



COST ACTION GREENERING – DATA COLLECTION

First name, Family Name: Valeria La Parola

Type (Academic or Industrial): Academic

Country: Italy

Working Group in which you are involved: WG1 (Energy)

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Laboratory/Company: Istituto per lo Studio dei Materiali Nanostrutturati– Consiglio Nazionale delle Ricerche (ISMN-CNR)

Laboratory/Company info (limited to 400 characters):

The research unit of ISMN CNR in Palermo is involved, since many years, in environmental catalysis for abatement of gaseous pollutants, biodiesel production through acid heterogeneous catalysts, and hydrogen and syn-gas production. The expertizes of the group ranges between the synthesis, the characterization and the tests of catalytically active materials.

Link to the home page of the Laboratory/Company:

<http://www.ismn.cnr.it/index.php?lang=it>

Fields of expertise (limited to 400 characters):

- Surface Characterization of materials through X-Ray Photoelectron Spectroscopy (XPS)
- Synthesis of heterogeneous catalysts for environmental remediation and biomass upgrading
- Evaluation of catalytic activity in flow reactions.

5 Main publications or patents:

- A. Emamdoust, V. La Parola, G. Pantaleo, M.L. Testa, S. Farjami, Shayesteb, A.M. Venezia “Partial Oxidation of methane over SiO₂ supported Ni and NiCe catalysts” Journal of Energy Chemistry 47, (2020), 1-9
- V. La Parola, G. Pantaleo, F. Deganello, R. Bal, A.M. Venezia “Plain and CeO₂-Supported $\text{La}_x\text{Ni}_y\text{O}_z$ catalysts for partial oxidation of CH₄” Catalysis Today 307 (2018) 189-196
- F. Deganello, D.N. Oko, M.L. Testa, V. La Parola, M.L. Tummino, C.O. Soares, J.G. Rivera, G.Orozco, D. Guay, A.C. Tavares”Perovskite-type Catalysys prepared by Nanocasting: Effect of Metal silicates on the Electrocatalytic Activity toward Oxygen Evolution and Reduction Reactions” ACS Applied Energy Materials 1 (2018) 2565-2575



- G.Pantaleo, V. La Parola, F. Deganello, R.K.Singha, R.Bal, A.M. Venezia, “Ni/CeO₂ catalysts for methane partial oxidation: Synthesis driven structural and catalytic effects” Applied Catalysis B: Environmental 189 (2016) 233-241
- H.A. Beejapur, V. La Parola, L.F. Liotta, M.L. Testa “Glycerol Acetylation over Organic-Inorganic Sulfonic or Phosphonic Silica Catalysts” Chemistry Select 2 (2017) 4934-4941
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Collaborations:

- Centre for Energy Research HAS (Hungary)
- Institute of Catalysis BAS (Bulgaria)
- TOMSK State University (Russia)
- University of Lille (France)

Facilities:

- X-Ry phototelectron Spectroscopy (VG Microtech ESCA 3000 Multilab)
- Specific Surface Area and pores distribution (ASAP2020 Micromeritics)
- X Ray Diffraction (Bruker D5000)
- Thermogravimetric analysis and DSC (TGA 1 Star System- Mettler Toledo)
- Microwave Plasma Atomic Emision Spectroscopy (4200 MP-AES Agilent)