Abstract

Design of NSLS undulator beamline U5 for spin-polarized photoemission spectroscopy

David Anacker and J.L. Erskine

Department of Physics, University of Texas, Austin, Texas 78712, USA

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Beamline U5 of the vacuum ultraviolet storage ring at the National Synchrotron Light Source is being set up to conduct spin-polarized angle-resolved photoemission experiments. Ray tracing analysis including a realistic characterization of the undulator source is used to optimize the optical configuration of a 3-m toroidal grating monochromator, and to predict the monochromator performance.