

Proton-neutron interactions around double-magic ^{58}Ni and ^{78}Ni

Wednesday, 11 September 2013 13:50 (20 minutes)

Nuclei with two-proton and two-neutron holes and particles will be studied in order to get a better understanding of the proton-neutron interactions. The nuclei and properties aimed at include: (i) around ^{56}Ni : ^{56}Zn (2+ energy), $^{58,60}\text{Zn}$ (B(E2) transition strength), and (ii) ^{82}Zn (2+ energy and possibly B(E2), ^{80}Zn (B(E2)) and possibly ^{74}Fe .

The nuclei around ^{56}Ni and ^{78}Ni will be populated using the primary beams ^{78}Kr and ^{238}U , respectively.

Summary

Nuclei with two-proton and two-neutron holes and particles will be studied in order to get a better understanding of the proton-neutron interactions. The nuclei and properties aimed at include: (i) around ^{56}Ni : ^{56}Zn (2+ energy), $^{58,60}\text{Zn}$ (B(E2) transition strength), and (ii) ^{82}Zn (2+ energy and possibly B(E2), ^{80}Zn (B(E2)) and possibly ^{74}Fe .

The nuclei around ^{56}Ni and ^{78}Ni will be populated using the primary beams ^{78}Kr and ^{238}U , respectively.

Primary author: Prof. PODOLYAK, Zsolt (University of Surrey)

Co-author: Dr GORSKA, Magda (GSI Darmstadt, Germany)

Presenter: Prof. PODOLYAK, Zsolt (University of Surrey)

Session Classification: Session 5