СООБЩЕНИЯ
ОБЪЕДИНЕННОГО
ИНСТИТУТА
ЯДЕРНЫХ
ИССЛЕДОВАНИЙ
Дубна

Р4 - 5457

Ф.А. Гареев, С.П. Иванова, Н.Ю. Ширикова

ЛАБОРАТОРИЯ ТЕОРЕТИЧЕСКОЙ ФИЗИКИ

ТАБЛИЦЫ ВОЛНОВЫХ ФУНКЦИЙ ОДНОЧАСТИЧНЫХ СОСТОЯНИЙ ДЕФОРМИРОВАННЫХ ЯДЕР ТРАНСУРАНОВОЙ ОБЛАСТИ В ПОТЕНЦИАЛЕ САКСОНА-ВУДСА

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ТАБЛИЦЫ ВОЛНОВЫХ ФУНКЦИЙ ОДНОЧАСТИЧНЫХ СОСТОЯНИЙ ДЕФОРМИРОВАННЫХ ЯДЕР ТРАНСУРАНОВОЙ ОБЛАСТИ В ПОТЕНЦИАЛЕ САКСОНА-ВУДСА

В предыдущей работе[1] нами было проведено изучение свойств одночастичных состояний деформированных ядер трансурановой области, полученных при решении уравнения Шредингера с анизотропным потенциалом Саксона-Вудса. Были построены схемы протонных и нейтронных уровней, передающие заполнение основных состояний нечётных ядер.

В дополнение к этой работе приведем таблицы волновых функций тех состояний, которые расположены вблизи поверхности Ферми и представляют наибольший интерес. Напомним определение этих функций

$$\Psi_{\Omega,\pi} = \sum_{n\ell j} a^{\Omega}_{n\ell j}\, \psi^{\Omega}_{n\ell j} \,. \qquad (1)$$

Здесь $\psi^{\Omega}_{n\ell j}$ – волновая функция сферически-симметричного потенциала Саксона-Вудса. Она имеет вид:

$$\Psi^{\Omega}_{n\ell j} = R_{n\ell j}(r)\, \mathcal{Y}^{\Omega}_{\ell j} \,, \qquad (2)$$

где $\mathcal{Y}^{\Omega}_{\ell j}$ – шаровой спинор

$$\mathcal{Y}^{\Omega}_{\ell j} = \sum_{\mu} (\ell\ 1/2\ \Omega-\mu\ \mu \mid j\,\Omega)\ Y_{\ell\,\Omega-\mu}\ \chi_{1/2\,\mu} \,. \qquad (3)$$

В соотношении (3) использовано определение коэффициентов Клебша-Гордона, принятое в[2]. Радиальная часть волновой функции с высокой точностью аппроксимируется выражением

$$R_{n\ell j}(r) = \frac{N_n}{r}\left(\frac{A}{C}\right)^{1/2} H_n[\,S(r)\,]\exp[-S^2(r)/2\,]\,. \qquad (4)$$

Индекс "n" определяет число узлов в (4). Так, $n = 0$ для состояний 1s, 1p, . . . , $n = 1$ для 2s, 2p, ... Через N_n обозначена норма. Фаза $R_{n\ell j}(r)$ выбрана таким образом, что при $r \to 0$ $R_{n\ell j}(r) \to (-1)^n r^{\ell}$. Зависимость $S(r)$ дается формулой

$$S(r) = \begin{cases} B\,\ell n\,(r/A) & r \geq A \\ B1\,\ell n\,(r/A) & r \leq A\,. \end{cases}$$

Параметры B, B1, C, A, норма N_n, определяющие базисные функции $\psi_{n\ell j}$, приведены в таблицах I, III, V, VII. Отметим, что в случае необходимости в качестве радиальной части волновой функции могут быть использованы и численные решения уравнения Шредингера со сферическим потенциалом Саксона-Вудса. При этом коэффициенты смешивания $a^{\Omega}_{n\ell j}$ практически не меняются и можно по-прежнему пользоваться значениями, приведенными в таблицах. Однако в большинстве задач использование полуаналитических функций удовлетворяет требуемой точности. Суммирование в (1) проводится по связанным и квазидискретным состояниям одинаковой чётности.

Вся область ядер разбита на две зоны: $A = 239$ ($Z = 93$, $N = 145$) и $A = 247$ ($Z = 97$, $N = 149$).

Форма ядра определяется соотношением

$$R = R_0\,(1 + \beta_0 + \beta_{20}\,Y_{20} + \beta_{40}\,Y_{40})\,. \qquad (5)$$

Расчёты равновесных значений параметров деформаций β_{20} и β_{40} показывают, что $\beta_{20} \neq 0$ и $\beta_{40} \neq 0$ для ядер трансурановой области. Вычисленные в[1] схемы при равновесных значениях β_{20}, β_{40} передают порядок заполнения основных состояний нечётных ядер. Чтобы не загромождать таблиц, мы приводим значения коэффициентов смешивания при одном значении β_{40} и при трех значениях β_{20}, близких к равно-

весным. В целях облегчения ориентировки перед таблицами волновых функций каждой зоны даны рисунки, воспроизводящие схемы уровней в зависимости от параметра деформации β_{20} при фиксированном значении β_{40}. Затем даются таблицы базисных функций. Каждая страница таблиц начинается со значения A, определяющего зону, и символа P или N, указывающего, протонная или нейтронная схема расположена ниже. Далее даются значения β_{20} (BETA 20) и β_{40} (BETA 40) и величина Ω (OMEGA). За Ω следуют значения E (ENERGY) в зависимости от β_{20}. Таблицы коэффициентов смешивания для состояний одинаковой чётности размещены в порядке возрастания проекции $|\Omega|$ и энергии E. Каждому состоянию сопоставляется набор коэффициентов смешивания, с которыми входят базисные функции, приведенные в трех первых столбцах таблицы (так, например, цифры 1 8 15/2 на стр. 8 означают следующее: $1 - (n + 1)$, $8 - \ell$, $15/2 - j$, т.е. это базисное состояние $1k_{15/2}$). Кроме этого, каждое состояние характеризуется асимптотическими квантовыми числами $N n_z \Lambda$)[x/], приписываемыми по обычным правилам. Если же имеется квазипересечение уровней, то асимптотические квантовые числа идентифицируют состояния до квазипересечения. Для состояний с $\Omega = 1/2$ приводятся значения параметра развязывания (DP).

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[x/] В таблицах - AQN.

Таблица 1

A = 239 Z = -0 R0 = 1.26 V0 = 46.7 KAPPA = -.430 ALFA = 1.450

THE WAVE FUNCTIONS OF SPHERICAL NUCLEUS

+E	N+1	L	J	A	B1	C	B	Nn
+I5.0500	I	I0	I0.5	7.3746	5.5430	5.6I0I	4.2324	.5I74
+I0.8700	I	8	7.5	6.5I47	4.6829	4.7896	3.77I5	.5046
+5.4I00	2	6	6.5	6.6459	3.8324	4.472I	3.454I	.3084
+ .6400	I	8	8.5	6.9932	4.9844	5.2323	4.978I	.5455
-3.I800	3	2	I.5	5.I393	2.2758	3.I646	3.5429	.I579
-3.6800	2	4	3.5	5.699I	3.II75	3.7708	3.978I	.34I3
-3.8I00	4	-0	.5	4.3562	I.387I	2.48I6	3.2366	.0624
-4.9400	3	2	2.5	5.2425	2.2724	3.I828	3.7486	.I592
-6.4300	I	6	5.5	6.II62	4.I4I0	4.4024	4.5932	.5378
-7.4500	2	4	4.5	5.9420	3.I284	3.83I4	4.3475	.34I4
-I2.7300	I	6	6.5	6.5558	4.27I8	4.6269	5.I082	.5343
-I8.6900	3	-0	.5	4.0332	I.2878	2.I82I	3.5248	.I60I
-I8.8900	2	2	I.5	4.9637	2.2887	2.97I8	4.0782	.3373
-20.5900	2	2	2.5	5.II54	2.2883	2.9869	4.I977	.33I4
-2I.6400	I	4	3.5	5.6676	3.4002	3.7454	4.638I	.5I53
-24.7700	I	4	4.5	6.0056	3.4460	3.8353	4.9II2	.50I3
-32.8700	2	-0	.5	3.8004	I.I698	I.8380	3.3942	.3059
-34.0800	I	2	I.5	5.0258	2.4424	2.8I90	4.2288	.4576
-35.0900	I	2	2.5	5.2209	2.4499	2.8467	4.3432	.4460
-43.2I00	I	-0	.5	3.6349	I.0563	I.4I84	2.9789	.3470

A = 239 Z = -0 R0 = 1.260 V0 = 46.700 KAPPA = .430 ALFA = 1.450

THE WAVE FUNCTIONS OF SPHERICAL NUCLEUS

+E	N+1	L	J	A	B1	C	B	Nn
+22.4900	I	II	II.5	7.5630	5.7423	5.6808	3.86I5	.4937
+7.7600	I	9	9.5	7.I864	5.2977	5.464I	4.7364	.5402
+3.6800	2	5	4.5	6.0469	3.4622	4.0536	3.3I04	.3I27
+2.0200	I	7	6.5	6.3I38	4.4474	4.6406	4.3576	.5335
-.8500	2	5	5.5	6.2949	3.4976	4.I852	4.I645	.3366
-6.2000	I	7	7.5	6.7853	4.6426	4.9557	5.09I3	.543I
-I0.5500	3	I	.5	4.624I	I.8278	2.72I2	3.6833	.I625
-II.3700	2	3	2.5	5.3547	2.727I	3.4044	4.I34I	.3440
-II.6400	3	I	I.5	4.6935	I.8260	2.7273	3.758I	.I6I6
-I4.0800	2	3	3.5	5.5583	2.7303	3.4338	4.3437	.3388
-I4.3400	I	5	4.5	5.9036	3.7980	4.I088	4.6700	.53I5
-I8.9400	I	5	5.5	6.2993	3.8732	4.2552	5.0488	.5204
-26.0500	2	I	.5	4.4753	I.7873	2.4636	3.8459	.3245
-26.8800	2	I	I.5	4.566I	I.7845	2.4665	3.9027	.3I97
-28.2400	I	3	2.5	5.3847	2.9524	3.3I92	4.4948	.4909
-30.I700	I	3	3.5	5.6566	2.9758	3.3775	4.683I	.4774
-39.0700	I	I	.5	4.5I29	I.8379	2.2I0I	3.7778	.4I25
-39.4800	I	I	I.5	4.63I2	I.8392	2.2247	3.8375	.4048

Таблица 2

A=239 N

BETA20	.200	.230	.250	.200	.230	.250
BETA40	.080	.080	.080	.080	.080	.080
OMEGA= 1/2						
ENERGY	-10.332	-10.629	-10.821	-9.303	-9.531	-9.674
AQN	651	651	651	640	640	640
DP	.747	.372	.132	-1.694	-1.372	-1.166
1 10 21/2	.019	.022	.024	-.011	-.015	-.017
1 8 15/2	.084	.092	.097	.146	.153	.158
2 6 13/2	-.060	-.049	-.041	.069	.069	.067
1 8 17/2	.051	.069	.079	-.022	-.042	-.055
3 2 3/2	.306	.326	.338	.104	.091	.082
2 4 7/2	.359	.379	.392	.369	.366	.363
4 -0 1/2	-.264	-.271	-.274	.106	.128	.142
3 2 5/2	-.453	-.450	-.444	.328	.366	.390
1 6 11/2	.382	.388	.392	.658	.631	.613
2 4 9/2	-.406	-.346	-.309	.427	.412	.401
1 6 13/2	.348	.346	.341	-.248	-.271	-.284
3 -0 1/2	.093	.097	.098	-.031	-.038	-.042
2 2 3/2	-.139	-.155	-.165	-.069	-.066	-.063
2 2 5/2	.125	.135	.140	-.069	-.084	-.094
1 4 7/2	-.113	-.128	-.138	-.141	-.151	-.157
1 4 9/2	.018	.013	.010	-.006	-.004	-.002
2 -0 1/2	.009	.008	.007	-.005	-.005	-.005
1 2 3/2	-.015	-.015	-.015	-.011	-.010	-.008
1 2 5/2	.016	.017	.018	-.010	-.013	-.015
1 -0 1/2	.002	.002	.001	-.001	-.001	-.001
ENERGY	-6.524	-6.649	-6.729	-4.438	-4.399	-4.373
AQN	631	631	631	620	620	620
DP	.173	.063	-.000	-.022	.121	.207
1 10 21/2	-.002	.001	.004	-.017	-.020	-.021
1 8 15/2	.086	.100	.110	-.063	-.078	-.088
2 6 13/2	-.092	-.101	-.105	-.063	-.089	-.104
1 8 17/2	-.039	-.016	-.000	-.088	-.088	-.084
3 2 3/2	-.503	-.519	-.528	.322	.319	.315
2 4 7/2	-.214	-.198	-.187	.481	.461	.450
4 -0 1/2	.375	.373	.370	.184	.244	.278
3 2 5/2	.236	.168	.127	.589	.555	.533
1 6 11/2	.418	.427	.432	-.354	-.353	-.352
2 4 9/2	-.514	-.509	-.504	-.362	-.388	-.402
1 6 13/2	.200	.225	.239	.094	.123	.141
3 -0 1/2	-.043	-.046	-.048	.005	.002	.000
2 2 3/2	.072	.080	.086	-.042	-.047	-.050
2 2 5/2	-.008	-.003	.001	.021	.023	.024
1 4 7/2	-.034	-.043	-.049	.022	.028	.032
1 4 9/2	-.018	-.019	-.020	-.030	-.035	-.038
2 -0 1/2	-.006	-.006	-.006	.002	.001	.000
1 2 3/2	.010	.012	.014	-.010	-.012	-.013
1 2 5/2	-.000	.001	.002	.005	.005	.006
1 -0 1/2	-.001	-.001	-.001	.000	.000	-.000

A=239 N

BETA20	.200	.230	.250	.200	.230	.250
BETA40	.080	.080	.080	.080	.080	.080
OMEGA= 1/2						
ENERGY	-2.416	-2.307	-2.422	-1.970	-2.086	-1.940
AQN	611	611	611	600	600	600
DP	.480	6.150	7.942	8.382	2.656	.798
1 10 21/2	.037	.203	.239	.217	-.122	.058
1 8 15/2	-.024	-.030	-.025	-.007	-.023	.039
2 6 13/2	.039	.313	.371	.343	-.193	.083
1 8 17/2	.159	.731	.810	.848	-.423	.185
3 2 3/2	-.190	-.125	-.057	-.025	-.189	.241
2 4 7/2	.428	.267	.148	-.003	.355	-.429
4 -0 1/2	.697	.363	.187	-.116	.537	-.585
3 2 5/2	-.466	-.211	-.063	.135	-.466	.519
1 6 11/2	-.174	-.111	-.065	.007	-.147	.179
2 4 9/2	.112	-.064	-.133	-.199	.253	-.244
1 6 13/2	-.044	-.214	-.249	-.209	.099	-.023
3 -0 1/2	.033	.017	.008	-.007	.029	-.033
2 2 3/2	-.028	-.020	-.012	-.001	-.029	.038
2 2 5/2	-.043	-.015	-.000	.021	-.053	.060
1 4 7/2	.021	.015	.009	-.001	.021	-.028
1 4 9/2	.016	.003	-.002	-.019	.029	-.032
2 -0 1/2	.005	.003	.001	-.001	.004	-.005
1 2 3/2	-.008	-.006	-.003	.000	-.008	.010
1 2 5/2	-.009	-.002	.001	.006	-.012	.013
1 -0 1/2	.001	.001	.000	-.000	.001	-.001
OMEGA= 1/2				OMEGA= 3/2		
ENERGY	-1.465	-1.073	-.795	-9.021	-9.212	-9.339
AQN	880	880	880	642	642	642
DP	-1.773	-1.657	-1.553	0	0	0
1 10 21/2	.018	.007	.004	-.014	-.017	-.019
1 8 15/2	.005	.019	.028	-.115	-.129	-.138
2 6 13/2	.015	-.005	-.009	.076	.068	.061
1 8 17/2	.070	.024	.016	-.027	-.049	-.061
3 2 3/2	.699	.667	.648	-.151	-.161	-.167
2 4 7/2	-.493	-.485	-.480	-.389	-.418	-.435
4 -0 1/2	.483	.525	.544	0	0	0
3 2 5/2	-.051	-.108	-.139	.309	.311	.310
1 6 11/2	.139	.146	.150	-.574	-.592	-.601
2 4 9/2	-.040	-.007	.010	.494	.428	.387
1 6 13/2	-.007	.002	.002	-.338	-.340	-.338
3 -0 1/2	.046	.058	.066	0	0	0
2 2 3/2	.059	.068	.074	.069	.075	.079
2 2 5/2	-.009	-.019	-.025	-.073	-.079	-.082
1 4 7/2	-.026	-.031	-.034	.113	.131	.143
1 4 9/2	-.005	-.001	.002	-.018	-.016	-.015
2 -0 1/2	.008	.011	.012	0	0	0
1 2 3/2	.012	.014	.015	.011	.011	.011
1 2 5/2	-.002	-.005	-.006	-.012	-.013	-.014
1 -0 1/2	.002	.003	.003	0	0	0
OMEGA= 3/2						
ENERGY	-7.949	-8.068	-8.138	-4.266	-4.180	-4.128
AQN	631	631	631	622	622	622
1 10 21/2	-.004	-.008	-.011	.018	.020	.020
1 8 15/2	.134	.141	.145	-.050	-.066	-.077

A=239 N

BETA20	.200	.230	.250	.200	.230	.250
BETA40	.080	.080	.080	.080	.080	.080
OMEGA= 3/2						

TO BE CONTINUED

2 6 13/2	.097	.106	.110	.065	.090	.105
1 8 17/2	.009	-.013	-.028	.099	.095	.088
3 2 3/2	-.007	-.019	-.027	.325	.375	.403
2 4 7/2	.195	.183	.173	.433	.446	.453
3 2 5/2	.275	.325	.355	-.648	-.578	-.533
1 6 11/2	.650	.610	.584	-.285	-.307	-.320
2 4 9/2	.611	.614	.612	.418	.432	.437
1 6 13/2	-.230	-.264	-.284	-.112	-.142	-.160
2 2 3/2	-.013	-.010	-.007	-.020	-.027	-.031
2 2 5/2	-.037	-.050	-.059	-.012	-.012	-.011
1 4 7/2	-.089	-.095	-.098	.022	.029	.034
1 4 9/2	.013	.015	.017	.037	.041	.044
1 2 3/2	-.003	-.002	-.001	-.004	-.007	-.008
1 2 5/2	-.006	-.009	-.012	-.001	-.001	-.001
ENERGY	-2.865	-2.670	-2.534	-1.655	-1.903	-2.032
AQN	611	611	611	602	602	602
1 10 21/2	-.010	-.023	-.043	.214	.230	.237
1 8 15/2	-.039	-.053	-.061	-.025	-.027	-.032
2 6 13/2	-.002	-.036	-.077	.336	.357	.365
1 8 17/2	-.049	-.095	-.159	.874	.850	.827
3 2 3/2	.228	.214	.203	-.016	-.028	-.021
2 4 7/2	.676	.635	.608	-.016	.016	.060
3 2 5/2	.606	.637	.644	.067	.106	.160
1 6 11/2	-.308	-.305	-.300	.018	.005	-.017
2 4 9/2	-.137	-.174	-.186	-.177	-.193	-.212
1 6 13/2	.008	.036	.065	-.198	-.216	-.223
2 2 3/2	-.022	-.026	-.028	-.001	-.003	-.005
2 2 5/2	.059	.067	.071	.012	.017	.023
1 4 7/2	.032	.037	.040	-.003	-.001	.003
1 4 9/2	-.015	-.022	-.026	-.019	-.016	-.016
1 2 3/2	-.008	-.009	-.011	-.000	-.001	-.001
1 2 5/2	.014	.016	.017	.004	.004	.006
OMEGA= 3/2				OMEGA= 5/2		
ENERGY	-1.136	-.686	-.371	-7.468	-7.535	-7.584
AQN	871	871	871	633	633	633
1 10 21/2	-.002	.001	.002	-.005	-.009	-.011
1 8 15/2	-.001	.010	.018	-.113	-.131	-.143
2 6 13/2	.015	.017	.015	.083	.080	.076
1 8 17/2	-.014	-.001	.002	.012	-.012	-.027
3 2 3/2	.902	.883	.871	0	0	0
2 4 7/2	-.389	-.414	-.426	-.294	-.329	-.349
3 2 5/2	.135	.159	.172	.147	.159	.164
1 6 11/2	.087	.105	.115	-.657	-.690	-.707
2 4 9/2	-.022	-.044	-.056	.592	.516	.469
1 6 13/2	-.002	.001	.005	-.291	-.303	-.307
2 2 3/2	.077	.092	.102	0	0	0
2 2 5/2	.020	.026	.030	-.026	-.031	-.034
1 4 7/2	-.023	-.030	-.035	.070	.085	.096
1 4 9/2	-.006	-.010	-.012	-.005	-.006	-.007
1 2 3/2	.013	.017	.019	0	0	0

A=239 N

BETA20	.200	.230	.250	.200	.230	.250
BETA40	.080	.080	.080	.080	.080	.080
OMEGA= 3/2				OMEGA= 5/2		
TO BE CONTINUED						
1 2 5/2	.004	.005	.006	-.006	-.007	-.008
OMEGA= 5/2						
ENERGY	-6.461	-6.435	-6.411	-2.958	-2.568	-2.314
AQN	622	622	622	613	613	613
1 10 21/2	.004	.002	.001	-.010	-.018	-.028
1 8 15/2	.113	.120	.124	.016	.024	.033
2 6 13/2	.089	.108	.119	.002	-.027	-.055
1 8 17/2	.041	.028	.016	-.058	-.087	-.119
2 4 7/2	.092	.078	.067	-.198	-.273	-.322
3 2 5/2	.117	.165	.194	.947	.910	.877
1 6 11/2	.665	.608	.574	.091	.115	.133
2 4 9/2	.699	.729	.742	-.213	-.255	-.274
1 6 13/2	-.141	-.182	-.206	.022	.051	.074
2 2 5/2	-.006	-.013	-.018	.069	.077	.080
1 4 7/2	-.052	-.056	-.059	-.015	-.023	-.029
1 4 9/2	.041	.046	.049	-.027	-.036	-.041
1 2 5/2	-.001	-.003	-.005	.013	.014	.015
ENERGY	-1.779	-1.455	-1.386	-1.028	-1.222	-1.155
AQN	602	602	602	862	862	862
1 10 21/2	.022	.076	.217	.200	.206	-.074
1 8 15/2	-.023	-.049	-.056	-.041	-.028	-.032
2 6 13/2	.047	.136	.343	.314	.315	-.096
1 8 17/2	.107	.310	.815	.892	.820	-.276
2 4 7/2	.921	.833	.242	-.107	-.333	.839
3 2 5/2	.240	.322	.209	-.001	-.060	.329
1 6 11/2	-.259	-.253	-.065	.047	.117	-.276
2 4 9/2	.072	.007	-.142	-.150	-.166	.096
1 6 13/2	-.042	-.093	-.199	-.167	-.169	.037
2 2 5/2	.042	.058	.035	.001	-.012	.063
1 4 7/2	.059	.062	.018	-.010	-.028	.071
1 4 9/2	.014	.007	-.011	-.020	-.020	.016
1 2 5/2	.012	.016	.009	.000	-.003	.017
OMEGA= 7/2						
ENERGY	-5.944	-5.810	-5.732	-5.147	-4.944	-4.796
AQN	624	624	624	613	613	613
1 10 21/2	.002	.000	-.002	.005	.006	.006
1 8 15/2	-.081	-.102	-.117	.096	.104	.108
2 6 13/2	.071	.077	.078	.040	.062	.076
1 8 17/2	.046	.026	.012	.036	.037	.035
2 4 7/2	-.147	-.185	-.208	.059	.049	.038
1 6 11/2	-.591	-.667	-.707	.775	.697	.647
2 4 9/2	.755	.668	.611	.616	.698	.740
1 6 13/2	-.210	-.236	-.249	-.015	-.053	-.077
1 4 7/2	.023	.033	.040	-.030	-.033	-.035
1 4 9/2	.029	.025	.022	.061	.072	.080
ENERGY	-.946	-.384	-.386	-.144	-.281	.049
AQN	604	604	604	853	853	853
1 10 21/2	.007	.088	.211	.180	-.180	-.023
1 8 15/2	-.001	-.036	-.063	-.057	.049	-.013

A=239 N

BETA20	.200	.230	.250	.200	.230	.250
BETA40	.080	.080	.080	.080	.080	.080
OMEGA= 7/2						

TO BE CONTINUED

2 6 13/2	.003	.128	.321	.278	-.279	-.039
1 8 17/2	.043	.407	.894	.926	-.814	-.091
2 4 7/2	.983	.880	.113	-.029	.423	.965
1 6 11/2	-.136	-.135	.005	.033	-.095	-.178
2 4 9/2	.077	.042	-.093	-.105	.137	.118
1 6 13/2	-.008	-.077	-.164	-.129	.130	.000
1 4 7/2	.083	.089	.011	-.004	.045	.110
1 4 9/2	.018	.015	-.009	-.017	.023	.029
OMEGA= 9/2						
ENERGY	-11.483	-11.413	-11.367	-5.058	-4.553	-4.225
AQN	624	624	624	615	615	615
1 10 21/2	.026	.027	.028	.003	.003	.003
1 8 15/2	-.042	-.049	-.054	-.022	-.034	-.045
2 6 13/2	-.030	-.030	-.030	.025	.039	.048
1 8 17/2	.089	.112	.126	.041	.036	.030
1 6 11/2	-.087	-.100	-.108	-.190	-.289	-.366
2 4 9/2	.060	.086	.102	.974	.945	.913
1 6 13/2	.989	.983	.978	-.078	-.115	-.138
1 4 9/2	-.016	-.027	-.034	.074	.084	.089
OMEGA= 9/2				CMEGA=11/2		
ENERGY	-4.049	-3.671	-3.400	-10.756	-10.494	-10.320
AQN	604	604	604	615	615	615
1 10 21/2	.000	.001	.001	.014	.015	.016
1 8 15/2	.080	.096	.106	-.031	-.038	-.043
2 6 13/2	-.009	-.004	.001	-.060	-.067	-.071
1 8 17/2	-.010	-.002	.003	.041	.061	.074
1 6 11/2	.974	.945	.915	-.053	-.066	-.074
2 4 9/2	.196	.298	.377	0	0	0
1 6 13/2	.079	.076	.070	.995	.993	.991
1 4 9/2	.035	.051	.065	0	0	0
OMEGA=11/2				CMEGA=13/2		
ENERGY	-3.057	-2.366	-1.888	-10.498	-9.959	-9.595
AQN	606	606	606	606	606	606
1 10 21/2	-.001	-.001	-.001	.006	.006	.007
1 8 15/2	.039	.054	.064	-.019	-.024	-.028
2 6 13/2	-.003	-.006	-.009	-.069	-.083	-.092
1 8 17/2	-.017	-.016	-.015	.008	.021	.031
1 6 11/2	.998	.996	.995	0	0	0
1 6 13/2	.055	.069	.077	.997	.996	.995

A=239 N

BETA20	.200	.230	.250	.200	.230	.250
BETA40	.080	.080	.080	.080	.080	.080
OMEGA= 1/2						
ENERGY	-10.639	-10.489	-10.384	-8.778	-9.022	-9.153
AQN	510	510	510	501	501	501
DP	-.452	-.560	-.660	-7.545	-7.469	-7.375
1 11 23/2	-.007	-.009	-.011	.062	.065	.066
1 9 19/2	-.024	-.033	-.042	.220	.235	.243
2 5 9/2	.081	.089	.095	-.000	.004	.008
1 7 13/2	-.017	-.030	-.038	-.012	-.014	-.016
2 5 11/2	-.061	-.096	-.123	.342	.358	.364
1 7 15/2	-.109	-.134	-.154	.863	.842	.827
3 1 1/2	-.012	-.031	-.041	-.081	-.066	-.067
2 3 5/2	.524	.513	.504	.052	.063	.080
3 1 3/2	.731	.713	.699	.059	.094	.119
2 3 7/2	-.313	-.331	-.337	-.191	-.207	-.219
1 5 9/2	-.248	-.260	-.266	-.008	-.016	-.026
1 5 11/2	.069	.101	.123	-.192	-.207	-.214
2 1 1/2	-.012	-.014	-.015	-.006	-.005	-.005
2 1 3/2	.031	.034	.036	.008	.011	.012
1 3 5/2	.021	.026	.029	.003	.004	.006
1 3 7/2	-.035	-.040	-.044	-.020	-.019	-.018
1 1 1/2	-.004	-.005	-.005	-.001	-.001	-.001
1 1 3/2	.007	.008	.009	.002	.003	.003
ENERGY	-8.557	-8.082	-7.748	-1.269	-1.139	-1.072
AQN	770	770	770	761	761	761
DP	1.000	.988	.965	-5.953	-5.256	-2.968
1 11 23/2	.003	.002	.002	-.027	-.034	-.036
1 9 19/2	.013	.008	.008	-.043	-.079	-.093
2 5 9/2	-.038	-.053	-.064	-.108	-.193	-.340
1 7 13/2	-.009	-.001	.005	-.108	-.205	-.373
2 5 11/2	.038	.021	.013	.904	.864	.761
1 7 15/2	.043	.023	.022	-.371	-.374	-.343
3 1 1/2	.844	.828	.817	-.015	-.014	-.014
2 3 5/2	-.401	-.407	-.408	.026	.047	.083
3 1 3/2	.315	.337	.349	-.037	-.025	-.014
2 3 7/2	-.078	-.099	-.113	-.125	-.139	-.136
1 5 9/2	.093	.110	.120	.029	.057	.107
1 5 11/2	-.016	-.002	.004	.017	.025	.026
2 1 1/2	.063	.075	.083	-.004	-.004	-.005
2 1 3/2	.036	.044	.049	-.004	-.002	.001
1 3 5/2	-.032	-.038	-.043	.003	.004	.007
1 3 7/2	-.013	-.018	-.022	-.018	-.022	-.022
1 1 1/2	.014	.017	.019	-.001	-.001	-.002
1 1 3/2	.009	.011	.013	-.001	.000	.001
OMEGA= 1/2				CMEGA= 3/2		
ENERGY	-.564	-.724	-.802	-10.580	-10.418	-10.303
AQN	750	750	750	512	512	512
DP	5.885	5.071	2.703	0	0	0
1 11 23/2	-.002	-.008	-.020	.005	.006	.006
1 9 19/2	-.000	-.016	-.048	.015	.020	.024
2 5 9/2	.575	.579	.525	.087	.095	.101
1 7 13/2	.773	.727	.637	-.025	-.041	-.052
2 5 11/2	.150	.271	.477	.041	.066	.083

A=239 N

BETA20		.200	.230	.250	.200	.230	.250
BETA40		.080	.080	.080	.080	.080	.080
OMEGA= 1/2					OMEGA= 3/2		
TO BE CONTINUED							
1 7 15/2		-.043	-.098	-.192	.080	.089	.097
3 1 1/2		-.009	-.006	-.005	0	0	0
2 3 5/2		-.129	-.133	-.123	.753	.757	.756
3 1 3/2		-.012	-.014	-.016	-.485	-.439	-.414
2 3 7/2		-.013	-.034	-.074	.298	.315	.323
1 5 9/2		-.175	-.185	-.174	-.294	-.316	-.329
1 5 11/2		.008	.014	.023	-.060	-.087	-.104
2 1 1/2		.002	.003	.003	0	0	0
2 1 3/2		-.003	-.003	-.003	-.012	-.011	-.010
1 3 5/2		-.015	-.012	-.010	.033	.040	.045
1 3 7/2		-.002	-.006	-.013	.035	.039	.042
1 1 1/2		.001	.001	.001	0	0	0
1 1 3/2		-.001	-.001	-.001	-.002	-.001	-.001
OMEGA= 3/2							
ENERGY		-9.449	-8.997	-8.796	-8.388	-8.613	-8.619
AQN		501	501	501	761	761	761
1 11 23/2		-.002	-.010	.055	.060	.062	.032
1 9 19/2		-.008	-.038	.206	.213	.227	.121
2 5 9/2		.053	.065	-.061	-.022	-.017	.044
1 7 13/2		.002	-.002	-.023	-.037	-.037	-.030
2 5 11/2		.003	-.055	.316	.332	.347	.177
1 7 15/2		-.039	-.148	.737	.881	.850	.426
2 3 5/2		.518	.485	-.296	-.025	.020	.363
3 1 3/2		.830	.829	-.406	.041	.157	.744
2 3 7/2		-.105	-.117	-.070	-.169	-.195	-.234
1 5 9/2		-.145	-.154	.116	.025	.013	-.110
1 5 11/2		.001	.039	-.183	-.176	-.189	-.089
2 1 3/2		.070	.082	-.043	.006	.018	.083
1 3 5/2		.031	.036	-.026	-.003	.000	.030
1 3 7/2		-.015	-.020	.000	-.020	-.021	-.032
1 1 3/2		.017	.021	-.011	.002	.005	.021
OMEGA= 3/2					OMEGA= 5/2		
ENERGY		-1.054	-.938	-.871	-8.983	-8.473	-8.125
AQN		752	752	752	503	503	503
1 11 23/2		-.023	-.030	-.035	.002	.004	.015
1 9 19/2		-.033	-.068	-.089	.006	.016	.057
2 5 9/2		-.187	-.250	-.309	.053	.066	.069
1 7 13/2		-.177	-.246	-.309	.002	-.011	-.030
2 5 11/2		.888	.846	.801	-.001	.022	.090
1 7 15/2		-.354	-.361	-.357	.034	.071	.230
2 3 5/2		.042	.054	.065	.975	.964	.932
3 1 3/2		-.041	-.031	-.023	0	0	0
2 3 7/2		-.112	-.126	-.133	.124	.140	.124
1 5 9/2		.043	.064	.084	-.155	-.176	-.179
1 5 11/2		.017	.023	.026	-.008	-.026	-.064
2 1 3/2		-.006	-.004	-.002	0	0	0
1 3 5/2		.005	.006	.006	.075	.090	.096
1 3 7/2		-.017	-.020	-.022	.022	.028	.028
1 1 3/2		-.001	-.001	-.000	0	0	0

A=239 N

BETA20	.200	.230	.250	.200	.230	.250
BETA40	.080	.080	.080	.080	.080	.080
OMEGA= 5/2						
ENERGY	-7.622	-7.817	-7.915	-.534	-.388	-.292
AQN	752	752	752	743	743	743
1 11 23/2	.055	.057	.057	-.016	-.023	-.027
1 9 19/2	.196	.214	.218	-.012	-.045	-.067
2 5 9/2	-.026	-.031	-.046	-.188	-.224	-.253
1 7 13/2	-.059	-.061	-.057	-.164	-.200	-.229
2 5 11/2	.299	.322	.324	.908	.882	.860
1 7 15/2	.910	.891	.853	-.319	-.337	-.345
2 3 5/2	-.011	-.052	-.227	.039	.042	.045
2 3 7/2	-.127	-.138	-.167	-.082	-.100	-.111
1 5 9/2	.028	.035	.069	.034	.044	.052
1 5 11/2	-.141	-.158	-.159	.023	.030	.034
1 3 5/2	-.002	-.007	-.026	.006	.006	.006
1 3 7/2	-.018	-.018	-.022	-.014	-.018	-.020
OMEGA= 7/2						
ENERGY	-11.934	-11.457	-11.131	-6.567	-6.691	-6.758
AQN	503	503	503	743	743	743
1 11 23/2	.001	.001	.001	.046	.049	.051
1 9 19/2	.004	.005	.005	.167	.189	.201
2 5 9/2	-.038	-.046	-.051	-.028	-.030	-.031
1 7 13/2	.017	.024	.028	-.075	-.079	-.081
2 5 11/2	.032	.049	.061	.235	.264	.280
1 7 15/2	.040	.037	.034	.946	.932	.922
2 3 7/2	.948	.948	.947	-.061	-.067	-.071
1 5 9/2	.298	.286	.280	.030	.030	.030
1 5 11/2	-.048	-.071	-.085	-.093	-.110	-.121
1 3 7/2	.073	.088	.099	-.011	-.010	-.010
OMEGA= 9/2						
ENERGY	-11.690	-11.158	-10.792	-5.395	-5.400	-5.397
AQN	505	505	505	734	734	734
1 11 23/2	-.000	-.000	-.000	.036	.038	.040
1 9 19/2	-.000	-.001	-.000	.126	.150	.164
2 5 9/2	-.068	-.080	-.088	-.018	-.020	-.021
1 7 13/2	.043	.057	.067	-.080	-.086	-.090
2 5 11/2	-.009	-.013	-.016	.139	.170	.188
1 7 15/2	-.013	-.010	-.008	.977	.967	.960
1 5 9/2	.995	.992	.990	.019	.020	.021
1 5 11/2	.064	.078	.087	-.043	-.059	-.069
OMEGA=11/2				OMEGA=13/2		
ENERGY	-4.373	-4.209	-4.100	-3.703	-3.319	-3.065
AQN	725	725	725	716	716	716
1 11 23/2	.024	.026	.027	.014	.015	.015
1 9 19/2	.078	.101	.116	.033	.053	.066
1 7 13/2	-.068	-.077	-.083	-.043	-.053	-.059
2 5 11/2	.046	.072	.088	0	0	0
1 7 15/2	.993	.989	.985	.998	.997	.996
1 5 11/2	-.010	-.021	-.029	0	0	0
OMEGA=15/2						
ENERGY	-3.532	-2.857	-2.405			
AQN	707	707	707			
1 11 23/2	.006	.006	.007			
1 9 19/2	.003	.017	.026			
1 7 15/2	1.000	1.000	1.000			

Таблица 3

A = 239 Z = 93 RO = 1.240 VO = 61.000 KAPPA = .375 ALFA = 1.550

THE WAVE FUNCTIONS OF SPHERICAL NUCLEUS

+E	N+1	L	J	A	Bl	C	B	Nn
+41.1300	I	12	12.5	7.4423	6.2015	6.1157	4.2311	.5453
+24.7800	I	10	10.5	7.1433	5.8028	5.9322	4.8205	.5793
+21.2600	I	8	7.5	6.3190	4.8824	5.0337	4.3093	.5628
+16.6400	2	6	6.5	6.4459	3.9479	4.6424	3.8638	.3414
+9.4600	I	8	8.5	6.8253	5.1793	5.4663	5.2960	.5868
+8.3500	3	2	1.5	5.0525	2.3092	3.2409	3.6911	.1658
+7.8200	4	-0	.5	4.3062	1.3983	2.5196	3.3423	.0647
+7.0500	2	4	3.5	5.5921	3.1947	3.8884	4.1977	.3618
+6.1800	3	2	2.5	5.1700	2.3095	3.2596	3.9030	.1664
+2.7900	I	6	5.5	6.0042	4.3051	4.5907	4.8647	.5738
+2.6100	2	4	4.5	5.8544	3.2181	3.9686	4.5597	.3602
-4.4200	I	6	6.5	6.4510	4.4762	4.8557	5.3720	.5700
-8.5200	3	-0	.5	4.0729	1.2959	2.2312	3.6906	.1635
-9.0800	2	2	1.5	4.9699	2.3482	3.0793	4.2818	.3499
-11.0000	2	2	2.5	5.1341	2.3515	3.1061	4.4144	.3437
-12.9900	I	4	3.5	5.6429	3.5689	3.9388	4.8948	.5444
-16.6100	I	4	4.5	5.9895	3.6514	4.0804	5.1895	.5330
-23.3900	2	-0	.5	3.9843	1.1849	1.9244	3.6661	.3070
-25.4300	I	2	1.5	5.1513	2.6244	3.0606	4.5664	.4821
-26.6700	I	2	2.5	5.3664	2.6685	3.1265	4.7161	.4732
-33.7900	I	-0	.5	4.3309	1.2427	1.7800	3.7446	.3547

A = 239 Z = 93 R0 = 1.240 V0 = 61.000 KAPPA = .375 ALFA = 1.550

THE WAVE FUNCTIONS OF SPHERICAL NUCLEUS

+E	N+1	L	J	A	B1	C	B	Nn
+32.8500	I	II	II.5	7.2928	6.05I0	6.0708	4.2743	.5542
+3I.2500	I	9	8.5	6.478I	5.094I	5.I478	3.6970	.5295
+I6.9600	I	9	9.5	6.9894	5.5I49	5.7299	5.I297	.5882
+I5.3400	2	5	4.5	5.8698	3.5576	4.20I3	3.6588	.3439
+I2.7700	3	3	3.5	5.6232	2.7I76	3.6650	3.3664	.I54I
+II.7200	I	7	6.5	6.I649	4.6I25	4.8428	4.69I3	.5755
+9.6800	2	5	5.5	6.I556	3.5978	4.330I	4.4035	.359I
+2.3200	I	7	7.5	6.6470	4.8426	5.I73I	5.37I5	.5806
+.2000	3	I	.5	4.6000	I.85I9	2.78I8	3.8408	.I683
-I.0700	3	I	I.5	4.6784	I.8490	2.7909	3.9220	.I67I
-I.2I00	2	3	2.5	5.3040	2.7949	3.5I42	4.3339	.360I
-1.3I00	2	3	3.5	5.5204	2.8097	3.5627	4.5497	.3545
-5.4800	I	5	4.5	5.8334	3.9643	4.2934	4.9246	.5634
-I0.7500	I	5	5.5	6.2336	4.0806	4.4830	5.3I09	.5537
-I6.4400	2	I	.5	4.5530	I.8297	2.5627	4.07I8	.3325
-I7.3700	2	I	I.5	4.6535	I.83I0	2.5752	4.I387	.3279
-I9.6600	I	3	2.5	5.42I5	3.I23I	3.5297	4.7773	.5I74
-2I.9400	I	3	3.5	5.7055	3.I833	3.63I9	4.9946	.5067
-30.I600	I	I	.5	4.7977	2.0234	2.4883	4.2327	.4320
-30.6900	I	I	I.5	4.9397	2.0528	2.5393	4.3267	.4276

Таблица 4

A=239 P

BETA20	.200	.230	.250	.200	.230	.250
BETA40	.080	.080	.080	.080	.080	.080
OMEGA= 1/2						
ENERGY	-9.207	-9.165	-9.125	-7.432	-7.703	-7.882
AQN	411	411	411	400	400	400
DP	-.709	-.589	-.503	6.048	6.230	6.193
1 12 25/2	.002	.003	.003	-.016	.018	.018
1 10 21/2	.011	.012	.013	-.075	.077	.078
1 8 15/2	-.007	-.010	-.012	.011	-.012	-.012
2 6 13/2	.028	.033	.038	-.130	.146	.155
1 8 17/2	.034	.040	.045	-.238	.256	.264
3 2 3/2	.032	.034	.035	-.005	-.002	-.005
4 -0 1/2	-.005	-.002	.000	-.023	.017	.016
2 4 7/2	.114	.120	.123	.036	-.035	-.037
3 2 5/2	-.032	-.029	-.026	-.105	.118	.122
1 6 11/2	-.024	-.042	-.054	.025	-.021	-.018
2 4 9/2	.096	.120	.138	-.332	.357	.367
1 6 13/2	.127	.130	.134	-.797	.785	.769
3 -0 1/2	-.330	-.319	-.311	.199	-.085	-.058
2 2 3/2	.735	.714	.700	.163	-.122	-.123
2 2 5/2	.418	.430	.435	.215	-.255	-.270
1 4 7/2	-.340	-.354	-.361	-.061	.060	.066
1 4 9/2	-.127	-.157	-.179	.215	-.237	-.248
2 -0 1/2	.011	.011	.010	.007	-.002	-.001
1 2 3/2	.008	.012	.014	.012	-.009	-.009
1 2 5/2	.032	.035	.037	.017	-.019	-.018
1 -0 1/2	.004	.004	.004	.002	-.000	.000
ENERGY	-7.033	-6.691	-6.443	-.893	-1.208	-1.396
AQN	660	660	660	651	651	651
DP	.756	.473	.436	-2.207	-2.391	-2.424
1 12 25/2	.004	.001	.001	-.003	.005	.005
1 10 21/2	.016	.006	.005	-.016	.019	.021
1 8 15/2	-.001	-.001	-.001	-.144	.154	.158
2 6 13/2	.026	.010	.006	.055	-.045	-.039
1 8 17/2	.051	.021	.016	-.034	.050	.060
3 2 3/2	-.046	-.051	-.054	-.262	.277	.286
4 -0 1/2	-.052	-.067	-.077	.178	-.181	-.184
2 4 7/2	.048	.067	.078	-.416	.433	.440
3 2 5/2	.075	.068	.069	.305	-.303	-.305
1 6 11/2	.006	-.001	-.007	-.616	.606	.595
2 4 9/2	.080	.025	.006	.297	-.255	-.234
1 6 13/2	.161	.060	.044	-.242	.235	.233
3 -0 1/2	.830	.836	.830	-.089	.090	.091
2 2 3/2	.422	.440	.441	.173	-.187	-.194
2 2 5/2	-.259	-.251	-.257	-.115	.122	.129
1 4 7/2	-.100	-.126	-.138	.172	-.190	-.200
1 4 9/2	-.040	.001	.015	-.022	.019	.017
2 -0 1/2	.050	.061	.068	-.010	.009	.008
1 2 3/2	.031	.038	.043	.023	-.023	-.022
1 2 5/2	-.036	-.040	-.044	-.018	.019	.020
1 -0 1/2	.018	.022	.025	-.002	.002	.001

A=239 P

BETA20	.200	.230	.250	.200	.230	.250
BETA40	.080	.080	.080	.080	.080	.080
OMEGA= 3/2						
ENERGY	-10.407	-10.329	-10.271	-7.249	-7.058	-7.213
AQN	411	411	411	402	402	402
1 12 25/2	.001	.001	.001	.002	.016	.017
1 10 21/2	.007	.007	.006	.010	.072	.075
1 8 15/2	.003	.004	.006	-.003	-.033	-.037
2 6 13/2	.028	.028	.028	.017	.123	.137
1 8 17/2	.021	.021	.020	.032	.241	.260
3 2 3/2	-.027	-.030	-.032	-.075	-.033	-.018
2 4 7/2	-.062	-.068	-.072	.077	.000	-.018
3 2 5/2	-.011	-.012	-.012	-.023	.084	.098
1 6 11/2	.020	.031	.040	.002	-.066	-.071
2 4 9/2	.141	.156	.165	.039	.332	.358
1 6 13/2	.098	.078	.064	.122	.799	.813
2 2 3/2	-.143	-.158	-.167	.952	.311	.135
2 2 5/2	.906	.891	.882	.170	-.132	-.180
1 4 7/2	.255	.268	.276	-.168	-.033	.003
1 4 9/2	-.240	-.264	-.278	-.034	-.209	-.227
1 2 3/2	-.001	-.002	-.004	.067	.023	.009
1 2 5/2	.028	.033	.036	.027	-.009	-.015
OMEGA= 3/2				OMEGA= 5/2		
ENERGY	-6.772	-6.824	-6.558	-11.940	-11.826	-11.744
AQN	651	651	651	413	413	413
1 12 25/2	.016	-.005	-.002	-.000	-.000	.000
1 10 21/2	.072	-.021	-.007	-.001	-.000	.000
1 8 15/2	-.032	.010	.002	.021	.022	.023
2 6 13/2	.113	-.034	-.010	-.003	-.002	-.002
1 8 17/2	.232	-.071	-.024	-.000	.000	.001
3 2 3/2	.001	-.081	-.095	0	0	0
2 4 7/2	-.039	.101	.110	-.039	-.041	-.042
3 2 5/2	.101	-.071	-.059	.006	.009	.010
1 6 11/2	-.066	.018	-.004	.106	.124	.136
2 4 9/2	.319	-.091	-.021	-.037	-.042	-.045
1 6 13/2	.844	-.229	-.074	-.013	-.005	.002
2 2 3/2	-.083	.890	.924	0	0	0
2 2 5/2	-.226	.268	.250	-.124	-.137	-.143
1 4 7/2	.047	-.192	-.207	.971	.963	.958
1 4 9/2	-.188	.039	-.009	.164	.184	.196
1 2 3/2	-.009	.078	.090	0	0	0
1 2 5/2	-.027	.041	.043	.014	.015	.016
OMEGA= 5/2						
ENERGY	-9.294	-8.926	-8.670	-5.606	-5.798	-5.925
AQN	402	402	402	642	642	642
1 12 25/2	.001	.001	.001	.013	.014	.015
1 10 21/2	.004	.004	.004	.064	.066	.067
1 8 15/2	-.002	-.001	-.000	-.047	-.052	-.055
2 6 13/2	.014	.015	.016	.072	.084	.092
1 8 17/2	.013	.014	.015	.209	.229	.241
2 4 7/2	-.044	-.054	-.060	-.040	-.042	-.043
3 2 5/2	-.086	-.102	-.113	.055	.059	.062
1 6 11/2	-.003	.005	.011	-.098	-.103	-.106
2 4 9/2	.059	.077	.089	.262	.289	.306
1 6 13/2	.070	.062	.056	.913	.893	.880

A=239 P

BETA20	.200	.230	.250	.200	.230	.250
BETA40	.080	.080	.080	.080	.080	.080
OMEGA= 5/2						
TO BE CONTINUED						
2 2 5/2	.974	.965	.959	-.100	-.104	-.108
1 4 7/2	.141	.159	.168	.042	.043	.044
1 4 9/2	-.091	-.113	-.127	-.132	-.151	-.164
1 2 5/2	.070	.084	.094	-.016	-.015	-.015
OMEGA= 7/2						
ENERGY	-10.822	-10.399	-10.109	-4.183	-4.268	-4.328
AQN	404	404	404	633	633	633
1 12 25/2	-.000	-.000	-.000	.009	.010	.011
1 10 21/2	-.001	-.000	-.000	.049	.051	.052
1 8 15/2	.009	.010	.011	-.051	-.058	-.062
2 6 13/2	-.002	-.002	-.002	.014	.021	.026
1 8 17/2	-.001	-.001	-.001	.160	.184	.199
2 4 7/2	-.094	-.111	-.121	-.027	-.029	-.031
1 6 11/2	.051	.066	.076	-.106	-.116	-.122
2 4 9/2	-.017	-.023	-.027	.158	.189	.208
1 6 13/2	-.014	-.010	-.007	.963	.950	.940
1 4 7/2	.991	.986	.983	.026	.028	.029
1 4 9/2	.080	.098	.108	-.062	-.080	-.092
OMEGA= 9/2				OMEGA=11/2		
ENERGY	-2.938	-2.867	-2.824	-2.127	-1.838	-1.644
AQN	624	624	624	615	615	615
1 12 25/2	.005	.006	.006	.002	.003	.003
1 10 21/2	.031	.033	.034	.017	.017	.018
1 8 15/2	-.044	-.052	-.057	-.032	-.040	-.045
2 6 13/2	-.041	-.042	-.042	-.078	-.087	-.093
1 8 17/2	.098	.123	.140	.043	.066	.081
1 6 11/2	-.087	-.100	-.108	-.052	-.065	-.073
2 4 9/2	.056	.082	.099	0	0	0
1 6 13/2	.987	.981	.975	.994	.991	.988
1 4 9/2	-.016	-.029	-.037	0	0	0
OMEGA=13/2						
ENERGY	-1.872	-1.253	-.830			
AQN	606	606	606			
1 12 25/2	.000	.001	.001			
1 10 21/2	.007	.007	.007			
1 8 15/2	-.019	-.025	-.029			
2 6 13/2	-.090	-.108	-.120			
1 8 17/2	.007	.023	.034			
1 6 13/2	.996	.994	.992			

A=239 P

BETA20	.200	.230	.250	.200	.230	.250
BETA40	.080	.080	.080	.080	.080	.080
OMEGA= 1/2						
ENERGY	-8.560	-8.860	-9.037	-6.280	-6.421	-6.509
AQN	541	541	541	530	530	530
DP	3.803	3.789	3.781	-2.774	-2.732	-2.706
1 11 23/2	.002	.002	.003	-.001	-.003	-.004
1 9 17/2	.044	.045	.047	.017	.019	.020
1 9 19/2	.010	.011	.012	-.009	-.013	-.016
2 5 9/2	.137	.150	.158	.004	.007	.009
3 3 7/2	-.019	-.018	-.017	.081	.088	.092
1 7 13/2	.190	.203	.211	.073	.083	.088
2 5 11/2	-.021	-.016	-.013	.146	.145	.143
1 7 15/2	.025	.033	.038	.005	-.024	-.043
3 1 1/2	.179	.181	.182	-.163	-.174	-.182
3 1 3/2	-.140	-.136	-.134	.444	.475	.493
2 3 5/2	.454	.473	.484	-.036	-.034	-.033
2 3 7/2	-.112	-.092	-.080	.679	.642	.619
1 5 9/2	.767	.745	.731	.325	.319	.315
1 5 11/2	.166	.168	.167	-.399	-.415	-.422
2 1 1/2	-.115	-.120	-.122	.049	.054	.058
2 1 3/2	.065	.067	.067	-.108	-.121	-.129
1 3 5/2	-.194	-.215	-.229	-.019	-.022	-.025
1 3 7/2	.020	.018	.016	-.035	-.033	-.033
1 1 1/2	-.021	-.021	-.020	.009	.010	.011
1 1 3/2	.012	.012	.012	-.024	-.027	-.029
ENERGY	-2.813	-2.879	-2.916	-.784	-1.008	-1.161
AQN	521	521	521	510	510	510
DP	.921	.882	.863	-6.227	-6.770	-6.925
1 11 23/2	.011	.010	.010	.069	-.073	-.075
1 9 17/2	-.017	-.020	-.023	-.006	.006	.006
1 9 19/2	.033	.034	.033	.223	-.246	-.256
2 5 9/2	.092	.091	.090	-.056	.048	.045
3 3 7/2	-.001	.006	.011	.056	-.075	-.086
1 7 13/2	-.065	-.086	-.099	-.005	-.000	-.003
2 5 11/2	.120	.138	.149	.299	-.334	-.351
1 7 15/2	.140	.126	.116	.787	-.799	-.794
3 1 1/2	.425	.450	.463	-.028	.048	.056
3 1 3/2	-.269	-.231	-.207	-.288	.196	.159
2 3 5/2	.581	.556	.542	-.267	.204	.176
2 3 7/2	.399	.403	.404	-.098	.145	.164
1 5 9/2	-.412	-.421	-.425	.135	-.119	-.112
1 5 11/2	-.165	-.192	-.208	-.215	.242	.257
2 1 1/2	-.057	-.064	-.068	.006	-.007	-.007
2 1 3/2	.025	.023	.022	-.002	-.001	-.002
1 3 5/2	-.004	.001	.004	-.009	.008	.008
1 3 7/2	.024	.025	.026	-.003	.004	.003
1 1 1/2	-.015	-.017	-.019	.003	-.003	-.003
1 1 3/2	.007	.007	.006	.000	-.001	-.001
OMEGA= 3/2						
ENERGY	-7.111	-7.319	-7.446	-4.520	-4.535	-4.545
AQN	532	532	532	521	521	521
1 11 23/2	.002	.002	.003	.005	.003	.002
1 9 17/2	.040	.042	.043	.012	.014	.016

A=239 P

BETA20		.200	.230	.250	.200	.230	.250
BETA40		.080	.080	.080	.080	.080	.080
OMEGA= 3/2							

TO BE CONTINUED

1	9 19/2	.009	.011	.013	.012	.009	.006
2	5 9/2	.090	.102	.110	-.037	-.038	-.039
3	3 7/2	-.011	-.012	-.012	.041	.047	.052
1	7 13/2	.180	.197	.207	.057	.070	.079
2	5 11/2	-.044	-.040	-.037	.170	.181	.187
1	7 15/2	.016	.031	.041	.081	.054	.035
3	1 3/2	-.093	-.097	-.100	.217	.256	.280
2	3 5/2	.337	.365	.382	-.104	-.107	-.110
2	3 7/2	-.189	-.168	-.155	.830	.807	.791
1	5 9/2	.851	.831	.818	.335	.337	.337
1	5 11/2	.240	.252	.259	-.312	-.335	-.349
2	1 3/2	.036	.039	.041	-.030	-.037	-.042
1	3 5/2	-.119	-.136	-.147	-.009	-.013	-.015
1	3 7/2	.030	.029	.029	.007	.009	.011
1	1 3/2	.009	.010	.010	-.008	-.010	-.012
ENERGY		-.467	-.590	-.718	-.030	.001	.084
AQN		512	512	512	501	501	501
1	11 23/2	.050	.067	.071	.052	.031	.022
1	9 17/2	-.021	-.029	-.032	-.017	-.006	-.001
1	9 19/2	.162	.227	.248	.171	.104	.077
2	5 9/2	.076	.038	.021	-.094	-.127	-.138
3	3 7/2	.025	.059	.073	.074	.063	.056
1	7 13/2	-.042	-.060	-.063	-.026	.007	.028
2	5 11/2	.223	.314	.342	.209	.103	.053
1	7 15/2	.610	.777	.801	.615	.339	.235
3	1 3/2	-.310	-.206	-.162	.191	.274	.285
2	3 5/2	.606	.348	.245	-.556	-.733	-.766
2	3 7/2	.075	-.053	-.096	-.357	-.375	-.375
1	5 9/2	-.206	-.122	-.085	.206	.288	.313
1	5 11/2	-.169	-.227	-.247	-.113	-.033	.006
2	1 3/2	-.001	.002	.003	.004	.005	.004
1	3 5/2	.025	.014	.010	-.030	-.044	-.050
1	3 7/2	.015	.004	.001	-.043	-.049	-.051
1	1 3/2	.001	.002	.002	.001	-.000	-.001
OMEGA= 5/2							
ENERGY		-11.231	-11.361	-11.447	-5.285	-5.314	-5.330
AQN		532	532	532	523	523	523
1	11 23/2	.010	.011	.011	-.001	.000	.001
1	9 17/2	-.016	-.018	-.019	.031	.034	.035
1	9 19/2	.052	.053	.054	.000	.002	.003
2	5 9/2	-.041	-.047	-.051	.017	.024	.029
3	3 7/2	.024	.027	.029	.006	.007	.007
1	7 13/2	-.059	-.067	-.072	.149	.168	.181
2	5 11/2	.043	.052	.059	-.050	-.054	-.055
1	7 15/2	.176	.196	.209	-.016	-.002	.008
2	3 5/2	-.042	-.046	-.049	.166	.197	.215
2	3 7/2	.197	.227	.246	-.207	-.202	-.197
1	5 9/2	-.131	-.141	-.146	.928	.914	.905
1	5 11/2	.945	.929	.918	.199	.219	.232
1	3 5/2	.032	.035	.037	-.046	-.056	-.063

A=239 P

BETA20	.200	.230	.250	.200	.230	.250
BETA40	.080	.080	.080	.080	.080	.080
OMEGA= 5/2						
TO BE CONTINUED						
1 3 7/2	-.084	-.102	-.114	.021	.022	.022
OMEGA= 5/2				OMEGA= 7/2		
ENERGY	-2.836	-2.651	-2.522	-9.921	-9.928	-9.936
AQN	512	512	512	523	523	523
1 11 23/2	.007	.007	.007	.006	.007	.007
1 9 17/2	.002	.003	.004	-.013	-.014	-.016
1 9 19/2	.022	.023	.024	.035	.036	.037
2 5 9/2	-.057	-.064	-.068	-.026	-.030	-.033
3 3 7/2	-.018	-.017	-.016	.005	.005	.004
1 7 13/2	.022	.034	.042	-.050	-.059	-.065
2 5 11/2	.132	.155	.170	-.027	-.025	-.023
1 7 15/2	.124	.111	.101	.115	.138	.153
2 3 5/2	-.086	-.101	-.110	0	0	0
2 3 7/2	.921	.907	.898	.077	.105	.123
1 5 9/2	.265	.275	.281	-.106	-.119	-.127
1 5 11/2	-.185	-.212	-.229	.982	.974	.967
1 3 5/2	-.007	-.009	-.011	0	0	0
1 3 7/2	.055	.062	.067	-.024	-.037	-.045
OMEGA= 7/2						
ENERGY	-3.684	-3.456	-3.297	-1.845	-1.284	-.894
AQN	514	514	514	503	503	503
1 11 23/2	-.001	-.001	-.001	.004	.004	.004
1 9 17/2	.020	.022	.023	-.001	-.001	-.001
1 9 19/2	-.003	-.003	-.003	.011	.014	.016
2 5 9/2	-.049	-.052	-.053	-.041	-.051	-.059
3 3 7/2	.015	.018	.020	-.054	-.063	-.068
1 7 13/2	.100	.120	.134	.002	.009	.014
2 5 11/2	-.033	-.040	-.044	.047	.069	.086
1 7 15/2	-.028	-.021	-.016	.076	.077	.079
2 3 7/2	-.159	-.169	-.173	.973	.964	.958
1 5 9/2	.972	.965	.960	.169	.184	.190
1 5 11/2	.124	.145	.158	-.064	-.088	-.103
1 3 7/2	.007	.008	.008	.087	.105	.117
OMEGA= 9/2						
ENERGY	-9.019	-8.840	-8.720	-2.502	-1.903	-1.494
AQN	514	514	514	505	505	505
1 11 23/2	.003	.003	.003	-.001	-.001	-.001
1 9 17/2	-.008	-.009	-.010	.009	.010	.011
1 9 19/2	.019	.019	.020	-.002	-.002	-.002
2 5 9/2	-.013	-.015	-.016	-.090	-.107	-.117
1 7 13/2	-.036	-.044	-.049	.048	.064	.075
2 5 11/2	-.077	-.085	-.089	-.012	-.017	-.021
1 7 15/2	.054	.076	.091	-.018	-.016	-.014
1 5 9/2	-.061	-.075	-.084	.993	.989	.986
1 5 11/2	.993	.989	.987	.062	.077	.086
OMEGA=11/2						
ENERGY	-8.668	-8.190	-7.864			
AQN	505	505	505			
1 11 23/2	.001	.001	.001			
1 9 17/2	-.003	-.004	-.004			
1 9 19/2	.008	.008	.008			
1 7 13/2	-.020	-.027	-.031			
2 5 11/2	-.097	-.116	-.129			
1 7 15/2	.012	.028	.040			
1 5 11/2	.995	.992	.990			

Таблица 5

A = 247 Z = -0 R0 = 1.260 V0 = 46.000 KAPPA = .430 ALFA = 1.380

THE WAVE FUNCTIONS OF SPHERICAL NUCLEUS

+E	N+1	L	J	A	B1	C	B	Nn
+14.7634	1	10	10.5	7.4651	5.4605	5.5320	4.1685	.5035
+10.4189	1	8	7.5	6.6071	4.6358	4.7307	3.7555	.4929
+5.0545	2	6	6.5	6.7218	3.8176	4.4404	3.5020	.3055
+.6860	1	8	8.5	7.0643	4.9301	5.1718	4.9390	.5344
-3.3982	3	2	1.5	5.1973	2.2716	3.1619	3.5563	.1563
-3.8566	2	4	3.5	5.7651	3.1107	3.7566	3.9779	.3367
-3.9944	4	-0	.5	4.4032	1.3845	2.4814	3.2490	.0619
-5.0794	3	2	2.5	5.2962	2.2708	3.1766	3.7516	.1575
-6.3706	1	6	5.5	6.1834	4.1236	4.3717	4.5670	.5288
-7.4551	2	4	4.5	6.0014	3.1219	3.8236	4.3346	.3372
-12.4427	1	6	6.5	6.6106	4.2354	4.5778	5.0703	.5250
-18.4664	3	-0	.5	4.0682	1.2855	2.1809	3.5128	.1585
-18.6579	2	2	1.5	5.0086	2.2846	2.9631	4.0611	.3332
-20.2779	2	2	2.5	5.1561	2.2853	2.9808	4.1759	.3278
-21.2338	1	4	3.5	5.7139	3.3823	3.7196	4.6028	.5077
-24.2691	1	4	4.5	6.0439	3.4347	3.8137	4.8662	.4951
-32.3103	2	-0	.5	3.8209	1.1684	1.8368	3.3701	.3033
-33.4455	1	2	1.5	5.0481	2.4367	2.8083	4.1828	.4532
-34.4497	1	2	2.5	5.2409	2.4429	2.8340	4.2945	.4418
-42.4925	1	-0	.5	3.6269	1.0572	1.4137	2.9305	.3458

A = 247 Z = -0 RO = 1.26 VO = 46. KAPPA = .430 ALFA = 1.380

THE WAVE FUNCTIONS OF SPHERICAL NUCLEUS

+E	N+1	L	J	A	B1	C	B	Nn
+2I.9722	I	II	II.5	7.6687	5.6I56	5.5605	3.8I99	.478I
+7.6293	I	9	9.5	7.2675	5.2233	5.3885	4.6958	.5275
+3.2822	2	5	4.5	6.I237	3.4473	4.03I5	3.3765	.3I06
+I.8503	I	7	6.5	6.3939	4.409I	4.5964	4.3367	.5227
+.5737	3	3	3.5	5.8288	2.66I6	3.5628	3.3I54	.I453
-I.0265	2	5	5.5	6.36I2	3.4864	4.I597	4.I582	.33I7
-6.0238	I	7	7.5	6.8467	4.6083	4.9026	5.049I	.5332
-I0.5559	3	I	.5	4.67I5	I.8257	2.7202	3.6774	.I607
-II.3246	2	3	2.5	5.4092	2.72I7	3.393I	4.I2I2	.3395
-II.6096	3	I	I.5	4.7396	I.8235	2.7250	3.75I7	.I599
-I3.9I85	2	3	3.5	5.6086	2.7240	3.4284	4.3250	.3349
-I4.I037	I	5	4.5	5.9632	3.7745	4.0730	4.6432	.5223
-I8.54I2	I	5	5.5	6.3470	3.850I	4.2I79	5.0090	.5I24
-25.6294	2	I	.5	4.5086	I.7862	2.46I8	3.8232	.32I3
-26.4329	2	I	I.5	4.5967	I.7837	2.4636	3.8775	.3I67
-27.7064	I	3	2.5	5.4205	2.945I	3.30I4	4.4542	.4849
-29.58I3	I	3	3.5	5.6844	2.9656	3.3537	4.6353	.47I7
-38.3832	I	I	.5	4.5232	I.8322	2.20I0	3.7299	.409I
-38.7922	I	I	I.5	4.6394	I.8350	2.2I56	3.788I	.40I8

A=247 N

Таблица 8

BETA20	.230	.250	.280	.230	.250	.280
BETA40	.060	.060	.060	.060	.060	.060
OMEGA= 1/2						
ENERGY	-10.404	-10.599	-10.873	-9.428	-9.575	-9.771
AQN	651	651	651	640	640	640
DP	.751	.484	.210	-1.744	-1.503	-1.261
1 10 21/2	.019	.021	.023	-.012	-.014	-.018
1 8 15/2	.083	.088	.094	.152	.157	.163
2 6 13/2	-.048	-.040	-.029	.060	.059	.055
1 8 17/2	.073	.083	.096	-.045	-.057	-.075
3 2 3/2	.315	.330	.348	.112	.104	.095
2 4 7/2	.363	.377	.391	.389	.386	.384
4 -0 1/2	-.272	-.277	-.283	.110	.125	.143
3 2 5/2	-.477	-.471	-.463	.351	.377	.405
1 6 11/2	.366	.371	.372	.645	.625	.602
2 4 9/2	-.374	-.334	-.283	.398	.389	.371
1 6 13/2	.345	.342	.337	-.248	-.263	-.279
3 -0 1/2	.087	.089	.092	-.029	-.033	-.037
2 2 3/2	-.136	-.147	-.162	-.065	-.063	-.060
2 2 5/2	.141	.147	.156	-.081	-.091	-.105
1 4 7/2	-.118	-.129	-.142	-.155	-.162	-.173
1 4 9/2	.014	.011	.006	-.003	-.002	.001
2 -0 1/2	.006	.006	.005	-.004	-.004	-.004
1 2 3/2	-.012	-.012	-.012	-.007	-.006	-.004
1 2 5/2	.018	.019	.021	-.013	-.015	-.017
1 -0 1/2	.001	.001	.001	-.001	-.001	-.001
ENERGY	-6.798	-6.884	-6.996	-4.720	-4.700	-4.660
AQN	631	631	631	620	620	620
DP	-.010	-.071	-.140	-.015	.058	.142
1 10 21/2	.004	.007	.012	-.008	-.007	-.005
1 8 15/2	.100	.110	.123	-.085	-.095	-.109
2 6 13/2	-.090	-.093	-.096	-.079	-.091	-.107
1 8 17/2	.010	.024	.046	-.037	-.029	-.016
3 2 3/2	-.528	-.536	-.544	.333	.327	.318
2 4 7/2	-.188	-.176	-.158	.459	.449	.435
4 -0 1/2	.392	.387	.378	.281	.309	.345
3 2 5/2	.161	.121	.069	.532	.511	.479
1 6 11/2	.423	.429	.436	-.355	-.355	-.354
2 4 9/2	-.500	-.496	-.486	-.396	-.410	-.424
1 6 13/2	.214	.228	.245	.118	.133	.153
3 -0 1/2	-.050	-.052	-.055	-.003	-.006	-.009
2 2 3/2	.085	.091	.099	-.053	-.056	-.062
2 2 5/2	-.002	.002	.008	.020	.021	.024
1 4 7/2	-.045	-.052	-.062	.028	.032	.038
1 4 9/2	-.017	-.018	-.019	-.033	-.036	-.040
2 -0 1/2	-.006	-.006	-.007	-.001	-.001	-.003
1 2 3/2	.013	.014	.017	-.013	-.014	-.016
1 2 5/2	.002	.003	.004	.005	.006	.007
1 -0 1/2	-.001	-.001	-.001	-.000	-.001	-.001

A=247 N

BETA20	.230	.250	.280	.230	.250	.280
BETA40	.060	.060	.060	.060	.060	.060
OMEGA= 1/2						
ENERGY	-2.488	-2.393	-2.562	-2.133	-2.219	-2.019
AQN	611	611	611	600	600	600
DP	.468	4.541	8.258	8.186	4.054	.253
1 10 21/2	.053	.176	.251	.295	-.165	-.047
1 8 15/2	-.046	-.045	-.024	-.000	-.032	-.065
2 6 13/2	.104	.307	.415	.364	-.248	-.028
1 8 17/2	.203	.614	.803	.828	-.570	-.149
3 2 3/2	-.278	-.200	-.044	.068	-.224	-.315
2 4 7/2	.468	.342	.101	-.093	.343	.482
4 -0 1/2	.571	.396	.120	-.110	.382	.494
3 2 5/2	-.490	-.329	-.057	.150	-.402	-.521
1 6 11/2	-.191	-.142	-.045	.038	-.141	-.202
2 4 9/2	.170	.054	-.091	-.181	.259	.269
1 6 13/2	-.093	-.218	-.282	-.291	.136	-.014
3 -0 1/2	.025	.018	.004	-.006	.019	.026
2 2 3/2	-.038	-.030	-.010	.008	-.032	-.051
2 2 5/2	-.048	-.032	-.004	.020	-.046	-.062
1 4 7/2	.026	.021	.007	-.006	.022	.035
1 4 9/2	.027	.022	.012	-.010	.024	.036
2 -0 1/2	.003	.002	.000	-.001	.002	.003
1 2 3/2	-.010	-.008	-.003	.002	-.008	-.014
1 2 5/2	-.009	-.006	-.001	.005	-.009	-.013
1 -0 1/2	.001	.001	.000	-.000	.001	.001
OMEGA= 1/2				OMEGA= 3/2		
ENERGY	-1.259	-.984	-.556	-9.159	-9.286	-9.461
AQN	880	880	880	642	642	642
DP	-1.341	-1.240	-1.097	0	0	0
1 10 21/2	.001	.000	-.001	-.016	-.018	-.021
1 8 15/2	.029	.037	.050	-.119	-.128	-.140
2 6 13/2	-.005	-.004	.001	.064	.058	.049
1 8 17/2	.006	.002	-.003	-.058	-.070	-.087
3 2 3/2	.633	.615	.591	-.161	-.169	-.179
2 4 7/2	-.457	-.452	-.443	-.413	-.431	-.454
4 -0 1/2	.573	.585	.598	0	0	0
3 2 5/2	-.175	-.199	-.229	.339	.337	.334
1 6 11/2	.139	.141	.142	-.563	-.575	-.582
2 4 9/2	.028	.042	.061	.453	.411	.359
1 6 13/2	-.000	-.002	-.007	-.339	-.338	-.336
3 -0 1/2	.064	.071	.083	0	0	0
2 2 3/2	.065	.071	.079	.067	.071	.077
2 2 5/2	-.028	-.034	-.042	-.085	-.089	-.094
1 4 7/2	-.029	-.032	-.036	.128	.141	.158
1 4 9/2	.005	.007	.011	-.016	-.014	-.012
2 -0 1/2	.011	.013	.015	0	0	0
1 2 3/2	.013	.014	.016	.008	.008	.008
1 2 5/2	-.006	-.008	-.010	-.014	-.014	-.015
1 -0 1/2	.003	.003	.004	0	0	0
OMEGA= 3/2						
ENERGY	-8.150	-8.228	-8.325	-4.492	-4.449	-4.376
AQN	631	631	631	622	622	622
1 10 21/2	-.008	-.011	-.015	.008	.007	.004
1 8 15/2	.145	.149	.156	-.071	-.082	-.099

A=247 N

BETA2D	.230	.250	.280	.230	.250	.280
BETA4D	.060	.060	.060	.060	.060	.060
OMEGA= 3/2						
TO BE CONTINUED						
2 6 13/2	.093	.096	.099	.082	.092	.106
1 8 17/2	-.028	-.042	-.064	.040	.030	.013
3 2 3/2	-.008	-.016	-.027	.413	.437	.465
2 4 7/2	.210	.200	.188	.452	.458	.462
3 2 5/2	.327	.357	.394	-.544	-.500	-.442
1 6 11/2	.632	.605	.575	-.317	-.330	-.347
2 4 9/2	.588	.588	.580	.439	.442	.444
1 6 13/2	-.244	-.265	-.290	-.140	-.155	-.174
2 2 3/2	-.012	-.009	-.006	-.035	-.040	-.048
2 2 5/2	-.055	-.064	-.076	-.008	-.008	-.008
1 4 7/2	-.104	-.108	-.114	.030	.035	.043
1 4 9/2	.013	.015	.018	.039	.041	.045
1 2 3/2	-.002	-.001	.000	-.009	-.011	-.014
1 2 5/2	-.011	-.013	-.016	-.001	-.001	-.001
ENERGY	-3.034	-2.895	-2.672	-1.850	-1.998	-2.209
AQN	611	611	611	602	602	602
1 10 21/2	-.012	-.017	-.040	.226	.236	.248
1 8 15/2	-.064	-.073	-.084	-.027	-.029	-.037
2 6 13/2	-.037	-.058	-.112	.369	.382	.394
1 8 17/2	-.049	-.066	-.132	.841	.846	.816
3 2 3/2	.193	.176	.152	-.032	-.027	-.015
2 4 7/2	.618	.596	.564	.012	.024	.071
3 2 5/2	.654	.668	.673	.054	.072	.135
1 6 11/2	-.300	-.295	-.287	.005	-.002	-.026
2 4 9/2	-.213	-.235	-.255	-.138	-.146	-.171
1 6 13/2	.039	.056	.096	-.221	-.234	-.248
2 2 3/2	-.030	-.033	-.036	-.003	-.003	-.006
2 2 5/2	.065	.070	.077	.009	.011	.018
1 4 7/2	.035	.038	.042	-.000	.001	.005
1 4 9/2	-.025	-.030	-.037	-.006	-.004	-.002
1 2 3/2	-.011	-.012	-.013	-.000	-.001	-.002
1 2 5/2	.015	.016	.018	.002	.002	.003
OMEGA= 3/2				OMEGA= 5/2		
ENERGY	-.848	-.543	-.073	-7.644	-7.696	-7.763
AQN	871	871	871	633	633	633
1 10 21/2	.004	.004	.004	-.009	-.011	-.015
1 8 15/2	.020	.028	.041	-.125	-.137	-.153
2 6 13/2	.010	.005	-.004	.074	.070	.064
1 8 17/2	.013	.012	.013	-.032	-.045	-.064
3 2 3/2	.871	.861	.847	0	0	0
2 4 7/2	-.425	-.433	-.441	-.341	-.361	-.386
3 2 5/2	.182	.193	.208	.184	.186	.188
1 6 11/2	.113	.120	.127	-.668	-.686	-.703
2 4 9/2	-.063	-.073	-.086	.529	.482	.422
1 6 13/2	.005	.010	.016	-.302	-.306	-.309
2 2 3/2	.094	.104	.119	0	0	0
2 2 5/2	.029	.033	.040	-.037	-.040	-.044
1 4 7/2	-.031	-.035	-.041	.091	.102	.118
1 4 9/2	-.012	-.015	-.019	-.006	-.007	-.007
1 2 3/2	.016	.018	.022	0	0	0

A=247 N

BETA20	.230	.250	.280	.230	.250	.280
BETA40	.060	.060	.060	.060	.060	.060
OMEGA= 3/2				OMEGA= 5/2		

TO BE CONTINUED

1 2 5/2	.006	.007	.008	-.008	-.009	-.009
OMEGA= 5/2						
ENERGY	-6.658	-6.643	-6.608	-2.749	-2.512	-2.160
AQN	622	622	622	613	613	613
1 10 21/2	-.001	-.003	-.006	.012	-.016	-.033
1 8 15/2	.127	.132	.139	.031	.041	.060
2 6 13/2	.100	.109	.121	-.041	-.061	-.108
1 8 17/2	.001	-.010	-.030	-.055	-.068	-.119
2 4 7/2	.095	.082	.065	-.375	-.425	-.489
3 2 5/2	.191	.217	.252	.856	.817	.750
1 6 11/2	.624	.589	.546	.150	.171	.200
2 4 9/2	.708	.723	.733	-.293	-.310	-.322
1 6 13/2	-.177	-.201	-.231	.066	.084	.120
2 2 5/2	-.020	-.026	-.034	.070	.072	.072
1 4 7/2	-.064	-.067	-.071	-.029	-.036	-.047
1 4 9/2	.042	.045	.050	-.040	-.045	-.053
1 2 5/2	-.005	-.007	-.010	.012	.012	.012
ENERGY	-1.737	-1.490	-1.569	-1.262	-1.381	-1.075
AQN	602	602	602	862	862	862
1 10 21/2	-.016	.063	.241	.216	.218	-.010
1 8 15/2	-.053	-.070	-.040	-.038	-.023	-.074
2 6 13/2	.039	.113	.380	.349	.347	-.009
1 8 17/2	.065	.241	.839	.878	.832	-.036
2 4 7/2	.848	.777	-.050	-.087	-.265	.772
3 2 5/2	.431	.481	.129	.007	-.083	.554
1 6 11/2	-.273	-.257	.029	.040	.100	-.269
2 4 9/2	.012	-.037	-.150	-.117	-.118	-.034
1 6 13/2	-.038	-.079	-.222	-.193	-.194	-.007
2 2 5/2	.072	.083	.017	.001	-.016	.104
1 4 7/2	.062	.063	-.006	-.008	-.023	.072
1 4 9/2	.006	.001	-.006	-.008	-.007	-.003
1 2 5/2	.018	.021	.003	.000	-.004	.026
OMEGA= 7/2						
ENERGY	-6.006	-5.935	-5.829	-5.181	-5.042	-4.814
AQN	624	624	624	613	613	613
1 10 21/2	-.003	-.005	.008	.003	.002	.001
1 8 15/2	-.103	-.118	.139	.112	.116	.122
2 6 13/2	.074	.074	-.072	.066	.080	.099
1 8 17/2	-.003	-.016	.036	.017	.012	.000
2 4 7/2	-.210	-.230	.256	.053	.039	.018
1 6 11/2	-.665	-.705	.747	.692	.642	.576
2 4 9/2	.660	.602	-.525	.700	.742	.786
1 6 13/2	-.245	-.255	.266	-.065	-.090	-.123
1 4 7/2	.040	.048	-.059	-.039	-.040	-.043
1 4 9/2	.021	.019	-.015	.070	.078	.089
ENERGY	-.544	-.511	-.637	-.407	-.142	.454
AQN	604	604	604	853	853	853
1 10 21/2	.054	.211	.230	.193	-.023	-.010
1 8 15/2	-.039	-.064	-.064	-.050	-.027	-.045

A=247 N

BETA20	.230	.250	.280	.230	.250	.280
BETA40	.060	.060	.060	.060	.060	.060
OMEGA= 7/2						
TO BE CONTINUED						
2 6 13/2	.087	.332	.358	.304	-.028	.001
1 8 17/2	.246	.891	.877	.874	-.093	-.036
2 4 7/2	.937	.105	.038	-.256	.961	.959
1 6 11/2	-.168	-.002	.008	.047	-.192	-.204
2 4 9/2	.085	-.065	-.073	-.104	.126	.133
1 6 13/2	-.062	-.176	-.196	-.149	-.007	-.026
1 4 7/2	.097	.011	.004	-.028	.111	.128
1 4 9/2	.023	-.001	.000	-.013	.030	.034
OMEGA= 9/2						
ENERGY	-11.410	-11.374	-11.320	-4.564	-4.260	-3.816
AQN	624	624	624	615	615	615
1 10 21/2	.024	.025	.028	.001	-.000	-.002
1 8 15/2	-.051	-.056	-.064	-.043	-.058	-.084
2 6 13/2	-.022	-.021	-.019	.060	.057	.064
1 8 17/2	.125	.139	.161	.014	.005	-.010
1 6 11/2	-.105	-.113	-.124	-.379	-.466	-.597
2 4 9/2	.111	.125	.146	.908	.862	.768
1 6 13/2	.978	.972	.964	-.143	-.164	-.191
1 4 9/2	-.040	-.047	-.059	.080	.081	.078
OMEGA= 9/2				OMEGA=11/2		
ENERGY	-3.803	-3.534	-3.088	-10.393	-10.228	-9.977
AQN	604	604	604	615	615	615
1 10 21/2	.001	.002	.002	.014	.015	.016
1 8 15/2	.105	.113	.120	-.042	-.047	-.054
2 6 13/2	.007	.016	.033	-.061	-.064	-.070
1 8 17/2	.005	.008	.009	.080	.093	.114
1 6 11/2	.911	.867	.776	-.075	-.083	-.093
2 4 9/2	.388	.477	.608	0	0	0
1 6 13/2	.062	.049	.021	.991	.989	.985
1 4 9/2	.063	.079	.104	0	0	0
OMEGA=11/2				OMEGA=13/2		
ENERGY	-2.312	-1.854	-1.148	-9.565	-9.213	-8.668
AQN	606	606	606	606	606	606
1 10 21/2	-.000	-.000	.000	.006	.006	.007
1 8 15/2	.066	.076	.092	-.028	-.032	-.038
2 6 13/2	-.008	-.010	-.014	-.084	-.092	-.105
1 8 17/2	-.008	-.006	-.001	.039	.049	.064
1 6 11/2	.995	.993	.991	0	0	0
1 6 13/2	.078	.087	.098	.995	.994	.992

A=247 N

BETA20	.230	.250	.280	.230	.250	.280
BETA40	.060	.060	.060	.060	.060	.060
OMEGA= 1/2						
ENERGY	-10.624	-10.515	-10.339	-8.874	-9.046	-9.296
AQN	510	510	510	501	501	501
DP	-.459	-.496	-.565	-7.489	-7.440	-7.336
1 11 23/2	-.003	-.004	-.005	.052	.054	.056
1 9 19/2	-.013	-.016	-.022	.221	.229	.240
2 5 9/2	.085	.091	.099	-.003	-.002	.002
1 7 13/2	-.042	-.051	-.063	-.014	-.016	-.019
3 3 7/2	.026	.023	.015	.127	.138	.154
2 5 11/2	-.076	-.093	-.125	.394	.406	.420
1 7 15/2	-.057	-.060	-.073	.836	.821	.797
3 1 1/2	-.046	-.058	-.073	-.051	-.043	-.041
2 3 5/2	.517	.510	.500	.038	.041	.055
3 1 3/2	.703	.692	.675	.017	.028	.050
2 3 7/2	-.368	-.379	-.388	-.165	-.175	-.195
1 5 9/2	-.263	-.270	-.278	-.007	-.010	-.019
1 5 11/2	.096	.113	.141	-.215	-.226	-.241
2 1 1/2	-.015	-.017	-.020	-.004	-.004	-.004
2 1 3/2	.031	.033	.037	.007	.008	.010
1 3 5/2	.024	.027	.032	.002	.002	.004
1 3 7/2	-.041	-.045	-.050	-.009	-.008	-.006
1 1 1/2	-.005	-.006	-.007	-.001	-.001	-.001
1 1 3/2	.007	.008	.009	.002	.002	.002
ENERGY	-8.085	-7.764	-7.262	-2.900	-2.993	-3.125
AQN	770	770	770	761	761	761
DP	.960	.940	.903	-5.440	-5.419	-5.396
1 11 23/2	.002	.002	.002	-.032	-.036	-.043
1 9 19/2	.009	.007	.007	-.109	-.127	-.154
2 5 9/2	-.063	-.073	-.090	-.056	-.060	-.064
1 7 13/2	.010	.016	.025	-.035	-.037	-.039
3 3 7/2	.016	.016	.016	.632	.649	.669
2 5 11/2	.011	.001	-.014	.636	.607	.565
1 7 15/2	.029	.023	.023	-.389	-.397	-.407
3 1 1/2	.816	.806	.792	.002	.003	.006
2 3 5/2	-.411	-.411	-.409	.014	.015	.016
3 1 3/2	.348	.358	.371	-.069	-.068	-.065
2 3 7/2	-.120	-.131	-.147	-.145	-.155	-.170
1 5 9/2	.120	.128	.138	.012	.013	.016
1 5 11/2	.007	.014	.024	.018	.024	.033
2 1 1/2	.076	.084	.096	-.001	-.001	.000
2 1 3/2	.046	.052	.060	.002	.003	.006
1 3 5/2	-.039	-.043	-.050	-.000	-.000	-.001
1 3 7/2	-.021	-.025	-.030	-.019	-.021	-.025
1 1 1/2	.017	.019	.022	-.000	-.000	.000
1 1 3/2	.012	.013	.015	.002	.003	.004
OMEGA= 1/2				OMEGA= 3/2		
ENERGY	-.885	-.998	-1.134	-10.544	-10.431	-10.248
AQN	750	750	750	512	512	512
DP	6.050	5.989	5.903	0	0	0
1 11 23/2	-.000	-.001	-.001	.002	.002	.002
1 9 19/2	-.001	-.002	-.004	.009	.009	.011
2 5 9/2	.614	.629	.648	.093	.099	.106

A=247 N

BETA20			.230	.250	.280	.230	.250	.280
BETA40			.060	.060	.060	.060	.060	.060
OMEGA= 1/2						OMEGA= 3/2		

TO BE CONTINUED

1	7	13/2	.752	.735	.710	-.062	-.063	-.080
3	3	7/2	.043	.047	.054	-.016	-.014	-.010
2	5	11/2	.051	.052	.053	.058	.070	.090
1	7	15/2	-.010	-.012	-.015	.040	.038	.037
3	1	1/2	.004	.008	.016	0	0	0
2	3	5/2	-.126	-.134	-.145	.767	.765	.759
3	1	3/2	-.008	-.008	-.007	-.407	-.385	-.355
2	3	7/2	-.003	-.004	-.006	.334	.343	.352
1	5	9/2	-.194	-.205	-.219	-.327	-.339	-.355
1	5	11/2	.007	.007	.008	-.091	-.105	-.126
2	1	1/2	.004	.006	.008	0	0	0
2	1	3/2	-.002	-.001	-.001	-.007	-.006	-.006
1	3	5/2	-.008	-.007	-.005	.038	.043	.051
1	3	7/2	-.001	-.001	-.002	.039	.042	.046
1	1	1/2	.001	.002	.002	0	0	0
1	1	3/2	-.000	-.000	.000	.000	.000	.001
OMEGA= 3/2								
ENERGY			-8.962	-8.697	-8.878	-8.479	-8.590	-8.150
AQN			501	501	501	761	761	761
1	11	23/2	-.005	.036	.055	.051	.038	.006
1	9	19/2	-.021	.157	.238	.217	.163	.024
2	5	9/2	.067	-.072	-.040	-.020	.030	.081
1	7	13/2	-.014	-.009	-.033	-.038	-.043	-.035
3	3	7/2	.013	.063	.127	.108	.100	.036
2	5	11/2	-.047	.288	.413	.376	.268	.002
1	7	15/2	-.084	.585	.816	.852	.605	.081
2	3	5/2	.459	-.339	-.077	.019	.286	.416
3	1	3/2	.844	-.610	-.072	.079	.591	.847
2	3	7/2	-.166	.041	-.133	-.156	-.241	-.230
1	5	9/2	-.153	.130	.047	.010	-.088	-.155
1	5	11/2	.039	-.167	-.232	-.196	-.132	.018
2	1	3/2	.086	-.066	-.005	.012	.070	.111
1	3	5/2	.035	-.030	-.009	-.000	.023	.042
1	3	7/2	-.027	.018	-.002	-.012	-.028	-.040
1	1	3/2	.021	-.016	-.001	.003	.018	.028
ENERGY			-2.323	-2.390	-2.484	-.249	-.331	-.421
AQN			752	752	752	741	741	741
1	11	23/2	-.029	-.033	-.040	-.000	-.001	-.003
1	9	19/2	-.098	-.116	-.144	.001	-.002	-.008
2	5	9/2	-.150	-.160	-.172	.566	.581	.601
1	7	13/2	-.097	-.103	-.110	.779	.761	.736
3	3	7/2	.575	.594	.616	.100	.116	.136
2	5	11/2	.683	.654	.612	.150	.153	.157
1	7	15/2	-.372	-.381	-.390	-.022	-.027	-.034
2	3	5/2	.039	.042	.047	-.097	-.103	-.111
3	1	3/2	-.043	-.040	-.034	-.007	-.010	-.014
2	3	7/2	-.126	-.136	-.150	-.005	-.007	-.011
1	5	9/2	.028	.032	.037	-.174	-.184	-.199
1	5	11/2	.017	.023	.031	.020	.022	.024
2	1	3/2	.000	.002	.006	-.002	-.003	-.003

A=247 N

BETA20	.230	.250	.280	.230	.250	.280
BETA40	.060	.060	.060	.060	.060	.060
OMEGA= 3/2						
TO BE CONTINUED						
1 3 5/2	.001	.001	.000	-.008	-.008	-.006
1 3 7/2	-.019	-.021	-.025	-.002	-.003	-.005
1 1 3/2	.001	.002	.003	-.001	-.001	-.001
OMEGA= 5/2						
ENERGY	-8.448	-8.109	-8.051	-7.734	-7.857	-7.567
AQN	503	503	503	752	752	752
1 11 23/2	.002	.007	.052	.047	.049	-.005
1 9 19/2	.010	.033	.233	.207	.216	-.020
2 5 9/2	.075	.081	-.025	-.033	-.043	.104
1 7 13/2	-.023	-.037	-.067	-.060	-.058	-.034
3 3 7/2	-.000	.008	.089	.074	.080	-.011
2 5 11/2	.026	.068	.380	.340	.351	-.006
1 7 15/2	.047	.133	.854	.888	.867	-.074
2 3 5/2	.958	.943	.088	-.036	-.132	.938
2 3 7/2	.158	.158	-.086	-.105	-.124	.197
1 5 9/2	-.193	-.199	-.001	.029	.049	-.219
1 5 11/2	-.033	-.058	-.201	-.166	-.173	-.024
1 3 5/2	.091	.099	.008	-.005	-.016	.115
1 3 7/2	.031	.033	-.002	-.011	-.013	.041
OMEGA= 5/2				OMEGA= 7/2		
ENERGY	-1.265	-1.270	-1.277	-11.299	-10.988	-10.502
AQN	743	743	743	503	503	503
1 11 23/2	-.023	-.027	-.034	.001	.000	.000
1 9 19/2	-.076	-.095	-.124	.002	.002	.002
2 5 9/2	-.202	-.217	-.239	-.048	-.053	-.061
1 7 13/2	-.141	-.152	-.166	.032	.037	.045
3 3 7/2	.451	.473	.500	-.041	-.043	-.046
2 5 11/2	.777	.749	.709	.059	.070	.086
1 7 15/2	-.340	-.349	-.358	.017	.013	.005
2 3 5/2	.032	.033	.036	0	0	0
2 3 7/2	-.090	-.098	-.111	.945	.943	.940
1 5 9/2	.032	.036	.043	.287	.281	.272
1 5 11/2	.023	.027	.034	-.089	-.102	-.119
1 3 5/2	.002	.001	.000	0	0	0
1 3 7/2	-.018	-.020	-.024	.092	.102	.117
OMEGA= 7/2				OMEGA= 9/2		
ENERGY	-6.707	-6.783	-6.895	-10.924	-10.568	-10.015
AQN	743	743	743	505	505	505
1 11 23/2	.041	.043	.046	-.000	.000	.000
1 9 19/2	.188	.201	.219	.000	.000	.001
2 5 9/2	-.028	-.030	-.032	-.080	-.087	-.098
1 7 13/2	-.078	-.080	-.083	.068	.078	.093
3 3 7/2	.036	.039	.045	0	0	0
2 5 11/2	.278	.295	.319	-.015	-.017	-.021
1 7 15/2	.927	.917	.901	-.003	-.000	.005
2 3 7/2	-.050	-.052	-.056	0	0	0
1 5 9/2	.023	.023	.022	.990	.988	.984
1 5 11/2	-.122	-.134	-.152	.090	.098	.110
1 3 7/2	-.006	-.006	-.005	0	0	0

A=247 N

BETA20	.230	.250	.280	.230	.250	.280
BETA40	.060	.060	.060	.060	.060	.060
OMEGA= 9/2			OMEGA=11/2			
ENERGY	-5.527	-5.532	-5.538	-4.358	-4.260	-4.110
AQN	734	734	734	725	725	725
1 11 23/2	.033	.035	.038	.023	.024	.027
1 9 19/2	.158	.172	.193	.118	.132	.155
2 5 9/2	-.019	-.020	-.022	0	0	0
1 7 13/2	-.086	-.089	-.094	-.081	-.086	-.093
2 5 11/2	.192	.209	.234	.098	.112	.133
1 7 15/2	.961	.954	.942	.984	.980	.973
1 5 9/2	.017	.018	.018	0	0	0
1 5 11/2	-.075	-.086	-.102	-.035	-.043	-.054
OMEGA=13/2			OMEGA=15/2			
ENERGY	-3.334	-3.093	-2.721	-2.541	-2.104	-1.424
AQN	716	716	716	707	707	707
1 11 23/2	.013	.014	.017	.006	.006	.007
1 9 19/2	.074	.088	.108	.035	.044	.059
1 7 13/2	-.060	-.066	-.074	0	0	0
1 7 15/2	.995	.994	.991	.999	.999	.998

Таблица 7

A = 247 Z = 97 RO = 1.240 VO = 62.000 KAPPA = .370 ALFA = 1.550

THE WAVE FUNCTIONS OF SPHERICAL NUCLEUS

+E	N+l	L	J	A	Bl	C	B	Nn
+39.967I	I	I0	9.5	6.6870	5.2774	5.2200	3.9495	.5324
+39.948I	I	I2	I2.5	7.4798	6.2777	6.2I28	4.2532	.5490
+23.652I	I	I0	I0.5	7.I893	5.8002	5.9573	4.9936	.5836
+I9.924I	I	8	7.5	6.3656	4.9042	5.0820	4.4877	.5695
+I5.8902	2	6	6.5	6.4733	3.9550	4.6623	4.II96	.3499
+8.48I0	I	8	8.5	6.873I	5.I882	5.49I0	5.3963	.5876
+7.626I	3	2	I.5	5.0809	2.3I05	3.246I	3.8028	.I672
+7.I995	4	-0	.5	4.3274	I.3964	2.5202	3.4350	.0653
+6.I444	2	4	3.5	5.63I8	3.2027	3.9030	4.3002	.3633
+5.477I	3	2	2.5	5.I995	2.3093	3.2638	3.9935	.I672
+I.8339	2	4	4.5	5.8930	3.222I	3.9799	4.6375	.3605
+I.7090	I	6	5.5	6.0572	4.3I89	4.6I90	4.9533	.5739
-5.2466	I	6	6.5	6.5003	4.4942	4.8783	5.4429	.5696
-9.2I60	3	-0	.5	4.II03	I.2945	2.2358	3.7335	.I629
-9.8323	2	2	I.5	5.0I8I	2.3497	3.0882	4.3385	.3486
-II.6724	2	2	2.5	5.I789	2.3549	3.II43	4.4645	.3425
-I3.7966	I	4	3.5	5.7006	3.5763	3.9586	4.9593	.5424
-I7.2760	I	4	4.5	6.04I4	3.6675	4.I0I8	5.2435	.53I8
-23.8856	2	-0	.5	4.0325	I.I839	I.9304	3.7004	.3048
-25.97I8	I	2	I.5	5.2I25	2.6359	3.076I	4.6I63	.4794
-27.I775	I	2	2.5	5.4286	2.6698	3.I4I3	4.7709	.4703
-34.II79	I	-0	.5	4.4I83	I.2589	I.8083	3.8I05	.3526

A==247 Z=97 R0=I.240 V_0=62.000 KAPPA= .370 ALFA==I.550

THE WAVE FUNCIIONS OF SPHERICAL NUCLEUS

+E	N+I	L	J	A	B_I	C	B	Nn
+48.3I42	I	I3	I3.5	7.6304	6.39II	6.I854	4.4977	.5496
+3I.69I4	I	II	II.5	7.3348	6.0736	6.I282	4.4605	.5626
+29.82I9	I	9	8.5	6.5I84	5.I224	5.2093	3.8I07	.5359
+I5.90I5	I	9	9.5	7.0365	5.5302	5.7578	5.2545	.5905
+I4.4708	2	5	4.5	5.90I3	3.563I	4.22I3	3.8906	.35I8
+I2.24I3	3	3	3.5	5.6403	2.7I82	3.67I2	3.5856	.I585
+I0.5I06	I	7	6.5	6.2I48	4.639I	4.8828	4.8050	.5782
+8.8705	2	5	5.5	6.I907	3.603I	4.3462	4.5I83	.36I2
+I.42I8	I	7	7.5	6.6957	4.8579	5.2075	5.4529	.58I2
-.562I	3	I	.5	4.6364	I.8499	2.7877	3.9027	.I682
-I.7829	3	I	I.5	4.7I29	I.8493	2.7949	3.9776	.I669
-2.0425	2	3	2.5	5.3470	2.8002	3.5283	4.4032	.3600
-5.0526	2	3	3.5	5.5644	2.8096	3.5735	4.6I39	.3539
-6.4I74	I	5	4.5	5.8885	3.9727	4.3I92	4.9977	.5624
-II.5039	I	5	5.5	6.2857	4.0877	4.5007	5.3753	.5522
-I7.0687	2	I	.5	4.6008	I.8309	2.5667	4.II57	.3305
-I7.9698	2	I	I.5	4.70I7	I.832I	2.5828	4.I8I9	.326I
-20.3287	I	3	2.5	5.4783	3.I340	3.5445	4.83I0	.5I50
-22.5277	I	3	3.5	5.7620	3.I922	3.6505	5.0477	.5047
-30.584I	I	I	.5	4.862I	2.0362	2.5085	4.2790	.4297
-3I.I035	I	I	I.5	5.0070	2.0659	2.5553	4.379I	.4250

A=247 P

Таблица 8

BETA20	.230	.250	.280	.230	.250	.280
BETA40	.060	.060	.060	.060	.060	.060
OMEGA= 1/2						
ENERGY	-10.032	-9.991	-9.916	-8.323	-8.502	-8.764
AQN	411	411	411	400	400	400
DP	-.721	-.670	-.609	6.470	6.457	6.424
1 10 19/2	-.002	-.002	-.003	.003	-.003	-.004
1 12 25/2	.001	.001	.001	-.013	.014	.014
1 10 21/2	.005	.005	.005	-.064	.065	.067
1 8 15/2	-.010	-.012	-.015	.012	-.012	-.012
2 6 13/2	.020	.021	.022	-.148	.157	.171
1 8 17/2	.019	.020	.019	-.251	.261	.274
3 2 3/2	.036	.036	.037	.002	-.004	-.006
4 -0 1/2	-.004	-.001	.002	-.015	.014	.014
2 4 7/2	.116	.120	.125	.024	-.024	-.024
3 2 5/2	-.032	-.032	-.031	-.103	.108	.113
2 4 9/2	.099	.110	.124	-.368	.382	.400
1 6 11/2	-.053	-.065	-.083	.020	-.019	-.018
1 6 13/2	.059	.052	.037	-.812	.796	.771
3 -0 1/2	-.299	-.291	-.277	.075	-.054	-.036
2 2 3/2	.728	.715	.698	.068	-.059	-.053
2 2 5/2	.452	.461	.472	.182	-.190	-.195
1 4 7/2	-.347	-.356	-.367	-.038	.039	.040
1 4 9/2	-.145	-.161	-.183	.244	-.259	-.282
2 -0 1/2	.013	.012	.012	.002	-.001	-.001
1 2 3/2	.008	.011	.015	.005	-.005	-.004
1 2 5/2	.034	.036	.039	.011	-.010	-.008
1 -0 1/2	.005	.005	.004	.000	-.000	-.000
ENERGY	-7.388	-7.141	-6.755	-1.977	-2.162	-2.403
AQN	660	660	660	651	651	651
DP	.479	.452	.437	-3.790	-3.740	-3.646
1 10 19/2	-.001	-.001	-.001	-.035	-.036	-.037
1 12 25/2	.001	.001	.000	-.003	-.003	-.004
1 10 21/2	.004	.003	.002	-.011	-.013	-.015
1 8 15/2	-.003	-.004	-.006	-.183	-.189	-.195
2 6 13/2	.006	.002	-.001	.030	.026	.020
1 8 17/2	.017	.012	.009	-.039	-.046	-.057
3 2 3/2	-.054	-.057	-.060	-.239	-.249	-.262
4 -0 1/2	-.076	-.087	-.101	.130	.135	.142
2 4 7/2	.073	.083	.097	-.446	-.455	-.465
3 2 5/2	.067	.068	.070	.222	.227	.235
2 4 9/2	.001	-.017	-.038	.185	.171	.155
1 6 11/2	-.013	-.021	-.033	-.703	-.687	-.663
1 6 13/2	.055	.040	.034	-.170	-.171	-.172
3 -0 1/2	.836	.829	.819	-.063	-.064	-.066
2 2 3/2	.433	.434	.431	.159	.166	.176
2 2 5/2	-.258	-.263	-.271	-.096	-.102	-.112
1 4 7/2	-.131	-.141	-.154	.209	.220	.235
1 4 9/2	.019	.033	.049	-.018	-.017	-.015
2 -0 1/2	.062	.069	.080	-.006	-.006	-.005
1 2 3/2	.040	.044	.051	.019	.019	.018
1 2 5/2	-.043	-.047	-.053	-.016	-.017	-.019
1 -0 1/2	.023	.026	.031	-.001	-.001	-.001

A=247 P

BETA20	.230	.250	.280	.230	.250	.280
BETA40	.060	.060	.060	.060	.060	.060
OMEGA= 1/2				OMEGA= 3/2		
ENERGY	-.930	-1.064	-1.248	-11.145	-11.092	-11.005
AQN	640	640	640	411	411	411
DP	2.501	2.406	2.251	0	0	0
1 10 19/2	.021	.023	.025	.001	.001	.002
1 12 25/2	-.005	-.006	-.007	.000	.000	.000
1 10 21/2	-.020	-.024	-.030	.002	.002	.001
1 8 15/2	.106	.113	.124	.006	.007	.010
2 6 13/2	.108	.102	.090	.019	.018	.016
1 8 17/2	-.066	-.085	-.111	.010	.008	.003
3 2 3/2	-.080	-.085	-.091	-.032	-.033	-.036
4 -0 1/2	.207	.215	.225	0	0	0
2 4 7/2	.115	.121	.133	-.065	-.069	-.074
3 2 5/2	.513	.527	.543	-.010	-.012	-.012
2 4 9/2	.567	.538	.498	.143	.150	.158
1 6 11/2	.385	.385	.387	.040	.049	.063
1 6 13/2	-.359	-.362	-.362	.028	.011	-.015
3 -0 1/2	-.086	-.088	-.089	0	0	0
2 2 3/2	.022	.026	.032	-.180	-.187	-.196
2 2 5/2	-.177	-.188	-.204	.898	.889	.876
1 4 7/2	-.080	-.087	-.099	.256	.265	.276
1 4 9/2	-.027	-.024	-.021	-.257	-.269	-.285
2 -0 1/2	-.011	-.011	-.010	0	0	0
1 2 3/2	.002	.003	.005	-.000	-.002	-.004
1 2 5/2	-.034	-.037	-.040	.027	.031	.035
1 -0 1/2	-.003	-.003	-.002	0	0	0
OMEGA= 3/2						
ENERGY	-7.760	-7.916	-8.157	-7.561	-7.288	-6.862
AQN	402	402	402	651	651	651
1 10 19/2	-.009	-.010	-.011	-.002	-.000	-.001
1 12 25/2	.012	.013	.014	.003	-.001	-.000
1 10 21/2	.059	.063	.065	.015	-.004	-.002
1 8 15/2	-.035	-.037	-.040	-.006	-.002	-.006
2 6 13/2	.126	.138	.152	.028	-.006	.000
1 8 17/2	.238	.255	.271	.059	-.018	-.008
3 2 3/2	-.030	-.015	-.012	.090	-.104	-.117
2 4 7/2	-.002	-.021	-.026	-.107	.115	.129
3 2 5/2	.073	.086	.092	.067	-.059	-.062
2 4 9/2	.343	.366	.388	.064	.002	.028
1 6 11/2	-.070	-.071	-.072	.001	-.023	-.040
1 6 13/2	.820	.827	.804	.204	-.060	-.032
2 2 3/2	.256	.095	.054	-.899	.920	.910
2 2 5/2	-.086	-.128	-.133	-.263	.254	.261
1 4 7/2	-.025	.010	.020	.201	-.212	-.225
1 4 9/2	-.217	-.233	-.256	-.018	-.026	-.046
1 2 3/2	.020	.006	.003	-.081	.093	.107
1 2 5/2	-.003	-.008	-.006	-.042	.045	.051
OMEGA= 3/2				OMEGA= 5/2		
ENERGY	-1.007	-1.146	-1.333	-9.544	-9.288	-8.896
AQN	642	642	642	402	402	402
1 10 19/2	-.036	-.038	-.040	-.000	.000	.000
1 12 25/2	-.002	-.003	-.004	.000	.000	.000
1 10 21/2	-.011	-.013	-.016	.002	.002	.001

A=247 P

BETA20	.230	.250	.280	.230	.250	.280
BETA40	.060	.060	.060	.060	.060	.060
OMEGA= 3/2			OMEGA= 5/2			
TO BE CONTINUED						
1 8 15/2	-.192	-.201	-.213	.001	.002	.004
2 6 13/2	.040	.036	.029	.011	.012	.012
1 8 17/2	-.039	-.049	-.062	.008	.008	.006
3 2 3/2	-.115	-.121	-.127	0	0	0
2 4 7/2	-.409	-.423	-.440	-.058	-.064	-.073
3 2 5/2	.167	.169	.172	-.110	-.121	-.137
2 4 9/2	.217	.199	.178	.085	.096	.111
1 6 11/2	-.784	-.773	-.758	.015	.022	.032
1 6 13/2	-.212	-.213	-.213	.030	.021	.004
2 2 3/2	.075	.078	.081	0	0	0
2 2 5/2	-.067	-.070	-.074	.963	.956	.947
1 4 7/2	.180	.192	.210	.158	.166	.175
1 4 9/2	-.024	-.023	-.022	-.126	-.137	-.152
1 2 3/2	.012	.011	.010	0	0	0
1 2 5/2	-.013	-.014	-.014	.088	.098	.112
OMEGA= 5/2			OMEGA= 7/2			
ENERGY	-6.680	-6.804	-6.996	-11.171	-10.875	-10.435
AQN	642	642	642	404	404	404
1 10 19/2	-.013	-.014	-.016	.001	.001	.002
1 12 25/2	.011	.011	.012	-.000	-.000	-.000
1 10 21/2	.054	.056	.059	-.000	-.000	-.000
1 8 15/2	-.052	-.056	-.061	.010	.011	.013
2 6 13/2	.087	.095	.108	-.001	-.001	-.001
1 8 17/2	.226	.240	.258	-.001	-.000	.000
2 4 7/2	-.037	-.039	-.040	-.115	-.127	-.143
3 2 5/2	.050	.053	.056	0	0	0
2 4 9/2	.295	.313	.337	-.027	-.031	-.036
1 6 11/2	-.101	-.105	-.108	.078	.089	.104
1 6 13/2	.895	.881	.859	-.001	.003	.009
2 2 5/2	-.078	-.078	-.075	0	0	0
1 4 7/2	.037	.038	.039	.984	.980	.974
1 4 9/2	-.160	-.174	-.195	.111	.120	.133
1 2 5/2	-.010	-.009	-.007	0	0	0
OMEGA= 7/2			OMEGA= 9/2			
ENERGY	-5.339	-5.396	-5.499	-4.007	-3.963	-3.922
AQN	633	633	633	624	624	624
1 10 19/2	-.014	-.015	-.018	-.012	-.013	-.016
1 12 25/2	.008	.009	.009	.005	.006	.006
1 10 21/2	.043	.045	.048	.029	.031	.034
1 8 15/2	-.059	-.065	-.072	-.056	-.062	-.071
2 6 13/2	.027	.032	.041	-.035	-.036	-.034
1 8 17/2	.191	.207	.229	.142	.159	.184
2 4 7/2	-.026	-.028	-.031	0	0	0
2 4 9/2	.207	.226	.251	.107	.123	.144
1 6 11/2	-.116	-.122	-.129	-.106	-.114	-.125
1 6 13/2	.943	.933	.916	.975	.968	.958
1 4 7/2	.025	.026	.029	0	0	0
1 4 9/2	-.097	-.110	-.128	-.045	-.054	-.068
OMEGA=11/2			OMEGA=13/2			
ENERGY	-2.846	-2.649	-2.379	-1.884	-1.456	-.829
AQN	615	615	615	606	606	606
1 10 19/2	-.008	-.009	-.011	-.004	-.004	-.006
1 12 25/2	.002	.003	.003	.001	.001	.001
1 10 21/2	.016	.017	.020	.007	.007	.009
1 8 15/2	-.045	-.051	-.060	-.030	-.035	-.041
2 6 13/2	-.086	-.093	-.100	-.120	-.133	-.151
1 8 17/2	.090	.106	.131	.045	.057	.075
1 6 11/2	-.076	-.083	-.094	0	0	0
1 6 13/2	.988	.985	.980	.991	.989	.985

A=247 P

BETA20	.230	.250	.280	.230	.250	.280
BETA40	.060	.060	.060	.060	.060	.060
OMEGA= 1/2						
ENERGY	-9.543	-9.720	-9.950	-7.140	-7.237	-7.370
AQN	541	541	541	530	530	530
DP	4.040	4.012	3.984	-2.906	-2.865	-2.821
1 13 27/2	.000	.000	.000	-.001	-.001	-.001
1 11 23/2	.002	.002	.002	-.003	-.003	-.005
1 9 17/2	.039	.040	.042	.014	.015	.016
1 9 19/2	.007	.008	.008	-.011	-.014	-.019
2 5 9/2	.146	.154	.165	.002	.005	.008
3 3 7/2	-.016	-.015	-.014	.093	.097	.102
1 7 13/2	.203	.212	.223	.071	.077	.085
2 5 11/2	-.013	-.010	-.006	.139	.137	.133
1 7 15/2	.028	.032	.038	-.040	-.058	-.083
3 1 1/2	.154	.157	.158	-.176	-.183	-.193
3 1 3/2	-.113	-.112	-.109	.494	.512	.535
2 3 5/2	.464	.477	.493	-.053	-.051	-.048
2 3 7/2	-.077	-.068	-.055	.656	.630	.594
1 5 9/2	.774	.758	.736	.275	.275	.271
1 5 11/2	.138	.140	.140	-.398	-.407	-.417
2 1 1/2	-.098	-.100	-.101	.057	.060	.066
2 1 3/2	.056	.057	.058	-.131	-.139	-.152
1 3 5/2	-.213	-.227	-.247	-.014	-.017	-.020
1 3 7/2	.016	.015	.013	-.038	-.036	-.036
1 1 1/2	-.017	-.016	-.015	.011	.012	.013
1 1 3/2	.011	.011	.011	-.031	-.033	-.036
ENERGY	-3.799	-3.844	-3.906	-1.760	-1.914	-2.144
AQN	521	521	521	510	510	510
DP	1.165	1.143	1.124	-7.177	-7.305	-7.370
1 13 27/2	.001	.001	.001	-.014	-.015	-.016
1 11 23/2	.004	.004	.003	-.065	-.067	-.069
1 9 17/2	-.017	-.020	-.024	.007	.007	.008
1 9 19/2	.017	.015	.011	-.242	-.254	-.267
2 5 9/2	.090	.089	.086	.036	.031	.026
3 3 7/2	.000	.004	.010	-.080	-.092	-.107
1 7 13/2	-.090	-.103	-.123	.002	.002	.002
2 5 11/2	.114	.122	.130	-.351	-.368	-.388
1 7 15/2	.061	.049	.026	-.821	-.814	-.797
3 1 1/2	.477	.488	.503	.019	.026	.030
3 1 3/2	-.204	-.182	-.154	.171	.129	.091
2 3 5/2	.579	.563	.543	.144	.114	.083
2 3 7/2	.400	.403	.404	.107	.129	.148
1 5 9/2	-.409	-.415	-.420	-.082	-.071	-.060
1 5 11/2	-.168	-.182	-.200	.253	.267	.289
2 1 1/2	-.075	-.079	-.086	-.005	-.005	-.005
2 1 3/2	.023	.021	.020	-.001	-.002	-.003
1 3 5/2	-.005	-.001	.004	.006	.005	.004
1 3 7/2	.022	.023	.024	-.002	-.002	-.004
1 1 1/2	-.021	-.022	-.025	-.002	-.002	-.002
1 1 3/2	.006	.006	.005	-.001	-.001	-.001

A=247 P

BETA2D	.230	.250	.280	.230	.250	.280
BETA4D	.060	.060	.060	.060	.060	.060
OMEGA= 1/2				OMEGA= 3/2		
ENERGY	-.869	-.755	-.583	-8.269	-8.395	-8.572
AQN	501	501	501	532	532	532
DP	-1.041	-.879	-.768	0	0	0
1 13 27/2	.003	.003	.002	.000	.000	.001
1 11 23/2	.015	.012	.009	.002	.002	.003
1 9 17/2	-.007	-.009	-.012	.036	.037	.039
1 9 19/2	.054	.042	.033	.009	.010	.012
2 5 9/2	.100	.110	.122	.103	.110	.121
3 3 7/2	.084	.080	.075	-.012	-.012	-.011
1 7 13/2	-.034	-.045	-.062	.196	.207	.220
2 5 11/2	.013	-.020	-.058	-.032	-.030	-.026
1 7 15/2	.174	.132	.100	.035	.044	.057
3 1 1/2	-.140	-.146	-.156	0	0	0
3 1 3/2	.699	.694	.680	-.090	-.093	-.096
2 3 5/2	.467	.472	.472	.370	.387	.409
2 3 7/2	-.417	-.421	-.426	-.146	-.135	-.120
1 5 9/2	-.208	-.221	-.236	.841	.826	.805
1 5 11/2	.028	.053	.082	.226	.234	.242
2 1 1/2	-.012	-.014	-.018	0	0	0
2 1 3/2	.030	.034	.038	.038	.039	.042
1 3 5/2	.024	.028	.033	-.145	-.156	-.173
1 3 7/2	-.053	-.057	-.061	.028	.028	.027
1 1 1/2	-.006	-.007	-.009	0	0	0
1 1 3/2	.010	.012	.013	.009	.009	.009
OMEGA= 3/2						
ENERGY	-5.442	-5.459	-5.490	-1.400	-1.516	-1.724
AQN	521	521	521	512	512	512
1 13 27/2	.000	-.000	-.000	.012	.014	.015
1 11 23/2	.001	-.000	-.002	.056	.063	.067
1 9 17/2	.012	.014	.017	-.028	-.031	-.033
1 9 19/2	.002	-.001	-.006	.214	.244	.263
2 5 9/2	-.037	-.037	-.037	.047	.018	-.000
3 3 7/2	.049	.052	.058	.055	.076	.093
1 7 13/2	.069	.078	.092	-.065	-.064	-.062
2 5 11/2	.168	.173	.177	.319	.356	.381
1 7 15/2	.011	-.007	-.037	.752	.810	.810
3 1 3/2	.292	.313	.340	-.194	-.128	-.084
2 3 5/2	-.122	-.124	-.127	.401	.226	.122
2 3 7/2	.812	.794	.770	.017	-.061	-.103
1 5 9/2	.308	.312	.315	-.139	-.074	-.032
1 5 11/2	-.326	-.339	-.354	-.234	-.256	-.277
2 1 3/2	-.050	-.055	-.062	.003	.003	.003
1 3 5/2	-.009	-.011	-.015	.017	.009	.004
1 3 7/2	.003	.005	.006	.014	.007	.006
1 1 3/2	-.014	-.016	-.019	.002	.002	.002
OMEGA= 3/2				OMEGA= 5/2		
ENERGY	-1.055	-.970	-.808	-6.451	-6.464	-6.492
AQN	501	501	501	523	523	523
1 13 27/2	.007	.004	-.003	.000	.000	.000
1 11 23/2	.031	.018	-.011	.001	.001	.002
1 9 17/2	-.006	.002	-.010	.029	.031	.033
1 9 19/2	.118	.070	-.042	.003	.005	.007

A=247 P

BETA20	.230	.250	.280	.230	.250	.280
BETA40	.060	.060	.060	.060	.060	.060
OMEGA= 3/2				OMEGA= 5/2		

TO BE CONTINUED

2 5 9/2	-.125	-.140	.151	.030	.034	.041
3 3 7/2	.072	.060	-.050	.005	.006	.006
1 7 13/2	.019	.046	-.075	.173	.186	.203
2 5 11/2	.118	.036	.023	-.046	-.047	-.047
1 7 15/2	.409	.230	-.132	.015	.024	.039
3 1 3/2	.239	.266	-.264	0	0	0
2 3 5/2	-.715	-.778	.788	.215	.232	.254
2 3 7/2	-.360	-.365	.365	-.180	-.177	-.171
1 5 9/2	.282	.318	-.340	.916	.906	.891
1 5 11/2	-.044	.018	-.064	.209	.222	.237
2 1 3/2	-.000	-.001	.001	0	0	0
1 3 5/2	-.038	-.047	.055	-.067	-.074	-.085
1 3 7/2	-.043	-.048	.052	.024	.024	.025
1 1 3/2	-.002	-.002	.003	0	0	0
OMEGA= 5/2						
ENERGY	-3.576	-3.442	-3.252	-.510	-.643	-.846
AQN	512	512	512	503	503	503
1 13 27/2	.001	.001	.000	.013	.013	.014
1 11 23/2	.003	.003	.002	.059	.061	.064
1 9 17/2	.005	.006	.009	-.042	-.045	-.049
1 9 19/2	.012	.011	.008	.233	.245	.260
2 5 9/2	-.063	-.067	-.074	-.020	-.021	-.023
3 3 7/2	-.024	-.024	-.024	.065	.070	.076
1 7 13/2	.041	.050	.064	-.074	-.077	-.081
2 5 11/2	.150	.163	.179	.304	.320	.341
1 7 15/2	.055	.041	.018	.883	.871	.852
2 3 5/2	-.122	-.130	-.140	.046	.042	.037
2 3 7/2	.915	.905	.892	-.144	-.145	-.143
1 5 9/2	.256	.264	.272	.019	.020	.020
1 5 11/2	-.217	-.232	-.250	-.185	-.199	-.220
1 3 5/2	-.008	-.010	-.014	.002	.001	.001
1 3 7/2	.058	.063	.071	-.013	-.011	-.008
OMEGA= 7/2						
ENERGY	-10.936	-10.947	-10.975	-4.577	-4.409	-4.172
AQN	523	523	523	514	514	514
1 13 27/2	.001	.001	.001	-.000	-.000	.000
1 11 23/2	.005	.006	.006	-.000	-.000	.000
1 9 17/2	-.013	-.014	-.016	.019	.021	.024
1 9 19/2	.030	.031	.033	-.001	-.000	.001
2 5 9/2	-.032	-.035	-.039	-.049	-.052	-.054
3 3 7/2	.008	.008	.007	.018	.021	.023
1 7 13/2	-.061	-.067	-.076	.131	.145	.165
2 5 11/2	-.015	-.014	-.010	-.039	-.043	-.048
1 7 15/2	.150	.165	.187	-.003	.003	.015
2 3 7/2	.129	.146	.169	-.158	-.161	-.162
1 5 9/2	-.123	-.131	-.141	.965	.960	.953
1 5 11/2	.968	.961	.950	.151	.163	.179
1 3 7/2	-.052	-.061	-.075	.011	.011	.012

A=247 P

BETA20	.230	.250	.280	.230	.250	.280
BETA40	.060	.060	.060	.060	.060	.060
OMEGA= 7/2				OMEGA= 9/2		
ENERGY	-1.922	-1.525	-.935	-9.775	-9.655	-9.489
AQN	503	503	503	514	514	514
1 13 27/2	.000	.001	.001	.000	.001	.001
1 11 23/2	.002	.002	.003	.003	.003	.003
1 9 17/2	.000	.001	.001	-.009	-.010	-.012
1 9 19/2	.010	.011	.014	.017	.018	.020
2 5 9/2	-.057	-.064	-.075	-.017	-.018	-.020
3 3 7/2	-.084	-.091	-.100	0	0	0
1 7 13/2	.017	.022	.029	-.048	-.054	-.063
2 5 11/2	.085	.101	.128	-.079	-.084	-.090
1 7 15/2	.048	.047	.048	.097	.113	.136
2 3 7/2	.963	.956	.944	0	0	0
1 5 9/2	.173	.178	.184	-.086	-.094	-.105
1 5 11/2	-.107	-.119	-.138	.987	.984	.978
1 3 7/2	.110	.124	.142	0	0	0
OMEGA= 9/2				OMEGA=11/2		
ENERGY	-2.789	-2.370	-1.758	-8.801	-8.473	-7.988
AQN	505	505	505	505	505	505
1 13 27/2	-.000	-.000	-.000	.000	.000	.000
1 11 23/2	-.000	-.000	-.000	.001	.001	.001
1 9 17/2	.009	.011	.013	-.004	-.005	-.006
1 9 19/2	-.001	-.001	-.001	.007	.008	.009
2 5 9/2	-.116	-.128	-.144	0	0	0
1 7 13/2	.077	.089	.106	-.032	-.036	-.043
2 5 11/2	-.022	-.025	-.030	-.124	-.137	-.155
1 7 15/2	-.007	-.004	-.000	.049	.061	.079
1 5 9/2	.986	.983	.978	0	0	0
1 5 11/2	.087	.095	.107	.991	.988	.984

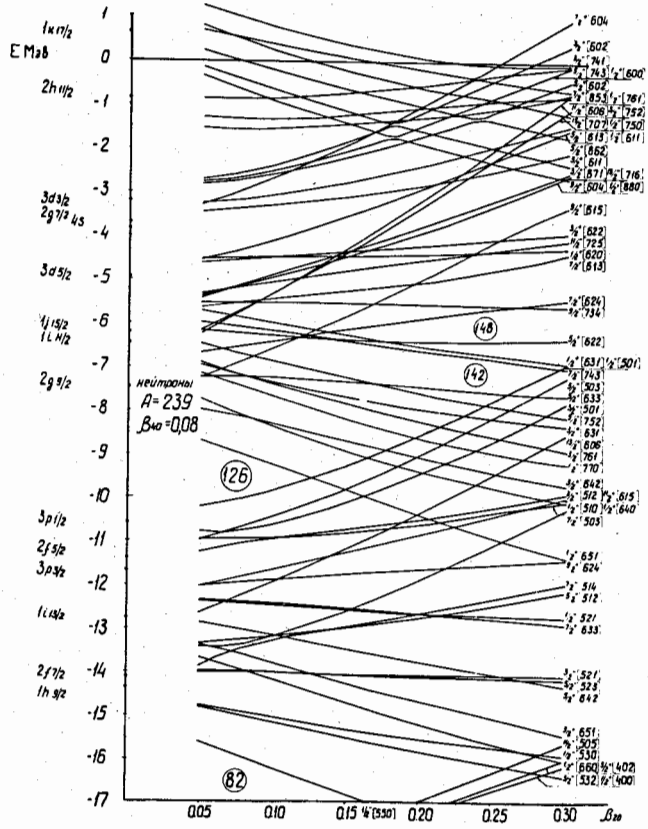

Рис. 1. Схема нейтронных одночастичных состояний A = 239 .

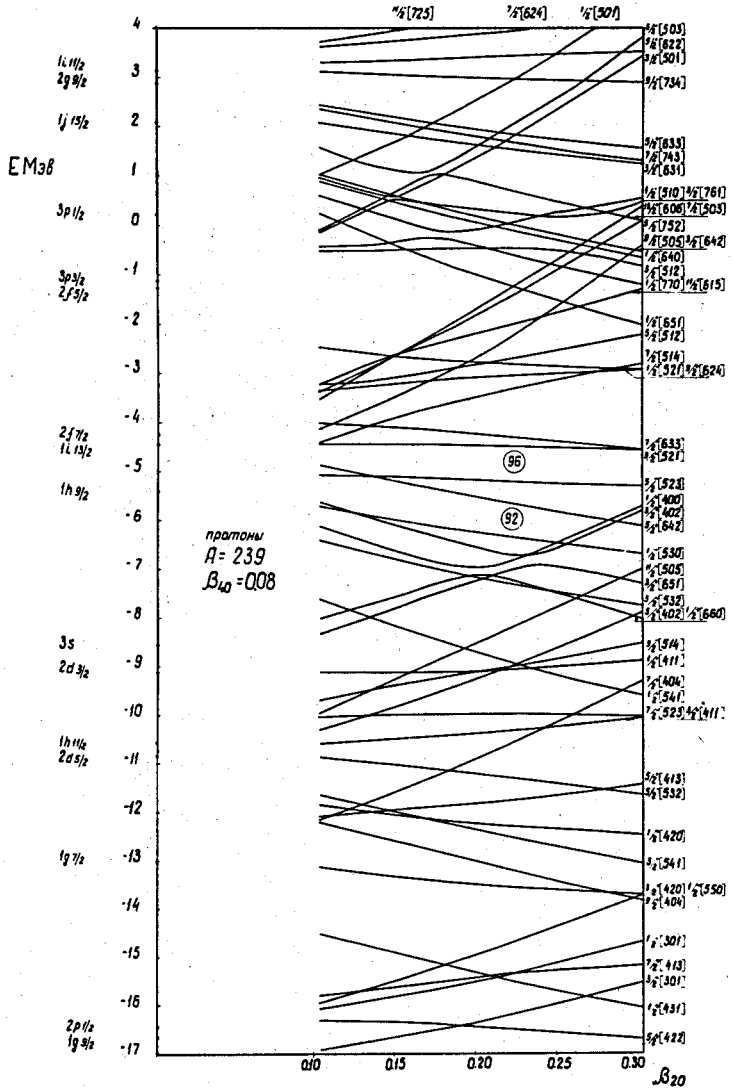

Рис. 2. Схема протонных одночастичных состояний A = 239.

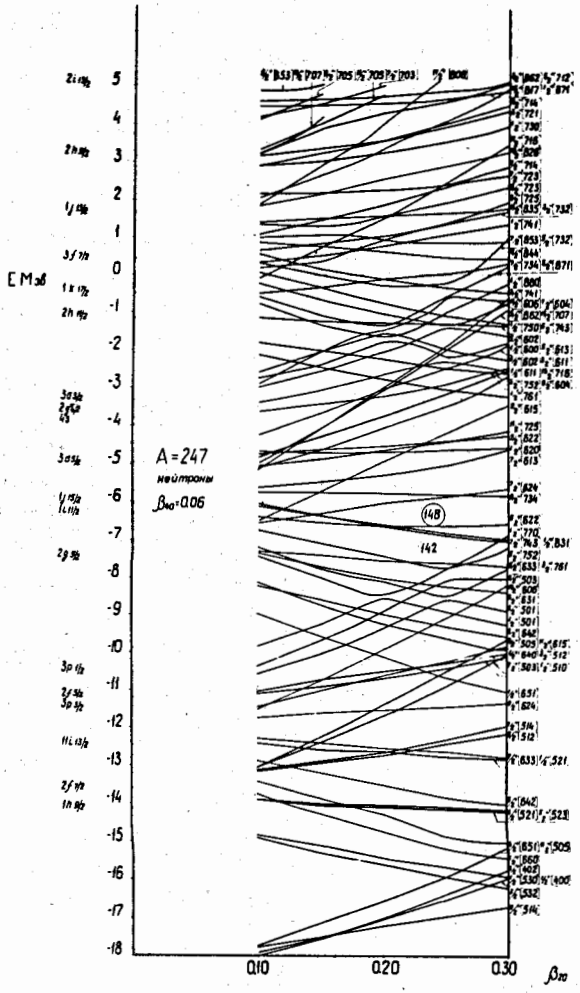

Рис. 3. Схема нейтронных одночастичных состояний A = 247.

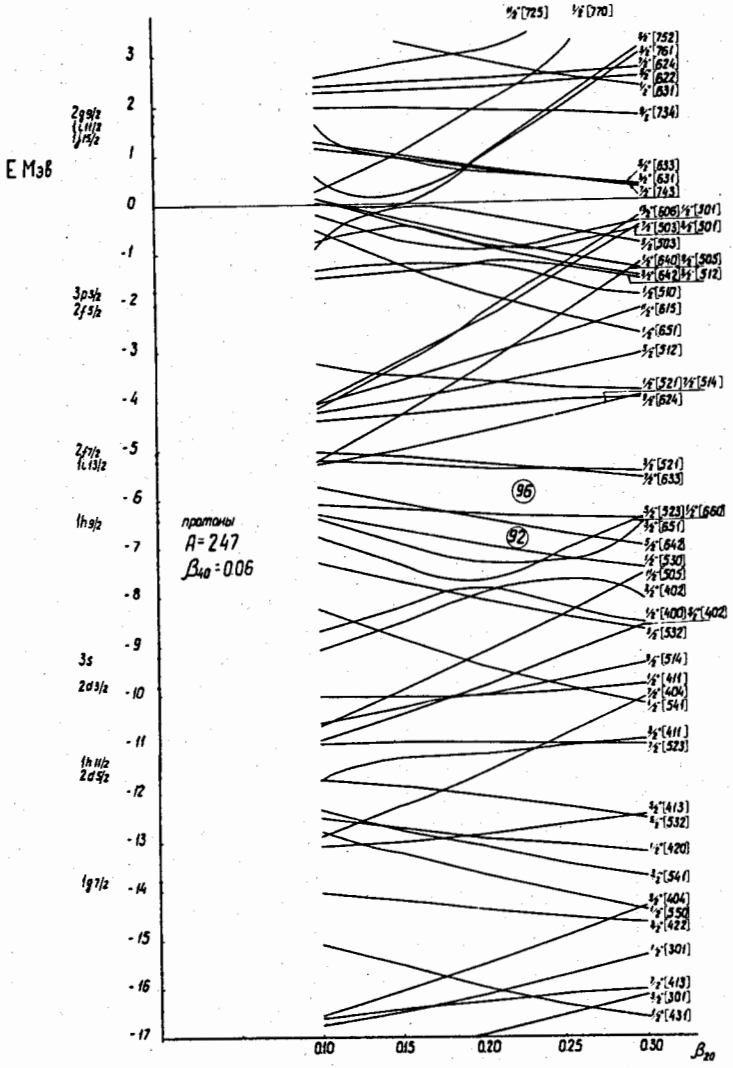

Рис. 4. Схема протонных одночастичных состояний A = 247.

Гареев Ф.А., Иванова С.П., Ширикова Н.Ю. Р4-5457

Таблицы волновых функций одночастичных состояний деформированных ядер трансурановой области в потенциале Саксона-Вудса

Представлены таблицы энергий и волновых функций ядер в области $230 < A < 250$.

Сообщения Объединенного института ядерных исследований

Дубна, 1970

Gareev F.A., Ivanova S.P., Shirikova N.Yu. P4-5457

Tables of the Wave Functions of the Single-Particle States of the Transuranium Region Deformed Nuclei in the Saxon-Woods Potential

The Tables of the energies and wave functions of nuclei in the region of $230 < A < 250$ are listed.

Communications of the Joint Institute for Nuclear Research.

Dubna, 1970