

**TITLE:**

*Tackling Climate Change with CCUS: the Hot Potassium Carbonate (HPC) approach by Giammarco-Vetrocoke (GV)*

**CORRESPONDING AUTHOR:**

Walter Giacomini

**ABSTRACT:**

The present work focuses on the Carbon Capture using the HPC Technology.

- 1) Why Carbon Capture is needed: recalling IEA statement about the role of CCUS
- 2) Approaching the big emitters: Cement-Steel-Glass-Pulp industries, Power Generation and Waste to Energy plants. Each one of these industries has peculiarities requiring a customized approach:
  - Flue Gas composition
  - Heat/power availability and cost
  - integration of the Carbon Capture with the existing facilitiesFor the above the CO<sub>2</sub> Capture must be tailored on each specific application
- 3) Why the preference to the HPC? Analysis from different point of view:
  - capex/opex
  - plant footprint and soil consumption
  - environmental compatibility
  - social acceptance
- 4) The Giammarco-Vetrocoke Company: Our background; what we are doing in Carbon Capture Field:
  - pilot plant for trials / new plant concept
  - demo plant in Waste to Energy field
  - activity in Feasibility Study, FEED, Concept Studies
  - Operating references in the upgrading of Biogas to Biomethane with the participated Green Methane company