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ABSTRACT

New Evaluations of Fast Neutron-Induced Reactions on ³⁵Cl

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The neutron-induced reactions on 35Cl at "fast" (~MeV) energies are increasingly relevant for modern applications like CLYC detectors and fast-spectrum reactors. New data on the most relevant channels have been taken in recent years at multiple facilities, including LANL's Low-Energy (n,Z) (LENZ) setup at LANSCE, prompting new evaluation work on this system. The statistical side of these new evaluations using the combined Coupled Channels/Hauser-Feshbach code CoH3 will be presented here, demonstrating improved agreement over the current ENDF-B/VIII.0 and thus improvements for the aforementioned applications.

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