



Foreword

Special issue on the water reactor fuel performance meeting 2017 (WRFPM 2017)



The Water Reactor Fuel Performance Meeting (WRFPM) 2017 hosted by the nuclear fuel and materials division of the Korean Nuclear Society was held at Ramada Plaza Jeju of Korea during September 10–14, 2017.

Because the safe operation of nuclear reactors has become a top priority after the Fukushima accident, the main theme of this meeting was the “Water Reactor Fuel Innovation for Safety-enhanced Nuclear Energy.” The focus of the meeting was especially given to two topics that would be important in increasing both safety and public acceptance of nuclear energy: Accident-tolerant fuel and dry interim storage of spent nuclear fuel. The accident-tolerant fuel, if developed successfully and implemented, would significantly enhance safety under accident conditions while maintaining economy during normal operations, and dry interim storage would contribute to keeping spent nuclear fuel safe until the time of final disposal.

From the viewpoint of the main theme, a total of 200 papers were presented at 33 sessions of the meeting in the following five subject areas: 1) Fuel performance and operational experience, 2) Advances and innovation in fuel technologies, 3) Fuel behaviors in transient and accident conditions, 4) Spent fuel transportation, storage, and treatment, and 5) Fuel modeling, analysis, and methods.

Out of 25 papers recommended by technical committee members, 13 papers have been finally accepted after peer review for publication in this special issue of Nuclear Engineering and Technology. As the technical program committee chair and the steering committee chair of the WRFPM 2017, we would like to express our gratitude to the authors and dedicated reviewers of the papers for their great contribution to the special issue.

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Available online 3 February 2018