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Beta-delay Neutron Emission from Heavy Nitrogen Isotopes DAVID MORRISSEY, CHANDANA SUMITHRARACHCHI, DON ANTHONY, PATRICK LOFY, NSCL and Dept. of Chemistry, Michigan State University — Beta-delayed neutrons from the decay of ^{19,20}N and most recently ²²N have been measured for the first time using neutron time-of-flight spectroscopy. The nuclei were produced by projectile fragmentation reactions and the decays observed in a batchmode experiment using plastic scintillators and germanium detectors. The halflives, total neutron emission probability, and the branching to bound and neutronunbound states were determined in the present work. The $\beta - \gamma$, $\beta - n$, and $\beta - n - \gamma$ coincidence data were used to construct level schemes for the oxygen daughters and the two lighter isotopes compare well to the results of other determinations. The results do not compare well to USD shell model calculations.

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