

GHGT-12 conference – Session 10A – Austin – 9 October 2014

« Screening tests of new hybrid solvents for the post-combustion CO₂ capture process by chemical absorption »

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Partners:

HEIDELBERGCEMENT
Global Environmental Sustainability

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ecra

european cement research academy

ECRA (European Cement Research Academy) Chair at UMONS: « CO₂ to Energy: Carbon Capture in Cement Production and its Re-use

Carbon Capture in Cement production

Re-use of CO₂

Oxyfuel combustion

Post-combustion

**CO₂ conversion
into methanol or methane**

Flue gas treatment for CO₂ capture:

Flue gas treatment for CO₂ capture
Especially de-NO_x and de-SO_x processes
Ab/Adsorption based process
Experimental and/or Simulation

Study of the application of these processes to the cement industry
Overall technical/economic life cycle analysis
Experimental and/or Simulation
Effect of impurities on catalysts

Collaboration with HeidelbergCement in the context of the Norcem Brevik Project

“CO₂ capture in cement production and re-use: first step for the optimization of the overall process” (→ **See poster N°405**)

“Simulation of the post-combustion CO₂ capture with Aspen Hysys™ software: study of different configurations of an absorption-regeneration process for the application to cement flue gases” (→ **See poster N°63**)

→ Screening tests of new hybrid solvents for the post-combustion CO₂ capture