## Abstract Submitted for the DPP05 Meeting of The American Physical Society

The CVD Diamond Detector As A Neutron Spectrometer For ICF Implosions THOMAS W. PHILLIPS, L.S. DAUFFY, J.A. KOCH, M.J. MORAN, G.J. SCHMIDT, Lawrence Livermore National Laboratory, V. YU. GLEBOV, T.C. SANGSTER, C. STOECKL, University of Rochester, New York, S.A. WENDER, Los Alamos National Laboratory, E.C. MORSE, University of California Berkeley — Using CVD diamond in current mode to measure the neutron energy spectrum from ICF implosions is a challenge. The diamond sensitivity to neutrons varies with energy. The accuracy with which this variation is known will be presented. The limit which this places on measuring the down-scattered fraction of the fusion neutrons will be discussed. This work was performed under the auspices of the U.S. Department of Energy by University of California, Lawrence Livermore National Laboratory under contract No. W-7405-Eng-48.

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