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An influence of vacancies and elastic deformation coupling onto phase decomposition of binary systems

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Highlights

Vacancy-deformation coupling leads to vacancies rearrangement and their agglomeration at phase interfaces and in soft phase due to Kirkendall effect

Vacancy-deformation coupling suppresses decomposition processes and delays dynamics of new phase formation.

Vacancy-deformation coupling results in an increase of domain size dispersion and promotes the mean domain size growth.