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**Agreement and documentation of systems
to be studied (WP2)**

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Dissemination Level		
PU	Public	X
PP	Restricted to other programme participants (including the Commission Services)	
RE	Restricted to a group specified by the partners of the CEBAMA project	
CO	Confidential, only for partners of the CEBAMA project	

ABSTRACT:

This report gives details of the systems studied by the various partners, the experimental boundary conditions and the methods used. The presentation is classified by radionuclides to identify synergies and overlaps between different partners working on the same radionuclide.

Keywords: experimental studies, methods, materials, work description

RESPONSIBLE:

Bernd Grambow, ARMINES

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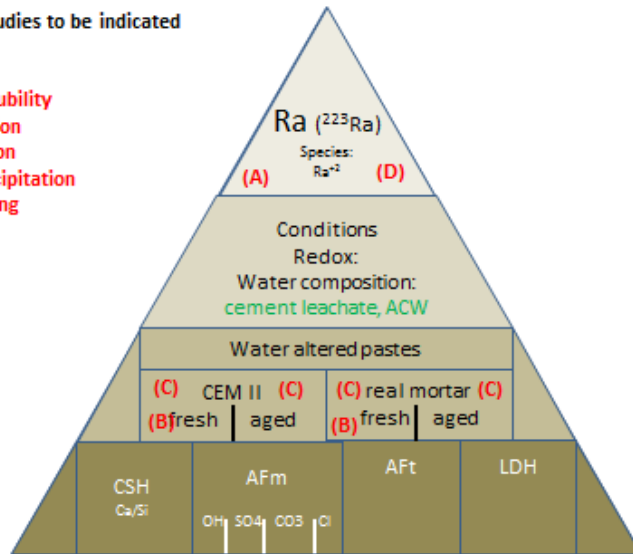
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Radium

Laboratory CTU Studied system : case of Radium

Types of studies to be indicated
in triangle

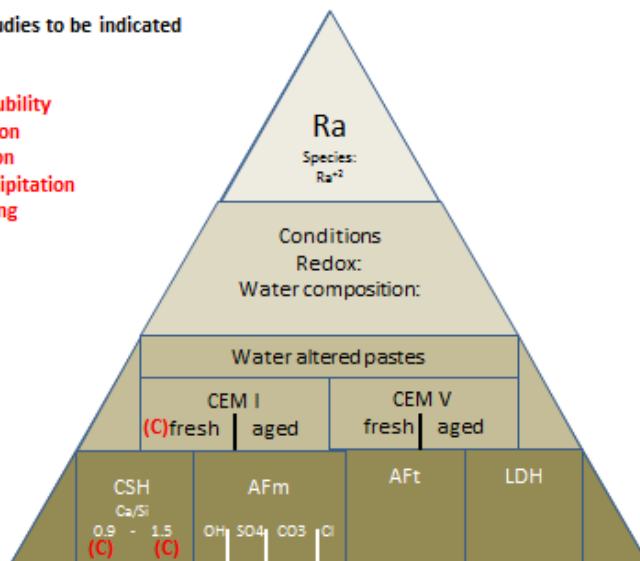
- (A) RN solubility
- (B) Diffusion
- (C) Sorption
- (D) Coprecipitation
- (E) Leaching



Laboratory KIT-INE example: Studied system : case of Radium

Types of studies to be indicated
in triangle

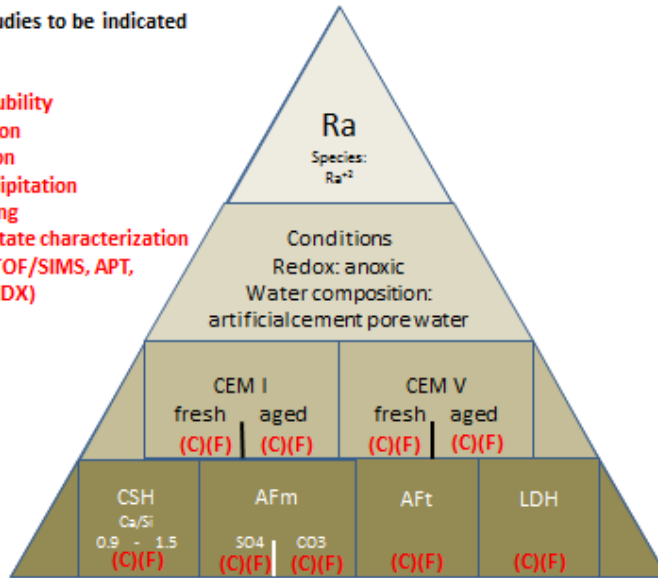
- (A) RN solubility
- (B) Diffusion
- (C) Sorption
- (D) Coprecipitation
- (E) Leaching



Laboratory JUELICH: Studied system : case of Radium

Types of studies to be indicated in triangle

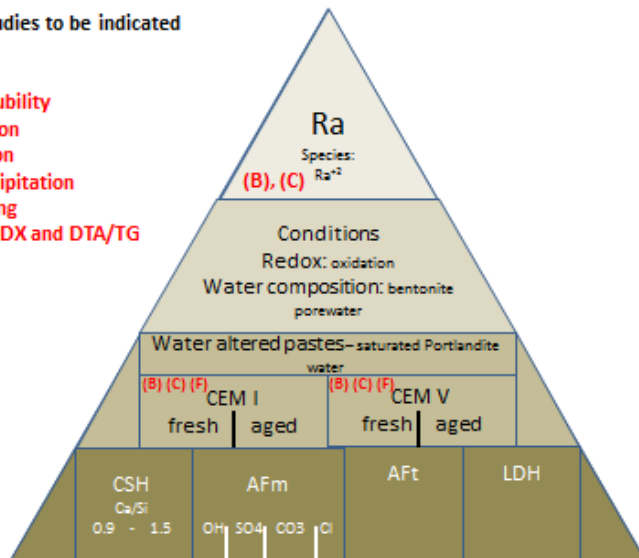
- (A) RN solubility
- (B) Diffusion
- (C) Sorption
- (D) Coprecipitation
- (E) Leaching
- (F) Solid state characterization
(e.g.: TOF/SIMS, APT, SEM/EDX)



Laboratory RATEN ICN - Studied system: case of Radium

Types of studies to be indicated in triangle

- (A) RN solubility
- (B) Diffusion
- (C) Sorption
- (D) Coprecipitation
- (E) Leaching
- (F) SEM/EDX and DTA/TG

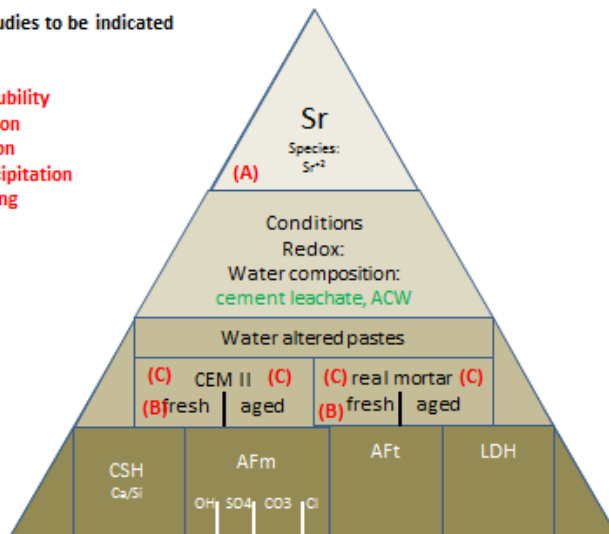


Strontium

Laboratory CTU Studied system : case of Strontium

Types of studies to be indicated
in triangle

- (A) RN solubility
- (B) Diffusion
- (C) Sorption
- (D) Coprecipitation
- (E) Leaching

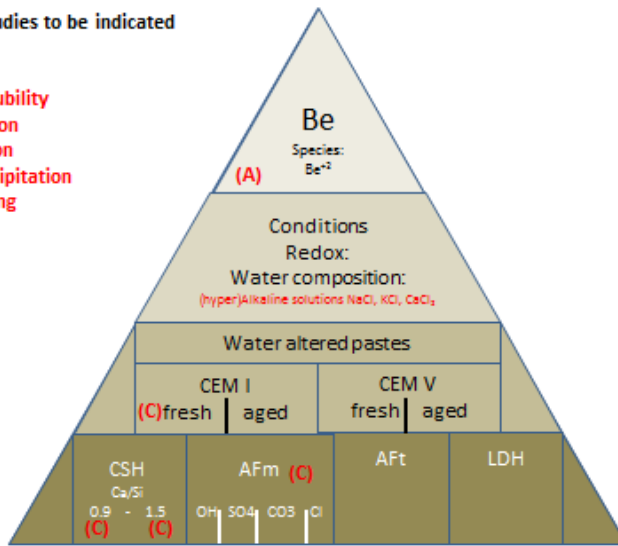


Beryllium

Laboratory KIT-INE example: Studied system : case of Beryllium

Types of studies to be indicated
in triangle

- (A) RN solubility
- (B) Diffusion
- (C) Sorption
- (D) Coprecipitation
- (E) Leaching

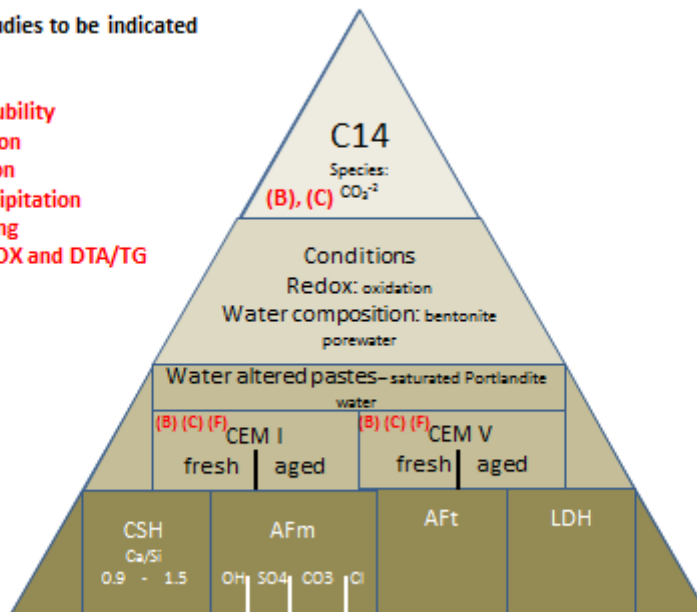


Carbon 14

Laboratory RATEN ICN - Studied system: case of C14

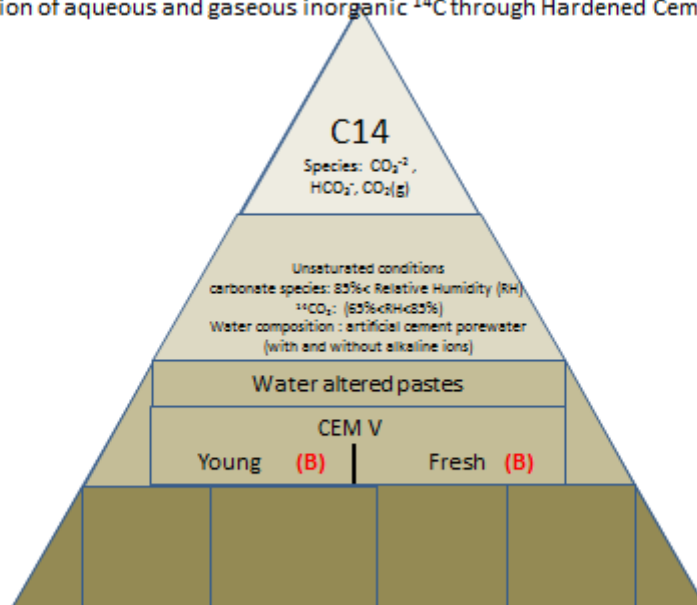
Types of studies to be indicated
in triangle

- (A) RN solubility
- (B) Diffusion
- (C) Sorption
- (D) Coprecipitation
- (E) Leaching
- (F) SEM/EDX and DTA/TG



Laboratory Subatech/ARMINES :

Diffusion of aqueous and gaseous inorganic ^{14}C through Hardened Cement Paste

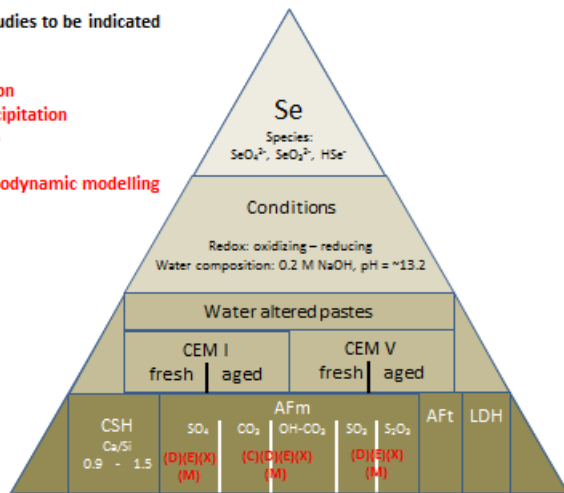


Selenium

PSI/Empa: Studied system : case of Selenium

Types of studies to be indicated
in triangle

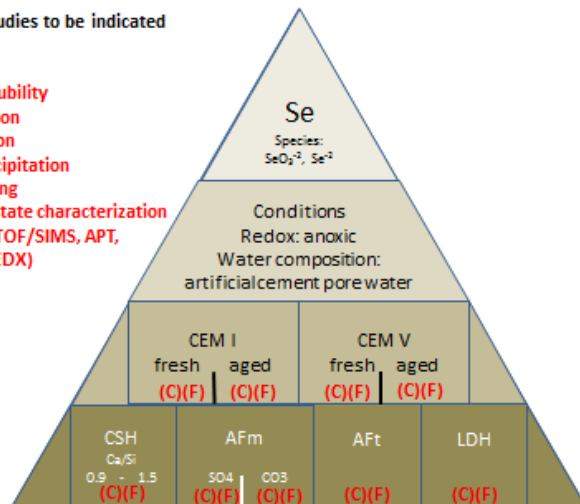
- (C) Sorption
- (D) Coprecipitation
- (E) EXAFS
- (X) XRD
- (M) Thermodynamic modelling



Laboratory JUELICH: Studied system : case of Selenium

Types of studies to be indicated
in triangle

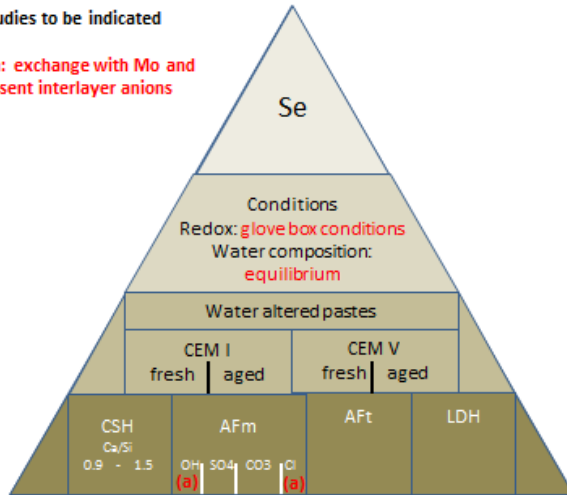
- (A) RN solubility
- (B) Diffusion
- (C) Sorption
- (D) Coprecipitation
- (E) Leaching
- (F) Solid state characterization
(e.g.: TOF/SIMS, APT,
SEM/EDX)



BRGM: Studied system : case of Selenium

Types of studies to be indicated
in triangle

(a) Sorption: exchange with Mo and
initially present interlayer anions
(e.g., Cl).

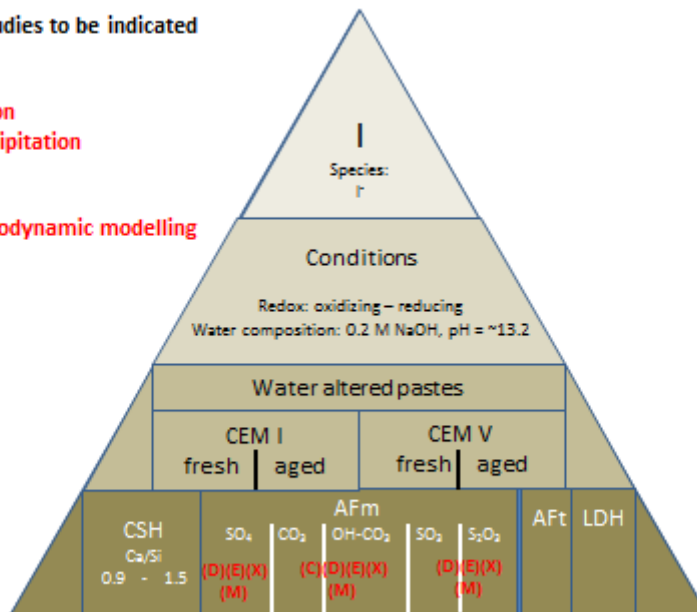


Iodine

PSI/Empa: Studied system : case of Iodine

Types of studies to be indicated
in triangle

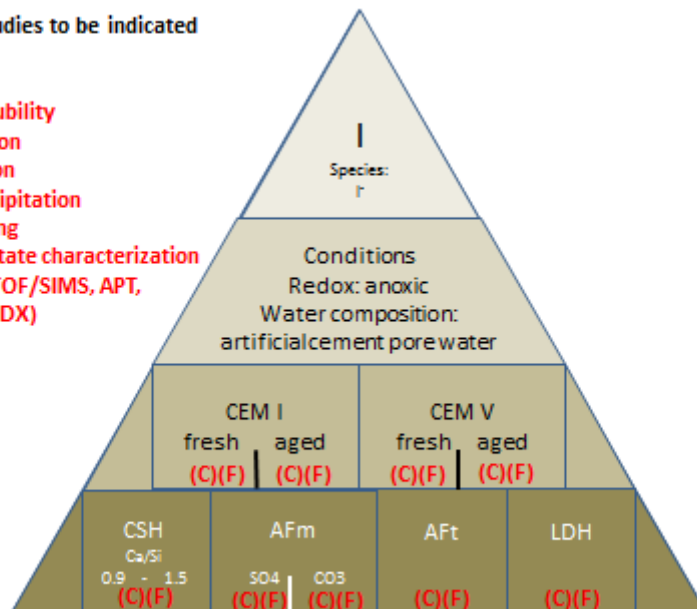
- (C) Sorption
- (D) Coprecipitation
- (E) EXAFS
- (X) XRD
- (M) Thermodynamic modelling



Laboratory JUELICH: Studied system : case of Iodine

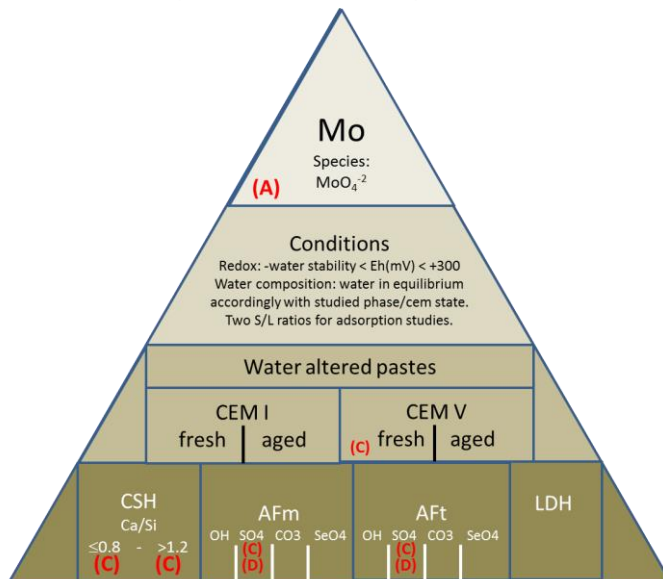
Types of studies to be indicated
in triangle

- (A) RN solubility
- (B) Diffusion
- (C) Sorption
- (D) Coprecipitation
- (E) Leaching
- (F) Solid state characterization
(e.g.: TOF/SIMS, APT,
SEM/EDX)



Molybdenum

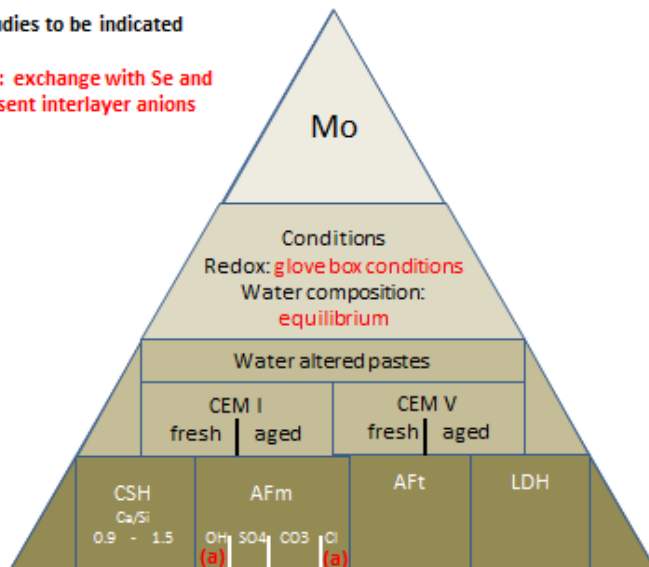
Amphos 21: Studied system : case of Molybdenum



BRGM: Studied system : case of Molybdenum

Types of studies to be indicated
in triangle

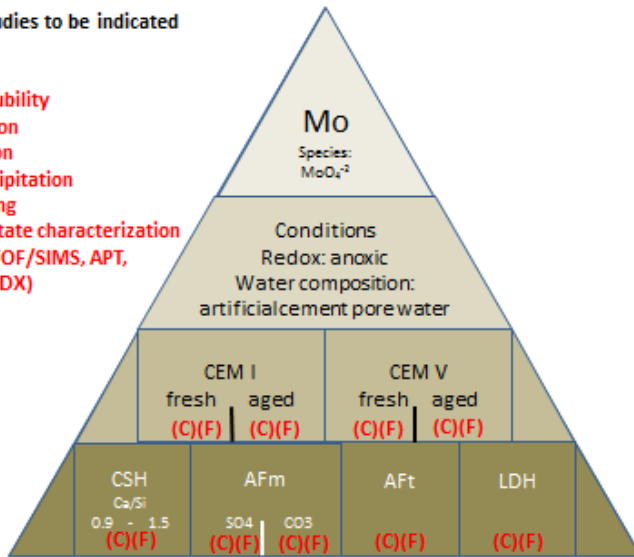
(a) Sorption: exchange with Se and
initially present interlayer anions
(e.g., Cl).



Laboratory JUELICH: Studied system : case of Molybdenum

Types of studies to be indicated
in triangle

- (A) RN solubility
- (B) Diffusion
- (C) Sorption
- (D) Coprecipitation
- (E) Leaching
- (F) Solid state characterization
(e.g.: TOF/SIMS, APT,
SEM/EDX)



Studies of alteration

BRGM: Studied system : Alteration

Types of studies to be indicated
in triangle

(a) Kinetics of alteration under
low and high pH conditions, in
anoxic conditions

