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Extended Zakharov Modeling of Preheat Caused by the Two-Plasmon Decay Instability in Direct-Drive ICF Plasmas. J.F. MYATT, J.A. DELETTREZ, W. SEKA, D.H. EDGELL, A.V. MAXIMOV, R.W. SHORT, Laboratory for Laser Energetics, U. of Rochester, D.F. DUBOIS, LANL and Lodestar Research Corp., D.A. RUSSELL, Lodestar Research Corp., H.X. VU, U. of California—San Diego — The results of two-dimensional extended Zakharov calculations¹ of saturated two-plasmon-decay spectra and absorption will be presented in inhomogeneous long-scale-length plasma—the plasma parameters motivated by OMEGA-scale designs. Estimates of hot-electron production and preheat are obtained from the Zakharov calculations using a “test particle” approach and a *LILAC* model for target hydrodynamic evolution.² This work was supported by the U.S. Department of Energy Office of Inertial Confinement Fusion under Cooperative Agreement No. DE-FC52-08NA28302.

¹D. F. DuBois, D. A. Russell, and H. A. Rose, *Phys. Rev. Lett.* **74**, 3983 (1995).

²J. Delettrez *et al.*, *Phys. Rev. A* **36**, 3926 (1987).

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