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**Soft x-ray conversion efficiency and x-ray albedo of optimized high-Z cocktail mixtures for indirect drive ICF**[1] E. DEWALD, M. ROSEN, L. SUTER, J. SCHEIN, O. JONES, J. ALBRITTON, S. ROSS, D. FROULA, P. NEUMAYER, O. LANDEN, S. GLENZER, Lawrence Livermore Nat. Lab., C. CONSTANTIN, UCLA, F. GIRARD, J.-P. JADAUD, CEA, Bruyeres-le-Chatel, France — The use of high-Z mixtures called "cocktails" for hohlraum walls in the ignition design on NIF improves energetics and radiation uniformity by minimizing wall radiation losses. Recent experiments at the Omega laser facility were performed to measure "1D" x-ray conversion efficiency in spherical geometry and M-band fluxes of high-Z materials at laser intensities ($10^{14}$-$10^{15}$ W/cm$^2$) similar to future hohlraum ignition experiments on NIF. These results as well as the plasma parameters measured by 4w Thomson Scattering were compared for Au, U and Au-U cocktails. Furthermore, a separate set of experiments using double hohlraum targets was used to measure absolute x-ray wall albedo of Au and cocktails at higher radiation temperatures (180 eV) than in previous experiments. The results are compared to LASNEX simulations and their implication on the NIF ignition design is discussed.

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