# $^{173}$Gd

The first observation of $^{173}$Gd was reported by Sumikama et al. in 2026 in "Expanding the Isotopic Frontier: Seven New Neutron-Rich Rare-Earth Isotopes Observed at RIKEN RI Beam bombarded a 4 mm thick beryllium target. Factory" (2026Su01). A 345 MeV/nucleon $^{238}$U beam from the RIBF accelerator complex and the fragments of interest were selected with theBigRIPS separator. They were identified by their time-of-flight, magnetic rigidity and energy loss. "Seven new isotopes, $^{152}$Cs, $^{155}$Ba, $^{158}$La, $^{159}$Ce, $^{160}$Ce, $^{173}$Gd, and $^{175}$Tb, were identified based on particle identification, the systematics of the measured production cross sections, and a significance test using $p$-values." One event of $^{173}$Gd was observed.

2026Su01 T. Sumikama, N. Fukuda, T. Kubo, H. Suzuki *et al.*, J. Phys. Soc. Jap. **95**, 024202 (2026).

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