Special Issue

Crystallization Thermodynamics

Message from the Guest Editor

Dear colleagues,

The description of crystallization processes is an actively developing area of research. The classical theory assumes that crystallization proceeds via the formation of small crystallites having the same properties as the finally evolving macroscopic phases. This assumption allows one to describe crystallization qualitatively but may lead to significant problems in reconciling theory and experiment quantitatively. Papers dealing with new approaches to its treatment are invited to this special issue directed e.g. to the description of the (i) thermodynamic driving force of crystallization, phase diagrams of multi-component systems, theoretical predictions of the properties of the melts, (ii) curvature dependence of the surface tension. (iii) specification of both bulk and surface properties of critical crystallites, (iv) interplay of crystal nucleation and glass transition, (v) qualitative change of the response of the ambient phase to crystallization near to the glass transition temperature, (vi) crystallization and growth in inhomogeneous media, (vii) crystallization activity of heterogeneous nucleation cores.

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Guest Editor

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Editor-in-Chief

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