

A POLYDISPERSE HARD SPHERE MODEL
FOR INTERIONIC CORRELATIONS
IN METALLIC MELTS

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S u m m a r y

The main idea of this work consists in a new way of the treatment of interionic correlations in a liquid metallic system. To model the non-hard-sphere behavior of interatomic distances, we represent the ionic subsystem of a melt as a polydisperse fluid of hard spheres characterized by diameters continuously distributed according to some size distribution function. Using this approach, we obtain smooth pair correlation functions of some model melt, where the sizes of particles are distributed by some general normalized nascent delta function. This method can be used for any other function that satisfies the conditions of the distribution function.