Madalena Dias

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Biographical Sketch of the Speaker

Madalena Dias graduated in Chemical Engineering at the Faculty of Engineering of the University of Porto (FEUP) in 1977 and joined the Department of Chemical Engineering of FEUP as Teaching Assistant. In 1979 she started her post-graduate studies in the Department of Chemical Engineering at the University of Houston, Texas, USA, where in 1984 she obtained her Ph.D. degree, under the guidance of the late Professor Alkis Payatakes, in the area of Simulation of Flow in Porous Media. Between 1984 and 1988 she worked as a Research Scientist at the multinational company Schlumberger Ltd., first at Schlumberger-Doll Research, in Ridgefield, Connecticut, USA and later at Schlumberger Cambridge Research, Cambridge, UK, conducting research in the area of Characterization and Simulation of Flow in Oil Reservoirs. In 1988 she returned to FEUP where she pursues her teaching and research career. In January 2013, she assumed the direction and scientific coordination of the Associate Laboratory LSRE-LCM, a high-level Portuguese research center.

She is a co-inventor of the patented technology NETmix. From 2005 to 2010 she was part of the team that founded Fluidinova, SA, a spin-off company of LSRE-LCM that produces nano-crystalline hydroxyapatite using the NETmix technology. The recently established Colaborative Laboratory NET4CO_2, a partnership between national Chemical Engineering R&D Units and GALP, the major Portuguese oil company, aims at applying the NETmix technology, towards solving the main issues associated with CO_2 emissions for a sustainable CO_2 circular economy: CO_2 capture and separation from industrial flue gases; CO_2 transformation into added-value products such as synthetic liquid fuels or hydrogen/electricity.