Nuclear Reaction Studies with Radioactive ^{17}F beams

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Radioactive ^{17}F beams were produced at the Holifield Radioactive Ion Beam Facility using the Isotope Separator On Line (ISOL) technique. A 40 MeV deuteron beam provided by the Oak Ridge Isochronous Cyclotron (ORIC) was used to bombard a hafnium oxide target to produce ^{17}F by the ^{16}O(d,n) reaction. The ^{17}F ions were mass analyzed and subsequently accelerated by the 25 MV tandem. Two of the experiments using accelerated ^{17}F beams will be reported: the breakup of 170 MeV ^{17}F by ^{208}Pb and the simultaneous emission of two protons from a resonance in ^{18}Ne.

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