Study of Monte Carlo simulation models for various types of polycrystalline materials

Eva Morháčová, Miroslav Morháč

eva.morhacova@stuba.sk

The lecture describes Monte Carlo simulation models aimed for the investigation of various phenomena of grain growth in polycrystalline materials. It covers models including oriented and anisotropic grain growth as well as the development of structures containing the liquid, gaseous phase as well as biphase structures and structures containing fibers and whiskers. Several new Monte Carlo simulation models have been proposed and realized.