



Multiscale study of the influence of Magnésium Silicate Hydrate (M-S-H) précipitation on the chemo-mechanical behaviour of cementitious materials

Charlotte Dewitte, Alexandra Bertron, Alexandre Dauzeres, Laurie Lacarriere, Mejdi Neji

► To cite this version:

Charlotte Dewitte, Alexandra Bertron, Alexandre Dauzeres, Laurie Lacarriere, Mejdi Neji. Multiscale study of the influence of Magnésium Silicate Hydrate (M-S-H) précipitation on the chemo-mechanical behaviour of cementitious materials. Journée des thèses 2020, JTT2020, 2020, Pornichet, France. 2020. hal-03541787

HAL Id: hal-03541787

<https://hal.science/hal-03541787>

Submitted on 24 Feb 2022

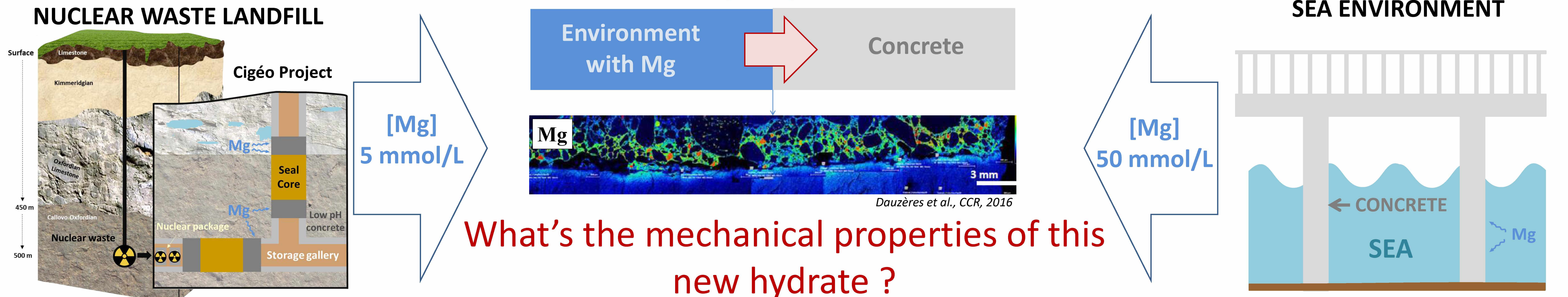
HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.

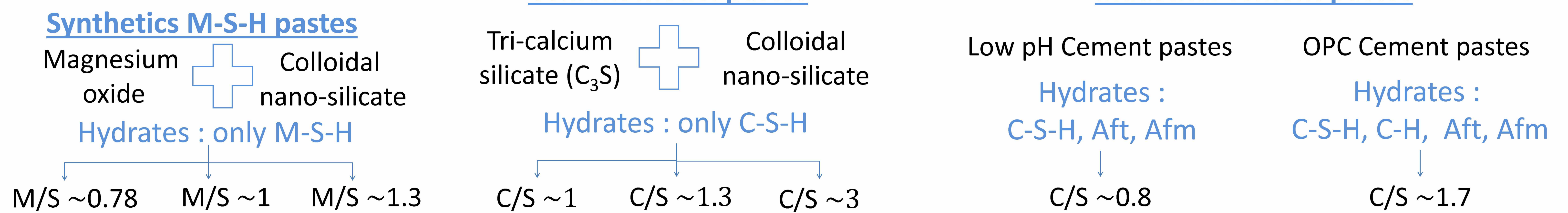
Objectives

- I Determine the elastic mechanical properties of Magnesium silicate hydrate (M-S-H)
- II Estimate the impact of the M-S-H precipitation on the mechanical behavior of concrete.

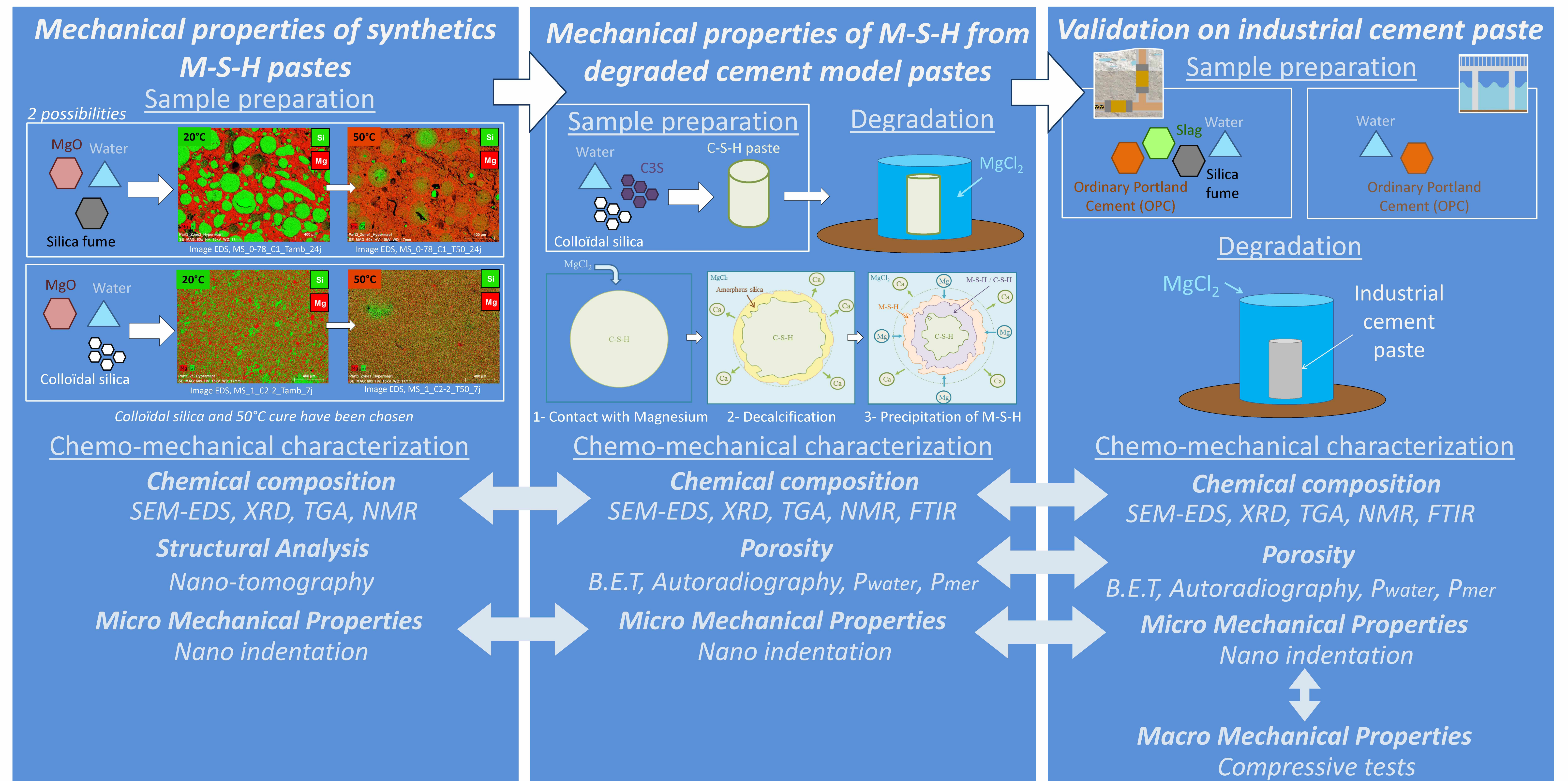
Context



Material

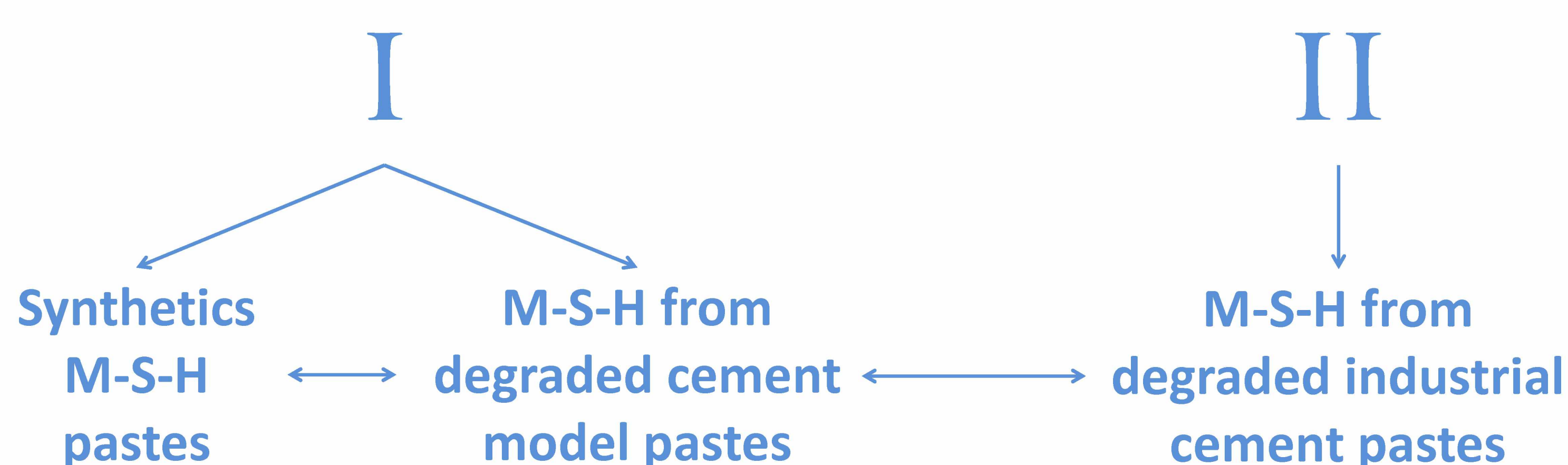


Proceeding



Conclusion

Chemo-mechanical characterization



Outlooks

- Model the mechanical behavior of industrial cement paste subject to magnesium enrichment.
- Extend the Chemo-mechanical characterization to samples extracted from the Tournemire URL (Aveyron France).