INSTITUTIONS, MEN AND COMPANIES OF THE PROGEO PROJECT

Antonio Laganà, Dipartimento di Chimica, Biologia e Biotecnologie, Università di Perugia, Perugia, Italy

The needs for efficiently storing energies generated from renewable (or low cost) sources has been at the core of our research group since long. The possibility of integrating the efforts of our research group with those of ENEA and of the companies RDPower srl and RPC srl in a virtual team has allowed the design of the PROGEO apparatus (made of a hydrogen generator, a reactor producing CH4 (methanator) from CO2 and a reactor forming clathrate hydrates (clathrator)) as a proof of concept of the achieved scientific and technological advances. In particular, the modeling of the methanation process [1] and of the clathrate hydrates formation process [2] have given the theoretical support to the design and assemblage of the apparatus. Pictures of the related pieces of apparatus and of the involved persons are given in the attched slides.

1] Carles Martí Aliod, Networked computing for ab initio modeling the chemical storage of alternative energy: Third term report (March-May 2016) <u>http://www.hpc.unipg.it/ojs/index.php/virtlcomm/article/view/114</u>

2] Maragarita Albertí, The selective role of multipolar interaction in the formation of CH₄ and CO₂ clathrate hydrates (this Virt&l-comm issue)