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Proton radioactivity

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Proton radioactivity was discovered 35 years ago [1]. However, most of the data on over 40 proton-emitting states known to date were obtained recently using electromagnetic separators selecting recoiling fusion-evaporation reaction products. Observation of fine structure in proton emission [2-5] is particularly important since the deformation and structure of wave function of involved states can be determined from observed properties. Recent results obtained at Oak Ridge on rare-earth nuclei as well as the perspectives of further studies at the next generation radioactive ion beam facilities will be presented.

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2. A.A. Sonzogni et al., Phys. Rev. Lett. 83,1999,1116.
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4. T.N.Ginter et al., Phys. Rev. C68, 2003, 034330.
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