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Solar neutrino responses for Ga-71 and double-beta-decay isotopes

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Solar neutrino nuclear responses (square of nuclear matrix elements NMEs) for Ga-71 and double-beta-decay (DBD) isotopes are discussed. Recently we measured the neutrino responses (Gamow Teller GT NMEs) by using high energy-resolution charge exchange reactions at RCNP Osaka. The Ga-71 responses, together with high-precision Ga-71 experiment, provide an opportunity to study CNO neutrino contributions. The measured responses for low-lying states in Ga-71 are consistent with those used for the evaluation of the Ga-71 neutrino capture rates, suggesting that the origin of the Ga-anomaly is not the nuclear capture rate, but something else like oscillation to a possible sterile neutrino or others.
Solar neutrino responses for DBD isotopes of current interest show that low-energy solar neutrinos are measured by using some DBD detectors, while solar neutrino charged current interactions with DBD detectors are potential backgrounds in future DBD experiments.

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