Scattering Methods for the Determination Short-Range Order and Strain-Induced Effects in Binary Alloys

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Diffuse scattering has been an important tool for understanding the atomic structure of multicomponent systems for nearly fifty years. New methods for the measurement and interpretation of diffuse scattering patterns will be discussed for the investigation of time-dependent phenomena and effects due to confinement. For model systems such as Cu_3Au and Cu-17atmethods. In both systems we found new features in the diffuse scattering pattern which will be interpreted using reciprocal space methods.