

Abstract Submitted
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Neutrino Interactions with Nuclei¹ ULRICH MOSEL, TINA LEITNER, Universitaet Giessen — We investigate interactions of neutrinos with nuclei at intermediate energies, incorporating quasielastic scattering and the excitation of nucleon resonances and their decay as elementary processes. The calculations take into account medium effects such as Fermi motion, Pauli blocking, mean-field potentials and in-medium spectral functions. A coupled-channel treatment of final state interactions is achieved with the GiBUU transport model. The results of these calculations are tested against electroproduction experiments, both inclusive and exclusive. Results for neutrino-induced inclusive cross sections, as well as for pion production and nucleon knockout, are presented and compared with present day experiments.

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