Scaling law of radiative opacities for ICF elements

E. Mínguez; R. Ruiz Pablos; P. Martel; J.M. Gil; J.L. Rubiano Fernández; R. Rodríguez

Abstract-

This work is focused on the determination of Rosseland and Planck mean analytical formulas for several single elements used in ICF targets. A scaling law of these mean opacities is given as a function of the plasma parameters: electron temperature and plasma density. These opacities have been tested with numerical results from other codes and with available experimental results.

Index Terms- ICF targets, Atomic data, Hot dense plasmas

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