

Nuclei studied at the Oslo cyclotron laboratory

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The Oslo method have been used in many years to extract the nuclear level density and radiative strength function of several nuclei. Depending on the mass region different excitation modes have been observed and some unexpected findings have been discovered.

In this presentation the basic idea behind the Oslo method is explained and experimental level densities and radiative strength functions of several nuclei studied at the Oslo Cyclotron laboratory are presented. The data show experimental evidence for the sequential breaking of nucleon Cooper pairs and collective resonances, such as the scissors mode. It has also been observed an unexpected enhancement in the strength function at low γ energies in many nuclei, e.g. in several Mo isotopes.