ABSTRACT:

We have calculated binding energy, reduced transition probabilities and deformation parameter in 69,71,73,75,77,79 As nuclei. The energies of projectile-like fragments and Q-value in 76Ge (635 MeV) + 198Pt reactions are also calculated. The theoretical calculations of projectile like fragments (PLFs) energies are compared with the experimental values. The systematic energies for 9/2+ 5/2- de-excitation of + those nuclei indicate maximum deformation at N=42. The decrease in excitation level of the 9/2 state 69 79 from As to As provides some evidence for decreasing quadruple “softness” towards the closed neutron shell at N = 40. We have reported single and coincidence ?-ray spectroscopy of 79As by deep- inelastic collision 76Ge (635 MeV) + 198Pt. The systematic isomeric level and reduced transition probabilities of 69,71,73,75,77,79As nuclei have been investigated.