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^{238}U Fission Ion Chamber for Neutron Dosimetry at the 88-Inch Cyclotron[1] BRENT WILSON, PEGGY MCMAHAN, BRAD BARQUEST, MIKE JOHNSON, Lawrence Berkeley National Laboratory — Efficiency measurements have been conducted for a commercial ^{238}U fission ion chamber, to be used for neutron dosimetry at the 88-Inch Cyclotron at LBNL. Fast, quasi-monoenergetic neutrons in the energy range of 5 to 30 MeV are under development at the facility through deuteron break-up, for radiation effects testing and cross-section measurements for a variety of applications. Through comparisons with absolute fluxes obtained using activation foils, and energy spectra obtained using the time-of-flight method, efficiency for both monoenergetic and white spectrum neutrons can be calculated.

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