

Selected Technical Papers

STP 1572

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# Effects of Radiation on Nuclear Materials

## 26th Volume

*Editors:*

Mark Kirk

Enrico Lucon





**SELECTED TECHNICAL PAPERS**  
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## Foreword

This Compilation of *Selected Technical Papers*, STP1572, *Effects of Radiation on Nuclear Materials: 26th Volume*, contains 10 peer-reviewed papers that were presented at a symposium held June 12–13, 2013 in Indianapolis, IN, USA. The symposium was sponsored by ASTM International Committee E10 on Nuclear Technology and Applications and Subcommittee E10.02 on Behavior and Use of Nuclear Structural Materials.

The Symposium Chairmen and STP Editors are Mark Kirk, United States Regulatory Commission, Rockville, MD, USA and Enrico Lucon, National Institute for Standards and Technology, Boulder, CO, USA.





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## Overview

The *Effects of Radiation on Materials* series began in 1956 with a meeting jointly sponsored by the E10 Committee and the Atomic Industrial Forum. In 1960, this symposium transitioned to its current format under the E10 Committee. For the past five decades, this symposium series has provided an international forum for the presentation of current research results, applications studies, and open discussion.

The proceedings of this 26th Symposium continue in the long-established tradition of the *Effects of Radiation on Materials* series. Papers on radiation effects in reactor pressure vessel steels dominated this particular symposium, with over half of the contributions from international authors. While a long-standing topic of research and practical interest to the nuclear engineering community, this topic retains its currency due to the irreplaceability of the vessel and the critical role vessel safety calculations play in establishing the licensable life of the plant.

The editors wish to express their gratitude to the authors and attendees of the symposium and to all the reviewers of these papers. Additionally, we are indebted to the ASTM staff that played key roles in both the successful conduct of the symposium and the publication of this volume.

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