

ROLE OF DIFFERENT MODEL INGREDIENTS
IN THE EXOTIC CLUSTER-DECAY OF $^{56}\text{Ni}^*$

N.K. Dhiman

Govt. Sr. Sec. School, Summer Hill
(*Shimla-171005, India;*
e-mail: narinder.dhiman@gmail.com)

S u m m a r y

We consider the cluster decay of $^{56}\text{Ni}^*$ formed in heavy-ion collisions, by using different parameters proposed by different authors for the Fermi density distribution and the nuclear radius. Our study reveals that different technical parameters do not alter significantly the structure of fractional yields. The cluster decay half-lives of different clusters lie within $\pm 10\%$ for different Fermi density parameters and nuclear radii and, therefore, justify the current set of parameters used in the literature for the calculation of cluster decays.