

## **UPDATED VERSION OF THE COLLINEAR CLUSTER TRI-PARTITION SCENARIO**

Pyatkov Yu.V.<sup>1,2</sup>, Kamanin D.V.<sup>2</sup>, Alexandrov A.A.<sup>2</sup>, Alexandrova I.A.<sup>2</sup>,  
Goryainova Z.I.<sup>2</sup>, Malaza V.<sup>3</sup>, Strekalovsky A.O.<sup>2</sup>, Strekalovsky O.V.<sup>2,4</sup>,  
Zhuchko V.E.<sup>2</sup>

<sup>1</sup> *National Nuclear Research University MEPhI (Moscow Engineering Physics Institute),  
Moscow, Russia;* <sup>2</sup> *Joint Institute for Nuclear Research, Dubna, Russia;* <sup>3</sup> *University of  
Stellenbosch, Faculty of Military Science, Military Academy, Saldanha 7395, South Africa;*

<sup>4</sup> *Dubna State University, Dubna, Russia*

E-mail: yvp\_nov@mail.ru

In our recent publication [1] we have proposed possible scenario of the collinear cluster tri-partition (CCT) in  $^{252}\text{Cf}(\text{sf})$ . Under our model, one of the most populated CCT modes giving rise to the so called “Ni-bump” occurs as a two-stage breakup of the initial three body chain like the nuclear configuration with an elongated central cluster. The model gave answers to many critical questions on the CCT scenario. Nevertheless, it’s needed in further clarification. The updated version is discussed in this report.

1. Yu.V.Pyatkov *et al.* // Phys. Rev. C. 2017. V.96. 064606.