Benedetta de Caprariis is Associate Professor of Chemical Engineering at Sapienza University of Rome, Department of Chemical Engineering, Materials and Environment. Her research focuses on thermochemical conversion processes for biomass, waste and plastics, with particular emphasis on hydrothermal liquefaction, chemical recycling, methane cracking and hydrogen production. She has extensive experience in the development of catalytic and non-catalytic processes for the production of biofuels, renewable chemicals, hydrogen and solid carbon. She is involved in several national and European research projects, including PRIN, PNRR and MSCA Doctoral Networks, acting as principal investigator, work package leader and supervisor. Her research also includes the valorisation of industrial residues such as red mud and the study of molten media for methane cracking. She collaborates with several Italian and international universities and research groups. She teaches courses in chemical plant design, sustainable hydrogen production and micro- and nanoparticle technologies. She supervises PhD, Master's and Bachelor's students and is actively involved in international research and training activities. Her scientific activity is strongly oriented towards sustainable process engineering, circular economy and energy transition.