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## First observation of a rotational band in neutron-deficient $^{187}\text{Pb}$ : evidence for triple shape coexistence

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A prompt and delayed  $\gamma$ -ray spectroscopy of neutron-deficient isotope  $^{187}\text{Pb}$  has been performed using the recoil-decay tagging and the isomer-decay tagging techniques at Argonne Gas-Filled Analyzer (AGFA). A new  $4.66(4) \mu\text{s}$  isomer and a strongly-coupled band on top of it were identified. The band looks nearly identical to a band built on top of the  $7/2^- [514]$  Nilsson orbital in the isotone  $^{185}\text{Hg}$ . Based on this similarity and on the potential-energy surface (PES) and particle-plus-rotor (PPR) calculations, the new isomer in  $^{187}\text{Pb}$  is also proposed as originating from the same configuration. Combining this result with the previous studies, evidence for triple shape coexistence at low energy has been found in both negative and positive parity configurations in  $^{187}\text{Pb}$ . Furthermore, the almost identical properties between the  $7/2^- [514]$  bands in  $^{187}\text{Pb}$  and  $^{183,185}\text{Hg}$  were discussed.

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