

ANS **CALL FOR PAPERS**

SUBMIT AN ABSTRACT

[https://apps.ans.org/esr/
event-nfm2026/](https://apps.ans.org/esr/event-nfm2026/)



PROGRAM SPECIALIST

Isabel Brinker
708-579-8290
epsr@ans.org

Nuclear Fuels and Materials 2026

EMBEDDED IN THE 2026 ANS ANNUAL CONFERENCE AND EXPO

May 31-June 3, 2026 | Denver, CO | Sheraton Denver

EXECUTIVE CHAIRS

General Chair
Simon Pimblott (Idaho National Laboratory)

Program Chair
Jake Quincey (Kairos Power)

SUMMARY DEADLINE: JANUARY 23, 2026

**SUBMISSION OF ABSTRACTS
(NO EXCEPTIONS)**
JANUARY 23, 2026

**AUTHOR NOTIFICATION OF
ACCEPTANCE**
FEBRUARY 16, 2026

**REVISED ABSTRACTS
DUE**
FEBRUARY 27, 2026

ABOUT THE CONFERENCE.

Across the world, nuclear power production stands at the threshold of a new era driven by rapid industrial expansion, electrification, and the growth of data centers. Nuclear energy offers scalable, 24/7, and domestically controlled energy source industry, manufacturing, and national security. However, there is a significant gap between need and deployment. Accelerating the development, qualification, and deployment of advanced next generation nuclear fuels and materials is essential for the deployment of advanced nuclear to dramatically shorten the timeline for fuel innovation and qualification. This embedded topical meeting is focused on the materials and nuclear fuels research efforts that will enable the increased deployment of nuclear reactors to meet the energy imperative of quadrupling the generation of nuclear power in the United States by 2050.

FORMATS, PRESENTATIONS AND PUBLISHING

Abstracts submitted using the provided template will be accepted for presentations based on technical merit, novelty of methods, and impact on the advancement of nuclear fuels and materials for nuclear energy systems. Presentations will be in the format of regular ANS (20 mins) or lightning (10 mins) talks. Time permitting, abstracts not selected for regular talks will be considered as lightening talks. The final session topics and tracks will be finalized once all abstracts are received. No special issue of papers is planned.

TRACKS AND SESSIONS

TRACK 1: NUCLEAR MATERIALS PERFORMANCE, PREDICTION AND QUALIFICATION

- 1a. Materials Degradation in Reactors
- 1b. Advanced Materials Characterization
- 1c. AI for Advance Materials and Manufacturing
- 1d. Advanced Materials for Extreme Environments
- 1e. Understanding and Predicting Corrosion in Reactor
- 1f. Advanced Functional Materials for Instrumentation and Controls
- 1g. General Session

TRACK 2: NUCLEAR FUELS FOR ENERGY ABUNDANCE

- 2a. TRISO – Research, Development and Deployment
- 2b. Accident Tolerant and Advanced Technology Fuels
- 2c. Advanced Fuels for Advanced Reactors
- 2d. Properties and Chemistry of Molten Fuel Salts
- 2e. Nuclear Fuels and Materials Modeling
- 2f. AI and Prediction of Fuel Performance
- 2g. General Session