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Local Atomic Order and Individual Pair Displacements of Cu(85.2)Al(14.8) from Diffuse X-ray Scattering Studies. Y. Puzyrev, G.E. Ice, C.J. Sparks, J.S. Faulkner.

We have recovered the local atomic structures in a fcc Cu(85.2)Al(14.8) solid solution at 25 K. Both Warren-Cowley short-range parameters and the first moment of the mean static displacements for Cu-Cu, Cu-Al and Al-Al pairs are obtained. The results are compared with molecular dynamics calculations. The displacements from the average lattice of less than 0.001 Å can be retrieved.