



EUROPEAN
COMMISSION

European
Research Area



POSTER PRESENTATION (PP)

**SLOW PROCESSES IN CLOSE-TO-EQUILIBRIUM CONDITIONS
FOR RADIONUCLIDES IN WATER/SOLID SYSTEMS OF RELEVANCE TO NUCLEAR
WASTE MANAGEMENT**

SKIN

DELIVERABLE D6.2

COLLABORATIVE PROJECT (CP)

Reporting period: 01/01/2011-31/12/2013

Grant agreement N°269688

Submitting organizations: AMPHOS

Due date of deliverable: Month 3

Actual submission: Month 4

Start date of the project: 01 January 2011

Duration: 36 months

Project co-funded by the European Commission under the Seventh Framework Programme of the European Atomic Energy Community (Euratom) for nuclear research and training activities (2007 to 2011)

Dissemination Level

PU	Public	X
RE	Restricted to a group specified by the partners of the project	
CO	Confidential, only for partners of the project	





Slow processes in close-to-equilibrium conditions for radionuclides in water/solid systems of relevance to nuclear waste management

A7th FRAMEWORK PROGRAMME COLLABORATIVE PROJECT (EURATOM 2007-2011)

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Presentation

SKIN is a 3-year collaborative project focused on the study of very slow processes that can impact on the mobility behaviour of radionuclides from the source term, the near field and the geosphere

Objectives

- To assess the use/misuse of solubility data of sparingly soluble tetravalent actinides;
- To understand the coupling of major and trace element chemistry in radionuclide migration behaviour
- To include irreversibility in models on the mobility of radionuclides in the repository environment;
- To assess to what degree inadequate consideration of these slow processes leads to over-conservatism in Performance Assessment.

Programme structure and Activities

WP1: Management : scientific, technical , administrative

Studies of slow processes in close-to-equilibrium conditions

WP2: Carbonates, Sulphates, Silicates, Cement
WP3: Oxides

WP4: Modelling/Theory

WP5: Overall synthesis and safety analysis of the project results together with results of previous studies, of literature and field data

WP6: Dissemination, Mobility, Training

Partners



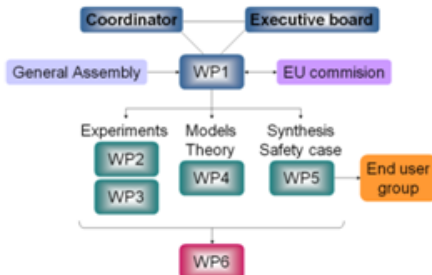
5 EU Member States: France, Germany, Sweden, Spain, United Kingdom

1 Associated Country: Switzerland

1 Other Country: China

In parentheses, number of partners of each country indicated
End user consulting group helping in the review of the project and further advices: ANDRA, ONDRAF/NIRAS, NAGRA, SSM and IRSN

- Identification of
 - the substitution scheme for complex metal ion substitutions
 - ion binding (precipitation, co-precipitation, surface uptake) in complex cement related systems
- Questions of reversibility of solid/solution interaction with clays
- Assessment of
 - the kinetics of dissolution of tetravalent oxides under quasi-equilibrium conditions
 - the impact of major systems present in the repository environment on the rate of dissolution of matrix-related material and retention/release of radionuclides.



Present status

Start of the project: January 1st, 2011

Kick-Off Meeting: February 1st, 2011, France

1st annual workshop: December 2011, Barcelona

Further information: <http://www.emn.fr/z-subatech/skin>