

Nuclear Structure in neutron-rich Ni region

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We have studied medium-mass nuclei of various regions by Monte Carlo shell model (MCSM) calculations. Our MCSM calculations for Ni isotopes reproduce well their properties such as levels and transitions. Shape coexistence of nuclei around ^{68}Ni is predicted by the calculations and explained by considering change of shell structure. Neutron-rich nuclei around $N=50$ are calculated by using extended model space and shape coexistence of ^{78}Ni is predicted.

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