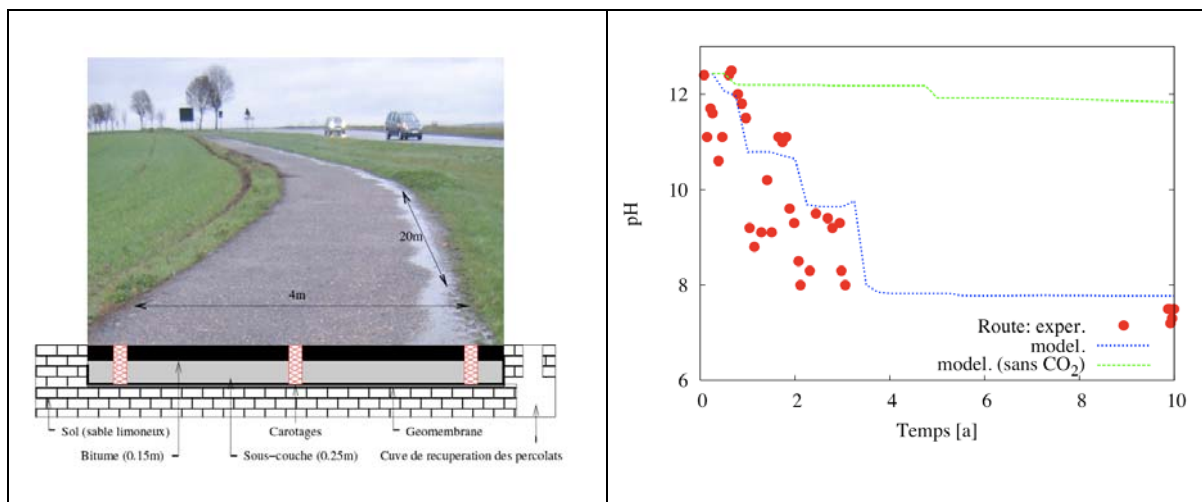
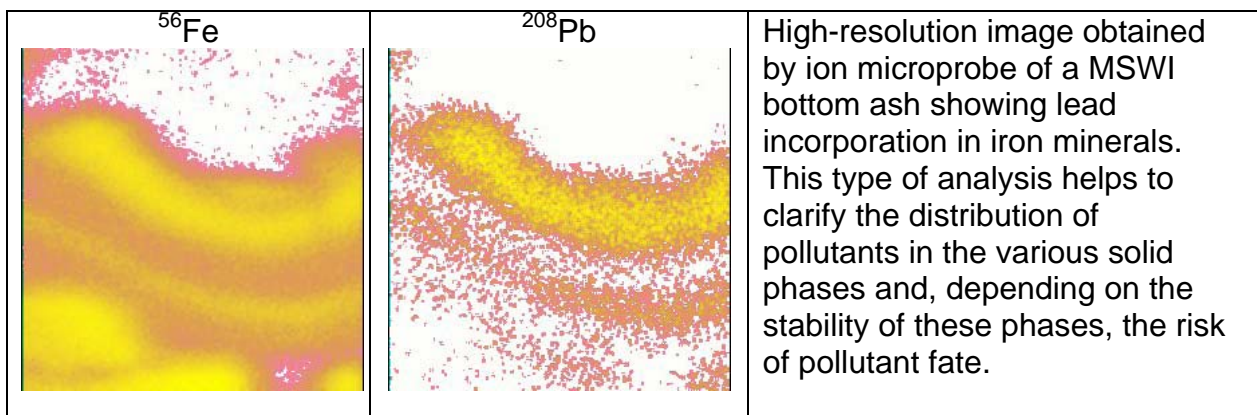


## Environmental impact of municipal solid waste incineration bottom ash recycled in road construction

Ph. D. thesis of David DABO, contact : laurent.dewindt-at-mines-paristech.fr,  
louis.raimbault-at-mines-paristech.fr  
in collaboration with INERIS (F), Eurovia (F) and Luleå University of Technology (S)

The behaviour of bottom ash from municipal solid waste incineration (MSWI) reused as road basement has been studied to assess of their environmental impact. These wastes present geotechnical properties that make them likely to be partially substituted for natural aggregates, a natural resource decreasing in highly urbanized areas. The study has combined physicochemical and mineralogical characterizations (SIMS, EAFS, environmental SEM), experiments at different scales (laboratory tests and a ten-year old pilot road), and an operational numerical tool (reactive transport modelling) used for decision aid with respect to MSWI leachate quality and long-term evolution.



Reactive transport modelling (HYTEC code) of pH evolution of leachates collected under a pilot road site showing a rapid decrease of the alkaline load (chemical impact) over time.