 66 H 0	
3	4.91	1.61	1.61	3.749	0.600	0.600	7,920	0.000	25,10	0,00	0,00	EHRIC PR 152 1194 66 H 0	
4	4.45	1.27	1.27	2.856	.028	.028	2,700	.028	5,00	2,00	2,00	MILLER PR B140 160 65 H 0	
5	4.45	1.27	1.27	2.851	.028	.028	10,000	.000	24,00	-0,00	-0,00	BIGI NC 33 1265 64 H 0	

K11/17/2
RELATION: Inv P1+ D = S* K* P1+ 20

N ECLUS DE* DE T LAB DE* PLAB DP* DP* SIGMA DS* DS* REFERENCE COM

N	ECLUS	DE*	DE	T LAB	DE*	PLAB	DP*	DP*	SIGMA	DS*	DS*	REFERENCE	COM
1	2.219	2.135	2.135	2.135	2.135	2.135	2.135	2.135	1,857	THRESHOLD	1,857	HARTSC NC A43 1010 66 H 0	
2	2.442	0.11	0.11	2.565	.028	.028	2,700	.028	0,00	0,00	0,00	MILLER PR B140 160 65 H 0	

K11/17/2
RELATION: Inv P1- D = S* K* P1- 20

N ECLUS DE* DE T LAB DE* PLAB DP* DP* SIGMA DS* DS* REFERENCE COM

N	ECLUS	DE*	DE	T LAB	DE*	PLAB	DP*	DP*	SIGMA	DS*	DS*	REFERENCE	COM
1	1.71	1.72	1.72	1.722	1.722	1.722	1.722	1.722	1,857	THRESHOLD	1,857	HARTSC NC A43 1010 66 H 0	
2	1.90	1.90	1.90	3.863	0.600	0.600	4,000	-0.000	0,00	0,00	0,00	MILLER PR B140 160 65 H 0	
3	1.90	1.90	1.90	3.749	0.600	0.600	7,920	0.000	25,10	0,00	0,00	EHRIC PR 152 1194 66 H 0	
4	1.45	1.45	1.45	2.856	.028	.028	10,000	.000	24,00	-0,00	-0,00	BIGI NC 33 1265 64 H 0	

K11/17/2
RELATION: Inv P1+ D = S* K* P1+ 20

N ECLUS DE* DE T LAB DE* PLAB DP* DP* SIGMA DS* DS* REFERENCE COM

N	ECLUS	DE*	DE	T LAB	DE*	PLAB	DP*	DP*	SIGMA	DS*	DS*	REFERENCE	COM
1	1.71	1.72	1.72	1.722	1.722	1.722	1.722	1.722	1,857	THRESHOLD	1,857	HARTSC NC A43 1010 66 H 0	

N	ECG	LF*	DF*	TABH	DT*	PLAB	D*	SIGMA	DS*	DS*	REFERENCE
1	2.151	.021	.021	1.915	.050	2.050	.050	2.60	.00	80	DAHL PR
2	2.219	.021	.021	2.005	.050	2.140	.050	2.20	.25	2.50	DAHL PR
3	2.149	.019	.019	2.074	.050	2.160	.050	2.20	.20	2.20	DAHL PR
4	2.144	.011	.011	2.564	.028	2.700	.028	2.20	.00	2.20	MILLER PR
5	2.144	.011	.011	2.654	.028	2.720	.028	2.20	.00	2.20	MILLER PR
6	2.205	.003	.003	2.654	.028	2.720	.028	2.20	.00	2.20	MILLER PR
7	2.205	.019	.019	2.724	.050	2.860	.050	2.20	.00	2.20	MILLER PR
8	2.205	.019	.019	2.724	.050	2.860	.050	2.20	.00	2.20	MILLER PR
9	2.200	.016	.016	2.724	.050	2.860	.050	2.20	.00	2.20	MILLER PR
10	2.200	.016	.016	2.724	.050	2.860	.050	2.20	.00	2.20	MILLER PR
11	2.452	.014	.014	3.073	.050	3.210	.050	2.20	.00	2.20	MILLER PR
12	2.452	.014	.014	3.173	.050	3.210	.050	2.20	.00	2.20	MILLER PR
13	2.902	.010	.010	3.463	.050	3.890	.050	2.20	.00	2.20	MILLER PR
14	3.153	.051	.051	4.023	.50	4.000	.000	2.20	.00	2.20	MILLER PR
15	3.207	.000	.000	4.023	.170	4.650	.170	2.20	.00	2.20	MILLER PR

01/10/71
REACTION 172
P1 = S₊ KR C₊ P10

N	ECG	LF*	DF*	TABH	DT*	PLAB	D*	SIGMA	DS*	DS*	REFERENCE
1	1.910			1.440		1.582		1.70	1.20	1.20	DAHL PR
2	1.861	.021	.021	1.915	.050	2.050	.050	1.70	1.20	1.20	DAHL PR
3	2.044	.011	.011	2.474	.050	2.610	.050	1.70	1.20	1.20	DAHL PR
4	2.044	.011	.011	2.564	.028	2.700	.028	1.70	1.20	1.20	DAHL PR
5	2.045	.019	.019	2.724	.050	2.860	.050	2.20	.00	2.20	MILLER PR
6	2.056	.006	.006	2.864	.050	2.860	.050	2.20	.00	2.20	MILLER PR
7	2.056	.018	.018	2.864	.050	2.860	.050	2.20	.00	2.20	MILLER PR
8	2.056	.018	.018	2.864	.050	2.860	.050	2.20	.00	2.20	MILLER PR
9	2.452	.016	.016	3.094	.050	3.210	.050	2.20	.00	2.20	MILLER PR
10	2.884	.016	.016	3.753	.050	3.890	.050	2.20	.00	2.20	MILLER PR
11	3.091	.007	.007	3.893	.050	4.000	.000	2.20	.00	2.20	MILLER PR
12	3.291	.016	.016	4.023	.050	4.466	.050	2.20	.00	2.20	MILLER PR
13	3.291	.016	.016	4.023	.050	4.466	.050	2.20	.00	2.20	MILLER PR
14	4.455	.127	.127	9.481	.60	10.000	.000	2.20	.00	2.20	MILLER PR

N	ECG	LF*	DF*	TABH	DT*	PLAB	D*	SIGMA	DS*	DS*	REFERENCE
1	2.155			1.742		1.876		1.70	1.20	1.20	DAHL PR
2	1.910	0.000	0.000	2.000	0.000	2.159	0.000	2.00	0.00	0.00	DAHL PR
3	2.445	.011	.011	2.564	.028	2.700	.028	2.00	1.20	1.20	DAHL PR
4	2.445	.011	.011	2.564	.028	2.700	.028	2.00	1.20	1.20	DAHL PR

N	ECG	LF*	DF*	TABH	DT*	PLAB	D*	SIGMA	DS*	DS*	REFERENCE
1	2.247			2.024		2.159		2.00	1.20	1.20	DAHL PR
2	2.445	.127	.127	9.161	.50	10.000	.000	2.00	1.20	1.20	DAHL PR

01/10/71											
REACTION 175						PI+ P = S0 K+ PI+ PI0					
N	ECHS	DF+	DE-	TLAB	DT+	PLAB	DP+	DP*	SIGMA	DS+	REFERENCE
1.961		1.430		1.563	THRESHOLD						
1.963	0.000	0.000	2.614	0.000	2.750	-0.000	+0.000	-0.000	30.00	10.00	GOUSSU NC 447
2.326	.029	.020	4.962	.100	5.100	.100	.100	.100	21.00	14.00	BUDAGN KIEVCONF
											70 p 0

01/10/71											
REACTION 176						PI+ P = S0 K0 PI+ PI+					
N	ECHS	DF+	DE-	TLAB	DT+	PLAB	DP+	DP*	SIGMA	DS+	REFERENCE
1.969		1.448		1.562	THRESHOLD						
1.218	.021	.021	1.915	.050	2.050	.050	.050	.050	3.90	2.30	DAHL PR
2.249	.019	.019	2.474	.050	2.610	.050	.050	.050	9.90	4.20	DAHL PR
3.244	.019	.019	2.564	.050	2.700	.050	.050	.050	31.00	7.00	MILLER PL
4.244	.011	.011	2.564	.029	2.700	.029	.029	.029	32.00	7.00	MILLER PR
5.263	0.000	0.000	2.614	0.000	2.750	0.000	0.000	0.000	20.00	6.00	GOUSSU NC 447
6.266	0.000	0.000	2.614	0.000	2.750	0.000	0.000	0.000	19.00	6.00	HANKE PD
7.286	.018	.018	2.774	.050	2.910	.050	.050	.050	41.00	11.00	DAHL PR
8.290	.018	.018	2.774	.050	2.910	.050	.050	.050	41.00	11.00	DAHL PR
9.292	.018	.018	3.073	.050	3.250	.050	.050	.050	8.00	8.00	DAHL PR
10.294	.016	.016	3.073	.050	3.210	.050	.050	.050	17.00	4.00	DAHL PR
11.295	.016	.016	3.073	.050	3.260	.050	.050	.050	48.00	11.00	DAHL PR
12.307	0.000	0.000	4.023	0.050	4.160	0.050	0.050	0.050	46.00	11.00	DAHL PR
13.326	.029	.029	4.062	0.000	5.000	-0.000	+0.000	+0.000	34.60	5.40	WEISBA KIEVCONF
14.377	0.000	0.000	4.962	0.100	5.100	.100	.100	.100	30.00	17.00	BUDAGN KIEVCONF
15.595	0.000	0.000	7.782	0.000	7.920	-0.000	+n.000	+n.000	13.00	*0.00	EMILIC PR 1194 66
											DEUTSC CERN DPH 43 70 p 0

01/10/71											
REACTION 177						PI+ P = S0 K(499)+ PI+					
N	ECHS	DF+	DE-	TLAB	DT+	PLAB	DP+	DP*	SIGMA	DS+	REFERENCE
2.222		2.012		2.147	THRESHOLD						
1.244	.011	.011	2.564	.028	.028	.028	.028	.028	6.00	2.00	MILLER PR 8140 360 65 H 0

01/10/71											
REACTION 178						PI+ P = Y(1389) + K0 PI+					
N	ECHS	DF+	DE-	TLAB	DT+	PLAB	DP+	DP*	SIGMA	DS+	REFERENCE
2.022		1.661		1.695	THRESHOLD						
1.244	.011	.011	2.564	.028	.028	.028	.028	.028	4.00	1.00	MILLER PR 8140 360 65 H 0
2.615	0.000	0.000	24.861	0.000	25.000	-0.000	+0.000	+0.000	2.50	2.50	WATERS THESISC

N	ECMS	DF*	UE*	T LAB	DT*	DT*	PLAB	DP*	DP*	SIGMA	DS*	REFERENCE	COM
2.062	1.1519	.108	.108	1.561	1.695	1.695	THRESHOLD	2.90	1.10	1.10	DANL PR 163 1377 67 H -0		
1.240	2.400	0.000	0.000	1.865	1.249	1.249	2.000	.250	.250	22.00	-0.00	GOSSI NC A47 383 67 H -0	
2.240	2.593	0.000	0.000	2.614	0.000	0.000	2.750	-0.000	-0.000	25.0	2.20	DANL PR 163 1377 67 H -0	
3.2593	.090	2.964	2.964	1.250	3.100	3.100	25.0	25.0	25.0	15.10	2.20	DANL PR 163 1377 67 H -0	
4.290	.081	.081	.081	3.863	1.250	1.250	4.000	.250	.250	11.90	3.40	MELSB MELCNF 70 H -0	
5.3207	0.000	0.000	0.000	4.862	0.000	0.000	5.000	-0.000	-0.000	12.50	2.50	MELSB MELCNF 70 H -0	
*****	01/10/71	REACTION 180		PI+ p = Y(1385) K0 PI+ (L / S0) K0 PI+ PI+									
N	ECMS	DF*	UE*	T LAB	DT*	DT*	PLAB	DP*	DP*	SIGMA	DS*	REFERENCE	COM
2.062	1.561	1.695	1.695	THRESHOLD	2.90	1.10	1.10	1.10	1.10	DANL PR 163 1377 67 H -0			
1.240	3.863	1.249	1.249	2.000	.250	.250	2.000	-0.000	-0.000	2.80	2.80	DANL PR 163 1377 67 H -0	
2.240	4.000	1.250	1.250	2.000	.250	.250	2.000	-0.000	-0.000	3.00	3.00	DANL PR 163 1377 67 H -0	
3.2593	4.862	0.000	0.000	5.000	-0.000	-0.000	5.000	0.000	0.000	1.60	1.60	MELSB MELCNF 70 H -0	
4.290	5.000	0.000	0.000	5.000	0.000	0.000	5.000	-0.000	-0.000	1.00	1.00	MELSB MELCNF 70 H -0	
5.3207	5.000	0.000	0.000	5.000	0.000	0.000	5.000	-0.000	-0.000	1.00	1.00	MELSB MELCNF 70 H -0	
*****	01/10/71	REACTION 181		PI+ p = Y(1385) K0 PI0 + L K0 PI+ PI0									
N	ECMS	DF*	UE*	T LAB	DT*	DT*	PLAB	DP*	DP*	SIGMA	DS*	REFERENCE	COM
2.014	1.542	1.676	1.676	THRESHOLD	2.00	0.00	2.00	.250	.250	5.50	2.60	DANL PR 163 1377 67 H -0	
1.2159	.108	1.676	1.676	2.000	.250	.250	2.000	-0.000	-0.000	2.80	2.80	DANL PR 163 1377 67 H -0	
2.2593	.090	1.676	1.676	2.000	.250	.250	2.000	-0.000	-0.000	3.00	3.00	DANL PR 163 1377 67 H -0	
3.2900	.081	3.863	1.676	2.000	.250	.250	2.000	-0.000	-0.000	3.60	3.60	DANL PR 163 1377 67 H -0	
4.3207	0.000	4.862	0.000	5.000	-0.000	-0.000	5.000	0.000	0.000	1.60	1.60	MELSB MELCNF 70 H -0	
5.3507	0.000	5.000	0.000	5.000	-0.000	-0.000	5.000	0.000	0.000	1.00	1.00	MELSB MELCNF 70 H -0	
*****	01/10/71	REACTION 182		PI+ p = Y(1385) K0 PI0 + (L / S0) K0 PI+ PI0									
N	ECMS	DF*	UE*	T LAB	DT*	DT*	PLAB	DP*	DP*	SIGMA	DS*	REFERENCE	COM
2.014	1.542	1.676	1.676	THRESHOLD	2.00	0.00	2.00	.250	.250	5.40	3.60	KUZNET IAF 10 577 69 P +0	
1.2159	0.000	3.863	0.000	4.000	-0.000	-0.000	4.000	-0.000	-0.000	2.80	2.80	KUZNET IAF 10 577 69 P +0	
2.2593	0.000	4.000	0.000	4.000	-0.000	-0.000	4.000	-0.000	-0.000	3.00	3.00	KUZNET IAF 10 577 69 P +0	
3.2900	0.000	4.862	0.000	5.000	-0.000	-0.000	5.000	0.000	0.000	1.60	1.60	KUZNET IAF 10 577 69 P +0	
4.3207	0.000	5.000	0.000	5.000	-0.000	-0.000	5.000	0.000	0.000	1.00	1.00	KUZNET IAF 10 577 69 P +0	
5.3507	0.000	5.000	0.000	5.000	-0.000	-0.000	5.000	0.000	0.000	1.00	1.00	KUZNET IAF 10 577 69 P +0	
*****	01/10/71	REACTION 183		PI+ p = Y(1385) K0 PI+ (L / K0 PI+ PI+)									
N	ECMS	DF*	UE*	T LAB	DT*	DT*	PLAB	DP*	DP*	SIGMA	DS*	REFERENCE	COM
2.014	1.561	1.695	1.695	THRESHOLD	2.00	0.00	2.00	.250	.250	5.40	3.60	MILLER PR 0140 360 65 H -0	
1.2159	.081	2.964	1.695	2.000	.250	.250	2.000	-0.000	-0.000	2.80	2.80	MILLER PR 0140 360 65 H -0	
2.2593	.081	3.863	1.695	2.000	.250	.250	2.000	-0.000	-0.000	3.00	3.00	MILLER PR 0140 360 65 H -0	
3.2900	0.000	4.862	0.000	5.000	-0.000	-0.000	5.000	0.000	0.000	1.60	1.60	MILLER PR 0140 360 65 H -0	
4.3207	0.000	5.000	0.000	5.000	-0.000	-0.000	5.000	0.000	0.000	1.00	1.00	MILLER PR 0140 360 65 H -0	
5.3507	0.000	5.000	0.000	5.000	-0.000	-0.000	5.000	0.000	0.000	1.00	1.00	MILLER PR 0140 360 65 H -0	
*****	01/10/71	REACTION 184		PI+ p = Y(1385) K0 PI+ L K0 PI+ PI+									

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N	FCNS	UE*	UF*	T LAB	7T*	DT*	PLAB	DP*	DP*	SIGMA	US*	DS*	REFERENCE	COR	
1	1.0622	1.0n	1.0A	1.061	1.095	1.095	1.095	1.095	1.095	1.095	1.095	1.095	DAML	PP 163 1377 0.7 h -0	
2	1.0529	1.0n	1.0A	1.061	1.094	1.094	1.094	1.094	1.094	1.094	1.094	1.094	GOUSSII	NC 447 1353 0.7 h -0	
3	2.0482	1.0n	1.0D	2.014	0.000	0.000	2.014	0.000	2.014	0.000	0.000	0.000	DAHL	PR 163 1377 0.7 h -0	
4	2.0483	1.0n	1.0D	2.064	0.250	0.250	3.100	0.250	3.100	0.250	3.100	0.250	DAHL	PR 163 1377 0.7 h -0	
5	2.0490	1.0n	1.0D	2.063	0.250	0.250	4.000	0.250	4.000	0.250	4.000	0.250	DAHL	PR 163 1377 0.7 h -0	
6	3.2077	0.000	0.000	4.862	0.000	0.000	5.000	0.000	5.000	0.000	5.000	0.000	WEISBA	KLEVCONF 7n h -0	
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	
1	1.1/10/71	H F A C T I O N	1.03	P1 = P = Y(1.03)* K(0) P1 = (L / 50) K(0) P1 + P1*	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	
2	N	FCNS	UE*	UF*	T LAB	7T*	DT*	PLAB	DP*	DP*	SIGMA	US*	DS*	REFERENCE	COR
3	2.0627	1.0n	1.0D	3.061	1.095	1.095	1.095	1.095	1.095	1.095	1.095	1.095	KUZNET	1AF 10 577 69 p -0	
4	2.0627	1.0n	1.0D	3.061	0.000	0.000	4.000	0.000	4.000	0.000	4.000	0.000	WATERS	THEWISC 69 H 18	
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	
1	1.1/17/71	H F A C T I O N	1.06	P1 = P = Y(1.06)* K(0) P1 + P1*	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	
2	N	FCNS	UE*	UF*	T LAB	7T*	DT*	PLAB	DP*	DP*	SIGMA	US*	DS*	REFERENCE	COR
3	2.1715	2.159	2.275	2.1715	2.159	2.159	2.159	2.159	2.159	2.159	2.159	2.159	MILLER	PR 8140 360 65 h -0	
4	2.1744	0.11	0.11	2.154	0.026	0.026	2.170	0.026	2.170	0.026	2.170	0.026	MANGI	PR 8137 414 65 h -0	
5	2.1915	0.00	0.00	2.164	0.000	0.000	3.000	0.000	3.000	0.000	3.000	0.000	WATERS	THEWISC 69 H 18	
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	
1	1.1/17/71	H F A C T I O N	1.07	P1 = P = Y(1.07)* K(0) P1 + P1*	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	
2	N	FCNS	UE*	UF*	T LAB	7T*	DT*	PLAB	DP*	DP*	SIGMA	US*	DS*	REFERENCE	COR
3	2.2715	2.159	2.275	2.2715	2.159	2.159	2.159	2.159	2.159	2.159	2.159	2.159	WEISBA	KLEVCONF 7n H -0	
4	3.2000	0.000	0.000	4.162	0.000	0.000	5.000	0.000	5.000	0.000	5.000	0.000	KUZNET	1AF 10 577 69 p -0	
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	
1	1.1/17/71	H F A C T I O N	1.08	P1 = P = Y(1.08)* K(0) P1 + P1*	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	
2	N	FCNS	UE*	UF*	T LAB	7T*	DT*	PLAB	DP*	DP*	SIGMA	US*	DS*	REFERENCE	COR
3	2.2775	2.159	2.275	2.2775	2.159	2.159	2.159	2.159	2.159	2.159	2.159	2.159	WEISBA	KLEVCONF 7n H -0	
4	2.9000	0.000	0.000	3.883	0.000	0.000	4.000	0.000	4.000	0.000	4.000	0.000	KUZNET	1AF 10 577 69 p -0	
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	
1	1.1/17/71	H F A C T I O N	1.09	P1 = P = Y(1.09)* K(0) P1 + L K P1 + P1*	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	

N	ECMS	DE+	UE-	TLAB	DT+	DT-	PLAB	DP+	DP-	SIGMA	DS+	DS-	REFERENCE	COM
2	275	2.159	2.275	TRETHOLD										
1	2.159	.106	.108	1.865	.249	.269	2.000	.250	.250	4.10	1.00		DAHL PR	163 1377 67 H -0
2	2.153	.090	.090	1.964	.125	.125	1.100	.125	.125	5.50	1.90		DAHL PR	163 1377 67 H -0
3	2.100	.081	.081	3.883	.125	.125	1.100	.125	.125	5.50	3.50		DAHL PR	163 1377 67 H -0

n140771														
REACTION 190														
N	ECMS	DE+	UE-	TLAB	DT+	DT-	PLAB	DP+	DP-	SIGMA	DS+	DS-	REFERENCE	COM
2	275	2.159	2.159	TRETHOLD										
1	2.159	.108	.108	1.865	.249	.249	2.000	.250	.250	7.90	1.40		DAHL PR	163 1377 67 H -0
2	2.153	.090	.090	1.964	.125	.125	1.100	.125	.125	3.10	3.10		DAHL PR	163 1377 67 H -0
3	2.100	.081	.081	3.883	.125	.125	1.100	.125	.125	0.00	1.10		DAHL PR	163 1377 67 H -0

n140771														
REACTION 191														
N	ECMS	DE+	UE-	TLAB	DT+	DT-	PLAB	DP+	DP-	SIGMA	DS+	DS-	REFERENCE	COM
2	218	1.552	1.684	TRETHOLD										
1	2.018	.011	.011	2.152	.028	.028	2.700	.028	.028	3.00	1.00		MILLER PR	360 360 65 H -0
2	2.044	.011	.011	2.154	.028	.028	2.700	.028	.028	3.00	1.00		MILLER PR	360 360 65 H -0

n140771														
REACTION 192														
N	ECMS	DE+	UE-	TLAB	DT+	DT-	PLAB	DP+	DP-	SIGMA	DS+	DS-	REFERENCE	COM
2	218	1.552	1.684	TRETHOLD										
1	2.159	.108	.108	1.865	.249	.249	2.000	.250	.250	1.30	1.20	1.50	DAHL PR	163 1377 67 H -0
2	2.144	.090	.090	1.964	.125	.125	1.100	.125	.125	3.10	1.00		MILLER PR	360 360 65 H -0
3	2.163	.090	.090	2.164	.090	.090	0.00	.000	.000	6.00	6.00		GOUSU NC	447 365 67 H -0
4	2.153	.090	.090	2.164	.090	.090	0.00	.000	.000	1.10	2.90		DAHL PR	163 1377 67 H -0
5	2.100	.081	.081	3.865	.090	.090	0.00	.000	.000	2.50	2.50		KIZNET IAF	10 517 69 P -0
6	2.090	.081	.081	3.863	.090	.090	0.00	.000	.000	5.00	5.00		DAHL PR	163 1377 67 H -0
7	2.107	.081	.081	3.863	.090	.090	0.00	.000	.000	2.00	2.00		REF194 KIEVONRF	163 1377 67 H -0

n140771														
REACTION 193														
N	ECMS	DE+	UE-	TLAB	DT+	DT-	PLAB	DP+	DP-	SIGMA	DS+	DS-	REFERENCE	COM
2	275	2.139	2.275	TRETHOLD										
1	2.144	.011	.011	2.156	.028	.028	2.700	.028	.028	4.00	4.00	2.00	MILLER PR	360 360 H -0
2	2.156	.000	.000	2.164	.028	.028	0.00	.000	.000	3.00	3.00	13.00	MANGLE PR	414 414 H -0

07/10/71 PI = P = Y(1380) K(890)0 L (K pi) 10 pTu

REACTION 194 PI = P = Y(1380) K(890)0 L (K pi) 10 pTu

N	ECMS	DE*	UF*	TLAB	NT*	DT*	PLAB	DP*	SIGMA	US*	DS*	REFERENCE	COR
1	2.275			2.159		2.275							
1	2.159	.108	.108	2.49	.249	2.275							
1	2.159	.011	.011	2.964	.028	2.270	.120	.028	6.80	2.40		DAHL PR 163 1377 67 H 0	
2	2.144	.011	.011	2.964	.028	2.270	.028	.028	10.00	2.00		MILLER PR 163 1360 65 H 0	
3	2.153	.010	.010	2.964	.025	2.270	.120	.028	24.00	4.20		MILLER PR 163 1377 67 H 0	
4	2.900	.081	.081	3.963	.250	2.250	.100	.028	5.60	4.50		DAHL PR 163 1377 67 H 0	
							.250		5.60	5.60			

07/10/71 REACTION 195 PI = P = Y(1380) K(890)0 L (K pi) 10 pTu

N	ECMS	DE*	UF*	TLAB	NT*	DT*	PLAB	DP*	SIGMA	US*	DS*	REFERENCE	COR
1	2.275			2.159		2.275							
1	2.159	0.000	0.000	3.963	0.000	2.275							
2	2.159	0.000	0.000	4.862	0.000	2.270	0.000	-0.000	4.10	3.0		KUZNET 14F 10 577 69 P 0	
3	2.159	0.000	0.000	4.862	0.000	2.270	0.000	-0.000	5.50	2.00		WEISBA KIEVONNF 7n H 0	

07/10/71 REACTION 196 PI = P = Y(1405) K pi

N	ECMS	DE*	UF*	TLAB	NT*	DT*	PLAB	DP*	SIGMA	US*	DS*	REFERENCE	COR
1	2.159			1.594		1.78							
1	2.159	0.000	0.000	4.862	0.000	1.78							
1	2.159	0.011	0.011	4.862	0.000	1.78	0.000	-0.000	7.90	2.40		WEISBA KIEVONNF 7n H 0	

07/10/71 REACTION 197 PI = P = Y(1405) K0 pi0

N	ECMS	DE*	UF*	TLAB	NT*	DT*	PLAB	DP*	SIGMA	US*	DS*	REFERENCE	COR
1	2.036	.011	.011	1.594		1.728							
1	2.144	.011	.011	2.564	.028	2.700	.028	.028	6.00	3.00		MILLER PR 163 1360 65 H 0	

07/10/71 REACTION 198 PI = P = Y(1405) K(890)0

N	ECMS	DE*	UF*	TLAB	NT*	DT*	PLAB	DP*	SIGMA	US*	DS*	REFERENCE	COR
1	2.159			2.158		2.323							
1	2.144	.011	.011	2.564	.028	2.700	.028	.028	16.00	5.00		MILLER PR 163 1360 65 H 0	
2	2.159	0.000	0.000	2.564	0.000	2.700	0.000	-0.000	40.00	13.00		MANGE PR 163 1377 414 65 H 0	
3	2.159	0.000	0.000	2.863	0.000	2.700	0.000	-0.000	3.00	0.00		WATERS THESSC 69 H 18	

01/10/71

REACTION 199
Pi+ P = Y(1405) K(890)0 + (S Pi) (N Pi) u

N	E CMS	UE+	UE-	TLAB	DT+	PLAB	DP+	SIGMA	US+	DS+	REFERENCE	COM
1	2.295	2.186			2.423							
1	2.593	.090	.090	.250	.250	3.100	.250	15.00	4.00	2.00	DML	PB
2	2.900	.081	.081	.250	.250	4.000	.250	16.00	3.00	1.00	DML	PB

***** 01/10/71
REACTION 200
Pi+ P = Y(1520) (K Pi) + P(K) + (K Pi)

N	E CMS	UE+	UE-	TLAB	DT+	PLAB	DP+	SIGMA	US+	DS+	REFERENCE	COM
1	2.153	1.851			1.986							
1	2.593	.090	.090	.250	.250	3.100	.250	9.00	1.00	1.00	DML	PB
2	2.900	.081	.081	.250	.250	4.000	.250	11.00	5.00	5.00	DML	PB

***** 01/10/71
REACTION 201
Pi+ P = Y(1520) (K Pi) + (S Pi) (K Pi)

N	E CMS	UE+	UE-	TLAB	DT+	PLAB	DP+	SIGMA	US+	DS+	REFERENCE	COM	
2	1.23	1.851			1.986								
1	3.207	0.000	0.000	4.862	0.000	0.000	5.000	0.000	5.30	1.90	1.90	WEISBA KIEVCONF	-70 H -0

***** 01/10/71
REACTION 202
Pi+ P = Y(1520) K0 + (L Pi Pi) K0

N	E CMS	UE+	UE-	TLAB	DT+	PLAB	DP+	SIGMA	US+	DS+	REFERENCE	COM
2	0.08	1.551			1.685							
1	1.19	1.68	1.03	1.865	.249	2.000	.250	2.80	1.00	1.00	UML	PB
2	2.593	.690	.090	2.664	.250	3.100	.250	4.40	1.20	1.50	DML	PB
3	2.900	.081	.081	3.863	.250	4.000	.250	2.90	1.60	1.60	DML	PB
4	2.207	0.000	0.700	4.862	0.000	5.000	-0.000	4.10	1.30	1.30	WEISBA KIEVCONF	-70 H -0

***** 01/10/71
REACTION 203
Pi+ P = Y(1520) K(890)0 + (S Pi) (K Pi)

N	E CMS	UE+	UE-	TLAB	DT+	PLAB	DP+	SIGMA	US+	DS+	REFERENCE	COM
1	2.410	2.176			2.612							
1	2.593	.090	.090	.250	.250	3.100	.250	7.00	1.00	1.00	DML	PB
2	2.900	.081	.081	.250	.250	4.000	.250	6.00	1.00	1.00	DML	PB

N	E CMS	UE+	UE-	TLAB	DT+	PLAB	DP+	SIGMA	US+	DS+	REFERENCE	COM
3	3.207	0.000	0.000	4.862	0.000	5.000	-0.000	7.90	2.30	2.30	WEISBA KIEVCONF	-70 H -0

"1/10/71 REACTION 204
Pi = $\chi(1570)$ ($\pi^- \pi^+ K^- K^+$)

N	ECMS	DE*	UE*	T LAB	DT*	PLAD	DP*	SIGMA	LS*	RS*	REFERENCE	CORR
1	6.66	2.874	2.874	2.664	2.59	2.59	2.59	3.00	1.00	1.00	DAHL	PR 163 1377 67 H -0
2	2.73	2.69	2.69	2.663	2.63	2.63	2.63	3.00	1.00	1.00	DAHL	PR 163 1377 67 H -0
2	2.90	2.61	2.61	2.663	2.63	2.63	2.63	3.00	1.00	1.00	DAHL	PR 163 1377 67 H -0

***** 01/10/71
REACTION 205
 $\pi^- \rho = \chi(1570) \pi^- \pi^+ K^- K^+$

N	ECMS	DE*	UE*	T LAB	DT*	PLAD	DP*	SIGMA	LS*	RS*	REFERENCE	CORR
1	2.592	2.719	2.719	2.854	2.854	2.854	2.854	0.00	0.00	0.00	DAHL	PR 163 1377 67 H -0
2	2.469	2.618	2.618	2.663	2.63	2.63	2.63	0.00	0.00	0.00	DAHL	PR 163 1377 67 H -0
2	2.90	2.616	2.616	2.663	2.63	2.63	2.63	0.00	0.00	0.00	DAHL	PR 163 1377 67 H -0

***** 01/10/71
REACTION 206
 $\pi^- \rho = \chi(1570) \pi^- \pi^+ K^- K^+$

N	ECMS	DE*	UE*	T LAB	DT*	PLAD	DP*	SIGMA	LS*	RS*	REFERENCE	CORR
1	2.469	2.618	2.618	2.663	2.63	2.63	2.63	0.00	0.00	0.00	DAHL	PR 163 1377 67 H -0
2	2.90	2.616	2.616	2.663	2.63	2.63	2.63	0.00	0.00	0.00	DAHL	PR 163 1377 67 H -0
2	2.90	2.616	2.616	2.663	2.63	2.63	2.63	0.00	0.00	0.00	DAHL	PR 163 1377 67 H -0

***** 01/10/71
REACTION 207
 $\pi^- \rho = \chi(1570) \pi^- \pi^+ K^- K^+$

N	ECMS	DE*	UE*	T LAB	DT*	PLAD	DP*	SIGMA	LS*	RS*	REFERENCE	CORR
1	2.469	2.618	2.618	2.663	2.63	2.63	2.63	0.00	0.00	0.00	DAHL	PR 163 1377 67 H -0
2	2.90	2.616	2.616	2.663	2.63	2.63	2.63	0.00	0.00	0.00	DAHL	PR 163 1377 67 H -0
2	2.90	2.616	2.616	2.663	2.63	2.63	2.63	0.00	0.00	0.00	DAHL	PR 163 1377 67 H -0

***** 01/10/71
REACTION 208
 $\pi^- \rho = \chi(1570) \pi^- \pi^+ K^- K^+$

N	ECMS	DE*	UE*	T LAB	DT*	PLAD	DP*	SIGMA	LS*	RS*	REFERENCE	CORR
1	2.469	2.618	2.618	2.663	2.63	2.63	2.63	0.00	0.00	0.00	DAHL	PR 163 1377 67 H -0
2	2.63	2.616	2.616	2.663	2.63	2.63	2.63	0.00	0.00	0.00	DAHL	PR 163 1377 67 H -0
2	2.63	2.616	2.616	2.663	2.63	2.63	2.63	0.00	0.00	0.00	DAHL	PR 163 1377 67 H -0

***** 01/10/71
REACTION 209
 $\pi^- \rho = \chi(1570) \pi^- \pi^+ K^- K^+$

N	ECS	UF+	UF-	TLAB	DT+	DT-	PLAB	DP+	DP-	SIGMA	DS+	DS-	REFERENCE	COM
2.546	2.780	2.917	2.917	TRETHOLD									DAHL	PR
1.2429	.018	.018	.050	.050	.050	.050	.050	.050	.050	.18	.18	.18	DAHL	PR
2.2466	.016	.016	.050	.050	.050	.050	.050	.050	.050	.70	.70	.70	DAHL	PR
1.11071	PI_<= 4 PHONES (L / 50)													
REACTION	210													
N	ECS	UF+	UF-	TLAB	DT+	DT-	PLAB	DP+	DP-	SIGMA	DS+	DS-	REFERENCE	COM
2.628	1.573	1.707	1.707	TRETHOLD									RALEA	RRP
1.4159	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	500.00	220.00	220.00	15	567
1.11071	KFACITION	211	PI_<= P K+ K- PI_<= PI_<= PI_<=											
N	ECS	UF+	UF-	TLAB	DT+	DT-	PLAB	DP+	DP-	SIGMA	DS+	DS-	REFERENCE	COM
2.700	1.961	2.046	2.046	TRETHOLD									HARTSC	NC
1.2900	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	76.00	54.00	54.00	443	1010
2.3207	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	57.70	16.00	16.00	WEISBA	KIECONF
1.11071	PI_<= P K+ K- PI_<= PI_<= PI_<=													
N	ECS	UF+	UF-	TLAB	DT+	DT-	PLAB	DP+	DP-	SIGMA	DS+	DS-	REFERENCE	COM
2.700	1.962	2.046	2.046	TRETHOLD									DAHL	PR
1.2593	.050	.050	.250	.250	.250	.250	.250	.250	.250	.04	.04	.04	DAHL	PR
2.2505	.001	.001	.100	.100	.100	.100	.100	.100	.100	.000	.000	.000	BARTSC	NC
3.2490	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	12.00	0.00	0.00	A43	1010
4.3207	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	19.90	4.40	4.40	WEISBA	KIECONF
1.11071	PI_<= P K+ K- PI_<= PI_<= PI_<=													
N	ECS	UF+	UF-	TLAB	DT+	DT-	PLAB	DP+	DP-	SIGMA	DS+	DS-	REFERENCE	COM
2.209	1.982	2.117	2.117	TRETHOLD									DAHL	PR
1.2543	.050	.050	.250	.250	.250	.250	.250	.250	.250	.00	.00	.00	DAHL	PR
2.2500	.001	.001	.100	.100	.100	.100	.100	.100	.100	.000	.000	.000	BERIAN	PR
3.3103	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	20.00	*0.00	*0.00	130	786
4.3207	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	39.90	6.20	6.20	WEISBA	KIECONF

REACTION 214

 $P_1 + p \rightarrow p K^0 \bar{K}^0 p \pi^+ \pi^-$

N	ECS	DE+	DF-	TLAB	DT+	PLAB	DP+	SIGMA	DS+	DS-	REFERENCE	COM
1	2.708	1.980	2.115	THRESHOLD								
2	2.700	0.000	0.000	0.000	0.000	0.000	0.000	20.00	20.00	20.00	BARTSC NC A43	1010 66 H =0
2	3.236	.029	.029	3.865	0.000	4.000	*0.000	7.00	7.00	7.00	BUDAGO KIEVCONF	
3	3.970	0.000	0.000	4.952	1.00	5.100	.100	7.00	7.00	7.00	EMILIC PR	152 1194 66 H =0

*****0110/71 REACTION 215 $p + p \rightarrow p K^0 \bar{K}^0 p \pi^+ \pi^-$ *****

N	ECS	DE+	DF-	T LAB	D T+	P LAB	D P+	SIGMA	DS+	DS-	REFERENCE	COM
1	2.943	2.309	2.443	THRESHOLD								
1	3.370	0.006	0.000	3.782	0.000	4.000	*0.000	36.00	*0.00	*0.00	EMILIC PR	152 1194 66 H =0

*****0110/71 REACTION 216 $p + p \rightarrow p K^0 \bar{K}^0 p \pi^+ \pi^-$ *****

N	ECS	DE+	DF-	T LAB	D T+	P LAB	D P+	SIGMA	DS+	DS-	REFERENCE	COM
1	2.556	0.000	0.000	2.980	1.980	2.115	THRESHOLD					
2	2.593	.090	.090	2.866	0.000	0.000	*0.000	3.00	3.00	3.00	MANGLE PR	8137 414 65 H =0
3	2.900	.081	.081	2.964	.250	.250	.250	1.00	.60	.60	DAHL PR	163 1377 67 H =0
4	3.227	0.000	0.000	3.863	.250	4.000	.250	5.00	2.30	2.30	DAHL PR	163 1377 67 H =0

*****0110/71 REACTION 217 $p + p \rightarrow N (\Lambda p) \bar{\Lambda} Z^0$ *****

N	ECS	DE+	DF-	T LAB	D T+	P LAB	D P+	SIGMA	DS+	DS-	REFERENCE	COM
1	2.320	2.280	2.415	THRESHOLD								
1	2.900	0.000	0.000	3.863	0.000	4.000	*0.000	0.00	57.00	57.00	BARTSC NC A43	1010 66 H =0

*****0110/71 REACTION 218 $p + p \rightarrow N (K \bar{K}) \bar{\Lambda} Z^0$ *****

N	ECS	DE+	DF-	T LAB	D T+	P LAB	D P+	SIGMA	DS+	DS-	REFERENCE	COM
1	2.341	2.301	2.437	THRESHOLD								
1	2.900	0.000	0.000	3.863	0.000	4.000	*0.000	156.00	115.00	115.00	BARTSC NC A43	1010 66 H =0

*****0110/71 REACTION 219 $p + p \rightarrow N (K \bar{K}) \bar{\Lambda} Z^0$ *****

N	ECS	DE+	DF-	T LAB	D T+	P LAB	D P+	SIGMA	DS+	DS-	REFERENCE	COM
1	2.341	2.301	2.437	THRESHOLD								
1	2.900	0.000	0.000	3.863	0.000	4.000	*0.000	156.00	115.00	115.00	BARTSC NC A43	1010 66 H =0

N	ECMS	UF*	UF*	T LAB	NT*	DT*	PLAB	DP*	DP*	SIGMA	DS*	DS*	REFERENCE	COM
1	2.26	0.000	0.000	1.775	0.000	0.000	2.110	THRESHOLD		71.00	35.00	35.00	HARTSC BERTAN WEISBA KIEVCONF	NC A43 1010 66 H -0 PR 130 786 63 H -0 7n H -0
2	3.143	.051	.051	4.512	.170	.170	4.650	.170	.170	20.00	*0.00	*0.00	BARTSC BERTAN WEISBA KIEVCONF	PR 130 786 63 H -0 7n H -0
3	3.207	0.000	0.000	4.867	0.000	0.000	5.000	*0.00	*0.00	92.70	38.40	38.40		
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
01/10/71	REACTION	220	Pi+ P = N w u K0 Pi+ Pi+											
N	ECMS	UF*	UF*	T LAB	NT*	DT*	PLAB	DP*	DP*	SIGMA	DS*	DS*	REFERENCE	COM
1	2.214	1.004	1.004	2.120	THRESHOLD									
2	2.910	0.000	0.000	3.663	0.000	0.000	4.000	*0.000	*0.000	64.00	37.00	37.00	HARTSC BUDAGN BHILIC PR 159	NC A43 1010 66 H -0 7n H -0 1194 66 H -0
3	3.236	.129	.129	4.962	.100	.100	5.000	.100	.100	25.00	12.00	12.00		
4	3.970	0.000	0.000	7.782	0.000	0.000	7.920	*0.000	*0.000	36.00	*0.00	*0.00		
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	
01/11/71	REACTION	221	Pi+ P = N K S K S Pi+ Pi+											
N	ECMS	UF*	UF*	T LAB	NT*	DT*	PLAB	DP*	DP*	SIGMA	DS*	DS*	REFERENCE	COM
1	2.214	1.994	1.994	2.129	THRESHOLD									
2	2.526	0.000	0.000	2.864	0.000	0.000	3.000	-0.000	*0.000	3.00	3.00	3.00	MANGLE DAHL DAHL WEISBA DEUTSC	PR 6137 414 65 H -0 1377 67 H -0 163 1377 67 H -0 163 1377 67 H -0 43 7n H -0
3	2.593	.080	.080	3.064	.253	.253	3.100	.250	.250	6.64	.46	.46		
4	3.207	.031	.031	3.461	.239	.239	4.000	.250	.250	6.00	.250	.250		
5	3.555	0.000	0.000	4.462	0.000	0.000	5.000	*0.000	*0.000	15.20	3.00	3.00		
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	
01/10/71	REACTION	222	Pi+ P = L K* Pi+ Pi+ rho+											
N	ECMS	UF*	UF*	T LAB	NT*	DT*	PLAB	DP*	DP*	SIGMA	DS*	DS*	REFERENCE	COM
1	2.028	.011	.011	1.973	THRESHOLD									
2	2.444	0.000	0.000	2.564	.028	.028	2.700	*0.28	*0.28	2.00	1.00	1.00	MILLER DAHL DAHL WEISBA KIEVCONF	PR 6140 360 65 H -0 PR 6137 414 65 H -0 163 1377 67 H -0 163 1377 67 H -0 7n H -0
3	2.526	0.000	0.000	2.864	.040	.040	3.000	-0.000	*0.000	5.00	3.00	3.00		
4	2.553	.050	.050	2.964	.250	.250	3.100	.250	.250	10.10	1.30	1.30		
5	2.900	.041	.041	3.462	.250	.250	4.000	.250	.250	30.00	3.00	3.00		
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	
01/10/71	REACTION	223	Pi+ P = L K0 rho+ Pi+ rho+ rho0											
N	ECMS	UF*	UF*	T LAB	NT*	DT*	PLAB	DP*	DP*	SIGMA	DS*	DS*	REFERENCE	COM
1	2.028	.011	.011	1.953	THRESHOLD									
2	2.444	0.000	0.000	2.564	.028	.028	2.700	*0.28	*0.28	2.00	1.00	1.00	MILLER DAHL DAHL WEISBA KIEVCONF	PR 6140 360 65 H -0 PR 6137 414 65 H -0 163 1377 67 H -0 7n H -0
3	2.553	.050	.050	2.964	.250	.250	3.100	.250	.250	10.10	1.30	1.30		
4	2.900	.041	.041	3.462	.250	.250	4.000	.250	.250	30.00	3.00	3.00		
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	
01/10/71	REACTION	224	Pi+ P = L K0 rho+ Pi+ rho+ rho0											
N	ECMS	UF*	UF*	T LAB	NT*	DT*	PLAB	DP*	DP*	SIGMA	DS*	DS*	REFERENCE	COM
1	2.028	.011	.011	1.953	THRESHOLD									
2	2.444	0.000	0.000	2.564	.028	.028	2.700	*0.28	*0.28	2.00	1.00	1.00	MILLER DAHL DAHL WEISBA KIEVCONF	PR 6140 360 65 H -0 PR 6137 414 65 H -0 163 1377 67 H -0 7n H -0
3	2.553	.050	.050	2.964	.250	.250	3.100	.250	.250	10.10	1.30	1.30		
4	2.900	.041	.041	3.462	.250	.250	4.000	.250	.250	30.00	3.00	3.00		
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	

3.000 0.001 0.001 3.863 250 4.000 -0.250 70.00 11.00 11.00
 4 2.97 0.140 0.000 4.862 0.000 5.000 -0.000 10.00 12.00 15.00
 5 2.96 0.140 0.000 4.962 0.000 5.100 -0.000 10.00 12.00 15.00
 6 2.95 0.140 0.000 4.962 0.000 5.100 -0.000 10.00 12.00 15.00
 7 2.95 0.140 0.000 4.962 0.000 5.100 -0.000 10.00 12.00 15.00

01/10/71 REACTION 224 $P_1 = L \times Q_1 P_1 = P_1 = 20$

N	ECS	D ⁺	QE-	T LAB	D ⁺	D ⁻	PLAB	D ⁺	D ⁻	SIGMA	DS+	DS-	REFERENCE	COM	
2.159				1.964		1.999	THRESHOLD								
1 3.97 0.700 0.000 7.782 0.000 6.000 7.920 +0.000 -0.200 10.00 0.00 0.00 0.00 0.00 0.00														EMILIC PR 192 1194 66 H =0	

01/10/71 REACTION 225 $P_1 = \rho = (L / S_0) K_p P_1 = 2P_1 =$

N	ECS	D ⁺	QE-	T LAB	D ⁺	D ⁻	PLAB	D ⁺	D ⁻	SIGMA	DS+	DS-	REFERENCE	COM	
2.128				1.573		1.707	THRESHOLD								
1 3.90 0.000 0.000 3.861 0.000 0.000 4.000 -0.000 -0.000 10.00 10.00 10.00 10.00 10.00 10.00														BARTSC NC 443 1010 66 H =0	
2 3.03 -0.021 0.021 4.512 0.170 0.170 4.650 -0.170 0.170 10.00 0.00 0.00 0.00 0.00 0.00														BERTAN PR 130 786 63 H =0	

01/10/71 REACTION 226 $P_1 = \rho = (L / S_0) K_0 P_1 = P_1 = P_0$

N	ECS	D ⁺	QE-	T LAB	D ⁺	D ⁻	PLAB	D ⁺	D ⁻	SIGMA	DS+	DS-	REFERENCE	COM	
2.128				1.572		1.706	THRESHOLD								
1 2.96 0.000 0.000 2.864 0.000 0.000 3.000 -0.000 -0.000 10.00 10.00 10.00 10.00 10.00 10.00														HANGLE PR 8137 414 65 H =0	
2 2.96 0.000 0.000 2.863 0.000 0.000 4.000 -0.000 -0.000 10.00 10.00 10.00 10.00 10.00 10.00														BARTSC NC 443 1010 66 H =0	
3 4.45 1.127 1.127 9.861 0.600 0.600 10.000 -0.600 -0.600 10.00 10.00 10.00 10.00 10.00 10.00														BIGI NC 33 1265 64 H =0	
4 6.95 0.000 0.000 24.861 0.000 0.000 25.000 +0.000 -0.000 21.00 0.00 0.00 0.00 0.00 0.00														WATERS THERESIS 69 H 25	

01/10/71 REACTION 227 $P_1 = \rho = (L / S_0) K_0 P_1 = P_1 = 70$

N	ECS	D ⁺	QE-	T LAB	D ⁺	D ⁻	PLAB	D ⁺	D ⁻	SIGMA	DS+	DS-	REFERENCE	COM	
2.163				1.673		2.008	THRESHOLD								
1 2.96 0.119 0.019 3.863 0.600 0.600 4.000 +0.000 +0.000 10.000 0.000 0.000 0.000 0.000 0.000														BANNIK DUBN3682 66 P =0	
2 4.45 1.127 1.127 9.861 0.600 0.600 10.000 -0.600 -0.600 10.00 10.00 10.00 10.00 10.00 10.00														BIGI NC 33 1265 64 H =0	
3 6.95 0.000 0.000 24.861 0.000 0.000 25.000 +0.000 +0.000 21.00 0.00 0.00 0.00 0.00 0.00														WATERS THERESIS 69 H 25	

01/10/71 REACTION 228 $P_1 = \rho = S_{(e,e)} \times S_{(J^P)} \times \rho$

N	ECS	D ⁺	QE-	T LAB	D ⁺	D ⁻	PLAB	D ⁺	D ⁻	SIGMA	DS+	DS-	REFERENCE	COM	
2.163				1.673		2.008	THRESHOLD								
1 2.96 0.119 0.019 3.863 0.600 0.600 4.000 +0.000 +0.000 10.000 0.000 0.000 0.000 0.000 0.000														BANNIK DUBN3682 66 P =0	
2 4.45 1.127 1.127 9.861 0.600 0.600 10.000 -0.600 -0.600 10.00 10.00 10.00 10.00 10.00 10.00														BIGI NC 33 1265 64 H =0	
3 6.95 0.000 0.000 24.861 0.000 0.000 25.000 +0.000 +0.000 21.00 0.00 0.00 0.00 0.00 0.00														WATERS THERESIS 69 H 25	

01/10/71 REACTION 229 $P_1 = S_{(e,e)} \times S_{(J^P)} \times \rho$

N	ECS	D ⁺	QE-	T LAB	D ⁺	D ⁻	PLAB	D ⁺	D ⁻	SIGMA	DS+	DS-	REFERENCE	COM	
2.163				1.673		2.008	THRESHOLD								
1 2.96 0.119 0.019 3.863 0.600 0.600 4.000 +0.000 +0.000 10.000 0.000 0.000 0.000 0.000 0.000														BANNIK DUBN3682 66 P =0	
2 4.45 1.127 1.127 9.861 0.600 0.600 10.000 -0.600 -0.600 10.00 10.00 10.00 10.00 10.00 10.00														BIGI NC 33 1265 64 H =0	
3 6.95 0.000 0.000 24.861 0.000 0.000 25.000 +0.000 +0.000 21.00 0.00 0.00 0.00 0.00 0.00														WATERS THERESIS 69 H 25	

2.105 1.745 1.879 THRESHOLD
 1.615 0.045 0.045 24.861 0.063 0.063 25.000 * 0.000 12.86 6.20
 WATERS THESWIC 69 H 25

 01/10/71 REACTION 229 PI+ p = S+ K+ 2pi+ PI0

N	ECHS	UF+	DF-	T LAB	DT+	PLAB	DP+	PLAB	DP+	SIGMA	DS+	DS*	REFERENCE	CORR
2.097				1.725		1.860		1.790		4.40			DALI	PR 163 1377 67 H -0
1.293 .090 .090	2.964 .250	.250	.250	3.100 -.000	.250	3.000 -.000	.250	3.000 -.000	.250	5.40	3.00		BARTSC	NC 443 1010 66 H -0
2.200 0.000 0.000	3.863 0.050	0.050	0.050	4.300 -.000	0.050	4.000 -.000	0.050	4.000 -.000	0.050	5.40	3.00		DALI	PR 163 1377 67 H -0
3.900 .081 .081	3.863 .250	.250	.250	4.000 -.250	.250	4.000 -.250	.250	4.000 -.250	.250	5.30	1.20		BETAN	PR 130 786 63 H -0
4.3103 .051 .051	4.512 .170	.170	.170	4.650 .170	.170	4.650 .170	.170	4.650 .170	.170	5.30	1.20		MELISA	NC 33 1265 64 H -0
2.097 .090 .090	2.964 .250	.250	.250	3.100 -.000	.250	3.000 -.000	.250	3.000 -.000	.250	5.40	3.00		PIECONF	NC 33 1265 64 H -0

 01/10/71 REACTION 230 PI+ p = S+ K0 PI+ 2PI0

N	ECHS	UF+	DF-	T LAB	DT+	PLAB	DP+	PLAB	DP+	SIGMA	DS+	DS*	REFERENCE	CORR
2.105				1.745		1.479		1.790		THRESHOLD			MANGLE	PR 8137 414 65 H -0
1.226 0.000 0.000	2.864 0.000	0.000	0.000	3.000 -.000	0.000	3.000 -.000	0.000	3.000 -.000	0.000	2.00	1.00		DALI	PR 163 1377 67 H -0
2.293 .093 .090	2.964 .250	.250	.250	3.100 .250	.250	3.000 .250	.250	3.000 .250	.250	5.40	3.00		BARTSC	NC 443 1010 66 H -0
3.200 0.000 0.000	3.863 0.050	0.050	0.050	4.000 -.000	0.050	4.000 -.000	0.050	4.000 -.000	0.050	5.40	3.00		DALI	PR 163 1377 67 H -0
4.290 .081 .081	3.863 .250	.250	.250	4.000 .170	.170	4.000 .170	.170	4.000 .170	.170	5.70	1.00		BETAN	PR 130 786 63 H -0
5.303 .051 .051	4.512 .170	.170	.170	4.650 .170	.170	4.650 .170	.170	4.650 .170	.170	5.70	1.00		MELISA	NC 33 1265 64 H -0
6.307 .063 .063	4.862 0.000	0.000	0.000	5.000 -.000	0.000	5.000 -.000	0.000	5.000 -.000	0.000	28.40	5.60		PIECONF	NC 33 1265 64 H -0
7.445 .127 .127	9.861 .660	.660	.660	10.000 .660	.660	10.000 .660	.660	10.000 .660	.660	5.40	3.00		MELISA	NC 33 1265 64 H -0

 01/10/71 REACTION 231 C+ p = S+ K+ PI+ PI0

N	ECHS	UF+	DF-	T LAB	DT+	PLAB	DP+	PLAB	DP+	SIGMA	DS+	DS*	REFERENCE	CORR
2.105				1.747		1.777		1.790		THRESHOLD			MILLER	PR 8140 360 65 H -0
1.244 .111 .091	2.964 .028	.028	.028	2.700 .028	.028	3.000 .028	.028	3.000 .028	.028	4.00	2.00		MANGLE	PR 8137 414 65 H -0
2.255 .093 .090	2.964 .000	0.000	0.000	3.000 -.000	0.000	3.000 -.000	0.000	3.000 -.000	0.000	5.40	3.00		DALI	PR 163 1377 67 H -0
3.253 .081 .080	3.863 .250	.250	.250	4.000 .170	.170	4.000 .170	.170	4.000 .170	.170	5.40	3.00		BARTSC	NC 443 1010 66 H -0
4.290 .081 .081	3.863 .250	.250	.250	4.000 .170	.170	4.000 .170	.170	4.000 .170	.170	5.40	3.00		DALI	PR 163 1377 67 H -0
5.303 .051 .051	4.512 .170	.170	.170	4.650 .170	.170	4.650 .170	.170	4.650 .170	.170	5.40	3.00		BETAN	PR 130 786 63 H -0
6.513 .121 .121	4.862 .170	.170	.170	5.000 .170	.170	5.000 .170	.170	5.000 .170	.170	5.40	3.00		MELISA	NC 33 1265 64 H -0
7.327 .073 .073	4.862 .170	.170	.170	5.000 .170	.170	5.000 .170	.170	5.000 .170	.170	5.40	3.00		PIECONF	NC 33 1265 64 H -0

 01/10/71 REACTION 232 PI+ p = S+ K+ PI+ PI0

N	ECHS	UF+	DF-	T LAB	DT+	PLAB	DP+	PLAB	DP+	SIGMA	DS+	DS*	REFERENCE	CORR
2.114				1.762		1.897		1.897		THRESHOLD				

REACTION 233									
Pi+ p = S0 K+ Pi+ 2Pi+									
N	ECMS	DE+	TLAB	DT+	PLAB	DP+	DP*	SIGMA	DS*
2,100	2.526	.000	.011	2.964	.028	2.707	.028	4.00	2.00
2,250	2.526	.000	.011	2.864	.010	3.000	.010	3.00	2.00
2,593	2.526	.000	.011	2.964	.025	3.000	.025	2.90	2.00
3,000	2.526	.000	.011	3.863	.250	4.000	.250	2.50	2.00
4,2900	2.526	.000	.011	3.863	.250	4.000	.250	13.20	2.00
6,3103	2.526	.000	.011	3.863	.250	4.000	.250	11.00	2.00
7,3207	2.526	.000	.011	4.552	.170	4.650	.170	10.00	2.00
8,4455	2.526	.000	.011	4.881	.000	5.000	.000	26.90	2.00
127	1.127	.000	.000	6.000	.000	6.000	.000	9.00	2.00

011071 REACTION 233 Pi+ p = S0 K+ Pi+ 2Pi+ REFERENCE COM

REACTION 234									
Pi+ p = S0 K0 Pi+ Pi+ Pi0									
N	ECMS	DE+	TLAB	DT+	PLAB	DP+	DP*	SIGMA	DS*
2,100	2.953	.093	1.737	1.867	1.737	1.867	1.737	1.60	1.60
2,2900	2.953	.081	2.964	2.50	2.964	2.50	2.964	1.60	1.60
3,3207	2.953	.081	3.863	2.50	4.000	2.50	7.30	1.60	1.60
4,482	2.953	.081	4.882	0.000	5.000	0.000	15.00	2.80	2.80

011071 REACTION 234 Pi+ p = S0 K0 Pi+ Pi+ Pi0 REFERENCE COM

REACTION 235										
Pi+ p = Y(1395) + K(890) Pi+										
N	ECMS	DE+	TLAB	DT+	PLAB	DP+	DP*	SIGMA	DS*	
2,104	1.3236	.029	1.741	1.876	1.741	1.876	1.741	1.60	1.60	
1	4.902	.100	.100	5.100	.100	.100	.100	27.00	12.00	12.00

011071 REACTION 235 Pi+ p = Y(1395) + K(890) Pi+ REFERENCE COM

REACTION 236										
Pi+ p = Y(1395) K(890) Pi+										
N	ECMS	DE+	TLAB	DT+	PLAB	DP+	DP*	SIGMA	DS*	
2,415	1.6915	.000	0.000	2.448	2.624	2.624	2.624	1.60	1.60	
1	6.915	.000	0.000	24.861	0.000	24.000	0.000	9.00	6.00	6.00

011071 REACTION 236 Pi+ p = Y(1395) K(890) Pi+ REFERENCE COM

REACTION 237										
Pi+ p = Y(1405) K(890) Pi+										
N	ECMS	DE+	TLAB	DT+	PLAB	DP+	DP*	SIGMA	DS*	
2,415	1.6915	.000	0.000	24.861	0.000	24.000	0.000	4.20	3.00	3.00

011071 REACTION 237 Pi+ p = Y(1405) K(890) Pi+ REFERENCE COM

2.459	2.540	2.676	THREESOL	69	H	0
1.5915	0.3011	0.330	0.001	25,000	-0,000	6,70
24,861	0,830	0,830	0,000	25,000	-0,000	6,70
01/27/71	P1= 2 = 4 PHOTOS KRAK					
HEATFLG 236	N_EURO UFA UF= *LAS	UT= PLAB	DP= SIGMA	DS= NS*	REFERENCE	COM
2.344	2.339	2.445	THREESOL			
1.6172	0.690	0.690	0.000	20,000	-0,000	1140.00
19,861	0,000	0,000	0,000	25,000	-0,000	360.00
01/27/71	P1= 2 = 4 PHOTOS KRAK					
HEATFLG 236	N_EURO UFA UF= *LAS	UT= PLAB	DP= SIGMA	DS= NS*	REFERENCE	COM
2.458	2.451	2.466	THREESOL			
3.492	3.492	3.492	0.000	25,000	-0,000	61,00
24,961	0,000	0,000	0,000	25,000	-0,000	10,00
01/27/71	P1= 2 = 4 PHOTOS (b / 50) RS					
HEATFLG 236	N_EURO UFA UF= *LAS	UT= PLAB	DP= SIGMA	DS= NS*	REFERENCE	COM
2.112	1.895	2.029	THREESOL			
1.6915	0.700	0,000	0,000	25,000	-0,000	61,00
24,961	0,000	0,000	0,000	25,000	-0,000	13,00
01/27/71	P1= 2 = 4 PHOTOS KRAK					
HEATFLG 236	N_EURO UFA UF= *LAS	UT= PLAB	DP= SIGMA	DS= NS*	REFERENCE	COM
2.445	2.311	2.446	THREESOL			
4.3207	3.320	4.320	0.000	25,000	-0,000	20,00
3,320	0,000	0,000	0,000	25,000	-0,000	9,10
01/27/71	P1= 2 = 2 KF PHOTOL					
HEATFLG 236	N_EURO UFA UF= *LAS	UT= PLAB	DP= SIGMA	DS= NS*	REFERENCE	COM
2.454	2.313	2.445	THREESOL			
3.492	3.492	3.492	0.000	25,000	-0,000	61,00
24,961	0,000	0,000	0,000	25,000	-0,000	1,90

REACTION

243

 $\pi^+ \pi^- \rightarrow K^+ K^- \pi^+ \pi^-$

N ECHS JF- TLAB DT+ PLAB DP+ SIGMA DS+ DS- REFERENCE COM

2.34	2.309	2.445	THRESHOLD							
1.303	1.021	.021	.170	.170	4.050	1.170	40.00	+0.10	BERTAN PR 130	
2.37	0.928	0.933	4.862	0.000	5.000	-0.000	-1.000	19.90	4.40	WEISBA KIEVCONF
									70	H -0

01/2/07/21 REACTION 244 $\pi^+ \rho = \rho^+ K^0 K^- \pi^+ 2\pi^-$

N ECHS JF- JS- TLAB DT+ PLAB DP+ SIGMA DS+ DS- REFERENCE COM

2.35	2.331	2.466	THRESHOLD							
1.303	1.051	.051	.170	.170	4.850	1.170	40.00	+0.10	BERTAN PR 130	
1.307	0.920	0.912	4.812	0.000	5.000	-0.000	-1.000	19.90	4.40	WEISBA KIEVCONF
									70	H -0

01/2/07/21 REACTION 245 $\pi^+ \rho = \rho^+ \pi^+ K^- K^-$

N ECHS JF- JS- TLAB DT+ PLAB DP+ SIGMA DS+ DS- REFERENCE COM

2.35	2.331	2.466	THRESHOLD							
1.307	0.920	0.900	4.812	0.000	5.000	-0.000	-1.000	19.90	4.40	WEISBA KIEVCONF
									70	H -0

01/2/07/21 REACTION 246 $\pi^+ \rho = N^+ K^0 \pi^+ 2\pi^-$

N ECHS JF- JS- TLAB DT+ PLAB DP+ SIGMA DS+ DS- REFERENCE COM

2.35	2.331	2.466	THRESHOLD							
1.307	0.920	0.900	4.812	0.000	5.000	-0.100	-1.000	19.90	4.40	WEISBA KIEVCONF
									70	H -0

01/2/07/21 REACTION 247 $\pi^+ \rho = N^- K^0 2\pi^+ \pi^-$

N ECHS JF- JS- TLAB DT+ PLAB DP+ SIGMA DS+ DS- REFERENCE COM

2.35	2.334	2.460	THRESHOLD							
1.307	0.920	0.900	4.812	0.000	5.000	-0.000	-1.000	19.90	4.40	WEISBA KIEVCONF
									70	H -0

01/2/07/21 REACTION 248 $\pi^+ \rho = N^+ K^0 \pi^+ \pi^-$

N ECHS JF- JS- TLAB DT+ PLAB DP+ SIGMA DS+ DS- REFERENCE COM

2.35	2.334	2.460	THRESHOLD							
1.307	0.920	0.900	4.812	0.000	5.000	-0.000	-1.000	19.90	4.40	WEISBA KIEVCONF
									70	H -0

2,464
1,370 0.340 0.610 2,670 0.006 0.000 2,806 THRESHOLD
1,782 0.006 0.000 7,120 *0.000 *0.000 *0.000 ERHIC PR 152 154 66 H =0

L71071
REACTION 249 $\pi^+ \rightarrow L \times \pi^- \pi^+ \pi^0$

N	ECMS	DE+	DE-	T LAB	DT+	DT-	PLAB	DP+	DP-	SIGMA	DS+	DS-	REFERENCE	COR
2,163				1,875			2,010			THRESHOLD				
1,527	0.003 0.000	4,462	0.000	5,000	0.000	5,000	0.000	38.00	4.80	WEISBA KIEVCONF	70	H =0		

L71071
REACTION 250 $\pi^+ \rightarrow L \times 0 2\pi^+ 2\pi^0$

N	ECMS	DE+	DE-	T LAB	DT+	DT-	PLAB	DP+	DP-	SIGMA	DS+	DS-	REFERENCE	COR
2,172				1,895			2,029			THRESHOLD				
1,212	0.000 0.000	2,854	0.000	0,000	0.000	0,000	3,000	0.000	0,000	1.00	1.00	1.00	WANGLE PR 8137 414 65 H =0	
2,327	0.000 0.000	4,862	0.000	0,000	0.000	0,000	5,000	0.000	0,000	20.10	3.30	3.30	WEISBA KIEVCONF	70 H =0

L71071
REACTION 251 $\pi^+ \rightarrow L \times 0 \pi^+ \pi^- \pi^0$

N	ECMS	DE+	DE-	T LAB	DT+	DT-	PLAB	DP+	DP-	SIGMA	DS+	DS-	REFERENCE	COR
2,165				1,873			2,008			THRESHOLD				
1,326	.029 .029	4,062	.100	.100	5,000	.100	5,000	.100	.100	25.00	18.00	18.00	BUDAGO KIEVCONF	70 P =0

L71071
REACTION 252 $\pi^+ \rightarrow (L / S_0) \times \pi^+ 2\pi^+ \pi^0$

N	ECMS	DE+	DE-	T LAB	DT+	DT-	PLAB	DP+	DP-	SIGMA	DS+	DS-	REFERENCE	COR
2,165				1,875			2,010			THRESHOLD				
1,213	0.000 0.000	3,653	0.000	4,150	0.000	4,150	0.000	12.00	8.00	6.00	BARSC NC 143 1030 65 H =0			
2	0.13	.051 .051	4,112	.170	4,112	.170	4,112	.170	.170	30.00	6.00	6.00	BERIAN PR 130 786 63 H =0	

L71071
REACTION 253 $\pi^+ \rightarrow (L / S_0) \times 2\pi^+ 2\pi^0$

N	ECMS	DE+	DE-	T LAB	DT+	DT-	PLAB	DP+	DP-	SIGMA	DS+	DS-	REFERENCE	COR
2,28				2,195			2,351			THRESHOLD				
1,290	0.012 .012	3,863	.953	.060	4,000	.060	4,000	.060	.060	60.00	18.00	18.00	BANNIK DUBN682 68 P =0	

011071
REACTION 254
 $P_1 = P = (L / S_0) * K_0 P_1 + P_1^*$

N	ECMS	DE*	T _{LAB}	DT*	PLAB	DP*	SIGMA	DS*	REFERENCE	COM
2,880	3,402	3,939	THRESHOLD						BERTAN PR 130 786 63 H + 0	
1,315 .051 .031	4,512 .170 .170	4,650 .170 .170								

011071
REACTION 255
 $\sigma_1 = P = (L / S_0) K_0 2P_1 + 2P_1^*$

N	ECMS	DE*	T _{LAB}	DT*	PLAB	DP*	SIGMA	DS*	REFERENCE	COM
2,122	1,895	2,029	THRESHOLD						BARTSC NC 443 1010 66 H + 0	
1,900 .000 .000	1,865 .0 .000	1,000 .0 .000	1,000 .0 .000	1,000 .0 .000	1,000 .0 .000	1,000 .0 .000	1,000 .0 .000	BARTSC NC 443 1010 66 H + 0		
3,513 .051 .031	3,512 .170 .170	4,650 .170 .170						BARTAN PR 130 786 63 H + 0		
3,435 .127 .127	3,861 .0 .000	10,000 .0 .000	10,000 .0 .000	10,000 .0 .000	10,000 .0 .000	10,000 .0 .000	10,000 .0 .000	BIGI NC 33 1265 64 H + 0		
4,693 .0 .000	2,861 .0 .000	25,000 .0 .000	25,000 .0 .000	25,000 .0 .000	25,000 .0 .000	25,000 .0 .000	25,000 .0 .000	WATERS THESIS 69 H 25		

011071
REACTION 256
 $P_1 = P = (L / S_0) (K_0 P_1 + P_1^*) 2P_1 + 2P_1^*$

N	ECMS	DE*	T _{LAB}	DT*	PLAB	DP*	SIGMA	DS*	REFERENCE	COM
2,438	2,540	2,684	THRESHOLD						BARTSC NC 443 1010 66 H + 0	
1,2,900 .0 .000	1,865 .0 .000	4,000 .0 .000	4,000 .0 .000	4,000 .0 .000	4,000 .0 .000	4,000 .0 .000	4,000 .0 .000			

011071
REACTION 257
 $P_1 = P = S(\pi\pi) KS (SP_1)(\pi\pi) P_1^*$

N	ECMS	DE*	T _{LAB}	DT*	PLAB	DP*	SIGMA	DS*	REFERENCE	COM
2,241	2,057	2,193	THRESHOLD							
1,6,915 .0 .000	24,861 .0 .000	25,000 .0 .000	25,000 .0 .000	25,000 .0 .000	25,000 .0 .000	25,000 .0 .000	25,000 .0 .000	WATERS THESIS 69 H 25		

011071
REACTION 258
 $P_1 = P = S(\pi\pi) KS (SP_1)(\pi\pi) 2P_1 + 2P_1^*$

N	ECMS	DE*	T _{LAB}	DT*	PLAB	DP*	SIGMA	DS*	REFERENCE	COM
2,376	2,390	2,525	THRESHOLD							
1,6,915 .0 .000	24,861 .0 .000	25,000 .0 .000	25,000 .0 .000	25,000 .0 .000	25,000 .0 .000	25,000 .0 .000	25,000 .0 .000	WATERS THESIS 69 H 25		

011071
REACTION 259
 $P_1 = P = S(\pi\pi) KS (SP_1)(\pi\pi) 2P_1 + 2P_1^*$

N	ECMS	DE*	T _{LAB}	DT*	PLAB	DP*	DP*	SIGMA	DS*	DS*	REFERENCE	COM
2,367			2,368		2,364							
1,2,900	0,000	0,000	3,063	0,000	0,000	4,000	0,000	5,00	4,00	4,00	BARTSC	NC A43 1010 66 H -0

01/10/71												
REACTION 260												
N	ECMS	DE*	T _{LAB}	DT*	PLAB	DP*	DP*	SIGMA	DS*	DS*	REFERENCE	COM
2,212			2,059		2,194							
1,3,207	0,000	0,000	4,162	0,000	0,000	5,000	0,000	2,80	1,80	1,80	WEISBA	KIEVCONF 70 H -0

01/10/71												
REACTION 261												
N	ECMS	DE*	T _{LAB}	DT*	PLAB	DP*	DP*	SIGMA	DS*	DS*	REFERENCE	COM
2,376			2,350		2,925							
1,445	.127	.127	9,661	.600	.600	10,000	.600	.600	*0,00	*0,00	BIGI	NC 33 1265 64 H -0

01/10/71												
REACTION 262												
N	ECMS	DE*	T _{LAB}	DT*	PLAB	DP*	DP*	SIGMA	DS*	DS*	REFERENCE	COM
2,211			2,157		2,193							
1,2,900	0,000	0,000	3,063	0,000	0,000	4,000	0,000	2,140	1,40	1,40	WEISBA	KIEVCONF 70 H -0
2,4,455	.127	.127	9,661	.600	.600	10,000	.600	.600	*0,00	*0,00	BIGI	NC 33 1265 64 H -0

01/10/71												
REACTION 263												
N	ECMS	DE*	T _{LAB}	DT*	PLAB	DP*	DP*	SIGMA	DS*	DS*	REFERENCE	COM
2,375			2,386		2,194							
1,2,900	0,300	0,000	3,063	0,000	0,000	4,000	0,000	7,100	4,00	4,00	BARTSC	NC A43 1010 64 H -0

01/10/71												
REACTION 264												
N	ECMS	DE*	T _{LAB}	DT*	PLAB	DP*	DP*	SIGMA	DS*	DS*	REFERENCE	COM
2,249			2,076		2,213							
1,3,207	0,100	0,000	4,182	0,300	0,000	5,000	0,000	2,350	*0,00	*0,00	WEISBA	KIEVCONF 70 H -0

REACTION 265 PI= P = S K0 2PI+ PI= Z0

N	ECHS	DE*	DF*	T LAB	DT*	PLAB	DP*	SIGMA	DS*	REFERENCE	COM
1	2,384			2,410	,000	,600	10,000	2,545			
1	4,435	,127	,127	9,861	,000	,600	10,000	,600	22,100	*0,00	BIGI NC 33 1265 64 H =0

***** 01/10/71 PI= P = S K0 2PI+ PI= PI0
REACTION 266

N	ECHS	DE*	DF*	T LAB	DT*	PLAB	DP*	SIGMA	DS*	REFERENCE	COM
1	2,249			2,076		2,211					
1	3,207	0,000	0,000	4,862	0,000	0,000	5,000	5,000	1,000	WEISBA KIEVCONF	

***** 01/10/71 PI= P = S K0 2PI+ 2PI+
REACTION 267

N	ECHS	DE*	DF*	T LAB	DT*	PLAB	DP*	SIGMA	DS*	REFERENCE	COM
1	2,249			2,076		2,211					
1	3,207	0,000	0,000	4,862	0,000	5,000	5,000	5,000	1,000	WEISBA KIEVCONF	

***** 01/10/71 PI= P = 6 PHARMOS (L / S0)
REACTION 268

N	ECHS	DE*	DF*	T LAB	DT*	PLAB	DP*	SIGMA	DS*	REFERENCE	COM
1	2,311			2,226		2,364					
1	6,199	0,000	0,000	19,861	0,000	20,000	20,000	20,000	20,000	BALIA RAP 19 587	70 H =0

***** 01/10/71 PI= D = (I / S0) + 2PI+ 2PI- 010
REACTION 269

N	ECHS	DE*	DF*	T LAB	DT*	PLAB	DP*	SIGMA	DS*	REFERENCE	COM
1	2,307			2,217		2,352					
1	2,900	0,000	0,000	3,863	0,000	4,000	-0,000	10,000	10,000	BARYSC NC 443	H =0
2	4,435	,127	,127	9,861	,000	,600	10,000	,600	,600	BIGI NC 33 1265 64 H =0	

N	ECHS	DE*	DF*	T LAB	DT*	PLAB	DP*	SIGMA	DS*	REFERENCE	COM
3	6,115	0,000	0,000	24,861	0,000	25,000	-0,000	*,000	*,000	MAYER THESSIS	H =0

***** 01/10/71 PI= D = ((L / S0) K0 2PI+ 2PI+ 70
REACTION 270

N	ECMS	DE*	T LAB	DT*	PLAB	DP*	CP*	SIGMA	DS*	REFERENCE	COM
1	2.442	.019	2.558	2.694	THRESHOLD						
2	2.900	.127	3.863	.060	.060	.060	.060	.00	.00	BANNIK DUBN682	68 P -0
3	4.435	.127	3.861	.600	.600	.600	.600	.63.00	.00	BIGI NC 33	64 H -0
	6.915	.000	24.861	0.000	0.000	25.000	0.000	.50.20	.4.20	WATERS THESIS	69 H -0
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
01/10/71	REACTION	271	PI= o = S(*,*.) KS (SP1)(*,*)								
N	ECMS	DE*	T LAB	DT*	PLAB	DP*	CP*	SIGMA	DS*	REFERENCE	COM
1	2.305	0.000	2.413	2.549	THRESHOLD						
2	6.915	0.000	24.861	0.000	0.000	25.000	0.000	.0.00	.0.00	WATERS THESIS	69 H 25
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
01/10/71	REACTION	272	PI= p = S(A0 3P1+ 2P1-								
N	ECMS	DE*	T LAB	DT*	PLAB	DP*	CP*	SIGMA	DS*	REFERENCE	COM
1	2.393	.127	2.433	2.569	THRESHOLD						
2	4.435	.127	9.461	.000	.600	10.000	.600	.0.00	.0.00	BIGI NC 33	1265 64 H -0
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
01/10/71	REACTION	273	PI= o = 6 PHEN'S KS KA								
N	ECMS	DE*	T LAB	DT*	PLAB	DP*	CP*	SIGMA	DS*	REFERENCE	COM
1	2.623	0.100	0.700	1.04A	3.04A	3.165	3.165	THRESHOLD			
2	6.152	0.100	19.461	0.000	0.000	20.100	0.000	710.00	250.00	BALIA KRP S	587 70 H -0
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
01/10/71	REACTION	274	PI= p = 6 PHEN'S KS KS								
N	ECMS	DE*	T LAB	DT*	PLAB	DP*	CP*	SIGMA	DS*	REFERENCE	COM
1	2.652	0.100	0.700	24.461	0.000	0.000	25.000	0.000	.0.00	THRESHOLD	
2	6.152	0.100	0.700	24.461	0.000	0.000	25.000	0.000	.0.00	WATERS THESIS	69 H -0
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
01/10/71	REACTION	275	PI= p = 6 PHEN'S (L / S0) X'S								
N	ECMS	DE*	T LAB	DT*	PLAB	DP*	CP*	SIGMA	DS*	REFERENCE	COM

2,451 0,000 0,000 24,461 0,000 0,000 25,000 -0,000 *n,000 46,20 4,00 8,00 MATORS THE4ISC 70 H =0
 6,915 0,000 0,000 24,461 0,000 0,000 25,000 -0,000 *n,000 46,20 4,00 8,00 MATORS THE4ISC 70 H =0

 01/10/71 REACTION 276 PI+ p = (L / SU) K0 3PI+ 3PI-
 N ECMS DE+ U+ TLAB DT+ PLAB DP+ SIGMA DS+ REFERENCE COM
 2,451 2,582 2,718 THRESHOLD
 1,445 1,127 9,061 ,600 10,000 ,600 0,00 *0,00 81G1 NC 33 1265 64 H =0
 2,695 0,000 0,000 24,461 0,000 0,000 25,000 -0,000 2,00 1,40 1,00 MATORS THE4ISC 69 H =0

 01/10/71 REACTION 277 PI+ p = S(+,-) KS (5PI1)(+,-) P10
 N ECMS DE+ U+ TLAB DT+ PLAB DP+ SIGMA DS+ REFERENCE COM
 2,520 2,766 2,902 THRESHOLD
 1,6,915 0,000 0,000 24,461 0,000 0,000 25,000 -0,000 26,00 6,00 8,00 MATORS THE4ISC 69 H =0

 01/10/71 REACTION 278 PI+ p = S(+,-) KS (5PI1)(+,-) Z0
 N ECMS DE+ U+ TLAB DT+ PLAB DP+ SIGMA DS+ REFERENCE COM
 2,655 3,138 3,275 THRESHOLD
 1,6,915 0,000 0,000 24,461 0,000 0,000 25,000 -0,000 25,00 6,20 8,20 MATORS THE4ISC 69 H =0

 01/10/71 REACTION 279 PI+ p = S+ K0 2PI+ 3PI- P10
 N ECMS DE+ U+ TLAB DT+ PLAB DP+ SIGMA DS+ REFERENCE COM
 2,520 2,766 2,902 THRESHOLD
 1,445 1,127 ,600 ,600 10,000 ,600 10,000 ,600 1,40 1,00 MATORS THE4ISC 69 H =0

 01/10/71 REACTION 280 PI+ p = S+ K0 2PI+ 3PI- Z0
 N ECMS DE+ U+ TLAB DT+ PLAB DP+ SIGMA DS+ REFERENCE COM
 2,655 3,138 3,275 THRESHOLD
 1,4,435 1,127 9,061 ,600 10,000 ,600 10,000 ,600 3,00 -0,00 +0,00 81G1 NC 33 1265 64 H =0

 01/10/71

1	4.745	.127	.127	7.327	1.463	TEMPHSLF	5.00	-0.00	-0.00	BIGI	NC	33	1265	64	H	0
2	6.915	0.000	0.000	4.461	0.000	AUN	10.000	+0.000	+0.000	MATWS	THMS	69	H	0		
3	2	0.000	0.000	5.000	0.000	DUN	5.000	-0.000	-0.000							
4								2.00	3.90							

MR11071 PI-PI PHOTOS 60 AM
FACTORY 2A7

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03/10/73 811-3 * A BRANGS KS KS
KFC/10/73

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02/10/71 KF-ACTION 2H4
PI=J = B PHENOLS (L / SO ) RS

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01/10/71 REACTION 200 r1 = p w u qPi = 421*

	COM	DS- REF	DS- REFERENCE
PLAH	PLAH	PLAH	PLAH
D ⁺	D ⁺	D ⁺	D ⁺
D ⁻	D ⁻	D ⁻	D ⁻
HE-	HE-	HE-	HE-
TLAH	TLAH	TLAH	TLAH
AI+	AI+	AI+	AI+
HE+	HE+	HE+	HE+

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WATERS THESEWIS - 60 M

THE JOURNAL OF CLIMATE

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REACT<--> S((*)*) #S((TP1)*...*) : p1
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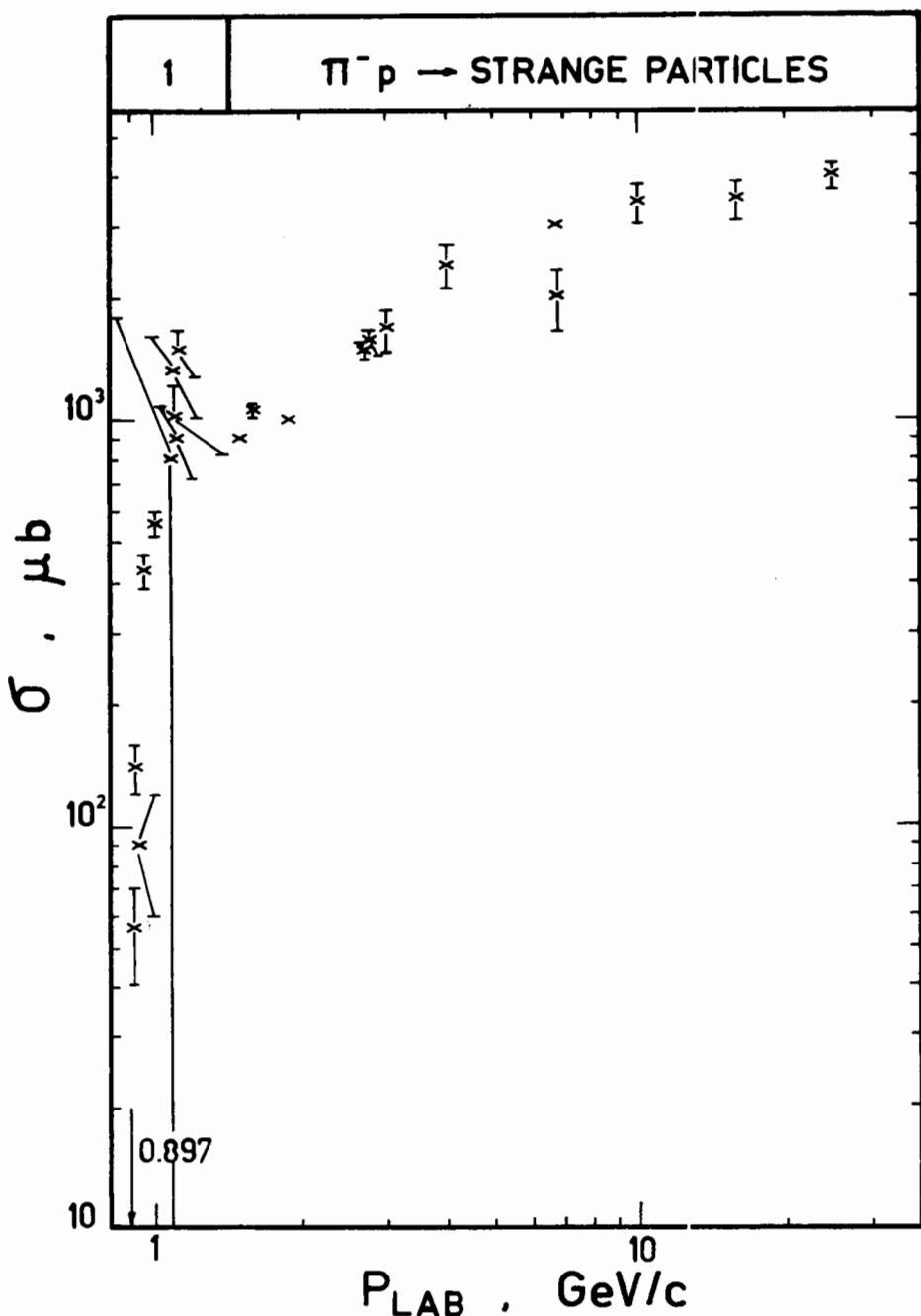
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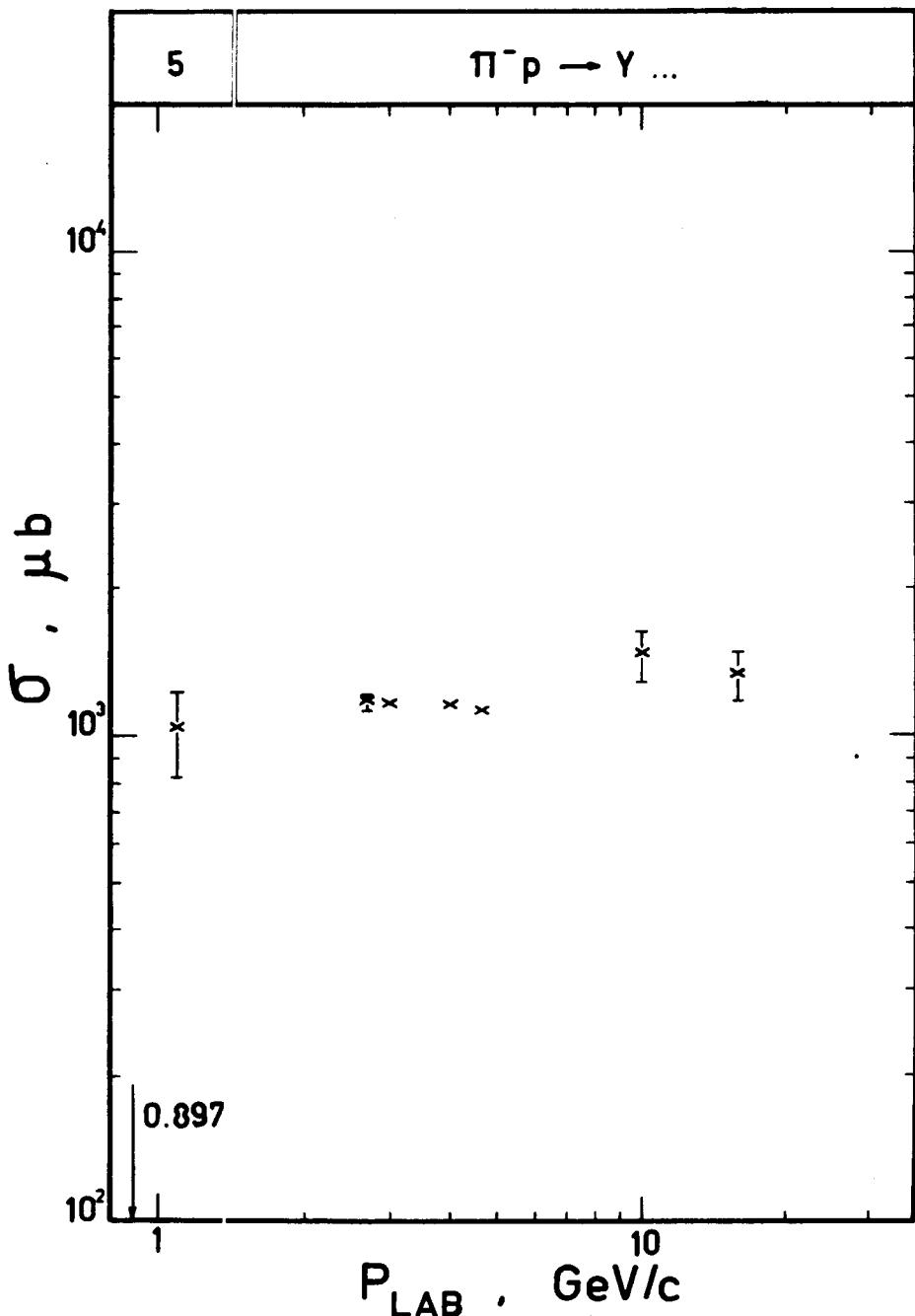
2.795	0.000	0.000	3.557	0.000	0.000	3.694	0.000	0.000	4.420	0.000	0.000	4.550
1.015	0.000	0.000	2.661	0.000	0.000	2.693	0.000	0.000	3.440	0.000	0.000	3.570

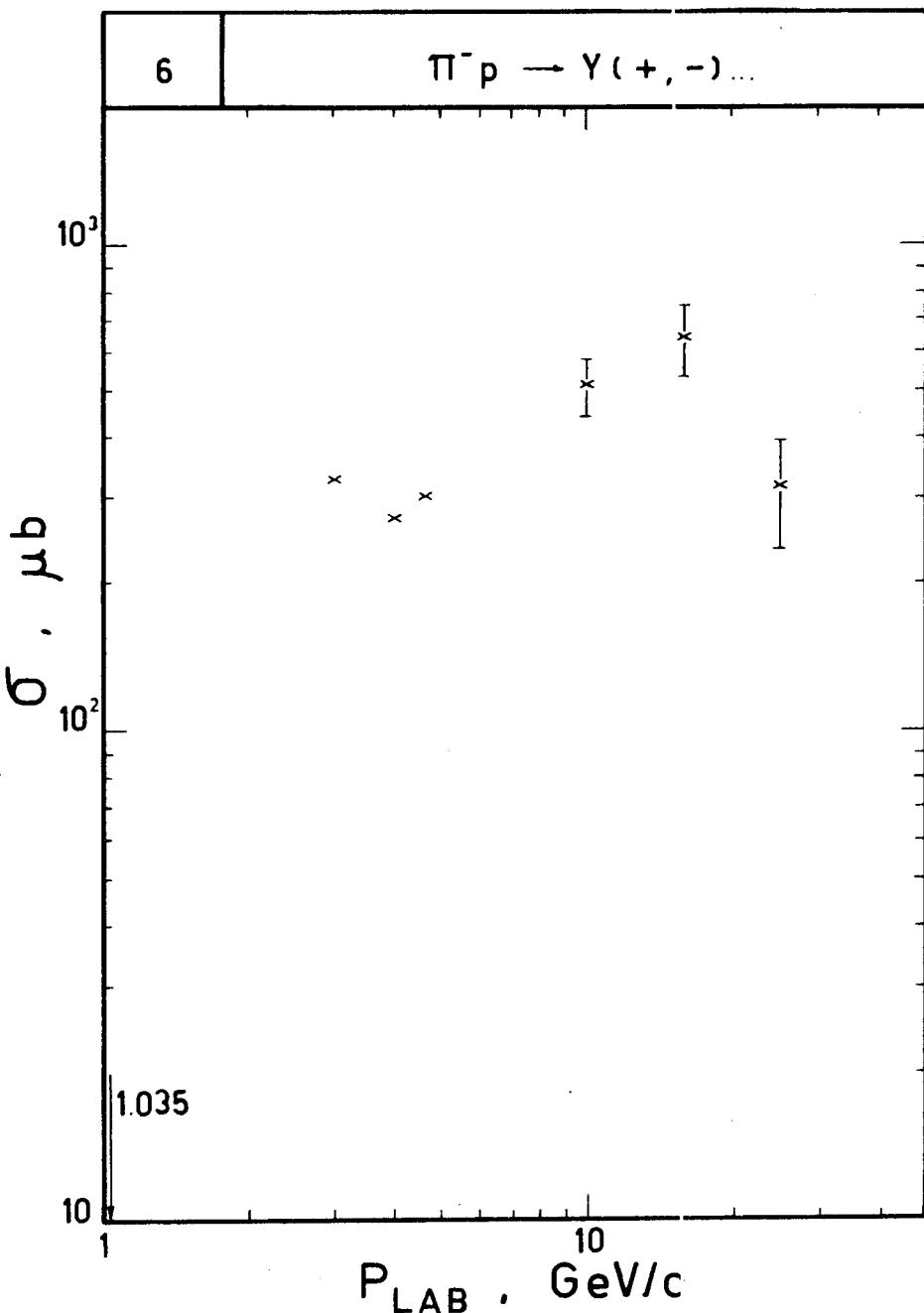
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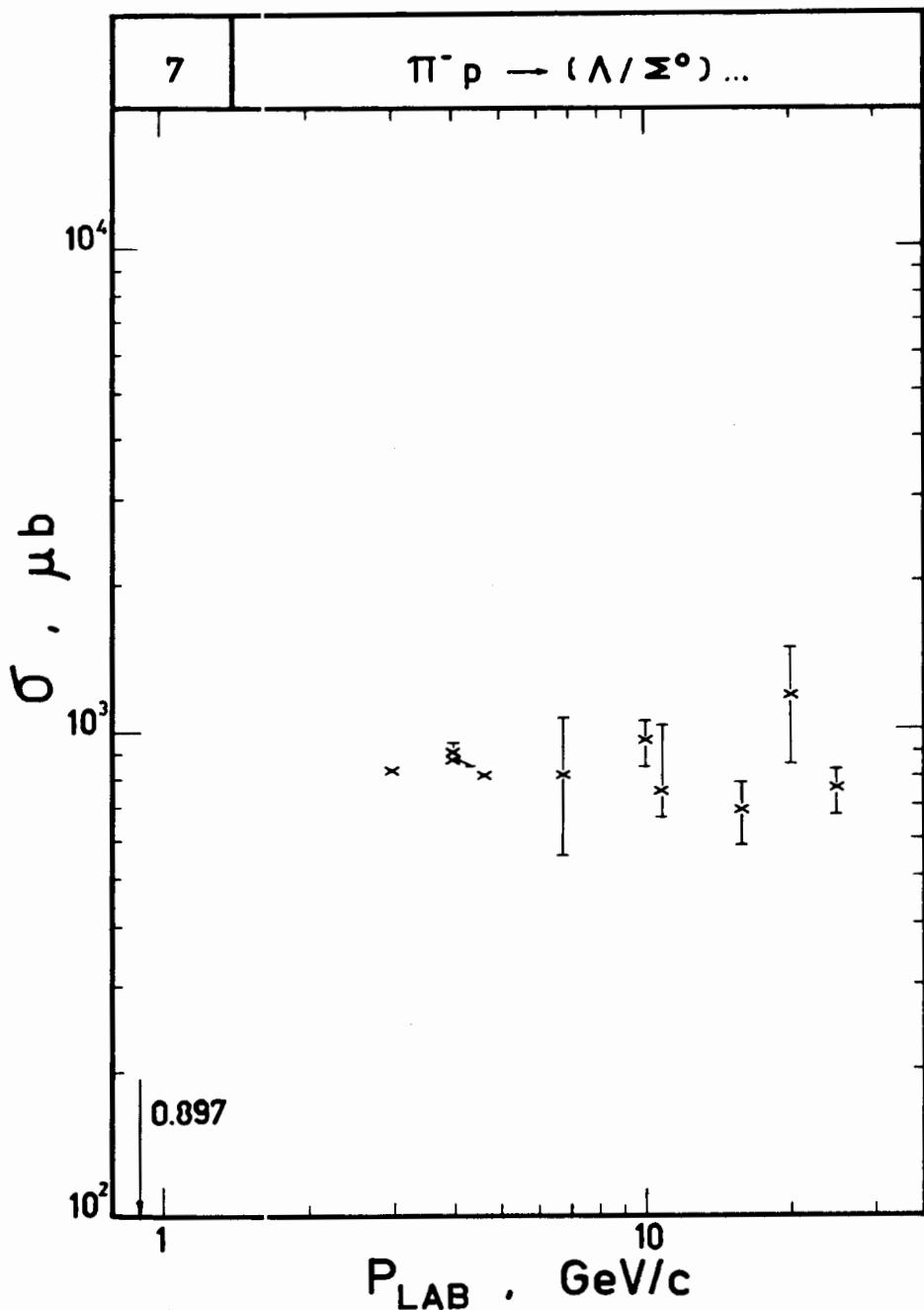
REFLECTIONS 292

	$\mu_1 = S(\sigma_1), S(\tau_1)(\sigma_1)$	$\mu_2 = S(\sigma_2), S(\tau_2)(\sigma_2)$	REFERENCE	COM
N. FUG	μ^+	T_{AB}	μ^+	μ^+
	μ^-	μ^+	μ^+	μ^+
2. 944			Σ_{104}	Σ_{104}
1. 935	σ_{111}	σ_{111}	σ_{111}	σ_{111}
	σ_{111}	σ_{111}	σ_{111}	σ_{111}
*****	*****	*****	*****	*****
REFLECTIONS 293	$\mu_1 = \mu_2 = 10$ PROTONS (L / S_0)			
N. FUG	μ^+	T_{AB}	μ^+	μ^+
	μ^-	μ^+	μ^+	μ^+
2. 76			Σ_{114}	Σ_{114}
1. 935	σ_{111}	σ_{111}	σ_{111}	σ_{111}
	σ_{111}	σ_{111}	σ_{111}	σ_{111}
*****	*****	*****	*****	*****
0.111/71	$\mu_1 = (L / S_0) \approx 441 \times 4P1 + 410$			
REFLECTIONS 294	$\mu_2 = (L / S_0) \approx 441 \times 4P1 + 410$			
N. FUG	μ^+	T_{AB}	μ^+	μ^+
	μ^-	μ^+	μ^+	μ^+
2. 756			Σ_{104}	Σ_{104}
1. 935	σ_{111}	σ_{111}	σ_{111}	σ_{111}
	σ_{111}	σ_{111}	σ_{111}	σ_{111}
*****	*****	*****	*****	*****
0.111/72	$\mu_1 = (L / S_0) \approx 441 \times 4P1 + 410$			
REFLECTIONS 295	$\mu_2 = (L / S_0) \approx 441 \times 4P1 + 410$			
N. FUG	μ^+	T_{AB}	μ^+	μ^+
	μ^-	μ^+	μ^+	μ^+
2. 756			Σ_{104}	Σ_{104}
1. 935	σ_{111}	σ_{111}	σ_{111}	σ_{111}
	σ_{111}	σ_{111}	σ_{111}	σ_{111}
*****	*****	*****	*****	*****
0.111/74	$\mu_1 = (L / S_0) \approx 4P1 + 410$			
REFLECTIONS 296	$\mu_2 = (L / S_0) \approx 4P1 + 410$			
N. FUG	μ^+	T_{AB}	μ^+	μ^+
	μ^-	μ^+	μ^+	μ^+
2. 756			Σ_{104}	Σ_{104}
1. 935	σ_{111}	σ_{111}	σ_{111}	σ_{111}
	σ_{111}	σ_{111}	σ_{111}	σ_{111}
*****	*****	*****	*****	*****
3. 940			Σ_{104}	Σ_{104}
1. 935	σ_{111}	σ_{111}	σ_{111}	σ_{111}
	σ_{111}	σ_{111}	σ_{111}	σ_{111}
*****	*****	*****	*****	*****

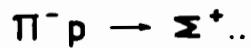








9



$$\sigma \cdot \mu b$$

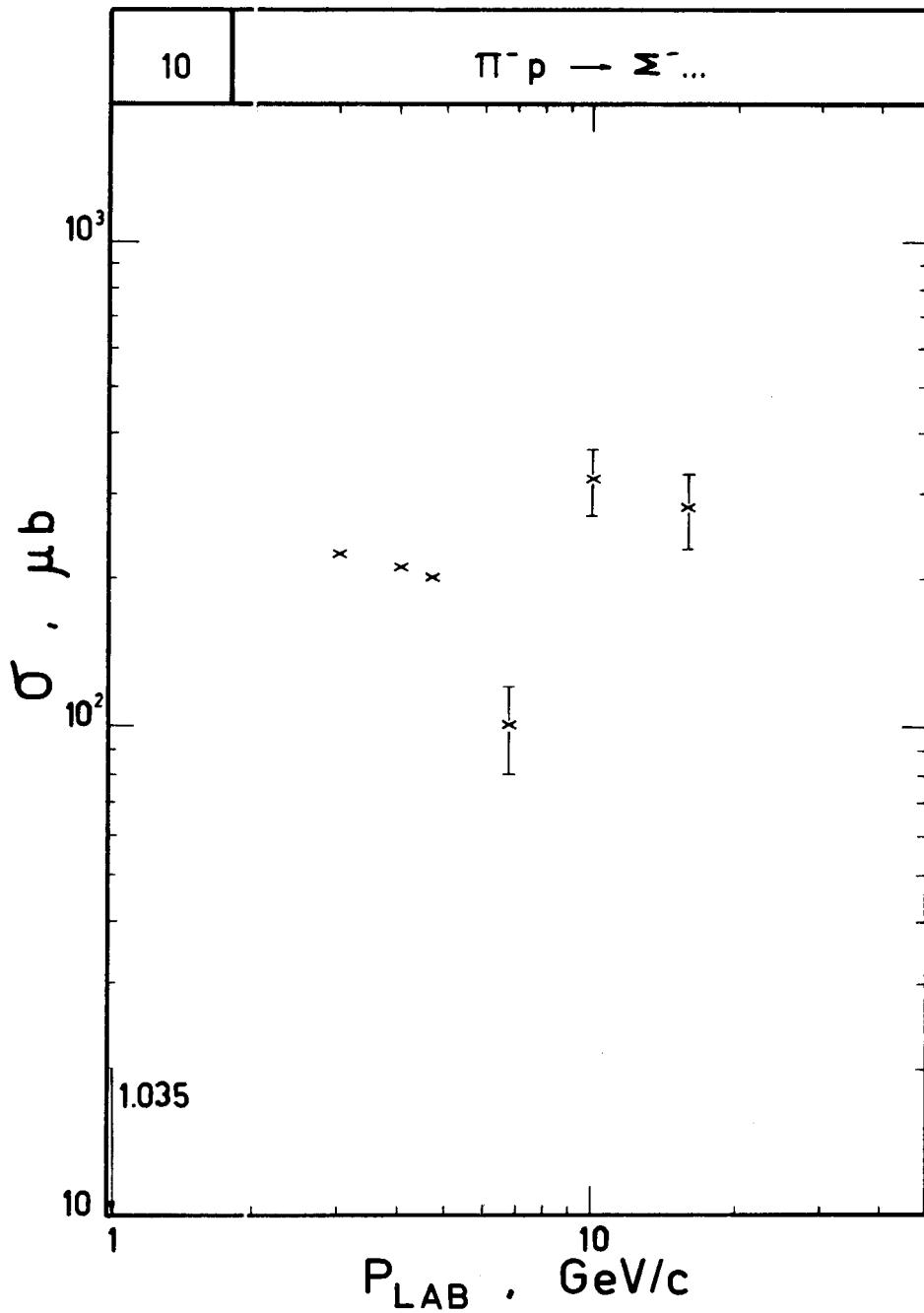
 10^3 10^2 10

1.292

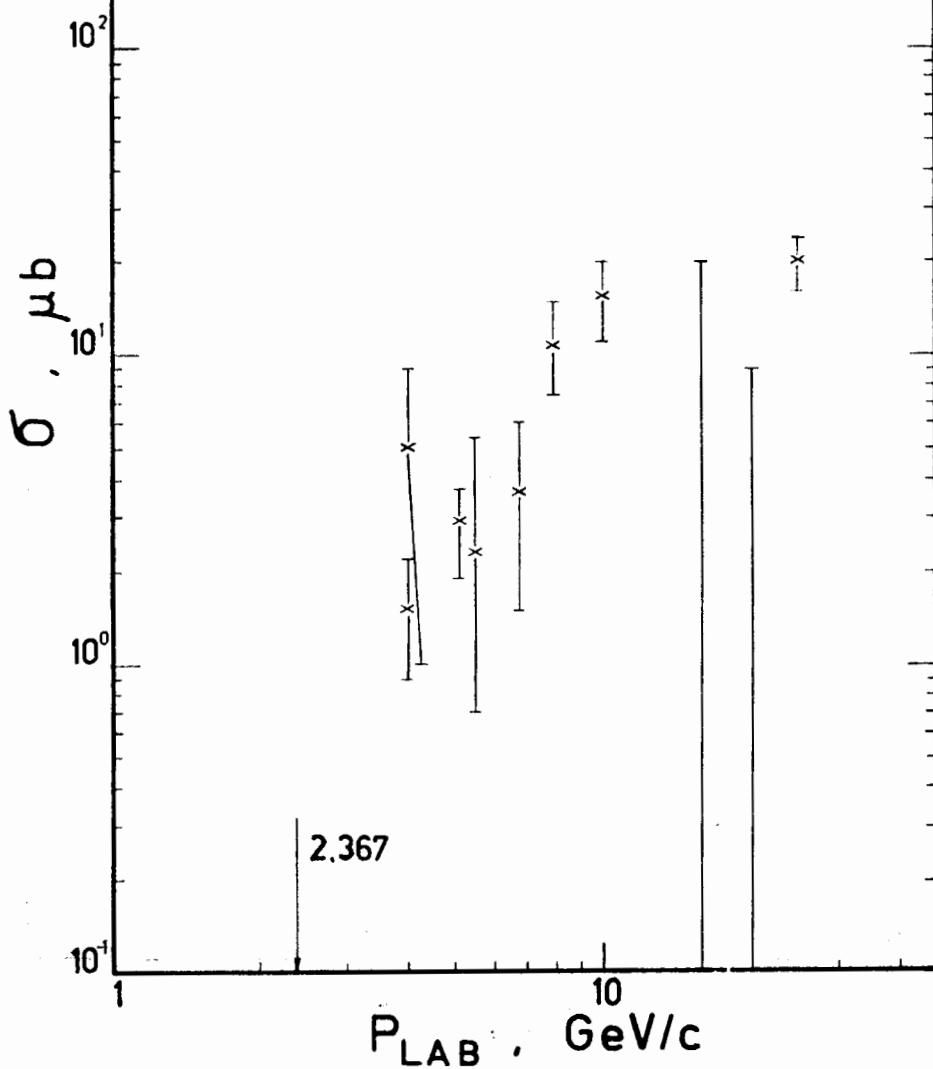
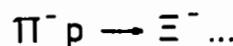
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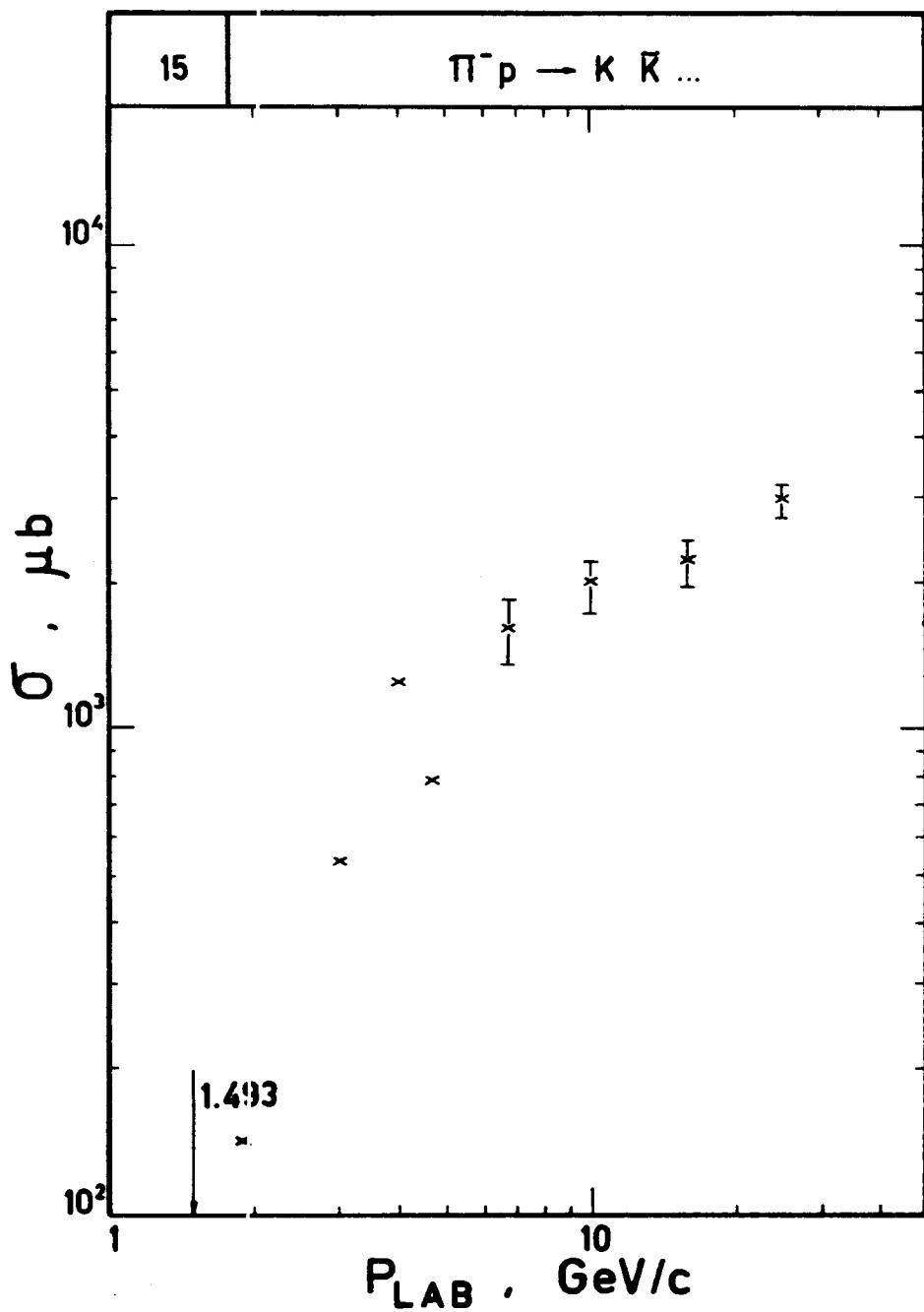
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 P_{LAB} GeV/c

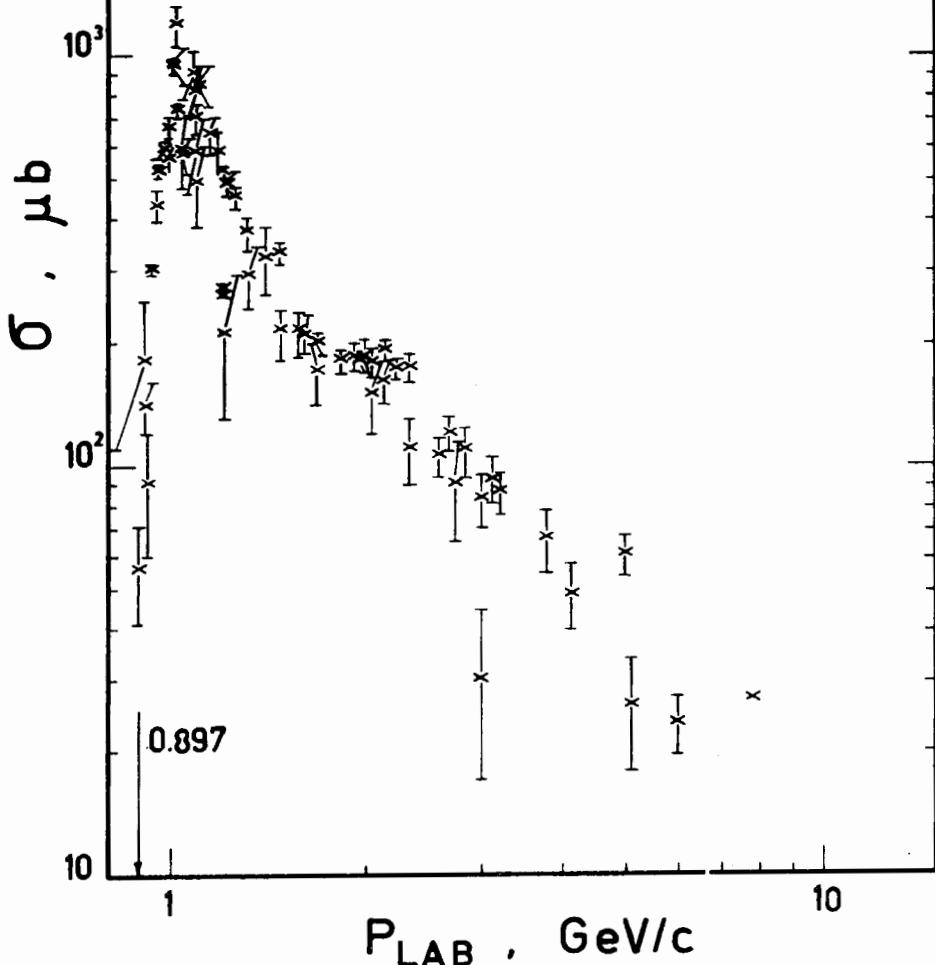


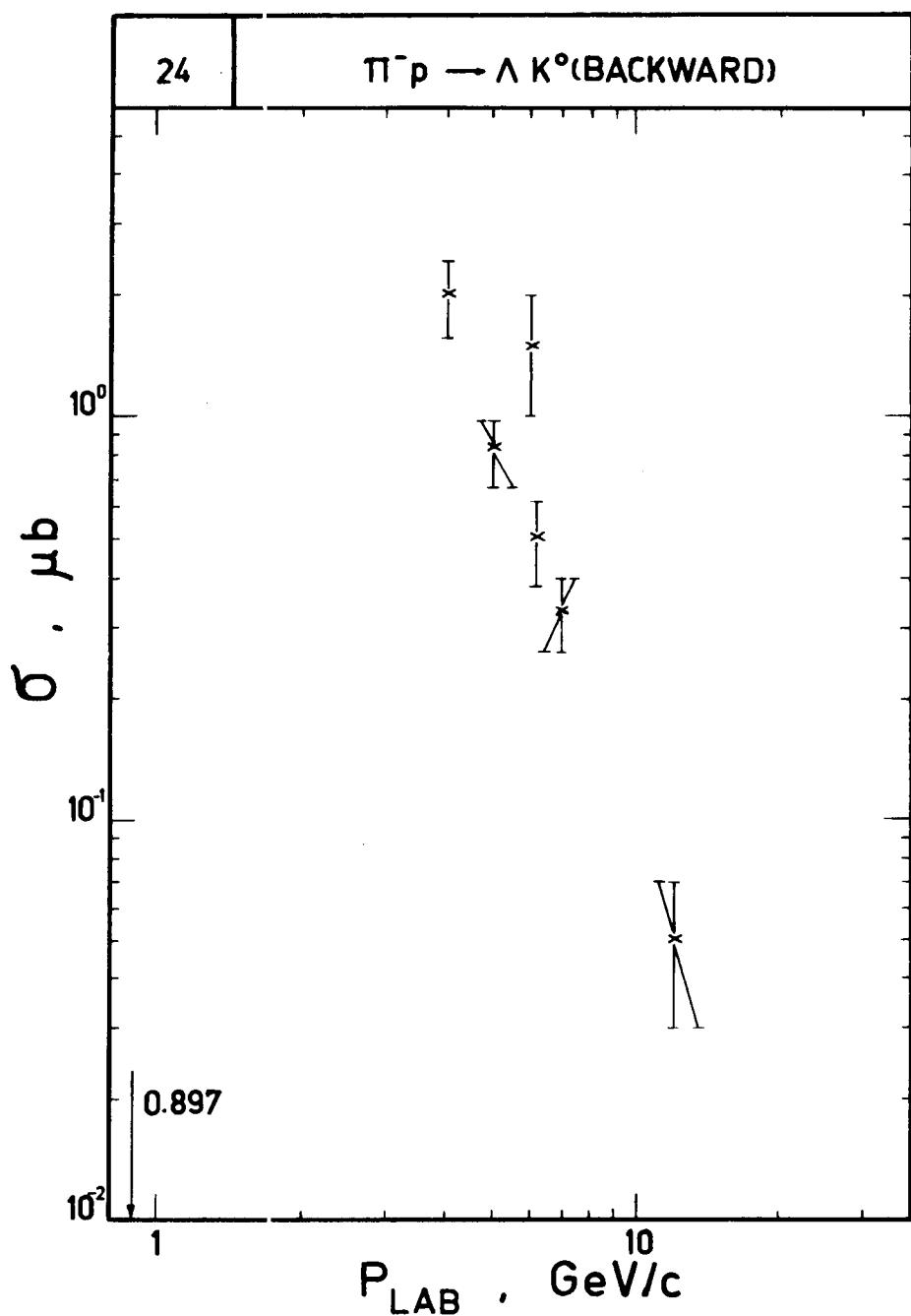
11





23





30

 $\pi^- p \rightarrow (\Lambda/\Sigma^0) K^0$ $\sigma, \mu b$ 10²

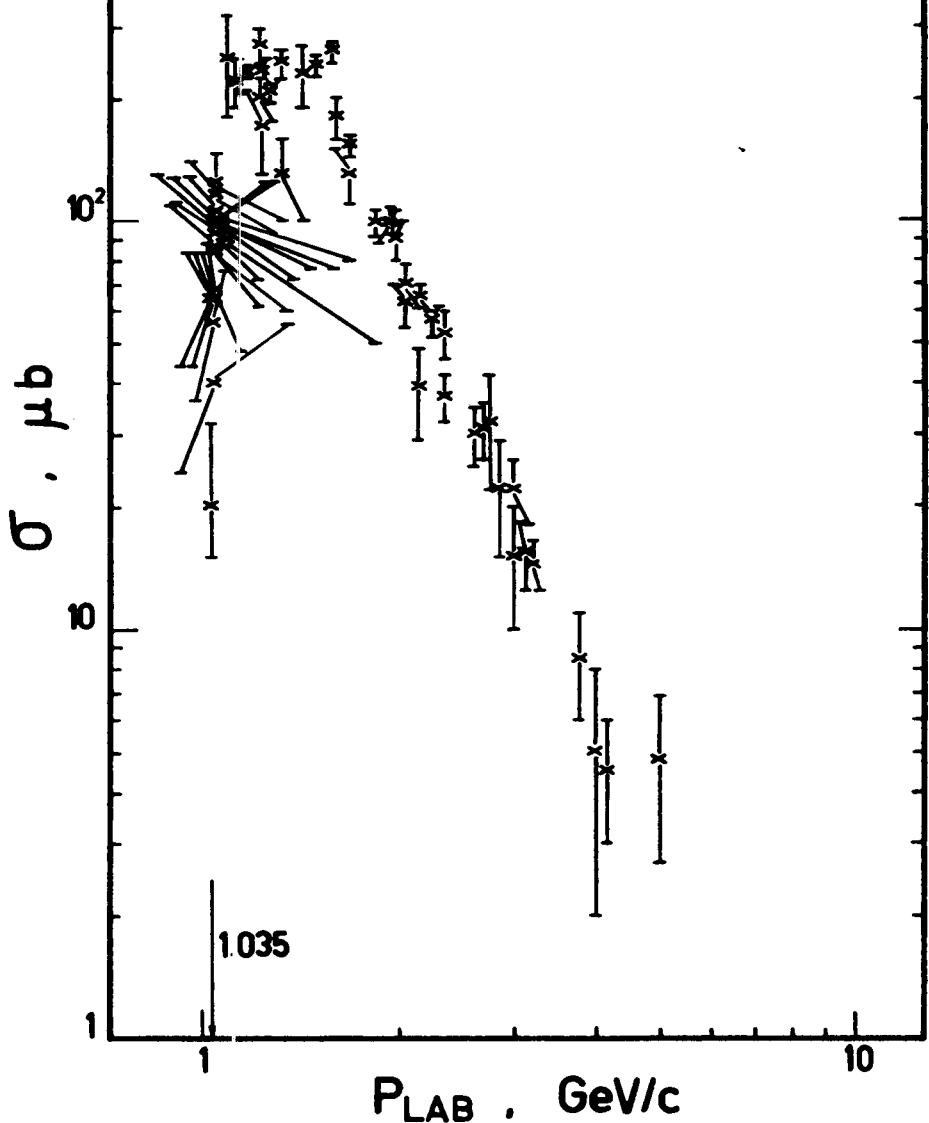
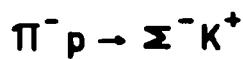
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1

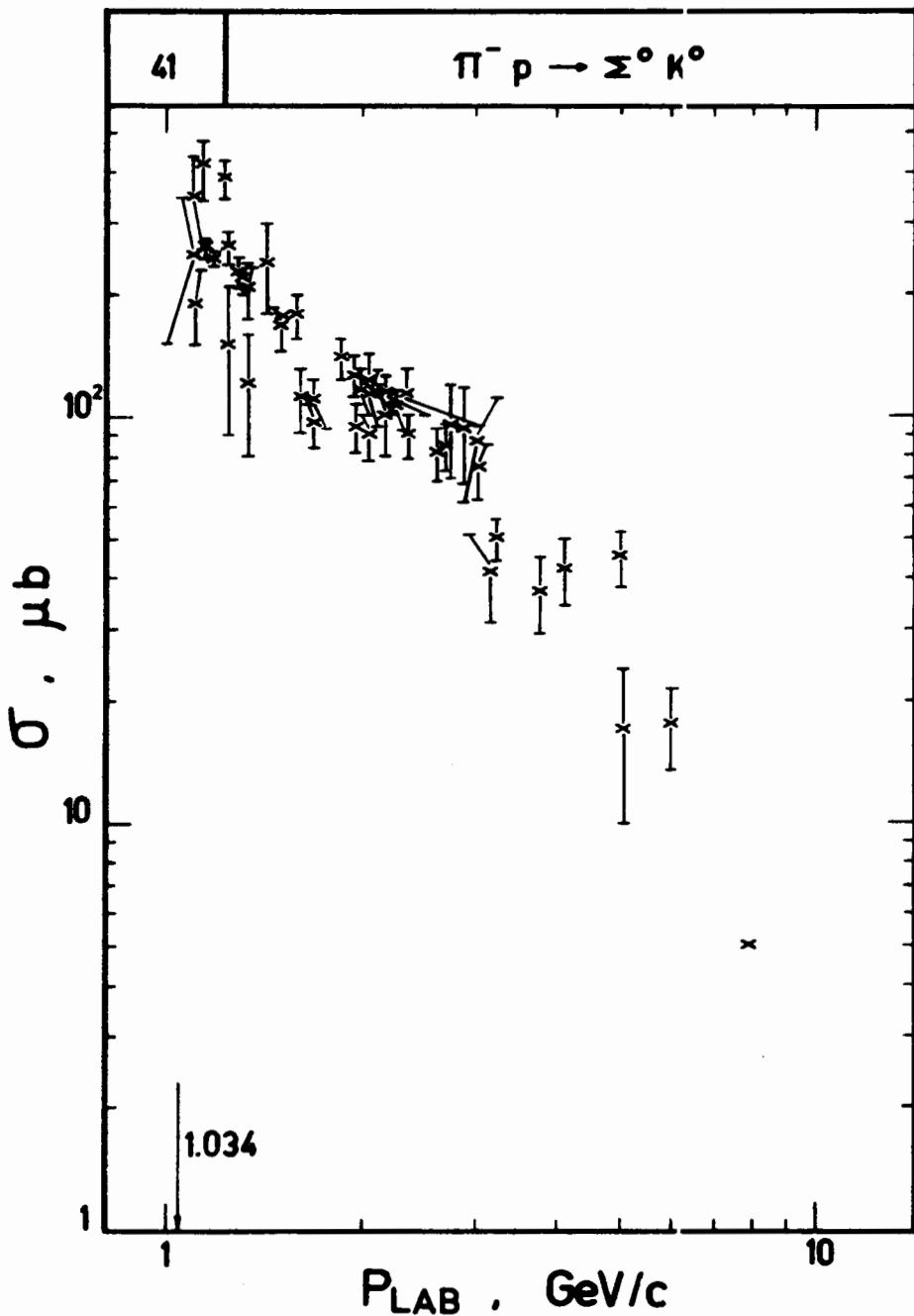
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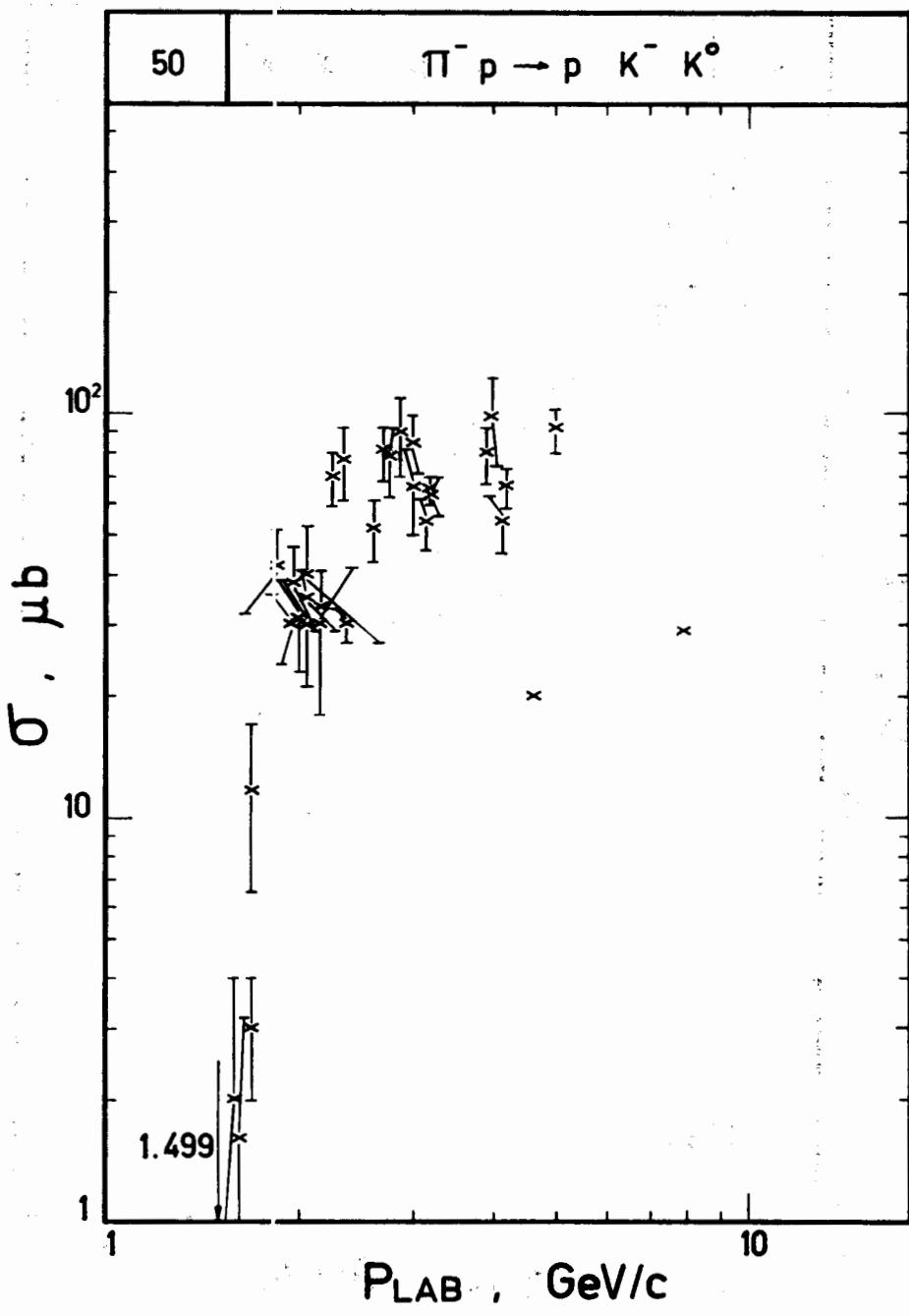
 $P_{LAB} GeV/c$

38

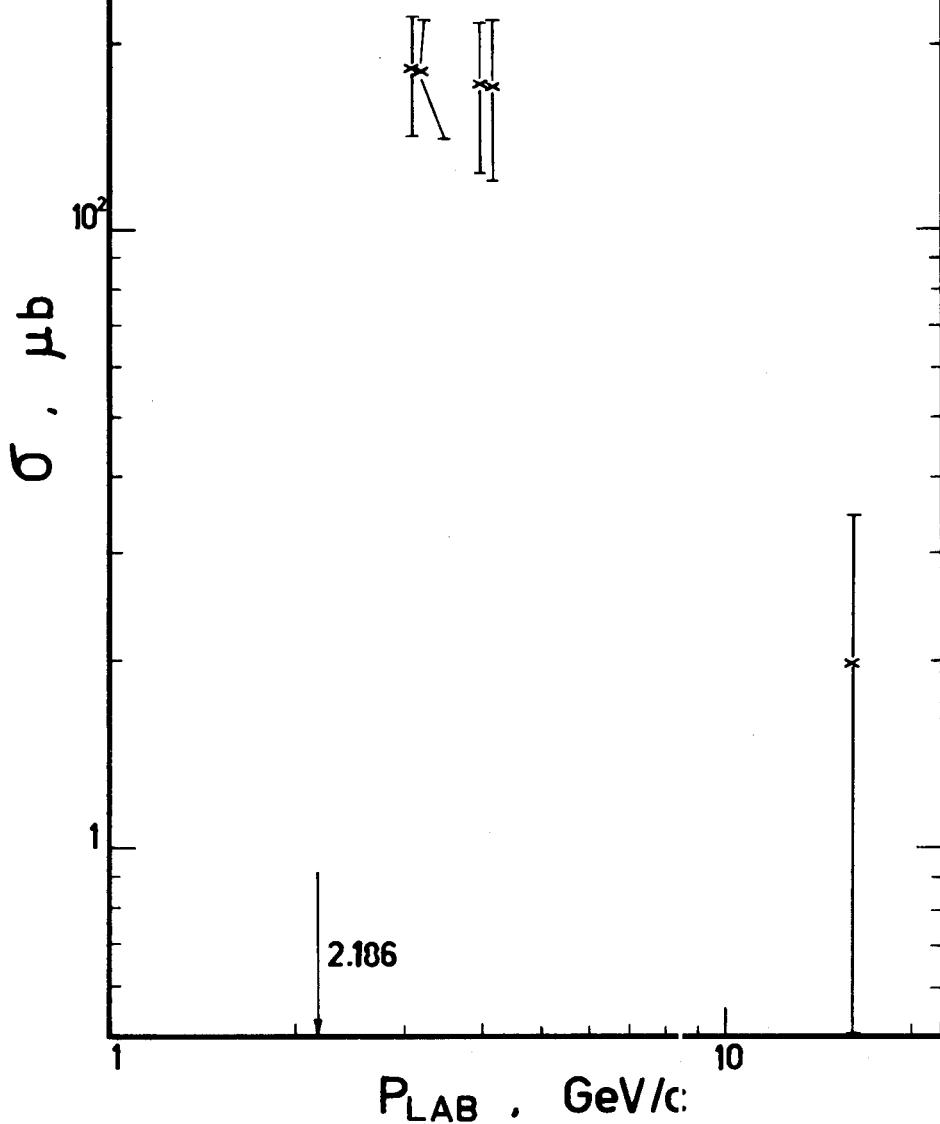


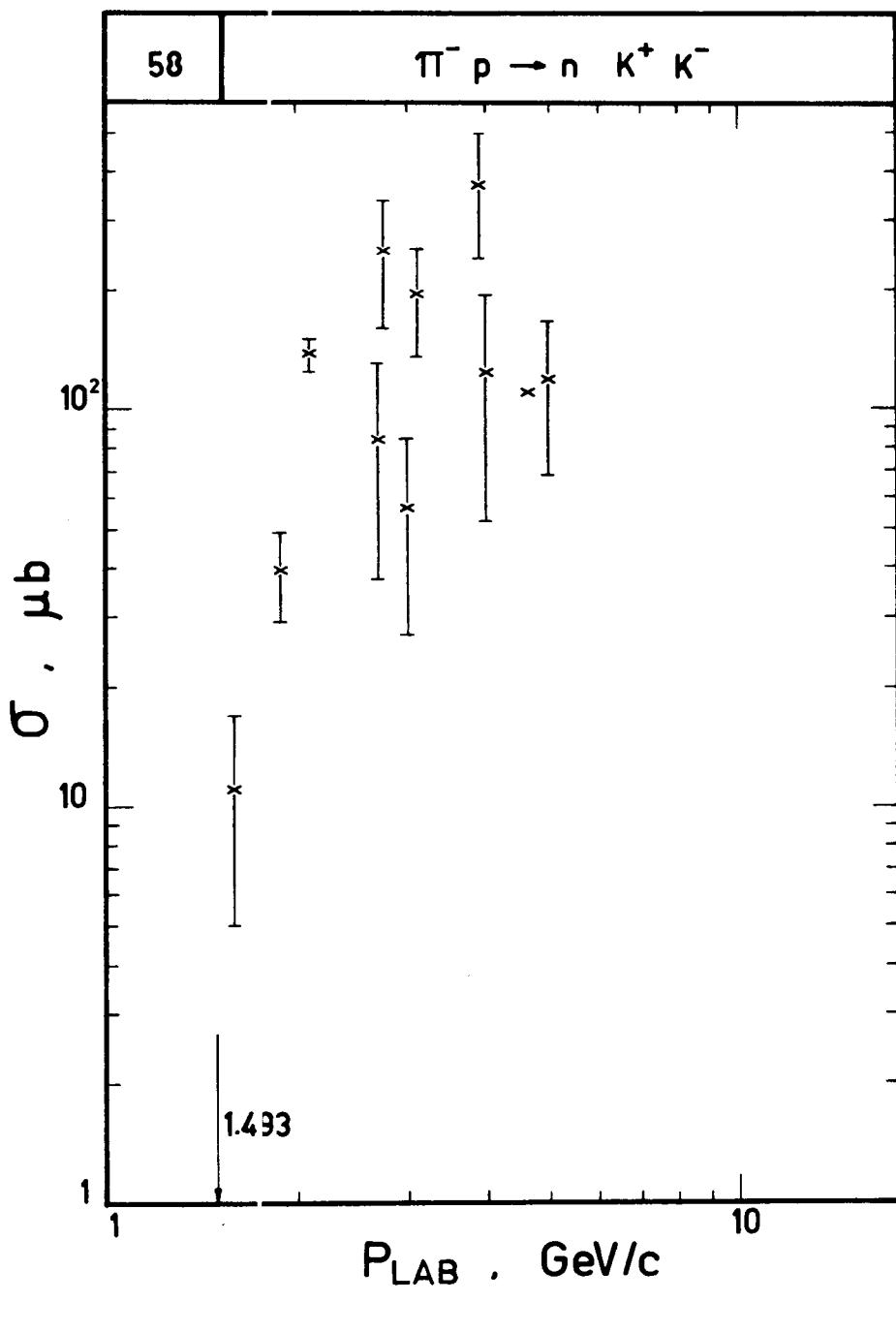
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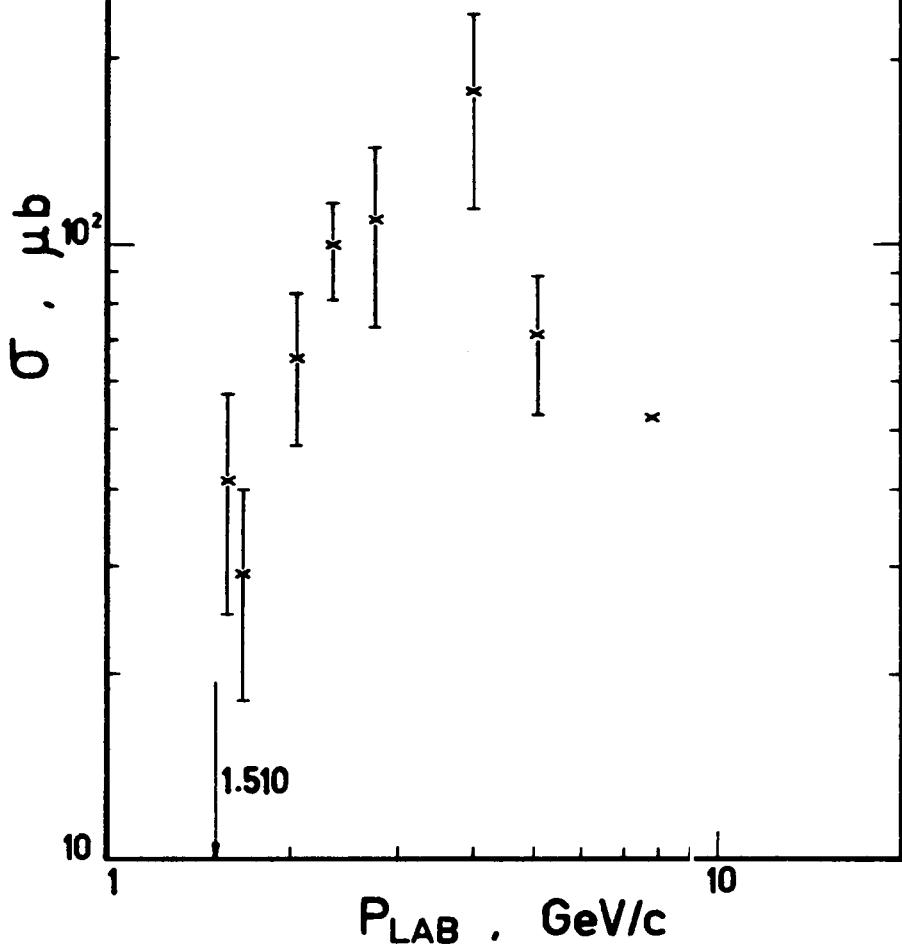


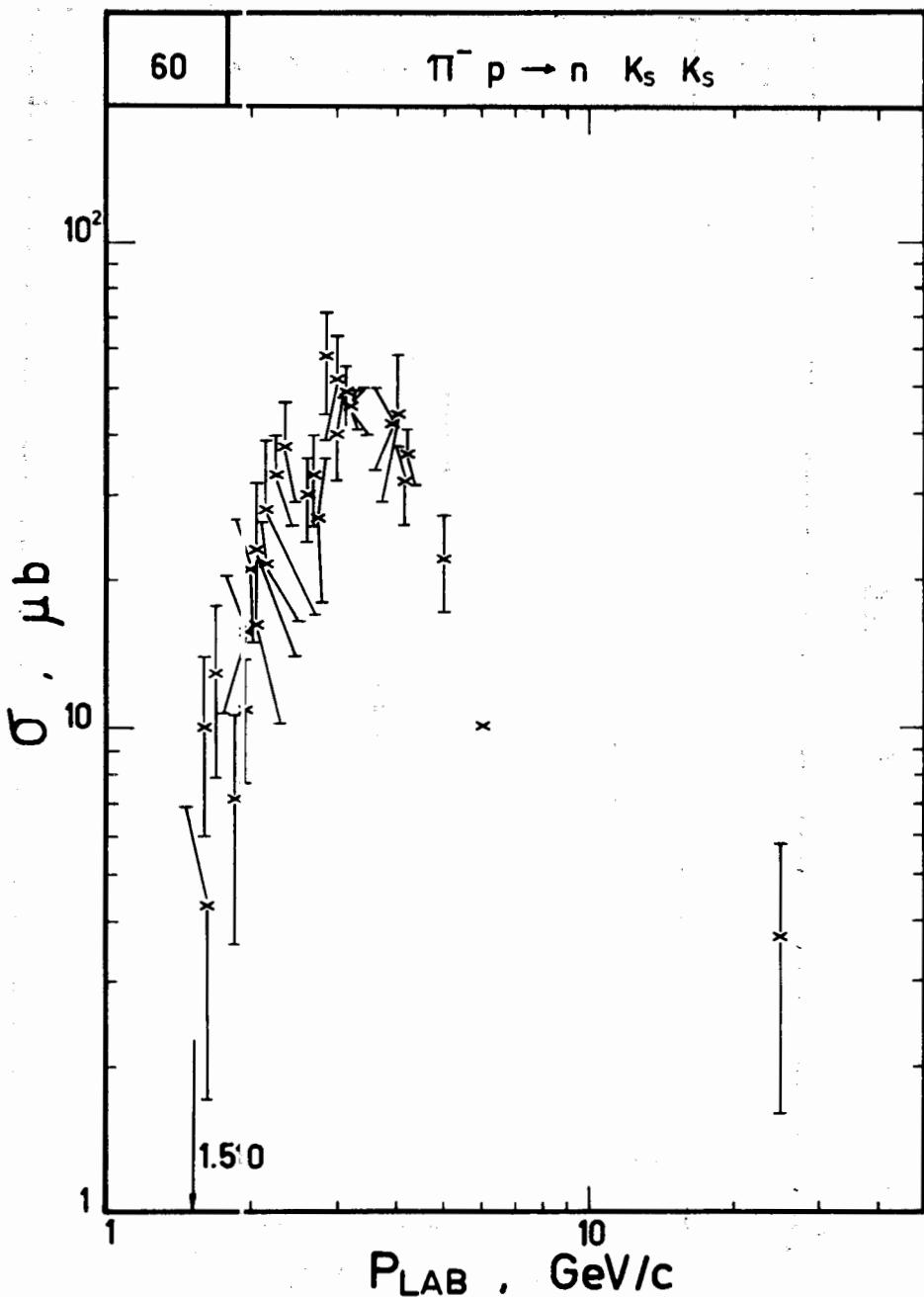
54

 $\pi^- p \rightarrow p A_2^-(1300) \rightarrow p K^- K^0$ 

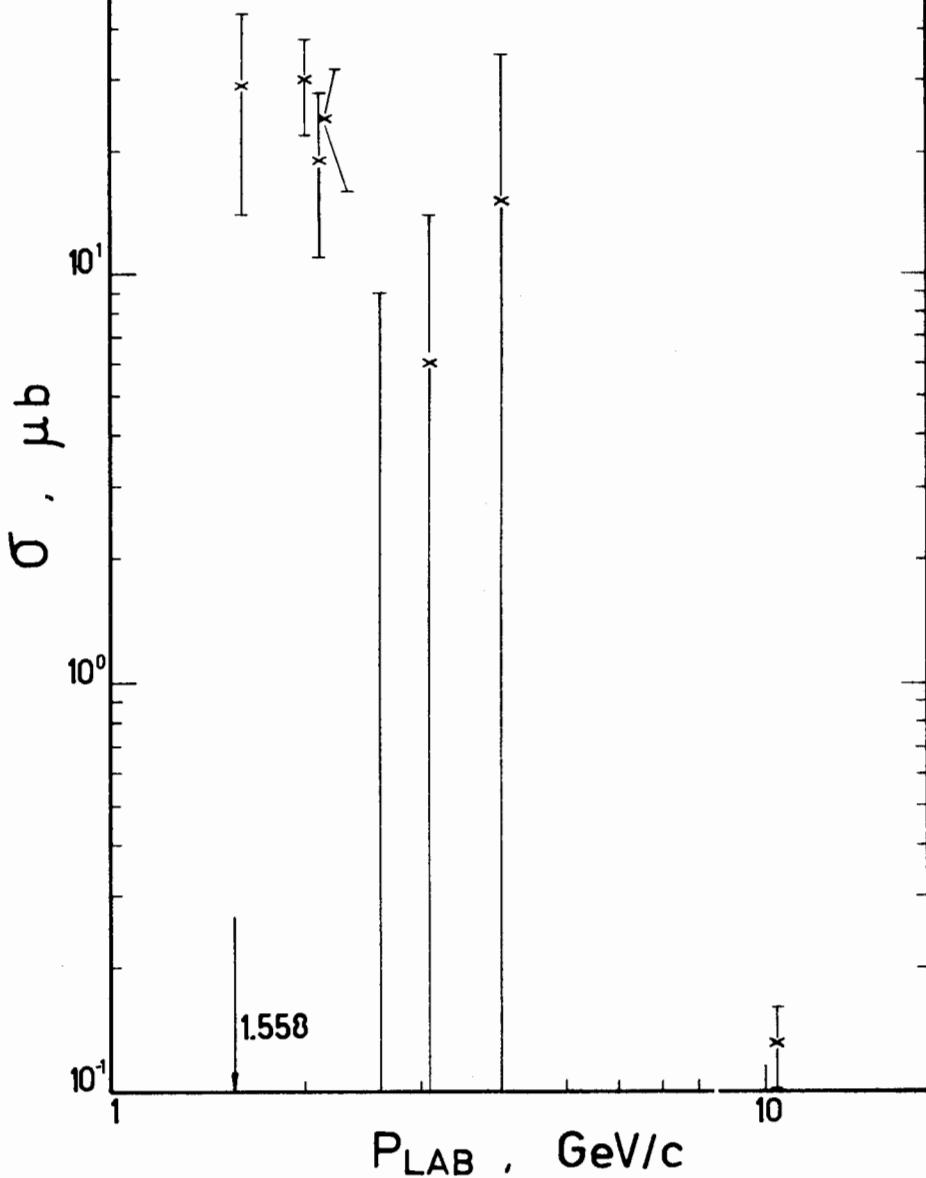
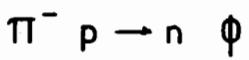


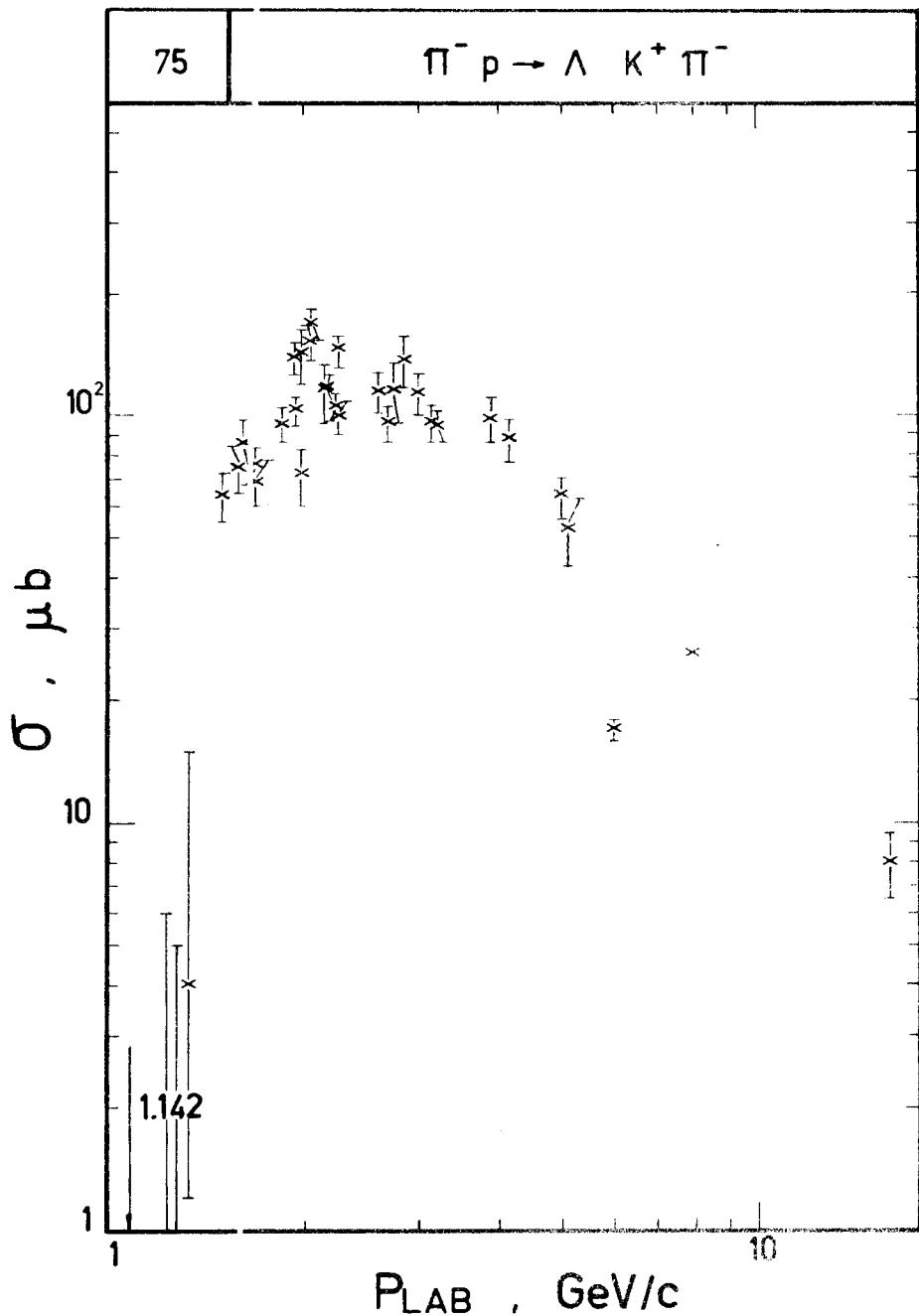
59





62





76

 $\pi^- p \rightarrow \Lambda \ K^0 \ \pi^0$ 

79

 $\pi^- p \rightarrow \Lambda \ K^0(890)$ $\sigma_{\mu\mu}$ 10^2

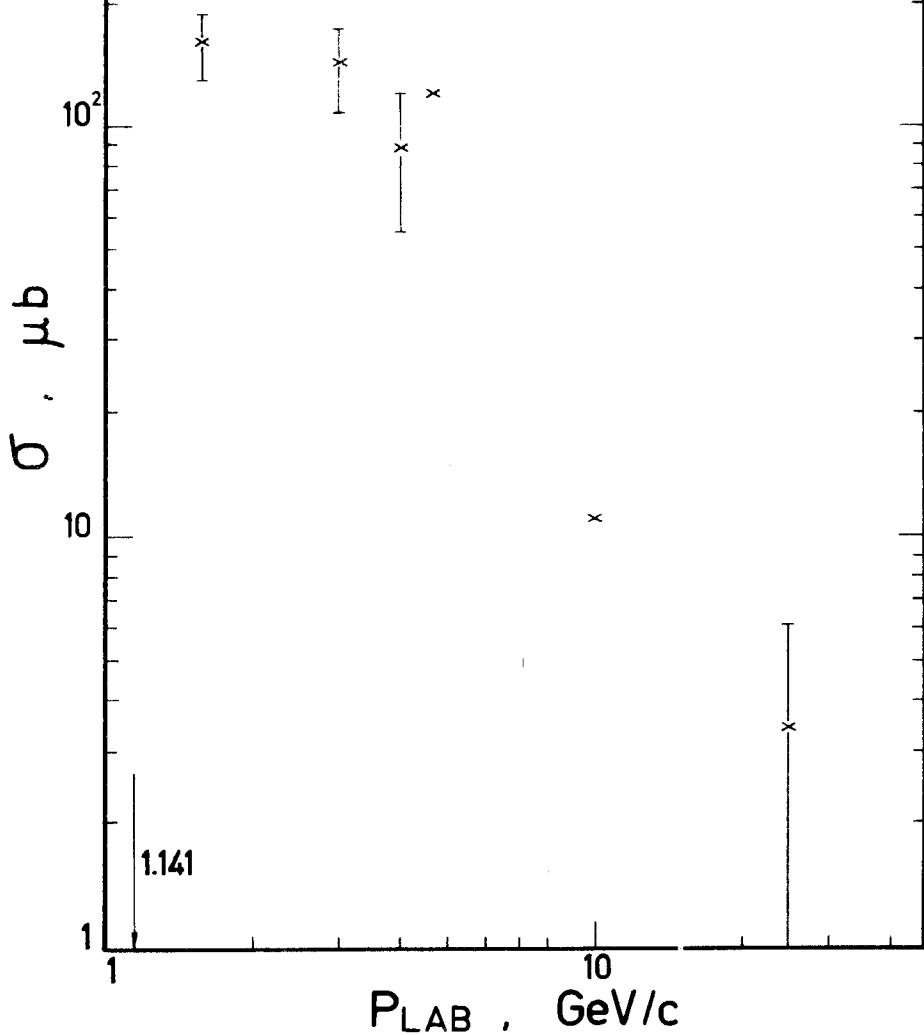
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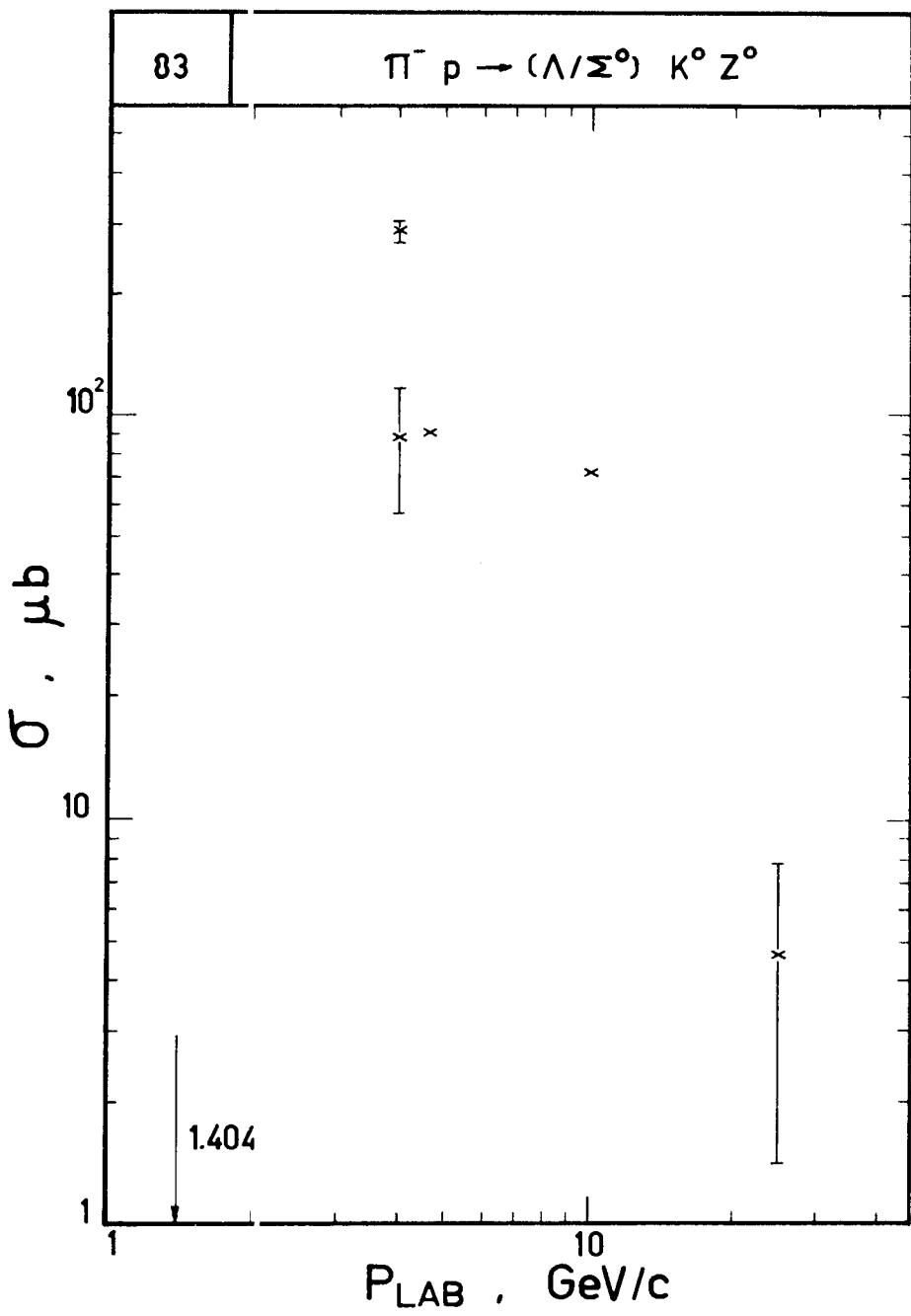
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1.658

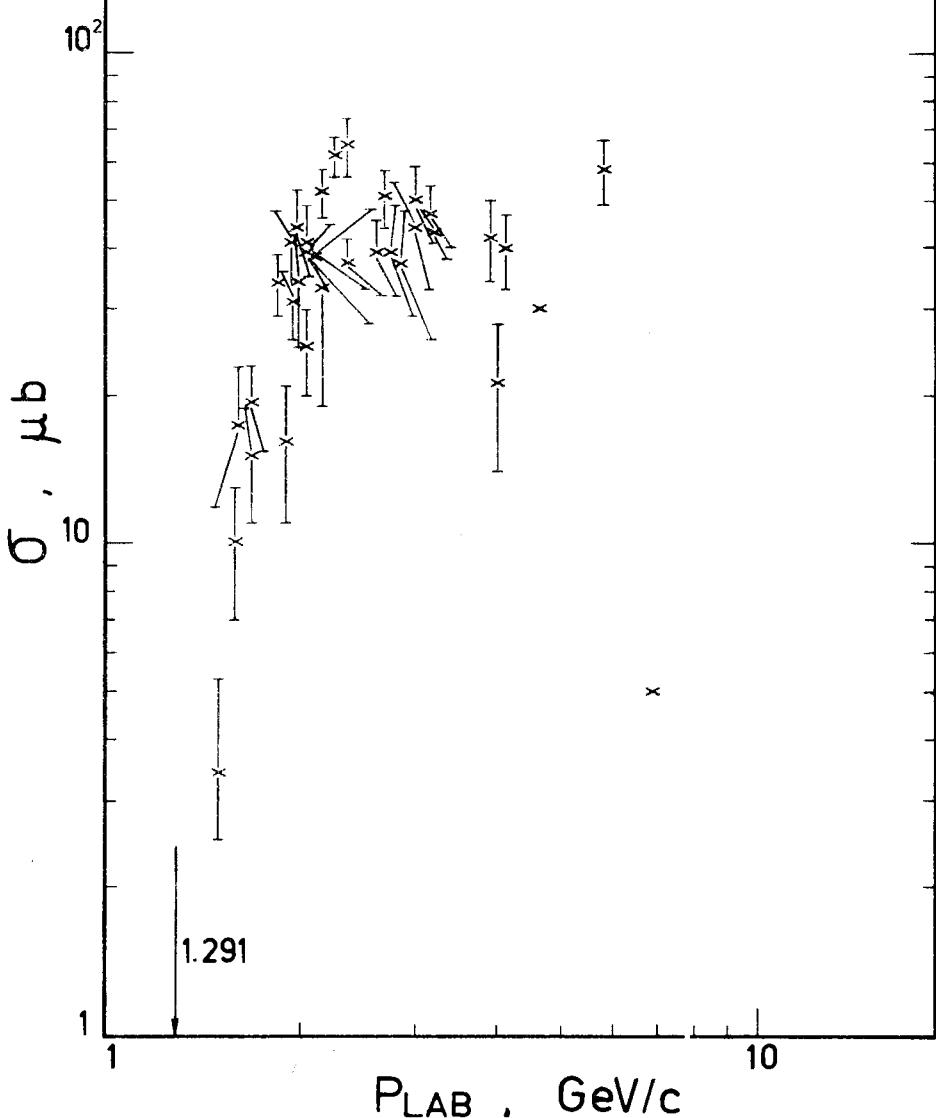
 $P_{LAB}, \text{ GeV}/c$

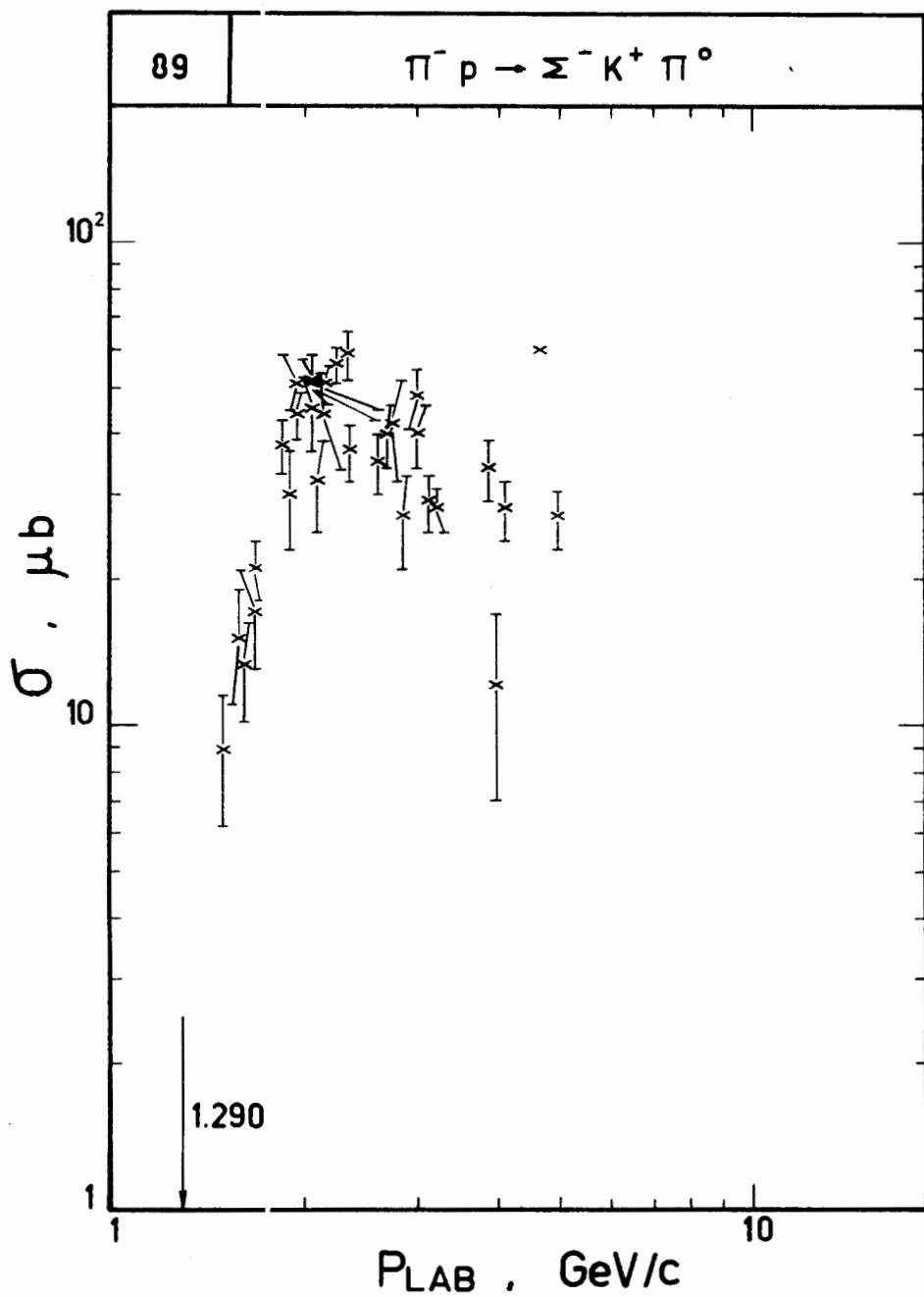
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 $\pi^- p \rightarrow (\Lambda/\Sigma^0) \ K^0 \pi^-$ 

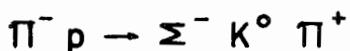


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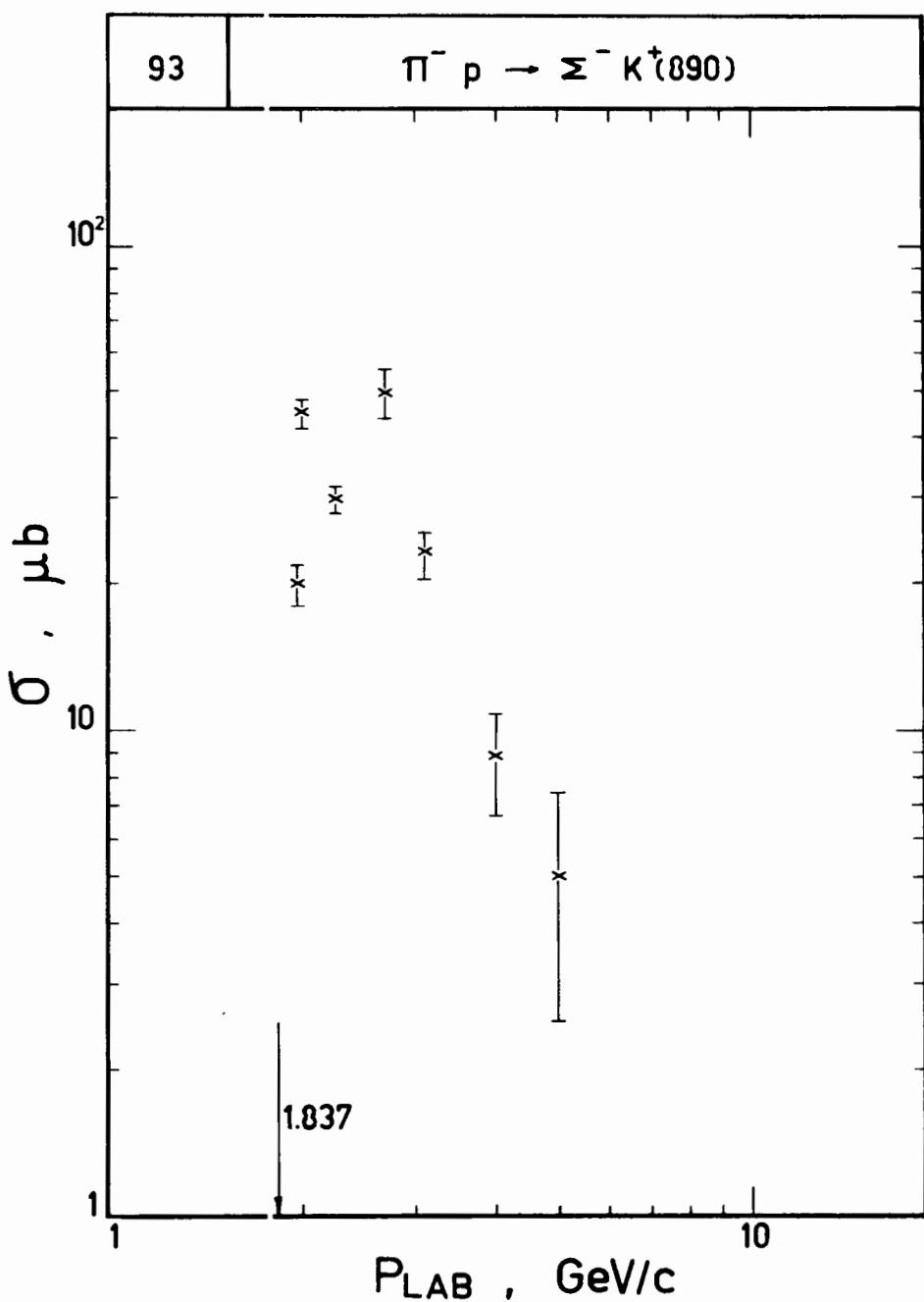
91

 $\sigma \cdot \mu b$ 10^2 10 1

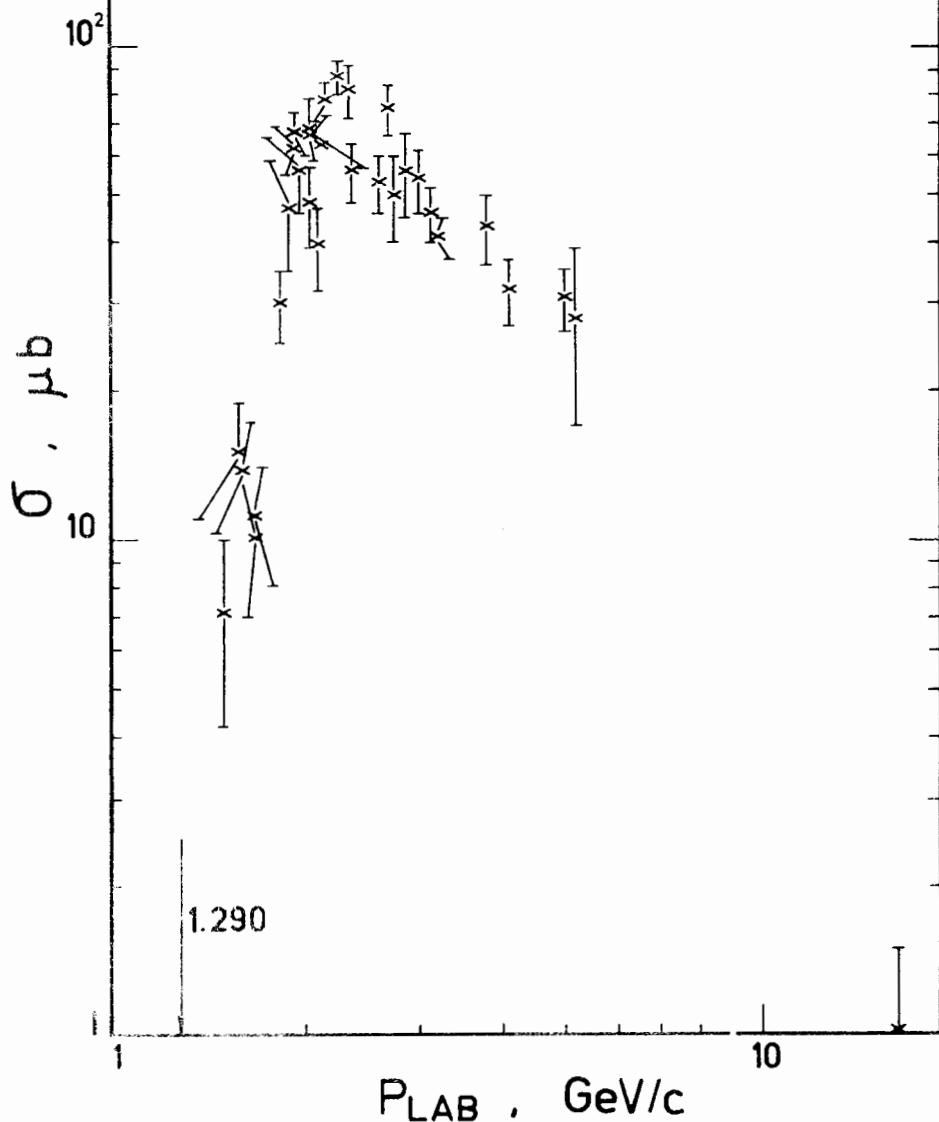
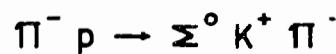
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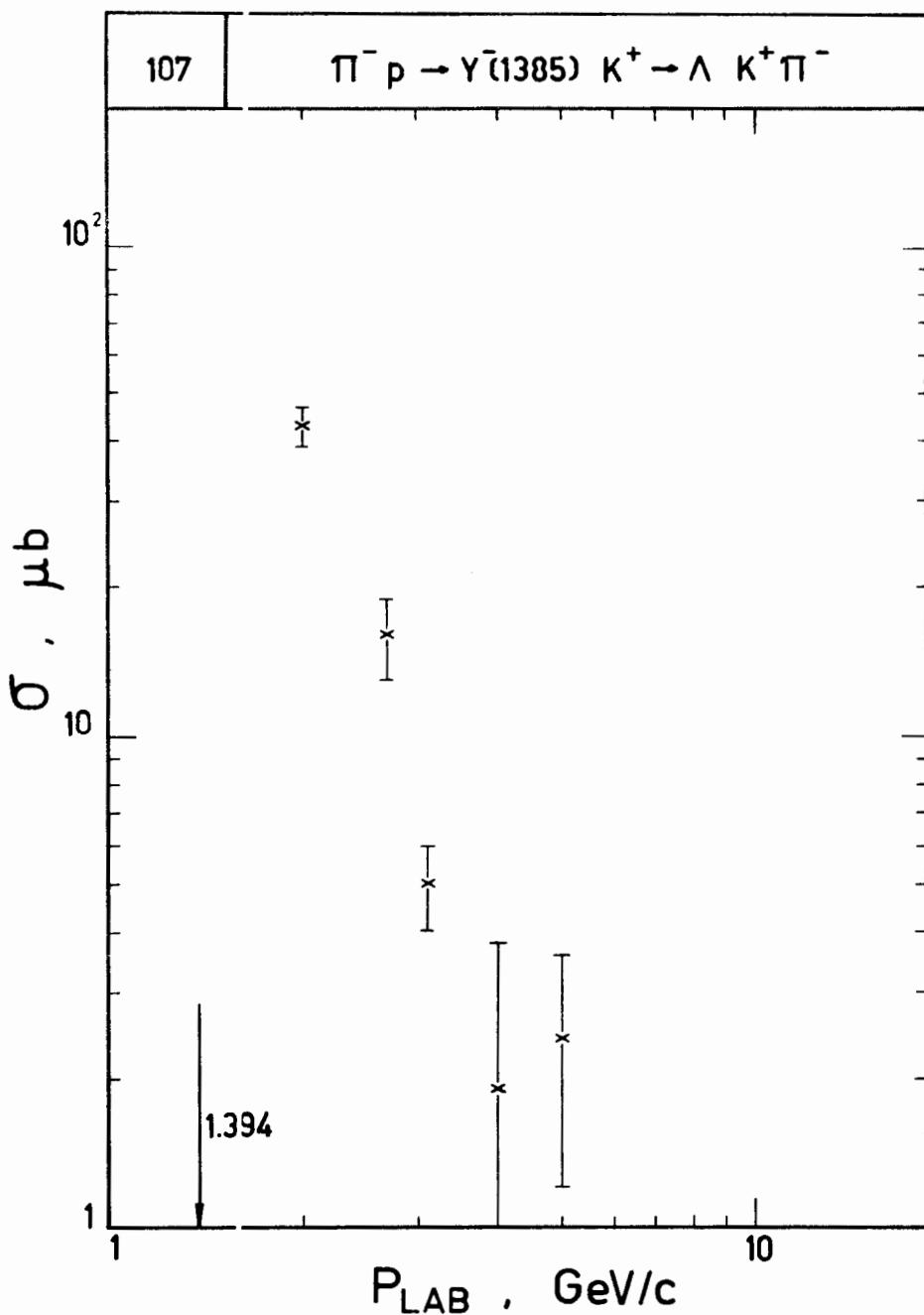
 $P_{LAB}, \text{ GeV}/c$

10

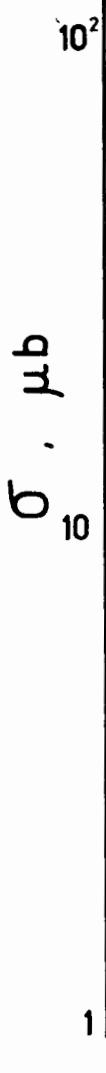


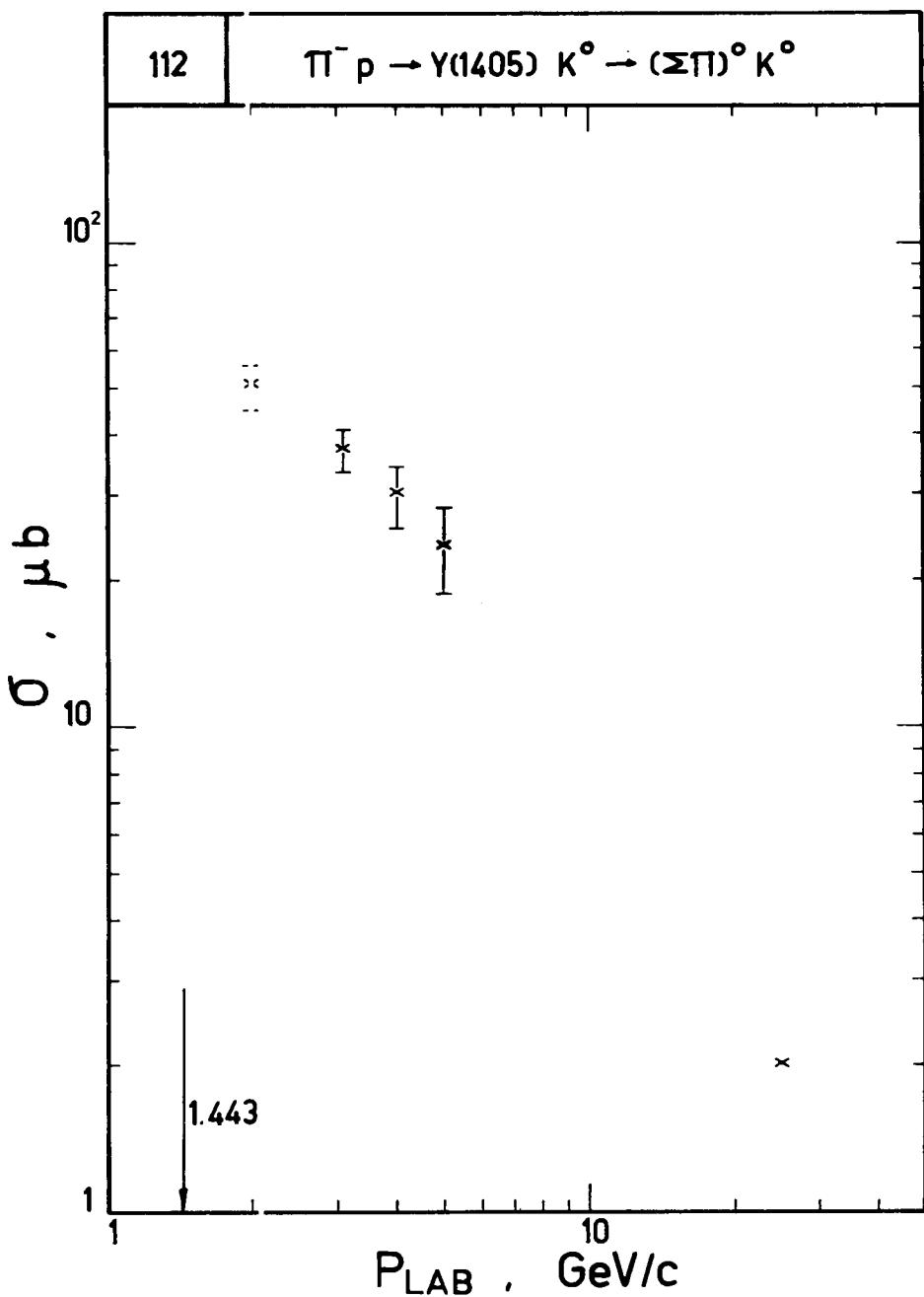
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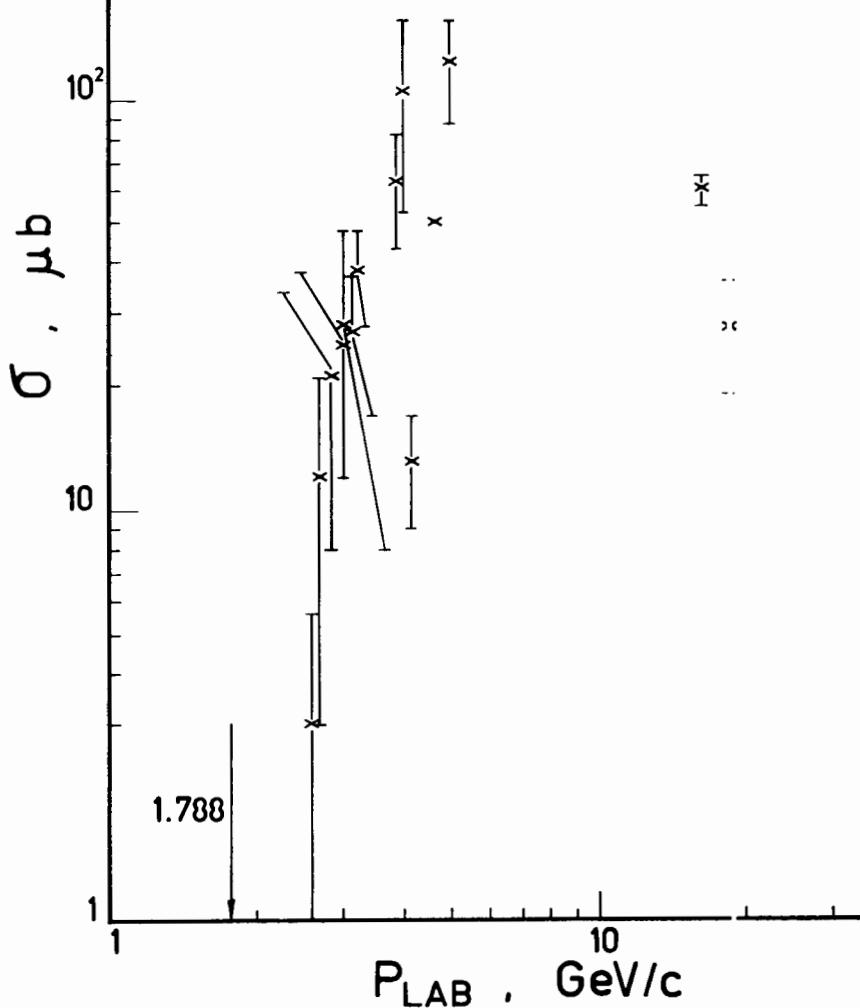


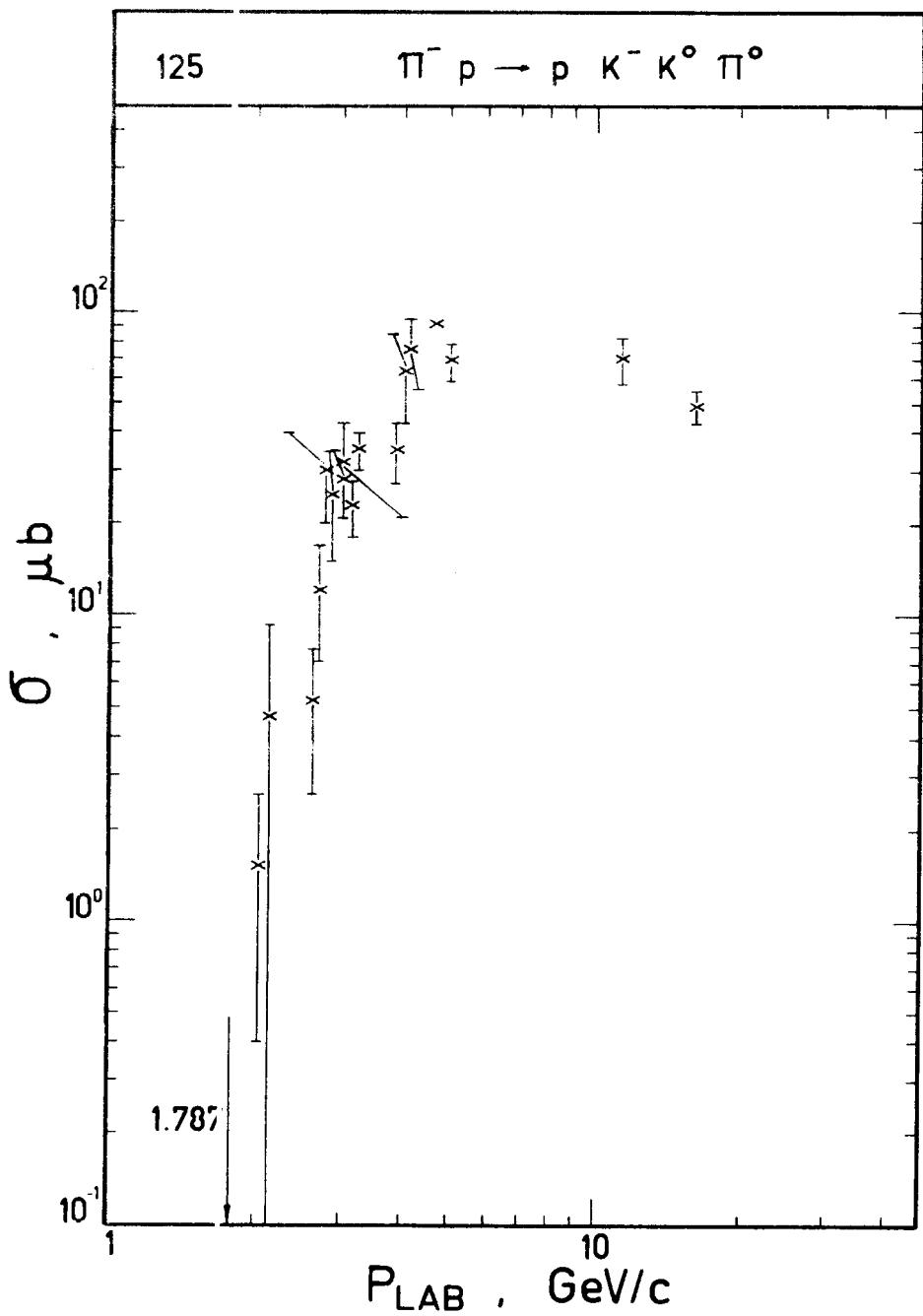
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 $\pi^- p \rightarrow \gamma^*(1385) K^0 \rightarrow \Lambda K^0 \pi^0$  $P_{\text{LAB}}, \text{ GeV}/c$

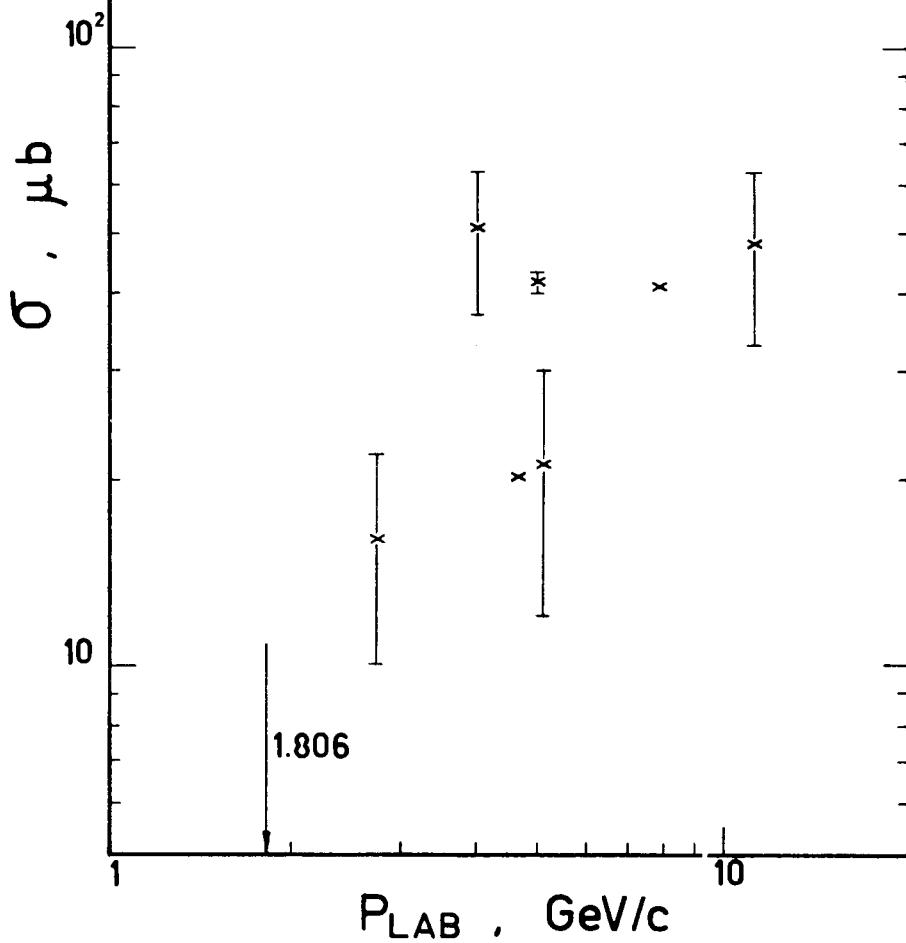


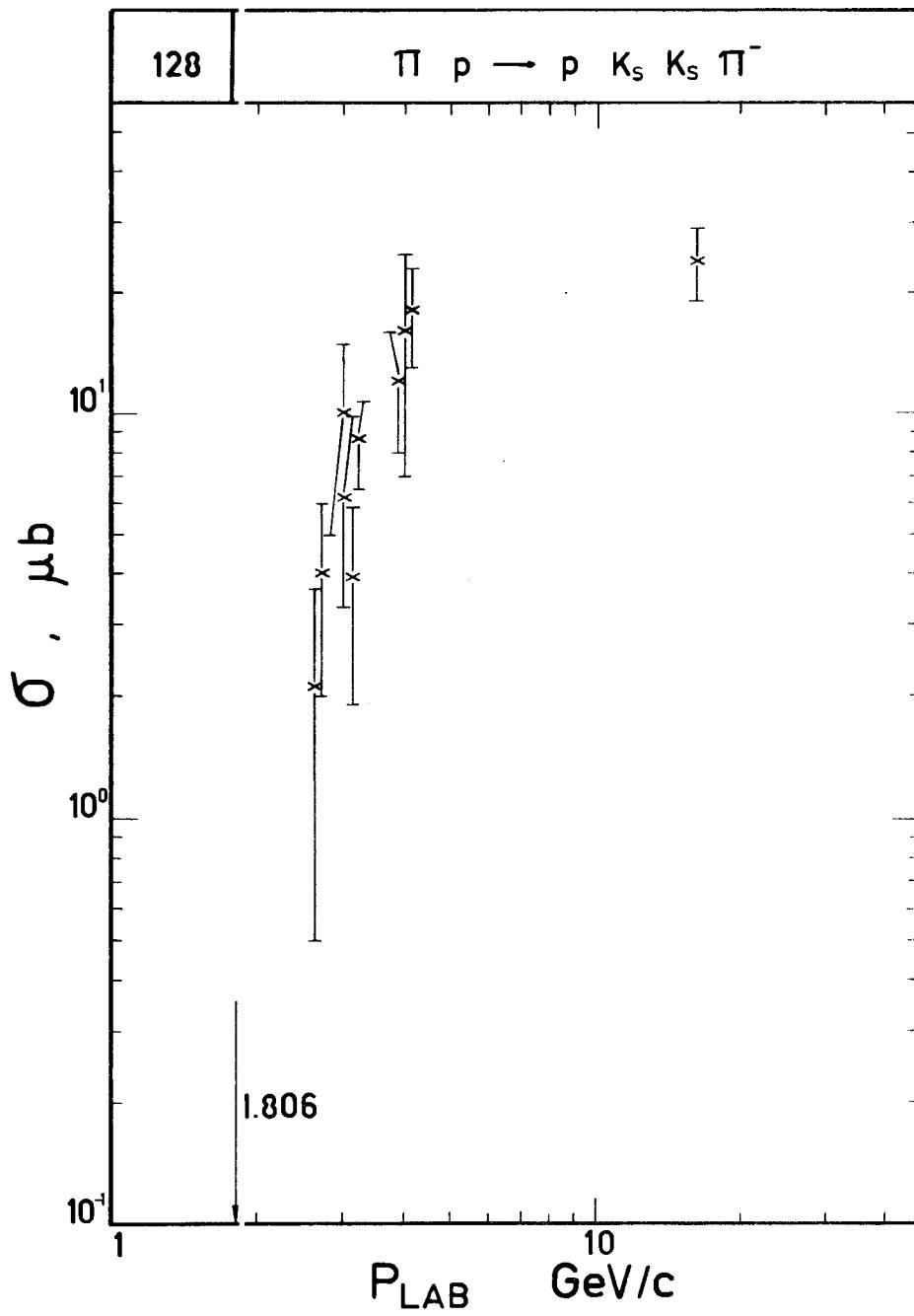
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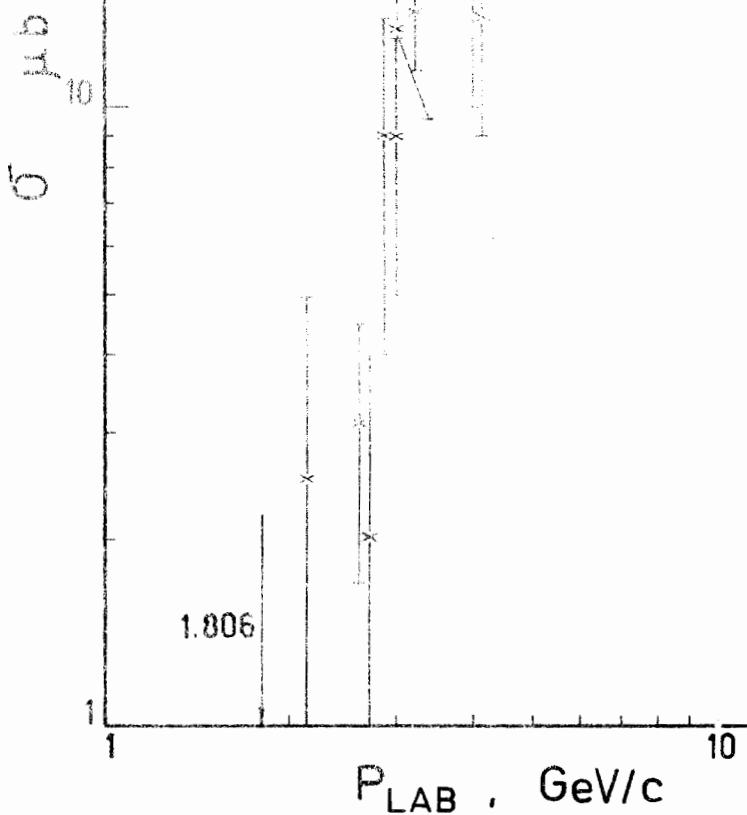


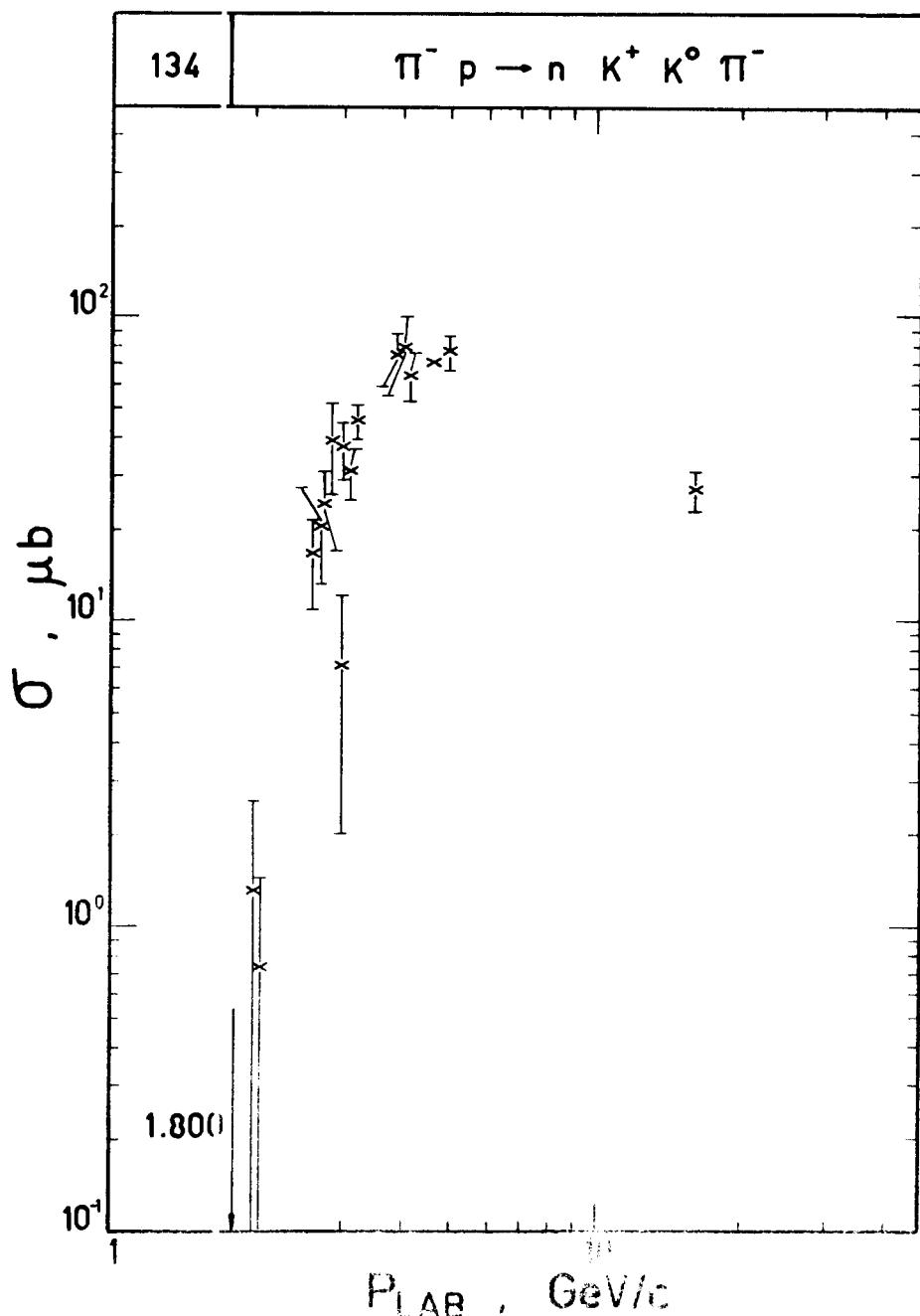
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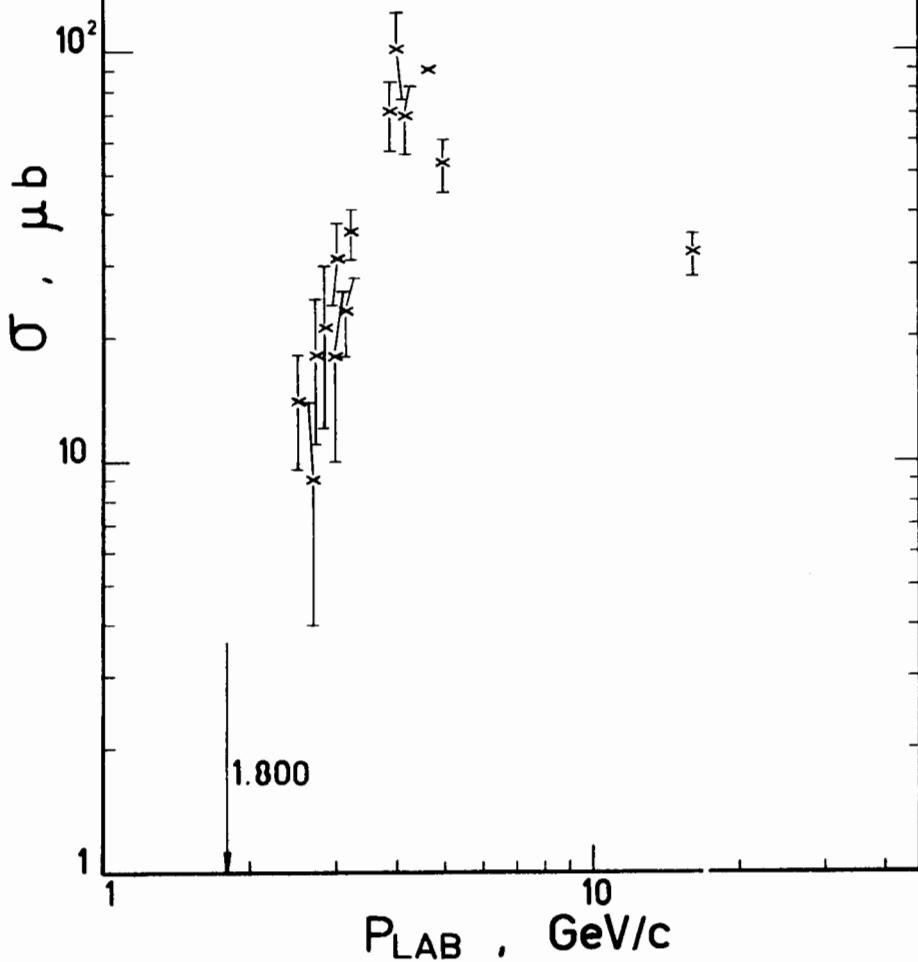


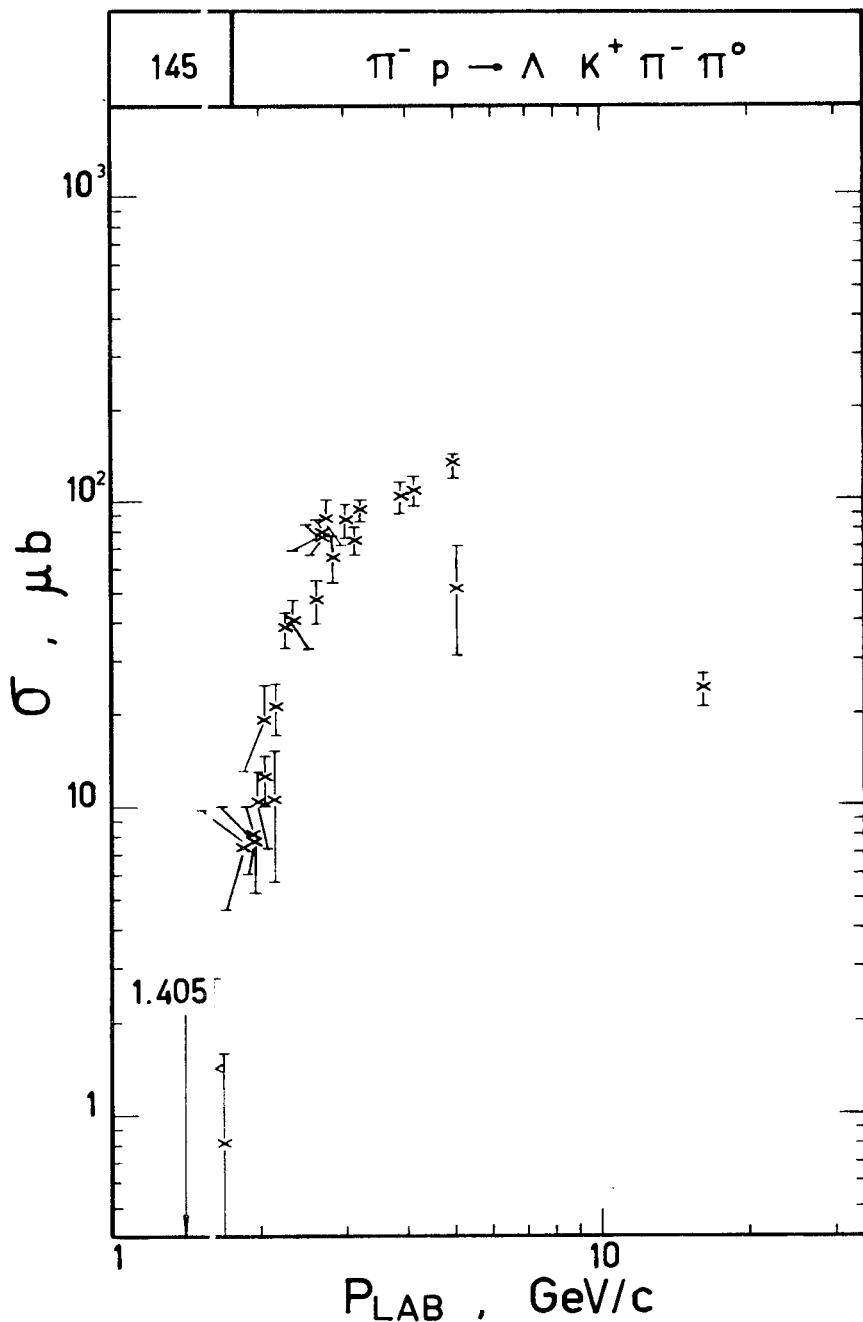
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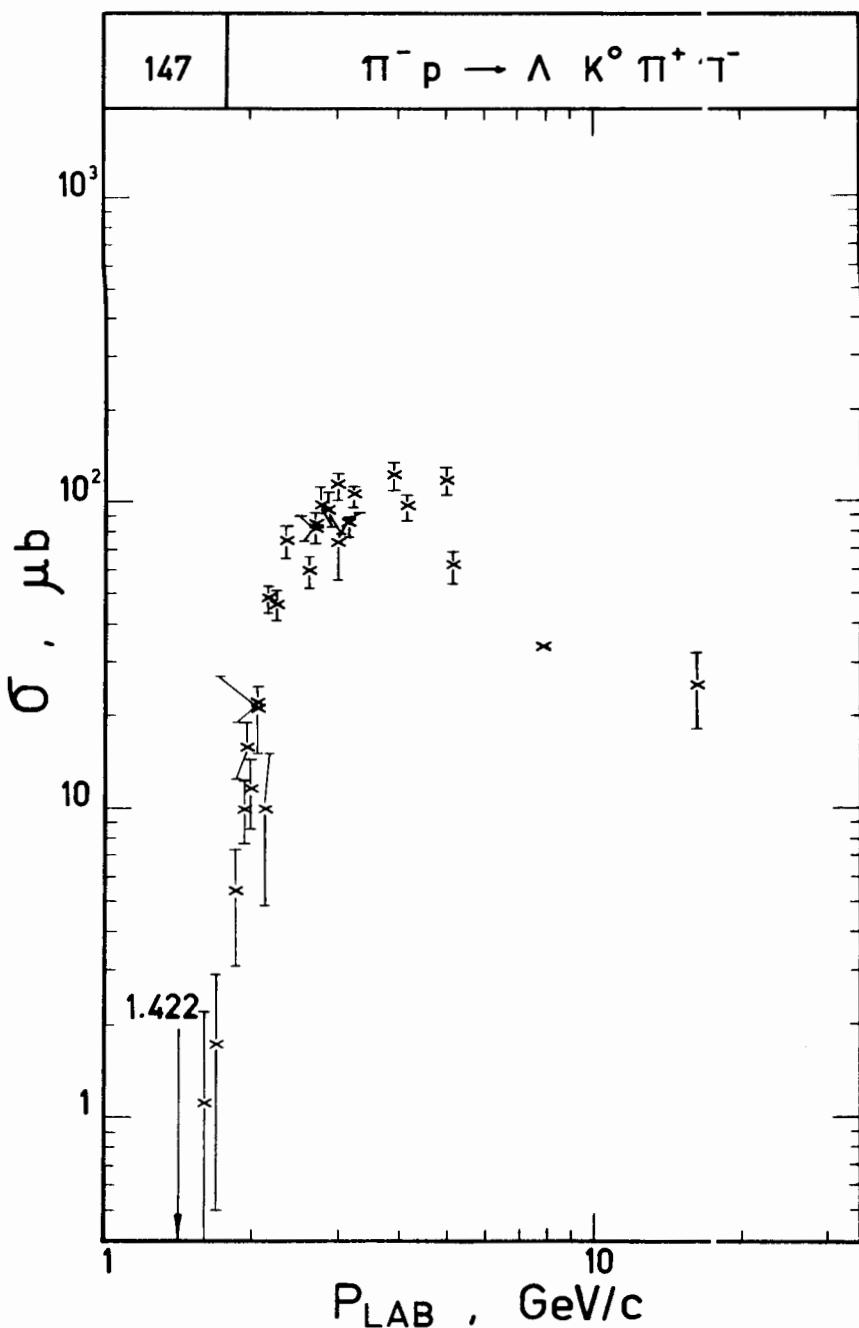
 $\pi^+ p \rightarrow p K_S K_L \pi^+$ 



135







151

 $\Pi^- p \rightarrow \Lambda^- K^0(890) \pi^0 \rightarrow \Lambda^- (\bar{K} \pi)^0 \pi^0$ $\frac{\sigma}{\sigma_0}$

10

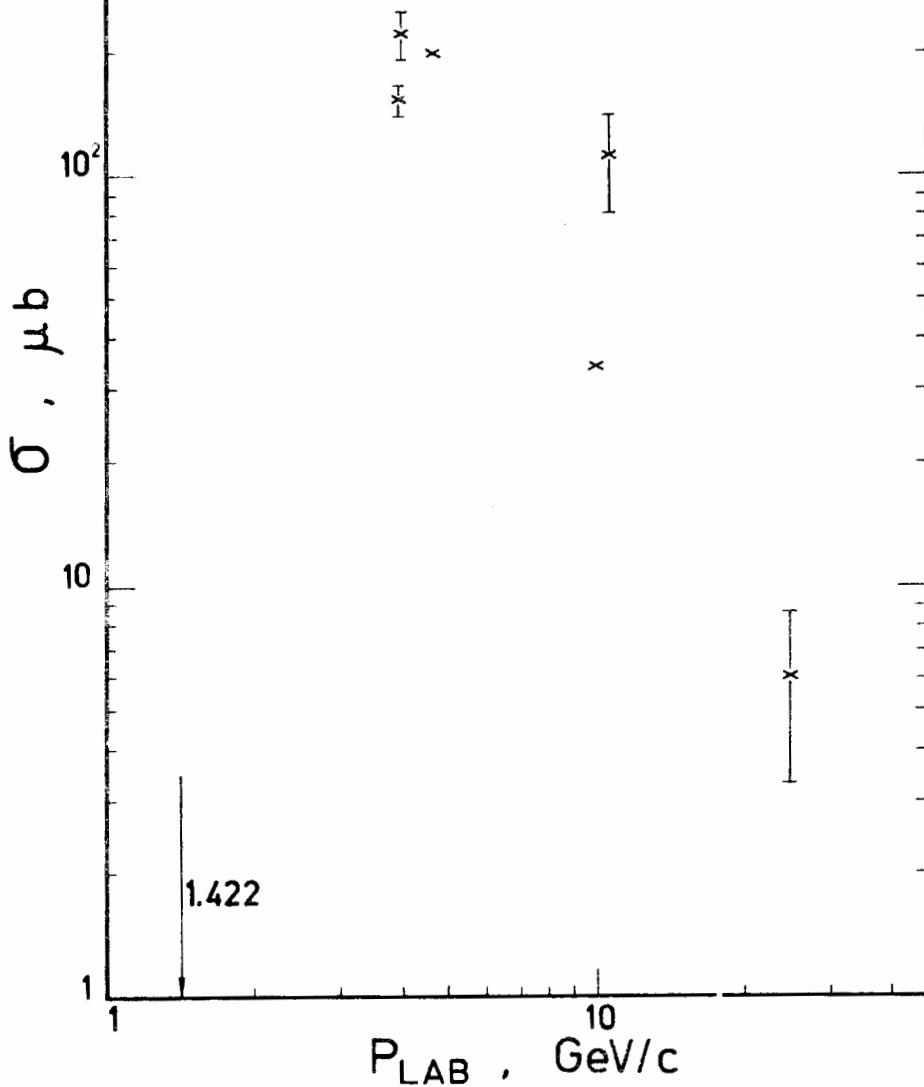
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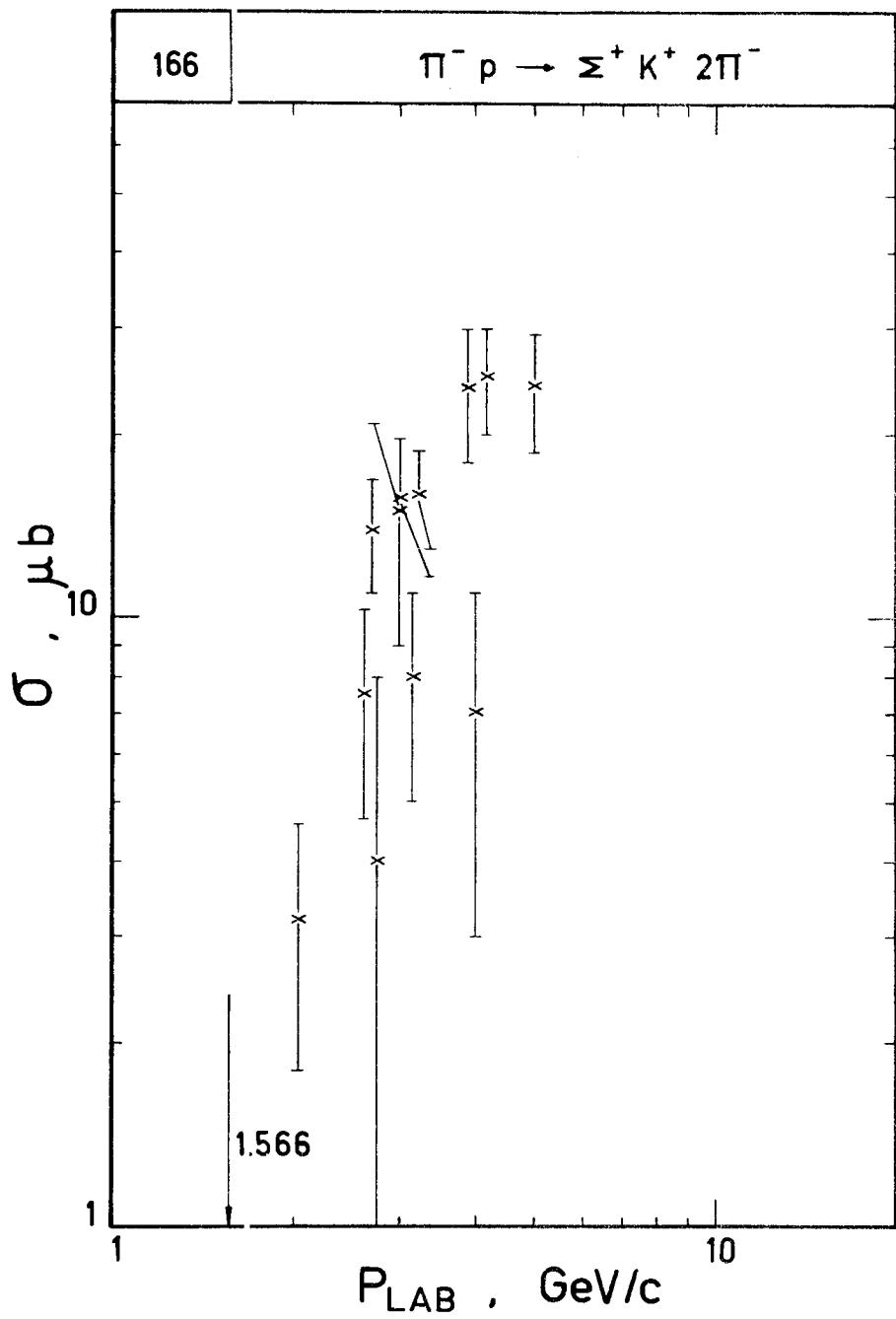
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 $P_{LAB}, \text{ GeV}/c$

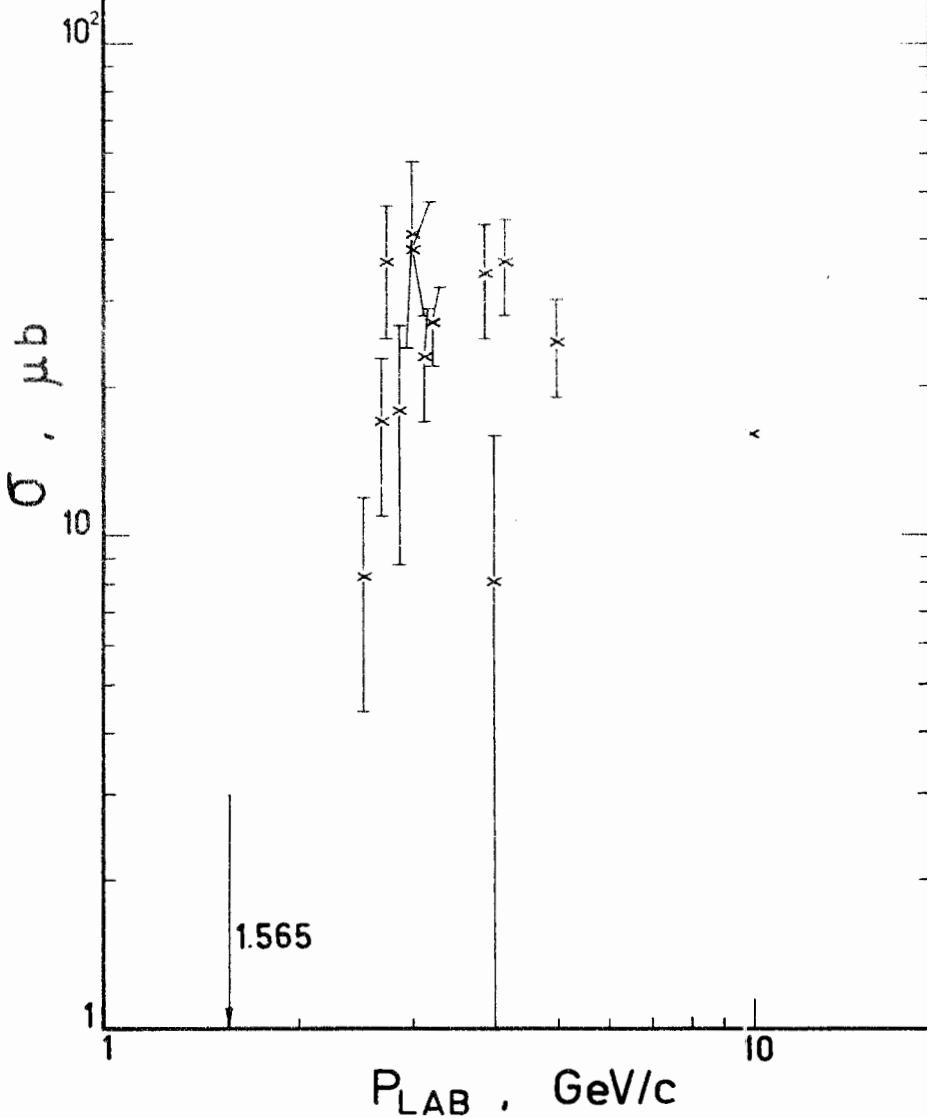
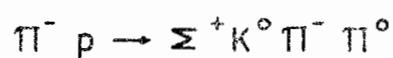
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155 •

 $\pi^- p \rightarrow (\Lambda/\Sigma^0) K^0 \pi^+ \pi^-$ 

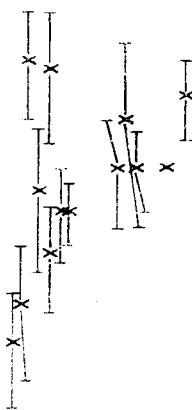


167



σ , μb

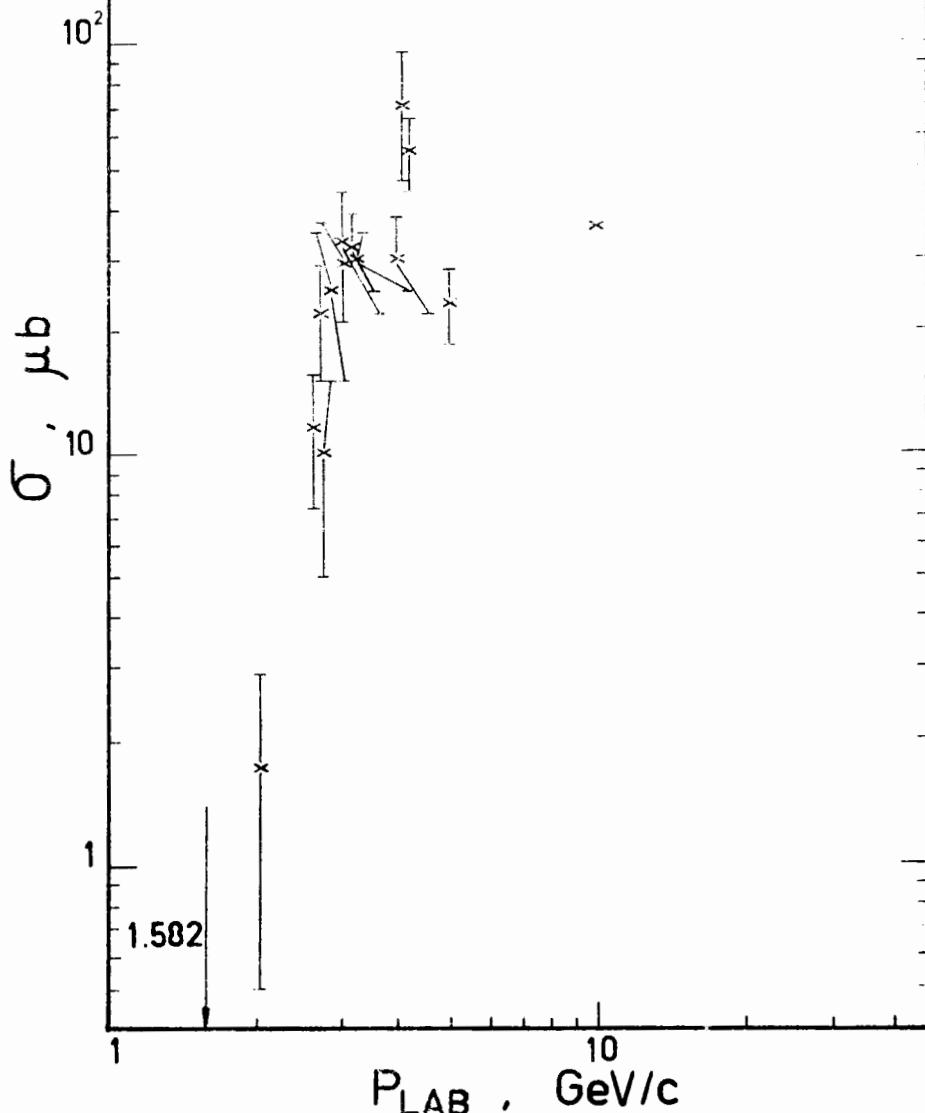
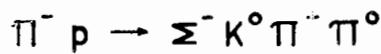
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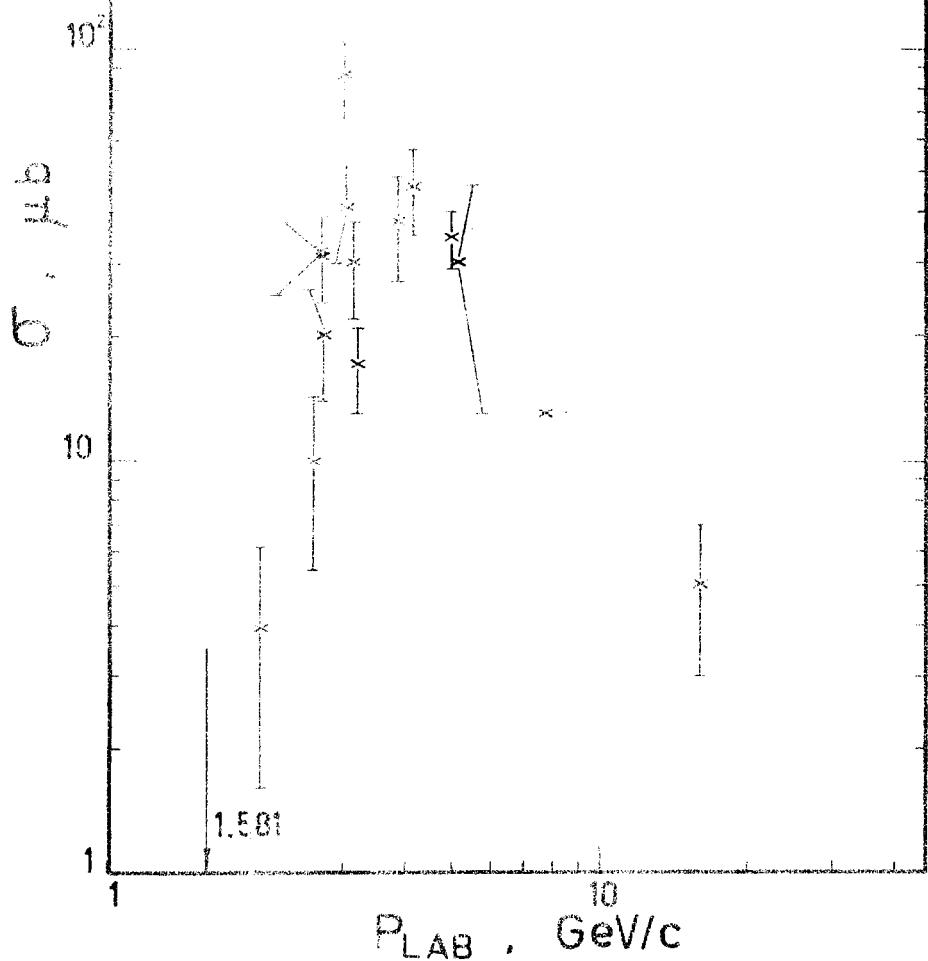
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P_{LAB} . GeV/c

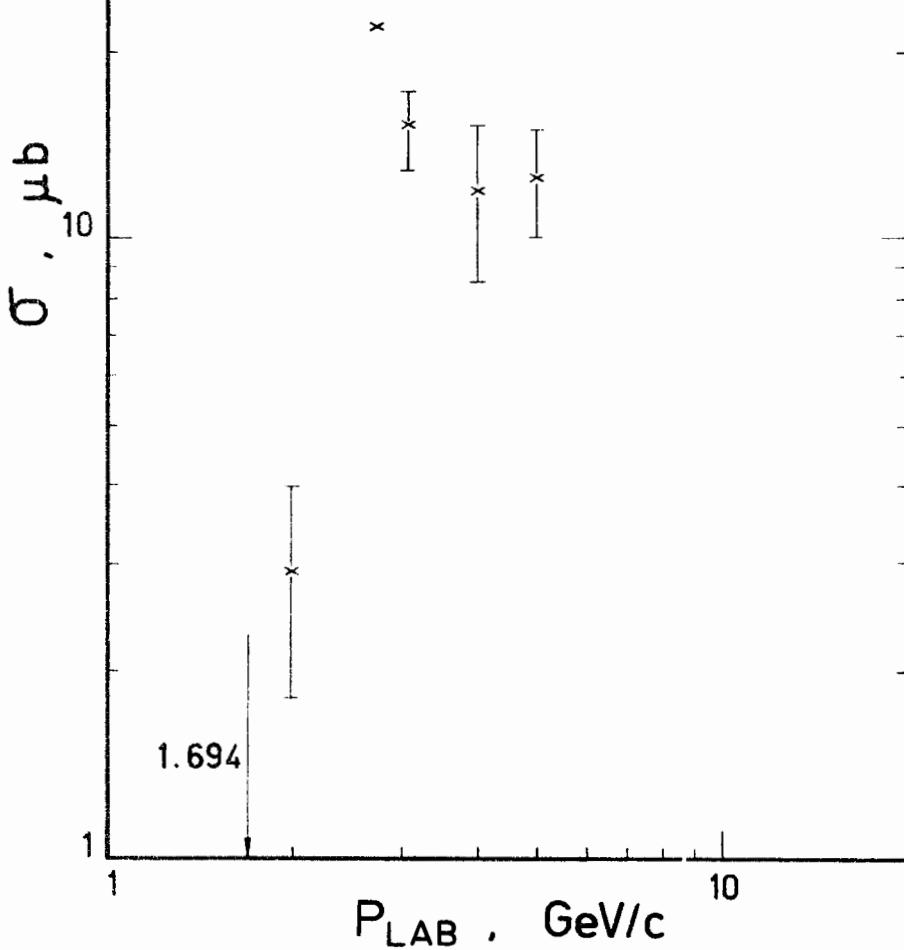
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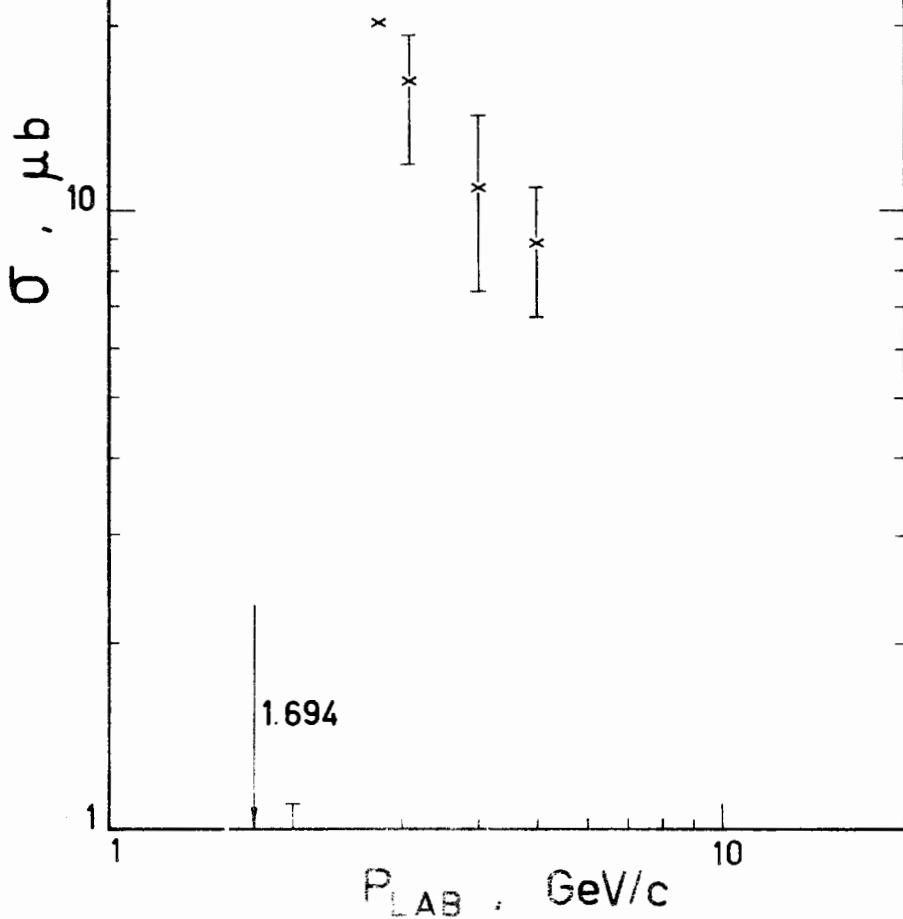
176



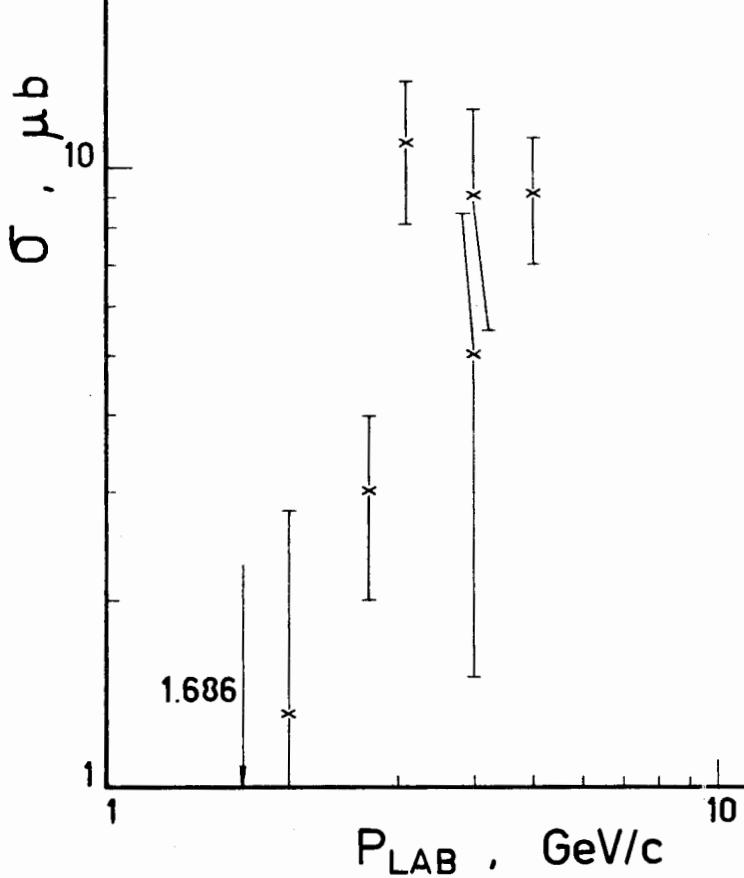
179

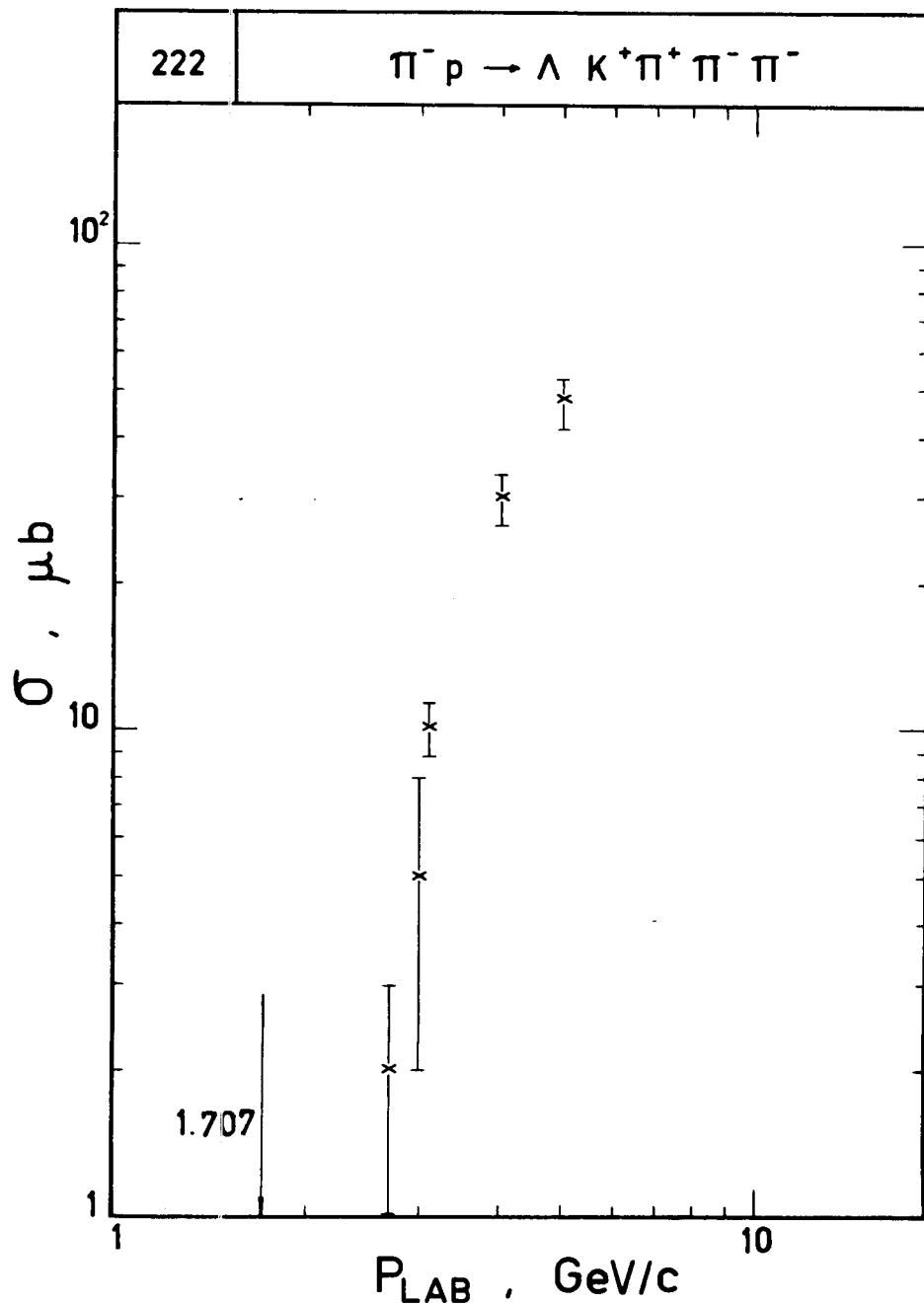
 $\pi^- p \rightarrow \gamma^*(1385) K^0 \pi^- \rightarrow \Lambda K^0 \pi^+ \pi^-$ 

184

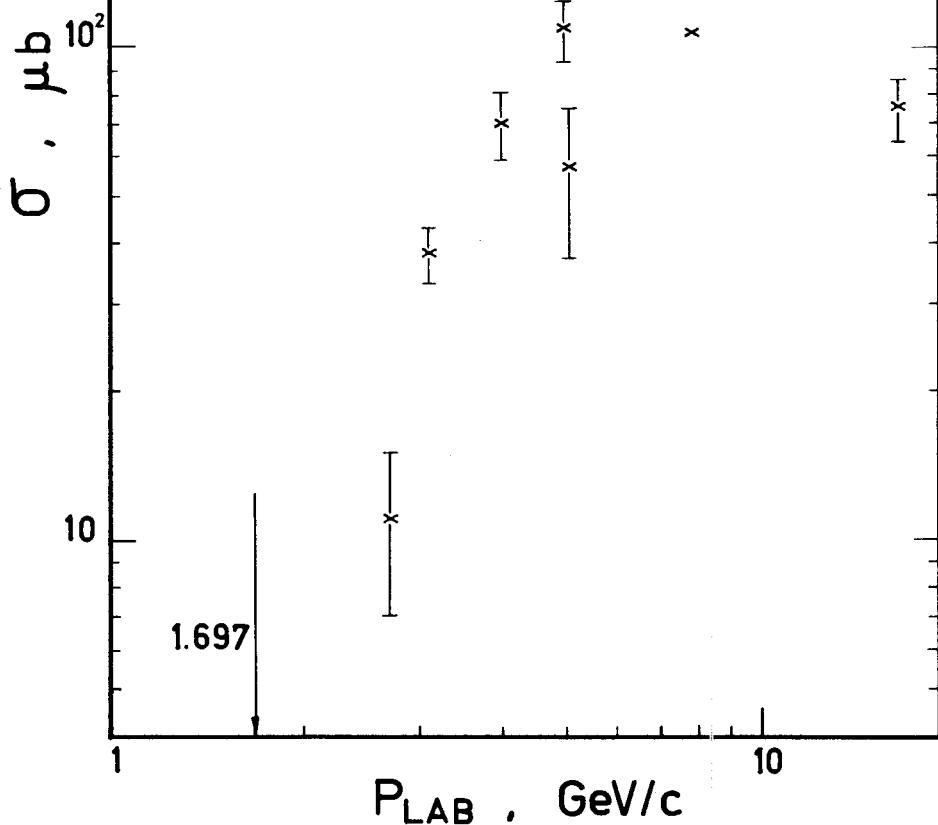
 $\pi^- p \rightarrow \gamma(1385) K^0 \pi^+ \rightarrow \Lambda K^0 \pi^+ \pi^-$ 

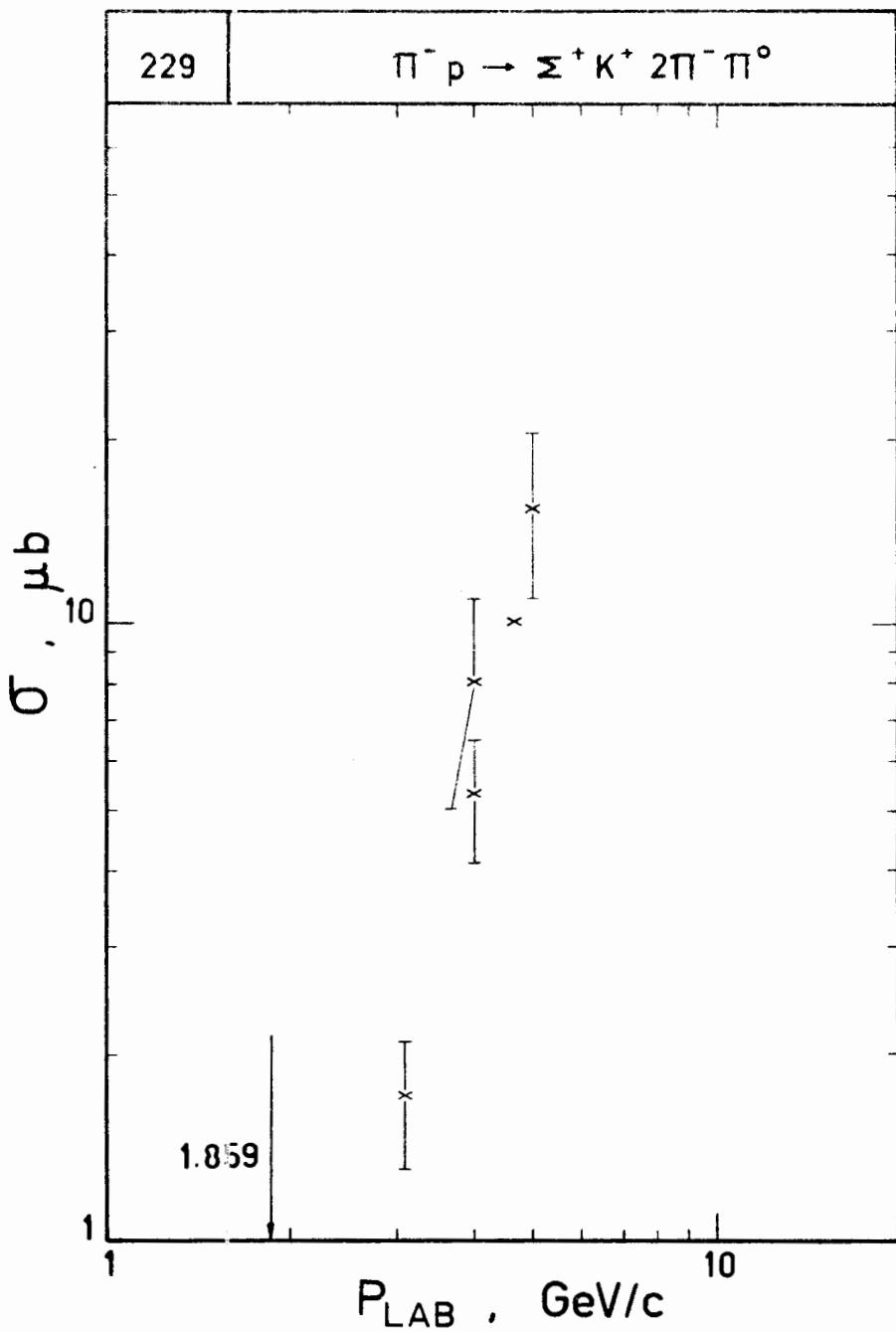
192

 $\pi^- p \rightarrow \gamma^*(1385) K^+ \pi^- \rightarrow \Lambda K^+ \pi^- \pi^0$ 

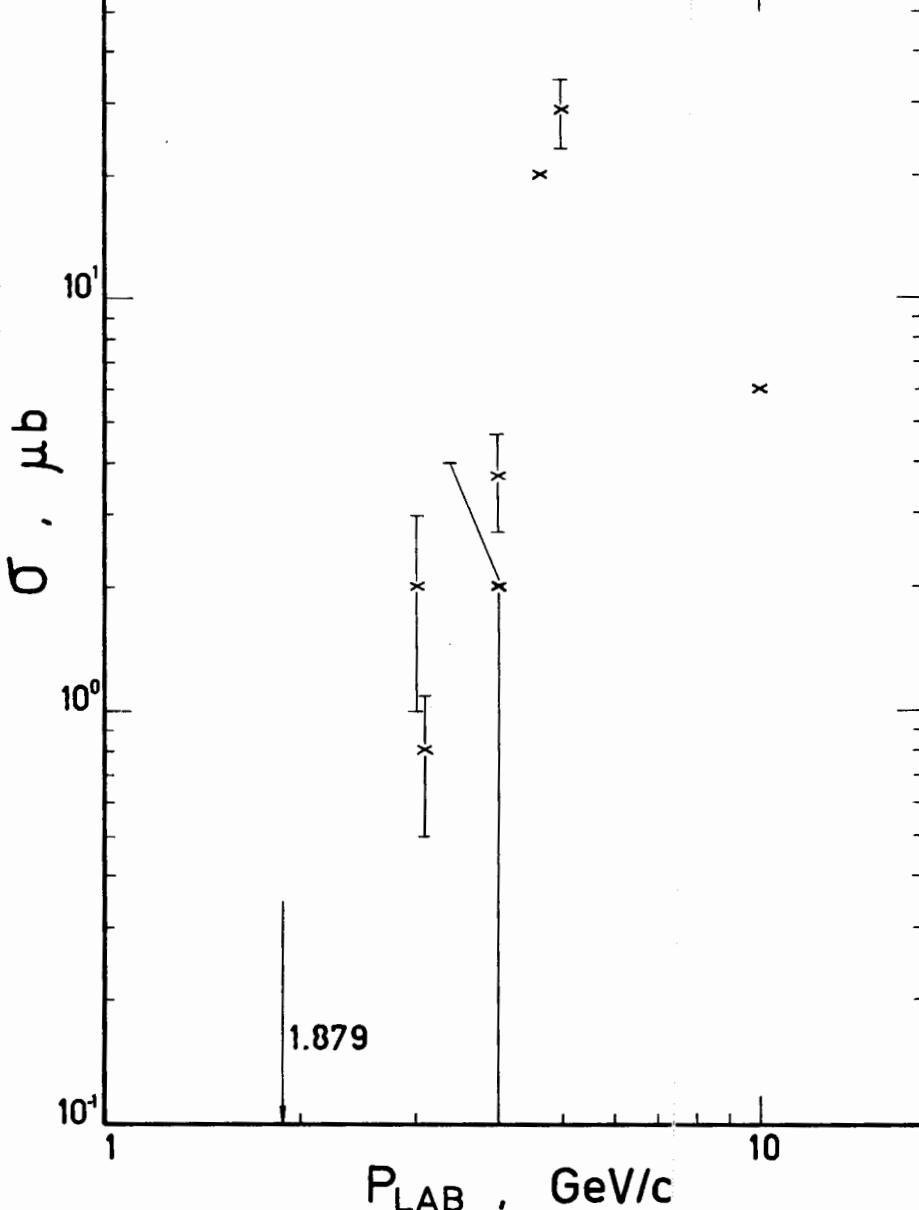


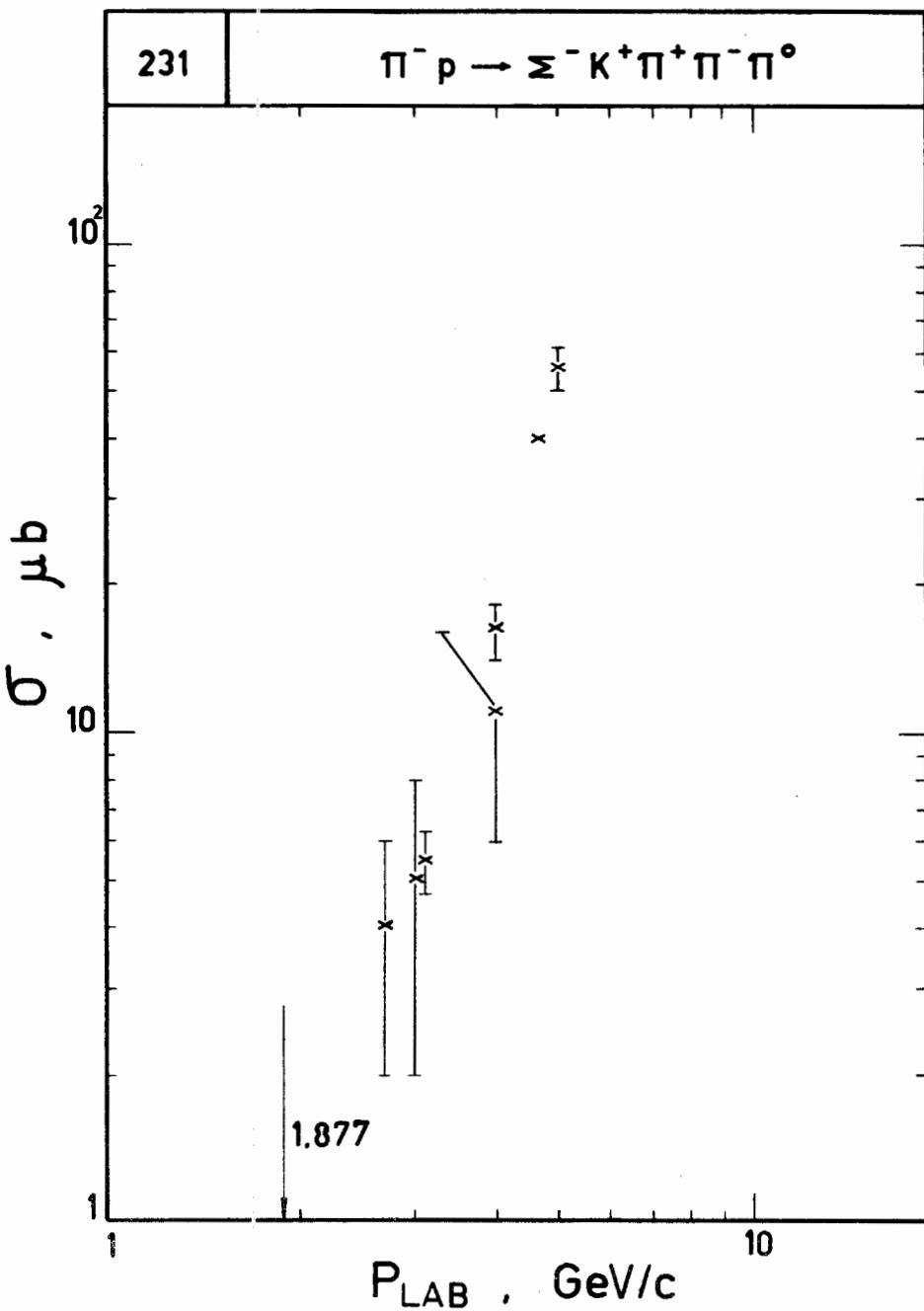
223





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