

Emission of Light by Hot Dense Matter

Richard M. More^{a,b}, Hitoki Yoneda^c, Pavel Ni^a, Frank Graziani^b and Motoshi Goto^d

^a *Lawrence Berkeley National Laboratory, Berkeley, CA*

^b *Lawrence Livermore National Laboratory, Livermore, CA*

^c *University of Electro-communication, Chofu, Tokyo, Japan*

^d *National Institute for Fusion Science, Toki, Gifu, Japan*

rmore2262@sbcglobal.net

Hot plasmas always emit radiation and the basic laws of emission from atoms are well understood. Emission by hot dense matter is less thoroughly understood but can be important as a diagnostic of temperature. In this talk we survey the emission of visible light by hot metals including the dramatic polarization effects, emission by small liquid droplets, emission by plasmas of variable density (laser heated plasmas or pellet-ablation plasmas), and the calculation of emission in molecular dynamic particle simulations of fusion plasmas at ignition conditions.

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