# Large back angle quasi-elastic scattering for weakly bound systems at near-barrier energies

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Heavy ion quasi-elastic scattering at backward angles is a counterpart of heavy-ion fusion reaction. Both are inclusive processes, and are sensitive to the channel coupling effects (due to collective inelastic excitations of the colliding nuclei) at energies close to the Coulomb barrier. A major difference is that the quasi-elastic scattering is related to the reflection probability of the Coulomb barrier, while the fusion is related to the transmission probability. Exploiting this fact, barrier distributions have been extracted from the measured excitation function of large-angle quasi-elastic scattering and also from the precisely measured fusion excitation function for several strongly bound systems. With the availability of radioactive beams, study of quasi-elastic scattering at backward angle has received a fillip in the recent years. In the investigation of systems involving exotic nuclei, measuring precise fusion excitation function is still quite difficult owing to the low intensities of the radioactive beams. By contrast, measuring the quasi-elastic excitation function is relatively easier. An overview of the recent works on large back-angle quasi-elastic scattering for weakly bound systems at near barrier energies, with a special emphasis on our recent measurements in this field will be presented.