THERMAL RADIATION OF AN UNLOADED COPPER TARGET

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Measurements of the radiation power of a copper target unloaded from the pressure ≈ 160 GPa are presented in this paper. The targets were released into a vacuum. From the thermal emission power, the brightness radiation temperature of the target was determined. The observed temperature exceeds the temperature of solid, shock-compressed to pressure 160 GPa copper unloaded to zero pressure [1]. Particle ejection from the target surface was observed in experiments [2,3]. The excess temperature can be related to the emission of particles or hot spots on the surface of the target [4] and to the overheating of the near-surface layer of the target [5].

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