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Preface

These proceedings contain the papers presented at the symposium on Microstructural Processes in Irradiated Materials that was held in Orlando, Florida, USA, from 25 February to 1 March 2007, as part of the annual meeting of The Minerals, Metals and Materials Society (TMS).

This symposium covered a wide range of processes in irradiated materials including damage production, defect properties, microstructural evolution and mechanical behavior. A particular emphasis was on the connections between state-of-the-art multiscale modeling and advanced experimental microstructural characterization, and the development of advanced oxide dispersion ferritic alloys. The symposium involved original contributions on first principles modeling of point defect and impurity properties, multiscale modeling of damage accumulation, and advanced experimental characterization techniques to characterize the microstructural evolution of irradiated and mechanically deformed materials. In total 78 presentations, including 9 invited talks, and 17 posters were presented.

We would like to thank all the participants to the symposium for their presentation, either as a poster or a talk, and all authors for the quality of their manuscripts, which has resulted in this issue of the *Journal of Nuclear Materials* containing the symposium proceedings.

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