INGLESE

Research Topics

Federica Raganati works in the field of chemical reactors and of technologies for processing granular solids, with particular attention to the development of innovative fluidized bed reactor configurations and the reduction of CO2 emissions through post-combustion capture processes. She is the author of 17 international publications in ISI Journals (about 180 citations, h-index = 8 @ January 2016 – source Scopus), more than 20 publications in Conference proceedings with international and national Peer Review Committee and 3 patents.

Her main research topics are:

- **Set-up of innovative fluidized bed reactor configurations**
  - ***Fluidization of cohesive fine and ultra-fine powders in sound assisted fluidized bed reactors***
  - ***Mixing of cohesive fine and ultra-fine powders in sound assisted fluidized bed reactors***
  - ***Development of innovative production processes in the metallurgic industry***
- **Reduction of CO2 emissions through post-combustion capture processes**
  - ***CO2 capture by Temperature Swing Adsorption (TSA) on fine solid sorbents in sound assisted fluidized beds***
  - ***CO2 capture by Calcium-Looping in sound assisted fluidized beds***
  - ***Characterization and screening of innovative solid sorbents in fixed beds***

Biographical Notes

Federica Raganati received her degree in Chemical Engineering from the University Federico II of Naples (Italy) in 2010 and her PhD in Chemical Engineering from the same university in 2014. She had a post-doc research fellowship at the University Federico II of Naples from July 2014 to July 2015. She had a post-doc research fellowship at the Istituto di Ricerche sulla Combustione from July 2015 to December 2016. She has a permanent position as researcher at the Istituto di Ricerche sulla Combustione since December 2016. She is reviewer of many international journals in the field of chemical engineering and energy; she has been reviewer of different conferences in the field of fluidization and energy. In 2012 she was awarded a scholarship for scientist short-term mobility by the Università degli Studi di Napoli Federico II to support her research stay at the Faculty of Physics of the Universidad de Sevilla (Spain) to investigate the application of sound assisted fluidization technique developed by the research group at Naples on "Capture of CO2 by sound assisted fluidized beds at Ca-looping conditions". She has received scientific awards: i) Conference Grant sponsored by the "8th Mediterranean Combustion Symposium", held in Çesme (Turkey) in 2013, to support her participation to present the results of a paper accepted at the Symposium; ii) two papers have been selected as Key Scientific Articles on Renewable Energy Global Innovations {ISSN 2291-2460} (http://reginnovations.org/) and one paper as Key Scientific Articles on Advances in Engineering (http://advanceseng.com/).