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Microstructural Evolution in Crystalline Materials Subjected to Extreme Environments

Guest Editor

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Deadline for manuscript submissions:

closed (15 January 2022)

Message from the Guest Editor

It has been revealed that these processes induce phase transitions in bulk phases and interfaces such as grain boundaries and surfaces. Regrettably, the physics behind the phenomenon needs to be further explored. This is why we have decided to dedicate this Special Issue to the general understanding of the correlation between extreme environments and the phase transitions occurring in crystalline materials subjected to such environments.

In this Special Issue, we invite original research articles and review papers on the following topics:

- Electron-beam sintering for nanocrystalline materials;
- Electron-beam damage at transmission electron microscopes (TEMs);
- Microstructural evolution in crystalline materials under irradiation of electrons, neutrons, and ions;
- Microstructural evolution in crystalline materials under severe plastic deformation (SPD);
- Microstructural evolution in nuclear materials under irradiation of neutrons and ions:
- Phase transition in bulk phases and interfaces induced by irradiation of electrons, neutrons, and ions;
- Phase transition in bulk phases and interfaces induced by severe plastic deformation (SPD).













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Message from the Editor-in-Chief

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