



COST ACTION GREENERING – DATA COLLECTION

First name, Family Name: Giuseppe, Pantaleo

Type (Academic or Industrial): Academic

Country: Italy

Leadership position in the COST:

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

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Laboratory/Company:

Istituto per lo Studio dei Materiali Nanostrutturati (ISMN) CNR, Via Ugo La Malfa 153, 90146 Italy

Laboratory/Company info (limited to 400 characters):

Laboratory of Catalysis for the environmental pollution control and Energy applications

Link to the home page of the Laboratory/Company: <http://www.ismn.cnr.it/>

Fields of expertise (limited to 400 characters):

- Heterogeneous catalysis and catalytic tests
- Pollution abatement (deNO_x and VOC)
- Hydrogen production (Dry reforming and Partial oxidation of methane)
- Preferential oxidation (PrOx) of CO in presence of hydrogen
- Temperature programmed characterization (TPR and TPO)

5 Main publications or patents:

- “WO₃-V₂O₅ Active Oxides for NO_x SCR by NH₃: Preparation Methods, Catalyst’s Composition, and Deactivation Mechanism-A Review”, W. Zhang, S. Qi, **G. Pantaleo** and L.F. Liotta, *Catalysts*, 9, (2019), 527.
- “Plain and CeO₂ – Supported LaxNiOy catalysts for partial oxidation of CH₄”, V. La Parola, **G. Pantaleo**, F. Deganello, R. Bal, A.M. Venezia, *Cat. Today*, 307 (2018) 189-196.
- “Alumina supported Au/Y-doped ceria catalysts for pure hydrogen production via PROX”, L. Ilieva, P. Petrova, **G. Pantaleo**, R. Zanella, J. W. Sobczak, W. Lisowski, Z. Kaszkur, G. Munteanu, I. Yordanova, L.F. Liotta, A.M. Venezia, T. Tabakova, *Int. J. of Hydrogen Energy*, 44, (2019), 233-245.
- “Ni/CeO₂ catalysts for methane partial oxidation: Synthesis driven structural and catalytic effects”, **G. Pantaleo**, V. La Parola, F. Deganello, R.K. Singha, R. Bal, A.M. Venezia”, *Applied Catalysis B: Environmental* 189 (2016) 233-241.
- “Synthesis and support composition effects on CH₄ partial oxidation over Ni-CeLa oxides”, **G. Pantaleo**, V. La Parola, F. Deganello, P. Calatozzo, Rajaram Bal, A.M. Venezia, *Applied Catalysis B: Environmental*, 164 (2015) 135-143.

Collaborations:



- Indian Institute of Petroleum (CSIR-IIP India)
- Academy of Sciences of Hungary (HAS)
- Academy of Sciences of Bulgaria (BAS)
- Tomsk University (Russia)
- University of Lille (France)

Facilities:

- Micromeritics Autochem 2910 and 2950 HP instruments for TPR, TPO, pulse chemisorption
- Reactor line equipped with mass quadrupole (QM-Pfeiffer Balzers Quadstar) and ABB UV-IR detector
- Thermogravimetric analysis (TGA -DSC) Mettler Toledo connected with QM (Pfeiffer)
- Specific surface area and pore size distribution ASAP 2020 Micromeritics
- X-ray diffraction Bruker D5000