Wednesday, 19th October 2022

14:00 – 14:20 h	**REGISTRATION & COFFEE**
14:20 – 14:30 h	Welcome
14:30 – 14:50 h	Failed nuclear fuel characteristics relevant to geological disposal.– ***Evins, L.Z.***, *Tengstrand O, Johnson K.D., Jädernäs D., Roth O. and Pakarinen J. (SKB, Studsvik, VTT)*
14:50 – 15:10 h	In-situ characterization of a UO_2 surface by microRaman and synchrotron X-ray diffraction in the presence of hydrogen peroxide. – ***Schlegel, M.L****. and Jégou, C. (CEA)*
15:10 – 15:30 h	Impact of H_2O_2 Speciation and Limitations in Dissolution Kinetics on Radiation Induced Dissolution of UO_2-based Spent Nuclear Fuel. – ***Olsson, D.****, Aydogan, H., Li, J. and Jonsson, M. (KTH)*
15:30 – 15:50 h	Effect of Hydrogen on the Corrosion of Pre-Oxidized and Naturally Corroding Uranium Dioxide. – ***Badley, M****., Shoesmith, D.W., and Noël, J.J. (UWO, SSW)*
15:50 – 16:20 h	***COFFEE BREAK***
16:20 – 16:40 h	Impact of Ru, Rh, Pd and Mo metallic particles on the dissolution of UO_2. – ***Kaczmarek,*** *T., Szenknect, S., Claparède, L., Le Goff, X., Podor, R., Dacheux, N. (CEA, CNRS, ENSCM, ICSM)*
16:40 – 17:00 h	Impact of lanthanide and PGM elements on the chemical durability and surface modifications during the leaching tests of FP doped UO_2 pellets mimicking interim repository. – ***Imbert, P.H****., Claparede, L., Szenknect, S. and Dacheux, N. (CSM, CNRS, CEA, ENSCM)*
17:00 – 17:20 h	Dissolution of UO_2 in saline solutions and the role of uranyl-peroxo-halo complexes. – ***Li, J.****, Szabó, Z, El Jamal, G. and Jonsson, M. (KTH)*
17:20 – 17:40 h	Oxidative dissolution of uranium carbide and uranium nitride nuclear fuels under repository conditions. – ***El Jamal, S.****, Johnsson, M., Mishchenko, Y. and Jonsson, M. (KTH, SU)*
17:40 – 18:00 h	To be confirmed. – ***Rodriguez-Villagra, N.****, et al. (CIEMAT)*
18:00 – 18:15 h	**Closure of the first day**

Thursday, 20th October 2022

9:00 – 09:20 h	Spent fuel leaching experiments. Where do radionuclides come from? –***Giménez, J.,*** *de Pablo, J., Casas, I., Serrano-Purroy D., Clarens, F. and Martínez-Torrents, A. (EEBE, EURECAT, JRC)*
9:20 – 09:40 h	Database development of Spent Nuclear Fuel dissolution under repository conditions. – ***Riba, O****., Abada, M., Valls, A., García, D. and Duro, L. (Amphos 21)*
9:40 – 10:00 h	Effect of the aqueous composition on the dissolution of Spent fuel under reducing conditions**.** – ***Kokinda, J****., Serrano-Purroy, D., de Pablo, J., Casas, I. and Clarens, F. (EURECAT, JRC*)
10:00 – 10:20 h	Spent UOX fuel leaching in repository relevant conditions: Influence of H_2 concentration and high pH on fission product release. – ***Mennecart****, Th., Cachoir, C, Iglesias Pérez, L, Herm, M., Leinders, G., Lemmens, K., Metz, V., Verwerft, M., Bosbach, D. and Gaggiano, R. (SCK·CEN, KIT-INE, Jülich, ONDRAF/NIRAS)*
10:20 – 10:40 h	Release of actinides from Spent Nuclear UOX Fuel under anoxic/reducing atmosphere and alkaline pH. – ***Iglesias Pérez, L.,*** *Cachoir, Ch., Gaggiano, R., Gaona, X., Herm, M., König, T., Lemmens, K., Meert, K., Mennecart, T., Vandoorne, T. and Metz, V. (KIT-INE, SCK·CEN, ONDRAF/NIRAS)*
10:40 – 11:10 h	***COFFEE BREAK***
11:10 – 11:30 h	Effects of environmental conditions on radionuclide leaching from irradiated mixed oxide (MOX) fuels. – ***Schreinemachers,*** *C., Modolo, G., Leinders, G., Mennecart, T., Cachoir, C., Lemmens, K., Verwerft, M., Deissmann, G. and Bosbach, D. (JÜLICH, SCK·CEN)*
11:30 – 11:50 h	Matrix dissolution of irradiated MOX fuels. Effect of the axial location. – ***Serrano-Purroy, D.*** *and Kokinda, J. (JRC, UCT)*
11:50 – 12:10 h	Leaching experiments with spent MOX fuel under hydrogen overpressure in bicarbonate water. – ***Herm, M****., Bohnert, E., Böttle, M., Fuss, M., Gaona, X., Geyer, F., González-Robles, E., König, T., Müller, N., Walschburger, A. and Metz, V.(KIT-INE)*
12:10 – 12:30 h	MOX fuel alteration mechanisms under deep geological repository conditions. – ***Montaigne, T****., Szenknect, S., Broudic, V., Martin, C., Tocino, F., Jégou, C. and Dacheux, N. (ICSM, CEA, ANDRA, EDF)*
12:30 – 12:50 h	Modelling of α-doped UO_2 dissolution in claystone water in presence of iron at 70°C. – ***De Windt****, L., Jégou, C. and Broudic, V. (MINES Paris, CEA/DES)*
13:00 – 14:30 h	**LUNCH**

14:30 – 14:50 h	Long term leaching of spent nuclear fuel and characterization of secondary phases. – ***Roth, O.,*** *Askeljung, C., Johnson, K., Jädernäs, D., Barreiro-Fidalgo, A. and Evins, L.Z. (*SKB)
14:50 – 15:10 h	The Dissolution of UO_2-based Spent Nuclear Fuel under Storage and Disposal Conditions: Insights from SIMFUEL Studies. – ***Boxall, C****., Goode, J., Hambley, D., Howett, E., Huang, Y.-F., Kissick, L. and Rauff-Nisthar (LU, NNL)*
15:10 – 15:30 h	Aqueous leaching of ADOPT and standard UO2 spent nuclear fuel under H2 atmosphere. – ***Barreiro-Fidalgo, A****., Roth, O., Puranen, A., Evins, L.Z. and Spahiu, K. (Studsvik, SKB, AB SVAFO)*
15:30 – 15:50 h	The oxidative dissolution of Cr^{2+} doped UO_2 fuel. – ***Smith, H****., Townsend, L. T. Mohun, R., Cordara, T., Stennett, M. C., Mosselmans, J. F. W., Kvashnina, K. and Corkhill, C.L. (University of Sheffield, Diamond Light Source, HZDR, ESRF)*
15:50 – 16:20 h	***COFFEE BREAK***
16:20 – 16:40 h	Influence of iron strips on dissolution of Pu- (Cr)-doped UO_2 in cementitious water (pH 13.5) and carbonated solution (pH 9). – ***Cachoir, C.****, Mennecart, Th. and Lemmens, K. (SCK·CEN)*
16:40 – 17:00 h	Gd-doped UO_2 corrosion in the presence of silicate and calcium under alkaline conditions. – ***García-Gómez, S.****, Giménez, J., Casas, I., Llorca. J. and de Pablo, J. (UPC, EURECAT)*
17:00 – 17:20 h	Dissolution of $(U,Th)O_2$ under deep geological repository conditions with continuous H_2O_2 additions**.** – ***Perry, E.****, Popel, A. and Farnan, I. (University of Cambridge)*
17:20 – 17:40 h	Experimental AGR fuel-groundwater interactions as an analogue for geological repository leaching. – ***Kissick, L.E****., Goode, J. B., and Hambley, D. I. (NNL)*
17:40 – 18:00 h	To be confirmed. – ***Cui, D.****, et al. (Studsvik)*
18:00 – 18:15 h	**Closure of the second day**
20h	**WORKSHOP DINNER** (more information will be provided)

Friday, 21th October 2022

9:00 – 09:20 h	Passive gamma and neutron measurements for characterization of spent nuclear fuel. – ***Solans, V.**, Sjöstrand, H., Grape, S., Branger, E., Borella, A., Rossa, R., Schillebeeckx, P., and Sjöland, A. (Upsala Univ., SCK·CEN, JRC, SKB, Lund University)*
9:20 – 09:40 h	UO_2 based model systems for spent nuclear fuel: microstructure and oxidative dissolution. – ***Thümmler, R.**, Klinkenberg, M., Barthel, J., Kegler, P.1, Mayer, J., Bosbach, D. and Brandt, F. (Jülich)*
9:40 – 10:00 h	Spent Nuclear Fuel decay heat uncertainty implementation into a fuel loading optimization program. – ***Huttunen J.**, Kumpula J., Ranta-aho A., Hynönen V., Paananen, A. and Kuopanportti J. (TVO, Fortum)*
10:00 – 10:20 h	Incorporation and use of detailed mechanisms for surface reactions in numerical models for spent fuel dissolution. – ***Hansson, N.**, Jonsson, M., Ekberg, C. and Spahiu, K. (Chalmers, KTH)*
10:20 – 10:40 h	Burnup-dependence of the fuel composition uncertainty. – ***Grimaldi, F.**, Fiorito, L., Romojaro, P., Žerovnik, G. (Politecnico di Torino, SCK·CEN, JSI)*
10:40 – 11:10 h	**COFFEE BREAK**
11:10 – 11:30 h	Characterisation of spent nuclear fuel for a typical PWR. – ***Žerovnik, G.,** Cabezas, M., Čalič, D., Fiorito, L., Kromar, M., Romojaro, P., Schillebeeckx, P. and Stankovskiy, A. (JSI, SCK·CEN, UPM, JRC)*
11:30 – 11:50 h	Burnup credit application in CONSTOR SNF cask criticality analysis for RBMK-1500 fuel. – ***Barkauskas, V.**, Plukienė, R. and Plukis, A. (FTMC)*
11:50 – 12:10 h	Impact of Some 3-D Modelling Effects on the Spent Fuel Characterization. – ***Kromar, M.** and Čalič, D*. (JSI)
12:10 – 12:30 h	Recent spent fuel research at VTT. – ***Häkkinen, S.,** Juutilainen, P., Vaara, L. and Jambrina, A. (VTT)*
12:30 – 13:30 h	**CONCLUSIONS AND CLOSURE**