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## Influence of Mass of the Fragmenting System on Projectile Multifragmentation Spectrum at Dubna Energy

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The multifragment decays of Mg projectiles after collisions with various emulsion targets at a bombarding energy of 4.5 AGeV has been studied. The bound charge  $Z(b)$ , which is the sum of all the projectile fragments with charge  $Z(PF) \geq 2$ , is considered to be one of the important observable in the study of projectile multifragmentation. Correlation between mean number of intermediate mass fragments  $N(IMF)$  and  $Z(b)$  is one of the most interesting aspects of studying projectile multifragmentation. In this report an attempt has been made to study the variation of  $N(IMF)$  on the mass of the fragmenting system  $Z(b)$  for Mg-Em interaction at 4.5 AGeV. A rise and fall pattern in  $N(IMF)$  vs  $Z(b)$  plot with the maximum value of  $N(IMF)$  corresponding to the value of  $Z(b) = 6-7$  is observed for the Mg-Em system. The value of bound charge corresponding to the maximum value of average number of intermediate mass fragments is found to be consistent with the results reported by ALADIN group[1-5]. The variation of  $N(IMF)$  on  $Z(b)$  normalized with the projectile charge  $Z(p)$  indicates a clear size effect for the studied systems.

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