

## **<sup>220</sup>Th**

The 1973 paper “Short-lived  $\alpha$  emitters of thorium: new isotopes <sup>218–220</sup>Th” described the discovery of <sup>220</sup>Th by Häusser et al. ([1973Ha32](#)). <sup>16</sup>O beams from the Chalk River MP tandem accelerator bombarded <sup>206–208</sup>Pb targets. <sup>220</sup>Th was formed in the reactions <sup>207</sup>Pb(<sup>16</sup>O,3n) and <sup>208</sup>Pb(<sup>16</sup>O,4n). Reaction products were stopped in a carbon catcher foil and  $\alpha$  particles were observed in an annular surface barrier detector. “The  $\alpha$ -decay energies and half-lives of three new thorium isotopes, <sup>218–220</sup>Th have been measured by a simple recoil technique.” The half-life for <sup>220</sup>Th was listed in a table as 9.7(6)  $\mu$ s.

Adapted from reference ([2013Fr03](#))

[1973Ha32](#) O. Häusser, W. Witthuhn, T. K. Alexander, A. B. McDonald *et al.*, Phys. Rev. Lett. **31**, 323 (1973).

[2013Fr03](#) C. Fry and M. Thoennessen, At. Data Nucl. Data Tables **99**, 345 (2013).

Please cite this abstract as: “FRIB Nuclear Data Group, *Discovery of Nuclides Project*, Isotope Database, doi:[10.11578/frib/2279152](https://doi.org/10.11578/frib/2279152)”