

Abstract Submitted
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Progress in iron transmission measurements relevant to the solar convection/radiation boundary¹ J.E. BAILEY, Sandia National Laboratories, T. NAGAYAMA, GUILLAUME LOISEL, G.A. ROCHAU, SNL, C. BLANCARD, CEA/DAM/DIF, J. COLGAN, LANL, PH. COSSE, G. FAUSSURIER, CEA/DAM/DIF, C.J. FONTES, LANL, I. GOLOVKIN, Prism, S.B. HANSEN, SNL, C.A. IGLESIAS, LLNL, D.P. KILCREASE, LANL, J.J. MACFARLANE, Prism, R.C. MANCINI, UNR, S.N. NAHAR, OSU, T.J. NASH, SNL, C. ORBAN, M. PINSONNEAULT, A.K. PRADHAN, OSU, M. SHERRILL, LANL, B.G. WILSON, LLNL — Iron plasma opacity influences the internal structure of the sun. However, opacity models have never been experimentally tested at stellar interior conditions. Recent iron opacity experiments at the Sandia Z facility reached 195 eV temperatures, nearly the same as the solar convection/radiation zone boundary (CZB), at electron densities that are roughly 1/2 the solar CZB value. Progress to solidify these results and use them to examine the physical underpinnings of opacity models will be described.

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