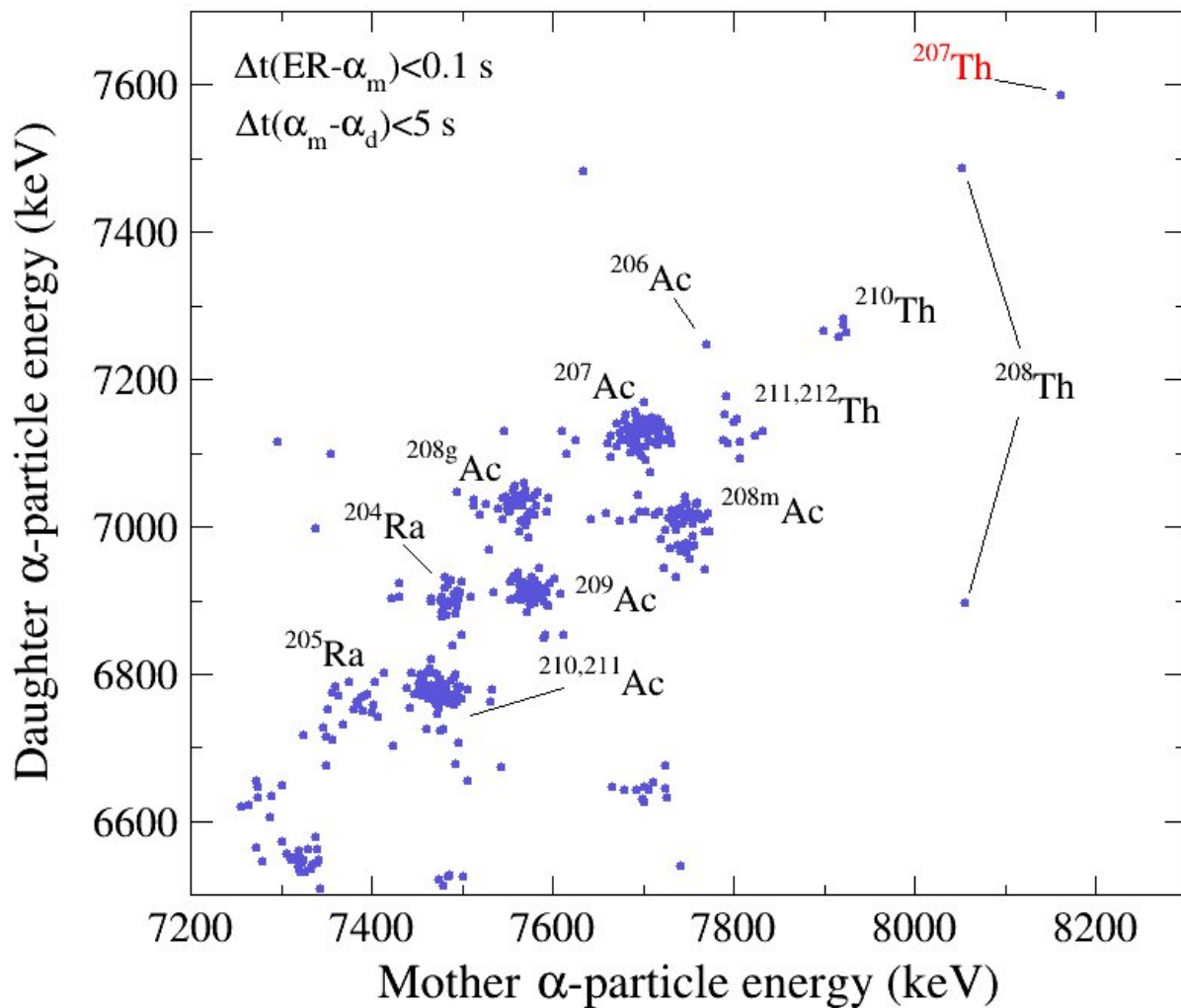


# Researchers discover new isotope thorium-207 and odd-even staggering in $\alpha$ -decay energies

May 25 2022, by Zhang Nannan



2D spectrum showing the correlation between energies of mother and daughter  $\alpha$  decays in the reaction of  $^{36}\text{Ar}+^{176}\text{Hf}$ . Credit: Yang Huabin

A research team at the Institute of Modern Physics (IMP) of the Chinese Academy of Sciences (CAS), together with their collaborators, has recently synthesized a new isotope thorium-207, and discovered a regular and distinct odd-even staggering (OES) in  $\alpha$ -decay energies for nuclei with  $Z > 82$  and  $N = 82$  and  $N = 82$  and  $N = 82$  and  $N = 82$

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