

Main recent publications:

"A study on the structural features of the water-insoluble fraction (WIF) isolated from biomass slow steam pyrolysis liquids", V Gargiulo, M Alfe, P Giudicianni, R Ragucci, *Journal of Analytical and Applied Pyrolysis*, in press, doi:10.1016/j.jaap.2016.07.013 (2016)

"Small size burner combustion stabilization by means of strong cyclonic recirculation", M de Joannon, P Sabia, G Sorrentino, P Bozza, R Ragucci, *Proceedings of the Combustion Institute*, in press, doi:10.1016/j.proci.2016.06.070 (2016)

"H₂O and CO₂ Dilution in MILD Combustion of Simple Hydrocarbons", P Sabia, ML Lavadera, G Sorrentino, P Giudicianni, R Ragucci, *Flow, Turbulence and Combustion* 96 (2), 433-448 1, 2016

"The Effect of Diluent on the Sustainability of MILD Combustion in a Cyclonic Burner", G Sorrentino, P Sabia, M de Joannon, A Cavaliere, R Ragucci, *Flow, Turbulence and Combustion* 96 (2), 449-468

"Development of a Novel Cyclonic Flow Combustion Chamber for Achieving MILD/Flameless Combustion", G Sorrentino, P Sabia, M de Joannon, R Ragucci, A Cavaliere, *Energy Procedia* 66, 141-144, (2015).

"Effects of mixture composition, dilution level and pressure on auto-ignition delay times of propane mixtures", P Sabia, M de Joannon, P Giudicianni, G Sorrentino, M. Lubrano-lavadera, R Ragucci, *Combustion and Flame*, 2014, 162 (3), 533-543, doi: 10.1016/j.combustflame.2014.08.009), (2015)

"Thermal and mechanical stabilization process of the organic fraction of the municipal solid waste", P Giudicianni, P Bozza, G Sorrentino, R Ragucci, *Waste Management*, 44, 125-134, (2015), doi:10.1016/ j.wasman.2015.07.026.

"Influence of possible interactions between biomass organic components and alkali metal ions on steam assisted pyrolysis: A case study on Arundodonax", V Gargiulo, P Giudicianni, M Alfè, R Ragucci, *Journal of Analytical and Applied Pyrolysis* 112, 244-252, doi:10.1016/j.jaap.2015.01.018 (2015).

"CO₂ and H₂O effect on propane auto-ignition delay times under MILD combustion operative Conditions", P Sabia, M de Joannon, G Sorrentino, P Giudicianni, R Ragucci, *Chemical Engineering Journal*, 277, 324-333, doi: 10.1016/j.combustflame.2014.08.009), (2015)

"Dynamic Behaviors in Methane MILD and Oxy-Fuel Combustion. Chemical Effect of CO₂", P Sabia, G Sorrentino, A Chinnici, A Cavaliere, R Ragucci, *Energy & Fuels*, 29 (3), 1978-1986, doi:10.1021/ef501434y (2015)

"Autoignition delay times of propane mixtures under MILD conditions at atmospheric pressure", P Sabia, M de Joannon, M Lubrano Lavadera, P Giudicianni, R Ragucci, *Combustion and Flame*, 161 (12), 3022-3030, doi: 10.1016/j.combustflame.2014.06.006, (2014).

"Hemicellulose, cellulose and lignin interactions on Arundo donax steam assisted pyrolysis", P Giudicianni, G Cardone, G Sorrentino, R Ragucci, *Journal of Analytical and Applied Pyrolysis*, in press, doi:10.1016/j.jaap.2014.08.014, (2014).

"Cellulose slow pyrolysis products in a pressurized steam flow reactor", R Ragucci, P Giudicianni, A Cavaliere, *Fuel* 107, 122-130, doi:10.1016/j.fuel.2013.01.057 (2013).

"Heterogeneous nucleation activation in a condensational scrubber for particulate abatement", M de Joannon, G Cozzolino, A Cavaliere, R Ragucci, *Fuel Processing Technology* 107, 113-118, doi:10.1016/j.fuel.2013.01.057 (2013).

"Cellulose, hemicellulose and lignin slow steam pyrolysis: Thermal decomposition of biomass components mixtures", P Giudicianni, G Cardone, R Ragucci, *Journal of Analytical and Applied Pyrolysis* 100, 213-222, doi:10.1016/j.fuel.2013.01.057 (2013).

"Methane auto-ignition delay times and oxidation regimes in MILD combustion at atmospheric pressure", P Sabia, M de Joannon, A Picarelli, R Ragucci, *Combustion and Flame* 160 (1), 47-55, doi:10.1016/j.fuel.2013.01.057 (2013).

"Optimal post-combustion conditions for the purification of CO₂-rich exhaust streams from non-condensable reactive species", M De Joannon, A Chinnici, P Sabia, R Ragucci, *Chemical Engineering Journal* 211, 318-326, doi:10.1016/j.fuel.2013.01.057 (2012)

"Modeling Negative Temperature Coefficient region in methane oxidation", P Sabia, M Joannon, A Picarelli, A Chinnici, R Ragucci, *Fuel* 91 (1), 238-245, doi:10.1016/j.fuel.2011.07.026 (2012)

"Highly preheated lean combustion", A Cavaliere, M de Joannon, R Ragucci in "Lean combustion: technology and control" ed D. Dunn-Rankin, 2008

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