

AcE-Methods

Report of Contributions

Contribution ID: 1

Type: **not specified**

Arrival and coffee / Welcome to the HZDR

Monday 20 March 2023 08:45 (30 minutes)

Presenter: STUMPF, Thorsten (IRE/HZDR)

Session Classification: Day 1

Contribution ID: 2

Type: **not specified**

THE ACE PROJECT AND THE METHODS WORKSHOP

Monday 20 March 2023 09:15 (20 minutes)

Presenter: HUITTINEN, Nina (IRE/HZDR)

Session Classification: Day 1

Contribution ID: 3

Type: **not specified**

Plenary lecture: Syntheses

Monday 20 March 2023 09:35 (45 minutes)

Presenter: DACHEUX, Nicolas (ICSM, University of Montpellier, CEA, CNRS, ENSCM)

Session Classification: Day 1

Contribution ID: 4

Type: **not specified**

SYNTHESIS AND CHARACTERIZATION OF URANIUM OXIDE MICROSPHERES FOR TRANSMUTATION TARGETS

Monday 20 March 2023 10:20 (20 minutes)

Presenter: COLAK, Gamze (Mol, Leuven, Belgium)

Session Classification: Day 1

Contribution ID: 5

Type: **not specified**

LAB SCALE SYNTHESIS OF DEFECT-FREE CERAMICS WITH HIGH DENSITY

Monday 20 March 2023 10:40 (20 minutes)

Presenter: NIESSEN, Jonas (Aachen, Germany)

Session Classification: Day 1

Contribution ID: 6

Type: **not specified**

Plenary lecture: DIFFRACTION METHODS AT THE ROSSENDORF BEAMLINE - A TECHNICAL OVERVIEW WITH EXAMPLES

Monday 20 March 2023 11:30 (45 minutes)

Presenter: HENNIG, Christoph (IRE/HZDR, ROBL/ESRF)

Session Classification: Day 1

Contribution ID: 7

Type: **not specified**

**FISSION PRODUCTS SPECIATION IN SPENT
NUCLEAR FUEL: SYNTHESIS, CHARACTERIZATION,
AND OXIDATION BEHAVIOUR OF MIXED-OXIDE
(U,PU)O₂ SIMFUEL**

*Monday 20 March 2023 12:15 (20 minutes)***Presenter:** CAPRANI, Rafael (Marcoule, France)**Session Classification:** Day 1

Contribution ID: 8

Type: **not specified**

DISCOVERY OF ROBUST NUCLEAR MATERIALS USING EXTREME CONDITIONS

Monday 20 March 2023 12:35 (20 minutes)

Presenter: SVITLYK, Volodymyr (Dresden, Germany and Grenoble, France)

Session Classification: Day 1

Contribution ID: 9

Type: **not specified**

PROGRESS TOWARDS THE IMMOBILISATION OF THE UK PLUTONIUM INVENTORY IN TITANATE CERAMICS

Monday 20 March 2023 14:35 (20 minutes)

Presenter: BLACKBURN, Lewis (Sheffield, United Kingdom)

Session Classification: Day 1

Contribution ID: 10

Type: **not specified**

EVALUATION OF SURROGATE-MODELS FOR THE INCORPORATION OF TETRAVALENT ACTINIDES IN MONAZITE PHASES

Monday 20 March 2023 14:55 (20 minutes)

Presenter: LENDER, Theresa (Aachen, Germany)

Session Classification: Day 1

Contribution ID: 11

Type: **not specified**

AcE project discussion (closed group)

Monday 20 March 2023 15:35 (1h 30m)

Session Classification: Day 1

Contribution ID: **12**

Type: **not specified**

Arrival and coffee

Tuesday 21 March 2023 08:45 (15 minutes)

Session Classification: Day 2

Contribution ID: 14

Type: **not specified**

Plenary lecture: SOME APPLICATIONS OF RAMAN SPECTROSCOPY IN THE NUCLEAR FIELD

Tuesday 21 March 2023 09:00 (45 minutes)

Presenter: MERMOUX, Michel (CNRS, Grenoble)

Session Classification: Day 2

Contribution ID: 15

Type: **not specified**

**BONDING PROPERTIES OF URANIUM
CARBONATE SPECIES IN LIQUID AND SOLID
STATE IN MULTIPLE OXIDATION STATES STUDIED
BY U M4-EDGE HIGH RESOLUTION X-RAY
SPECTROSCOPY**

*Tuesday 21 March 2023 09:45 (20 minutes)***Presenter:** VOLLMER, Christian (Karlsruhe, Germany)**Session Classification:** Day 2

Contribution ID: 16

Type: **not specified**

**CATION-DRIVEN PHASE SEPARATION IN
INTERNALLY GELATED (U1-ZCEZ)O₂±X
MICROSPHERES, WITH Z={0.05, 0.10, 0.15, 0.20, 0.25,
0.30}, OBTAINED VIA A CE(NO₃)₃ PRECURSOR**

*Tuesday 21 March 2023 10:05 (20 minutes)***Presenter:** UYGUR, Selim (Mol, Leuven, Belgium)**Session Classification:** Day 2

Contribution ID: 17

Type: **not specified**

Plenary lecture: ELECTRON MICROSCOPY TECHNIQUES: WHEN A MICROGRAPH IS WORTH A 1000000x WORDS

Tuesday 21 March 2023 11:00 (45 minutes)

Presenter: BULGHERONI, Antonio (JRC)

Session Classification: Day 2

Contribution ID: 18

Type: **not specified**

LUMINESCENCE SPECTROSCOPY AND DIFFRACTION STUDIES OF ZIRCONIA SOLID PHASES CONTAINING CERIUM

*Tuesday 21 March 2023 11:45 (20 minutes)***Presenter:** BRAGA FERREIRA DOS SANTOS, Luiza (Dresden, Germany)**Session Classification:** Day 2

Contribution ID: 19

Type: **not specified**

INVESTIGATION OF THE STRUCTURAL INCORPORATION OF DOPANTS INTO URANIUM OXIDES

Tuesday 21 March 2023 12:05 (20 minutes)

Presenter: POTTS, Shannon (Jülich, Germany)

Session Classification: Day 2

Contribution ID: **20**

Type: **not specified**

Lab tour

Tuesday 21 March 2023 13:45 (1h 30m)

Session Classification: Day 2

Contribution ID: 21

Type: **not specified**

SPECTROSCOPIC ANALYSIS OF MIXED ACTINIDE OXIDES BY AN M4,5 EDGE HIGH ENERGY RESOLUTION XANES (HR-XANES) IN BULK- AND NANO-MATERIALS

*Tuesday 21 March 2023 15:15 (20 minutes)***Presenter:** PALINA MÜLLER, Natalia (Karlsruhe, Germany)**Session Classification:** Day 2

Contribution ID: 22

Type: **not specified**

MODEL SYSTEM STUDIES OF ADVANCED (SPENT) NUCLEAR FUEL MATERIALS

Tuesday 21 March 2023 15:35 (20 minutes)

Presenter: MURPHY, Gabriel (Jülich, Germany)

Session Classification: Day 2

Contribution ID: 23

Type: **not specified**

Plenary lecture: Thermodynamics and dissolution

Tuesday 21 March 2023 16:15 (45 minutes)

Presenter: GAONA, Xavier (INE/KIT)

Session Classification: Day 2

Contribution ID: 25

Type: **not specified**

Arrival and coffee

Wednesday 22 March 2023 08:45 (15 minutes)

Session Classification: Day 3

Contribution ID: 26

Type: **not specified**

ROBL-II AT ESRF: A SYNCHROTRON TOOLBOX FOR ACTINIDE RESEARCH

Wednesday 22 March 2023 14:10 (20 minutes)

Presenter: PRIEUR, Damien (Dresden, Germany and Grenoble, France)

Session Classification: Day 3

Contribution ID: 27

Type: **not specified**

LUMINESCENCE SPECTROSCOPY AS A TOOL FOR INVESTIGATING THE F-ELEMENT ENVIRONMENT IN CRYSTALLINE SOLID PHASES

Wednesday 22 March 2023 09:00 (20 minutes)

Presenter: HUITTINEN, Nina (Dresden, Germany)

Session Classification: Day 3

Contribution ID: 28

Type: **not specified**

SOLID SOLUTION FORMATION IN Nd₂O₃-EuCl₃-NdCl₃-NaCl-H₂O SYSTEM

*Wednesday 22 March 2023 09:20 (20 minutes)***Presenter:** DUMPALA, Rama Mohana Rao (Karlsruhe, Germany)**Session Classification:** Day 3

Contribution ID: 29

Type: **not specified**

Plenary lecture: Radiation damages

Wednesday 22 March 2023 10:30 (45 minutes)

Presenter: WISS, Thierry (JRC)

Session Classification: Day 3

Contribution ID: 30

Type: **not specified**

STRUCTURAL ANALYSES OF HEAVY-ION IRRADIATED MONAZITES

Wednesday 22 March 2023 11:15 (20 minutes)

Presenter: GILSON, Sara (Dresden, Germany)

Session Classification: Day 3

Contribution ID: 31

Type: **not specified**

AB INITIO MODELING OF MAGNETITE SURFACES FOR PLUTONIUM RETENTION

Wednesday 22 March 2023 11:35 (20 minutes)

Presenter: KATHERAS, Anita (Bern, Switzerland)

Session Classification: Day 3

Contribution ID: 32

Type: **not specified**

STRUCTURAL CHANGES IN LANTHANIDE BEARING MONAZITE UNDER SWIFT HEAVY ION IRRADIATION

Wednesday 22 March 2023 13:30 (20 minutes)

Presenter: MARQUARDT, Julien (Frankfurt, Germany)

Session Classification: Day 3

Contribution ID: 33

Type: **not specified**

REDUCTION OF PERTECHNETATE BY MAGNETITE –INFLUENCE OF PH AND TIME

Wednesday 22 March 2023 13:50 (20 minutes)

Presenter: ZIMMERMANN, Thomas (Dresden, Germany)

Session Classification: Day 3

Contribution ID: 34

Type: **not specified**

Short note from our sponsors: Dectris

Monday 20 March 2023 14:20 (15 minutes)

Session Classification: Day 1

Contribution ID: 35

Type: **not specified**

Short note from our sponsors: Quantum Design

Wednesday 22 March 2023 09:40 (15 minutes)

Session Classification: Day 3