

Grain boundary junctions and grain growth in nanocrystalline materials

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The influence of grain boundary and interphase junctions on the thermodynamics and kinetics of grain growth in nanocrystalline materials is considered. The presented results of current experimental measurements of the grain boundary and grain boundary – free surface triple junctions give the opportunity to estimate quantitatively the influence of the junctions on the kinetics of the grain growth and on the evolution and stability of nanocrystalline systems.