

Co-funded by the



Agenda of the 2nd Annual Meeting of the DisCo Project

May 27th – 29th, 2019 - Cologne, Germany

EURATOM

Horizon 2020 Collaborative Project

DISCO - Grant Agreement: 755443

Monday, 27th May 2019

- 10:00 – 12:00 **ExCom Meeting**
(restricted to ExCom members: i.e. Coordination Team, WP leaders and EUG chairman)
- 13:00 – 14:00 Lunch**
- 14.00 – 14:10 **Welcome**
(D. Bosbach, JUELICH and L.Z. Evins, SKB)
- 14.10 – 14:30 **Coordination Team Presentation (WP1)**
(L.Z. Evins, SKB; P. Christensen, SKB; A. Valls, A21)
- 14:30 – 16:00 **Individual talks**
- ▶ 14:30 **JRC – WP2 + WP3**
SNF sample leaching and ⁷⁹Se solution production. – *P. Carbol, D. Serrano-Purroy, L. Aldave de las Heras, S. Millet, G., Montagnier, D. Papaioannou, A. Pell Lorente, G. Rasmussen, M. Sandow, S. Van Winckel and D.H. Wegen*
 - ▶ 15:00 **KIT-INE – WP2 + WP3**
Status of leaching experiments performed with irradiated MOX fuel in bicarbonate water under reducing conditions at KIT-INE. – *E. González-Robles, M. Herm, N. Müller, A. Walschburger, M. Böttle, F. Geyer and V. Metz*
 - ▶ 15:30 **CTM – WP2 + WP3**
High Burnup Spent Fuel dissolution under highly alkaline conditions. – *L. Iglesias, D. Serrano-Purroy, A. Martínez-Torrents, F. Clarens, J. de Pablo and I. Casas*
- 16:00 – 16:30 Coffee break**
- 16:30 – 18:00 **Individual talks (continuation)**
- ▶ 16:30 **Studsvik – WP3**
Aqueous leaching of ADOPT and standard UO₂ spent nuclear fuel under H₂ atmosphere. – *A. Barreiro-Fidalgo, O. Roth, A. Puranen, L. Evins and K. Spahiu*
 - ▶ 17:00 **JUELICH – WP2 + WP4**
Chromium doped UO₂-based Model Systems: Synthesis and Characterization of Model Materials for the Study of the Matrix Corrosion of Spent Modern Nuclear Fuels. – *P. Kegler, M. Klinkenberg, A. Bukaemskiy, G. Deissmann, E.V. Alekseev and D. Bosbach*

- 17:30 SCK•CEN – WP2 + WP4
Dissolution experiments with Cr-(Pu) doped UO_2 at FZJ and SCK•CEN:
Preparatory tests with depleted and low alpha-doped UO_2 at SCK•CEN. –
C. Cachoir, T. Mennecart and K. Lemmens

18:00 End of the 1st day

Tuesday, 28th May 2019

9:00 – 10:30 Individual talks (continuation)

- 09:00 CEA – WP2 + WP4
Update of CEA work in DisCo. - *C. Jégou*
- 09:30 VTT – WP2 + WP4
Dissolution of alpha-doped UO₂ with and without Cr in the presence of
corroding Fe, in synthetic and natural groundwater. – *E. Myllykylä*
- 10:00 UCAM – WP2 + WP4
Production and characterisation of (U_{1-x},Th_x)O₂ samples. – *A. Popel and
I. Farnan*

10:30 – 11:00 Coffe break

11:00 – 12:30 Individual talks (continuation)

- 11:00 CIEMAT – WP2 + WP4
Ongoing CIEMAT activities on fabrication and stability studies of doped
UO₂ in the fame of the DISCO project: sample characterization,
experimental set-up and first Results. – *J. Cobos, N. Rodríguez-Villagra, S.
Fernández, L. Gutiérrez, L.J. Bonales, S. Durán and L. Anta*
- 11:30 USFD – WP2 + WP4
Synthesis and characterisation of Cr-doped UO₂: A model material for
modern nuclear fuel dissolution studies. – *T. Cordara, H. Smith, R. Mohun, M.
Stennett, N. Hyatt and C. Corkhill*
- 12:00 NNL – WP2 + WP5
Optical Examination of Wetted Long-Stored Uranium Dioxide Fuel &
Development of a matrix dissolution model for the prediction of activity
release from used fuel in long term storage – *R.J. Hughes, J. Goode and D.
Hambley*

12:30 – 14:00 Lunch

14:00 – 15:30 Individual talks (continuation)

- 14:00 A21 – WP5
Spent fuel alteration model integrating processes of different time scales -
Validation. – *O. Riba, E. Coene, O. Silva and L. Duro*

- 14:30 Armines – WP5
Modeling of the oxidative leaching of $U_{0.73}Pu_{0.27}O_2$ in synthetic clayey groundwater with metallic iron. – *L. De Windt, V. Kerleguer, C Jégou, L., Goblet and C. Martin*
- 15:00 PSI – WP5
Development and application of a solid solution model for Cr-doped UO_2 fuel. – *E. Curti, G.D. Miron and D.A. Kulik*

16:00 – 17:30 Webinar (1.5 h)

Factors Affecting the Dissolution of Spent Nuclear Fuel. – *B. Hanson (PNNL)*

19:30 Workshop Dinner

Location: **Ludwig im Museum** - Heinrich-Böll-Platz (50667 Köln). It is 10 min walking from the Marriott Cologne Hotel.

Wednesday, 29^h May 2019

- 8:30 – 10:00 Individual WP2 to WP5 Sessions
&
EUG meeting
(in parallel, EUG meeting restricted to EUG members)
- 10:00 – 10:30 Coffee break**
- 10:30 – 11:50 WP Overviews
- 10:30 WP2 Overview – *I. Farnan (UCAM)*
 - 10:50 WP3 Overview – *V. Metz (KIT-INE)*
 - 11:10 WP4 Overview – *D. Bosbach (JUELICH)*
 - 11:30 WP5 Overview – *L. Duro (A21)*
- 12:00 – 12:30 General Assembly (GA)
- 12:30 – 13:00 EUG feedback – *R. Gaggiano (ONDRAF/NIRAS)*
- 13:00 End of the 2nd Annual Meeting**
- 13:00 – 14:00 ExCom Meeting
(restricted to ExCom members: i.e. Coordination Team, WP leaders and EUG chairman)