

理化学研究所原子核セミナー 2005. 5. 23

講師： Professor Dao Tien Khoa

(Institute for Nuclear Science & Technique, VAEC, Hanoi, Vietnam)

題目： Microscopic study of the quasi-elastic nuclear scattering

* The seminar will be given in *English*.

日時： 2005年 5月 23日 (Mon.) 13:30 -

場所： RIKEN Main Bldg. 4F Conference & Seminar Room(435,437)

Abstract

We give a review of our recent research activities in the microscopic study of quasi-elastic nucleus-nucleus scattering induced by the beams of stable and unstable nuclei in the Fermi energy region of around 20-50 MeV/nucleon. The main attention is given to series of experiments performed at Hahn-Meitner-Institute Berlin, GANIL and GSI-Darmstadt with the participation of Vietnamese nuclear physicists either directly in the measurement or in the theoretical analysis of the data obtained therein. Our study has revealed some important nuclear structure information like the indication of possible $N = 14$ neutron-shell closure in ^{22}O based on the recent $^{22}\text{O}(p, p')$ data or the signature of halo-like structure of the isobaric analog state in ^6Li , similar to that established for ^6He . We demonstrate also, as one of the most interesting aspects of the quasi-elastic *refractive* nucleus-nucleus scattering, a simple and reliable method to deduce from these reactions realistic values for the nuclear matter incompressibility K and symmetry energy E_{sym} , the key inputs to determine the Nuclear Equation of State.

* Host researcher : T. Motobayashi (RIKEN)

原子核セミナーについてのお問い合わせ

T. Haseyama, and D. Kameda (Applied Nucl. Phys. Lab.)

(email) seminar@rarfaxp.riken.jp

(FAX) 048-462-4645

(WWW) <http://rarfaxp.riken.jp/~seminar/>