

ADVANCED ACCIDENT AND RADIATION-TOLERANT MATERIALS



UNIVERSITY OF CAMBRIDGE

25th – 26th March 2019

**SUBMIT ABSTRACTS
AND REGISTER NOW**

www.cnec.group.cam.ac.uk/2019conf

A two day conference, bringing together world experts in the nuclear materials field

This conference intends to bring together scientists and engineers interested in developing materials to improve the cladding and performance of nuclear fuels.

Of specific interest is the deployment of advanced experimental, computational and modelling approaches to develop materials with superior neutronic, and radiation and corrosion resistant properties, which can mitigate the consequences of a severe accident by extending grace periods.

The approaches used will also naturally include advances in materials adapted to operate reliably in increased burn-up or fast neutron situations.

Scientific sessions will be based around silicon carbide, coated clads, advanced carbide systems, such as MAX phases and includes modelling and experimental approaches.

Booking for this Conference

Book your place at:

<https://www.cnec.group.cam.ac.uk/2019conf>

email: nuclearenergy@esc.cam.ac.uk for further information.

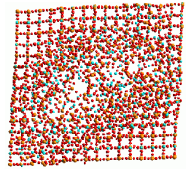
Accommodation at Queens' College

Accommodation can be reserved at Queens' College Cambridge, rooms on a first-come-first-served basis, using the following link

<https://www.queens.cam.ac.uk/conferences/conference/accommodation>

Please enter promotional code: KX29872 for the availability of the bedrooms to appear. Then follow the simple instructions to book and pay.

SPEAKERS:



INTRODUCTION -

Professor Lindsay Greer – University of Cambridge

SETTING THE SCENE - Dr Edward Lahoda -
Westinghouse Electric Company

SPEAKER - Professor Lance Snead -
SUNY, Stony Brook, New York

Topic: Stored Energy In SiC and It's Relation to
Irradiated Microstructure and Off-Normal Events in
LWR's

SPEAKER - Professor Michel Barsoum - Materials
Science and Engineering, Drexel University, USA

Topic: MAX Phases in nuclear applications

SPEAKER - Dr Philipp Frankel -
University of Manchester, UK

Topic: Irradiation tolerance of MaxPhase materials

SPEAKER - Professor Michael Finnis -
Imperial College, London

Topic: First principles calculation of point defects in
ZrC

SPEAKER - Dr Simon Middleburgh -
Bangor University, UK

Topic: Mechanistic understanding of accident
tolerant fuel candidate materials: accelerating
research, development and licensing

SPEAKER - Professor Lu Min Wang -
University of Michigan, USA

Topic: Radiation damage

SPEAKER - Professor Jingyang Wang -
Shenyang

Topic: Design and fabrication of integrated
carbides coating for accident tolerant zircaloy fuel
cladding