RadChem 2022 / Programme Monday, 16 May 2022

### RadChem 2022

# Monday, 16 May 2022

Nuclear Fuel Cycle: NFC 1 - Red Hall (13:30 - 15:00)

-Conveners: Václava Havlová; Nick Evans

time	[id] title	presenter
13:30	[1018] Reducing Uncertainties in the Management of Higher Activity Nuclear Wastes	Prof. READ, David
14:00	[904] Experimental activation determination in and on components of nuclear power plants and comparison with activity calculations	BARKLEIT, Astrid
14:20	[971] Uranium(VI) retention by calcium aluminosilicate hydrates (C-A-S-H) – Impact of temperature, ionic strength, and organic ligands	Dr SCHMEIDE, Katja
14:40	[934] Coprecipitation of the actinides Th(IV), U(IV) and actinide homologues Y(III), La(III), Ce(III) and Yb(III) in secondary minerals from crystalline fracture systems: A natural analogue study from Forsmark, Simpevarp and Laxemar (Sweden)	KUSTURICA, Annemie

### Nuclear Fuel Cycle: NFC Poster - Gallery (17:15 - 19:03)

time	[id] title	presenter
17:15	[878] Statics and kinetics of sorption of Co-60 with composite sorbent T35 in the presence of humic acids	Prof. DENISOV, Evgeny Dr VOLKOV, Ilya
17:18	[913] Effect of background electrolyte composition on the formation of Th(IV) nanoparticles on the muscovite (001) basal plane	SCHMIDT, Moritz
17:21	[938] Barium reactions on calcite-water interface	MATULOVÁ, Michaela
	[939] HLW evaporation technology which includes decomposition of bottom solution components using reductants as applied to the highly burnt-up spent nuclear fuel reprocessing	MISHINA, Nadezhda
17:27	[940] Sorption of Nickel on Calcite based on Surface Chemistry Studies	Dr LI, Xiaodong
	[944] Plutonium losses reduction during the separation of precipitating elements from SNF solutions before extraction processing	RYABKOVA, Nadezhda
17:33	[950] Chemical Behavior of Long-Lived Fission and Activation Products in the Near Field of a Nuclear Waste Repository and the Possibilities of their Retention (Vespa II)	MAYORDOMO, Natalia
17:36	[961] Microbiologically Influenced Corrosion of Cast Iron Containers for HLW Storage	KIRSCH, Klemens Prof. STUMPF, Thorsten Dr KOERDT, Andrea
	[968] Spectroscopic investigation of the complexation of U(VI) with 2-Phosphonobutane-1,2,4-tricarboxylic acid (PBTC) in the pH range of 2 to 10	Dr ACKER, Margret
17:42	[969] Complexation studies of Eu(III) with NTA at high ionic strengths	SIEBER, Claudia
17:45	[970] Characterization of graphite reflector shielding emerged from NPP A1	ANDRIS, Boris
17:48	[986] Sorption of Ni on natural calcite	Dr HAVLOVÁ, Václava

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17:51	[1008] Radiolytic and hydrolytic degradation of a polycarboxylate superplasticizer	GAJŠT, Tamara
17:54	[1014] Application of MSO technology for radioactive waste retreatment	HADRAVA, Jan
17:57	[1028] THE INFLUENCE OF BATCH SORPTION METHODOLOGIES ON CESIUM, NICKEL UPTAKE ONTO GRANITIC ROCK	KOČAN, Karol
18:00	[1029] Fundamental investigations of actinide immobilization by incorporation into solid phases relevant for final disposal	HUITTINEN, Nina
18:03	[1036] Stability & Physico-Chemical Characterisation of Reconditioned Waste Form Relevant to Radioactive Wastes	VETTESE, Gianni
18:06	[1050] Interaction of 137Cs with synthetic geopolymer and cementious materials	Dr ŘEZANKA, Pavel
18:09	[1051] Uptake of 85Sr onto cementious materials and synthetic geopolymer	Mr ZNAMÍNKO, Václav
18:12	[1062] Sorption of radionuclides from aqueous solutions onto zeolites	SZATMARY, LORANT
18:15	[1073] Sorption of europium on cementitious materials in the presence of organic substances	BUREŠOVÁ, Marta
18:18	[1075] Geopolymer materials for nuclar industry	TYRPEKL, Václav
18:21	[1053] Alternative infill materials for disposal of NPP decommissioning radioactive waste – ALMARA project introduction	VEČERNÍK, Petr
18:24	[1054] 14C labelled organic molecules migration and interaction in/with the cement based materials	VEČERNÍK, Petr
18:27	[1077] Structural Characterisation of Heavy Lanthanide Oxalates Synthesized by Homogeneous Precipitation	CIESAROVÁ, Daniela Veronika
18:30	[916] Characterization of f-element complexes with soft-donor ligands for selective Americium separation	SAUERWEIN, Fynn Sören

# **Tuesday, 17 May 2022**

### Nuclear Fuel Cycle: NFC 2 - Marble Hall (15:30 - 17:02)

-Conveners: Thorsten Stumpf; Gareth Law

time	[id] title	presenter
15:30	[1090] The Sorption of Tc(IV) to some Clay Minerals	EVANS, Nicholas D. M.
15:50	[964] Influence of Surface Nanotopography on the Adsorption of Europium on Muscovite (001)	SCHABERNACK, Jonas
16:08	[965] The products of radiolysis and hydrolysis of polyacrylonitrile	DRTINOVÁ, Barbora
16:26	[949] Tc(VII) reductive immobilization by Sn(II) pre-sorbed on alumina nanoparticles.	MAYORDOMO, Natalia
16:44	[1003] Sr behaviour Flow-Through Columns Representative of Near-Surface Disposal of Very Low Level Radioactive Wastes	VETTESE, Gianni

## Thursday, 19 May 2022

#### Nuclear Fuel Cycle: NFC 3 - Marble Hall (08:30 - 10:02)

-Conveners: David Read; Boris Andris

time	[id] title	presenter
08:30	[1024] Activated biopolymer hydrogel composites for strontium remediation - a mechanistic study	FOSTER, Stella
08:50	[928] Paw process: Assessing lipophilicity in mixtures of contaminants and radioactive waste	Mrs DISDIER, Zoé
09:08	[966] Sorption of uranium and lead on CSH	KITTNEROVÁ, Jana
09:26	[1043] Diffraction and Raman spectroscopy studies of zirconia solid phases containing cerium	BRAGA FERREIRA DOS SANTOS, Luiza
09:44	[921] **Screening of modified diglycolamide diastereomers to increase Am(III) selectivity during the partitioning of PUREX raffinate solution**	DIAZ GOMEZ, Laura Johana

#### Nuclear Fuel Cycle: NFC 4 - Marble Hall (15:30 - 17:00)

#### -Conveners: Luis Gonzalez; Christian Schreinemachers

time	[id] title	presenter
15:30	[888] Dissolution of irradiated MOx fuel with high Pu content	DE VISSER - TÝNOVÁ, Eva
	[991] Evaluation of the new EURO-GANEX process resistance by gamma irradiation test loop	SÁNCHEZ GARCÍA, Iván
	[1013] Investigations on the chemical behavior of cesium and iodine in lead-bismuth liquid metal solution	Dr LIU, Lu
	[906] Characterisation of Contaminated Stainless Steel from Acidic Reprocessing Environments	BARTON, Daniel

## Friday, 20 May 2022

### $\underline{\textbf{Nuclear Fuel Cycle: NFC 5}} \textbf{ - Marble Hall (08:30 - 10:02)}$

-Conveners: Eva De Visser - Týnová; Daniel Barton

time	[id] title	presenter
08:30	[984] Corrosion behaviour of irradiated mixed oxide (MOX) fuels: Effects of environmental conditions on radionuclide leaching	Dr SCHREINEMACHERS, Christian
08:50	[958] Gd-doped UO2 surface oxidation by H2O(g) in the presence of H2(g) at different temperatures	Mrs GARCÍA-GÓMEZ, Sonia
09:08	[884] STUDIES IN DUAL DOPING OF URANIUM NITRIDE FOR USE AS ADVANCE TECHNOLOGY FUELS	GONZALEZ, Luis
09:26	[1012] Development of tritium removal technology from large amount of contaminated water using a hybrid process.	KIM, Seung-il
09:44	[1059] Radiation Stability of Extraction Systems with Hydrophobic CyMe4-BTBP and CyMe4-BTPhen Extracting Compounds and Hydrophilic (SO3H)2-BTP, (SO3H)2-BTBP, and (SO3H)2-BTPhen Masking Agents	DISTLER, Petr