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Experimental yields of in-flight fission products from Ni to Pd measured following U-238 fragmentation at NSCL MICHAEL BOWRY, JILL BERRYMAN, DANIEL BAZIN, ALEXANDRA GADE, ANDREAS STOLZ, OLEG TARASOV, DIRK WEISSHAAR[1], National Superconducting Cyclotron Laboratory, Michigan State University, 640 South Shaw Lane, East Lansing, MI 48824-1321, USA — In a recent experiment conducted at the National Superconducting Cyclotron Laboratory (NSCL) at Michigan State University a cocktail beam of radioactive nuclei was produced in the projectile fragmentation and in-flight fission of 80 MeV/A U-238 ions impinging upon a 33.5 mg/cm^2–thick diamond target. The target was positioned at the pivot point of the S800 magnetic spectrograph and within the GRETINA gamma-ray tracking array. Reaction products were identified on an event-by-event basis (Z, A) by the S800 spectrograph and correlated with gamma-rays detected by GRETINA. In the current work over 100 fission fragments with $28 \leq Z \leq 46$ have been identified. Production yields shall serve as input into models of abrasion-fission at intermediate energies and may be used to plan future experiments. In-flight fission remains a valuable tool for nuclear spectroscopy in the medium-mass region.

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