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# CHARGE-EXCHANGE REACTIONS IN CONJUNCTION WITH THE OSLO METHOD

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Charge-Exchange (CE) reactions are an important tool for studying the spin-isopin response of nuclei. They can be utilized to obtain information about interactions mediated by the weak nuclear force, such as β and electron capture decay. Using the proportionality between Gamow-Teller strength (B(GT)) and the CE differential cross section, B(GT) strength distributions can be extracted indirectly. Since CE reactions are not limited to a narrow Q value window, they provide information that is complementary to information obtained from β and electron capture decay. Such data are necessary for constraining reaction rates that happen in dense and hot astrophysical environments. In the near future, it is planned to combine measurements in which GT strengths are extracted with g decay measurements. One of the goals is to use the Oslo method to extract level densities and g-ray strength functions, which are also important for constraining astrophysical reaction rates.

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