RCNP EXPERIMENT E219

Research Proposal to the
Research Center for Nuclear Physics,
Osaka University (B-PAC August 2003)

The isovector spin monopole resonance in ^{90}Nb excited via the ^{90}Zr(^{3}He,t+p) reaction.

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Abstract

This proposal is a follow-up of experiment E161, originally titled 'Investigation of the isovector spin monopole resonance in ^{208}Bi and ^{90}Nb via the ^{208}Pb,^{90}Zr(^{3}He,t+p) reactions' and submitted to the RCNP B-PAC in 2000. Experiment E161 was carried out in June 2001 and the results have recently been published in PRL [1]. In 2000, the RCNP B-PAC decided to grant the experiment 9 days of beam time (14 requested) "*to demonstrate the capability of studying the microscopic structure of the IVSGMR with one target nucleus*". At that time, it was decided to start with the ^{208}Pb target. Since the experiment was very successful we are now requesting for additional beam time to study the other originally proposed target nucleus ^{90}Zr.

References

[1] R.G.T. Zegers *et al.*, Phys. Rev. Lett. 90, 202501 (2003).