## **Nuclear Science and Engineering**

VOLUME 195 · NUMBER 6 · JUNE 2021

## **Contents**

## **TECHNICAL PAPERS**

563 Evaluation of Yttrium Hydride  $(\delta-YH_{2-x})$  Thermal Neutron Scattering Laws and Thermophysical Properties

Vedant K. Mehta, Michael W. D. Cooper, Robert B. Wilkerson, Dan Kotlyar, Dasari V. Rao, Sven C. Vogel

- 578 The Time-Dependent Asymptotic  $P_N$  Approximation for the Transport Equation Re'em Harel, Stanislav Burov, Shay I. Heizler
- 598 On the Regularity Order of the Pointwise Uncollided Angular Flux and Asymptotic Convergence of the Discrete Ordinates Approximation of the Scalar Flux Xiaoyu Hu, Yousry Y. Azmy
- **614** Optimization of Beta Radioluminescent Batteries with Different Radioisotopes: A Theoretical Study

Hosein Moayedi, Soheil Hajibaba, Hossein Afarideh, Mitra Ghergherehchi, Masoumeh Mohamadian

**626** Prediction of Neutronics Parameters Within a Two-Dimensional Reflective PWR Assembly Using Deep Learning

Forrest Shriver, Cole Gentry, Justin Watson

- 648 Mechanism of the Initial States of a Bubble Formation and Departure from a Heated Surface in a Subcooled Flow

  Maryam Medghalchi, Nasser Ashgriz
- **664** Uranium Extraction from Gattar Granite Sample After Leaching Using Nitrate Solution in Presence of Peroxide

El-Sayed A. Manaa