o.m10.p5 The Simultaneous Account of Effects of Static Displacements, Short-Range Order and Thermal Oscillations of Atoms in a Diffuse Scattering of X-Rays and Neutrons by Polycrystalline Interstitial Solid Solutions. V.A. Tatarenko, I.O. Golovashich, *G.V. Kurdyumov Institute for Metal Physics, Kyyiv-142, N.A.S. of the Ukraine*.
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The method of determination of the short-range order parameters from a diffuse scattering of x-rays or neutrons[1] by polycrystals of interstitial solutions is advanced. This method allows to find the short-range order parameters in case, when both thermal oscillations and static displacements of atoms give the contributions in a diffuse scattering, it being known that the last-named contribution is clearly expressed because of a difference in geometric 'sizes' of the interstitial atoms and interstices ('size effect')[1,2]. Within the framework of a kinematic approximation, the discrete structure (atomism) of such a solid solution and anisotropy of its elastic properties[3–6] are taken into account.

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