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**DWBA (d,N) Calculations Including Dirac Phenomenological Potentials and an Exact Treatment of Finite-range Effects** ERIC HAWK, JAMES MCNEIL, Colorado School of Mines — An algorithm for the inclusion of both Dirac phenomenological potentials and an exact treatment of finite-range effects within the DWBA is presented. The numerical implementation of this algorithm is used to calculate low-energy deuteron stripping cross sections, analyzing powers, and polarizations. These calculations are compared with experimental data where available. The impact of using several commonly employed nuclear potentials (Reid soft-core, Bonn, Argonne v18) for the internal deuteron wave function is also examined.

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