Dr. Leonarda Francesca Liotta
Institute for the Study of Nanostructured Materials (ISMN)-CNR
Via Ugo La Malfa, 153, 90146, Palermo, Italy
Email: leonardafrancesca.liotta@cnr.it

Professional Position:
1st October 2020-Director of Research at the Institute for the Study of Nanostructured Materials (ISMN)-CNR, Palermo, Italy.

Research Activities:
-**Au supported catalysts**: synthesis, investigation of structure-activity relationship, application in CO, PROX, VOC oxidation.
- **Noble metals (Pd, Pt, Rh) supported on reducible oxides and perovskite-based catalysts for environmental depollution, especially for after-treatment of exhausts gases emitted by vehicles and ships in compliance with IMO 2020 regulations** (NO SCR by NH3, HC, EtOH).
-Ni-based catalysts for syngas production and CH_4/CO_2 activation.
-LSCF and Pd/Ni LSCF doped oxides as cathodes for SOFCs, and as photo-catalysts for pollutants abatement.
- **Conversion of oils and fats to biodiesel over solid acid catalysts**.

Scientific production: http://orcid.org/0000-0001-5442-2469; Scopus researcher ID: 7201521432.
H index: 47 (Scopus 2023), is co-author of more than 220 articles in peer-reviewed internal journals, 10 book chapters, 1 PCT Int. Appl. WO patent and she contributed to more the 400 International and National Conferences and informative works.

Member of the International Association of Catalysis Societies (IACS), member of the MC of COST Action 17136 "Indoor Air Pollution network" and of the MC of COST Action 18224 "Green Chemical Engineering Network towards upscaling sustainable processes. Member of the Italian Chemical Society, in the Industrial Chemistry Group and Interdivisional Catalysis Group. She is in the Scientific board of the Italian ENERCHEM "Interdivisional Group of Chemistry for Renewable Energy" (2022-2024) and she was in the Scientific Board of the Interdivisional Catalysis Group (2015-2017) (2018-2020).

She is responsible for ISMN of the MOU with University Claude Bernard Lyon1, scientific coordinator of PhD exchange program financed by Chinese Scholarship Council (CSC), responsible for ISMN of students exchange in the field of the EUNICE (the European University for Customized Education) program.

Invited speaker at:

- 8th edition of the International Workshop of Materials Physics (IWMP), organised on the 17th-19th of May, 2023, Magurele, Romania.
- Annual Conference Cycle of the PhD Program of the University of Sevilla, Spain (March 16-17, 2023) with a Lecture on "NOx SCR and CO2 valorization as new strategies for environmental protection and energy sustainability" and Member of the Evaluation Committee of the Ph.D. students.
- Scientific School for Young Scientists "New catalysts and catalytic processes to solve the challenges of environmentally responsible and resource-saving energy production" September 9-10, 2021,Tomsk State University.
- 6th International Scientific School-Conference for Young Scientists "Catalysis: from Science to Industry" 6-10 October 2020, Tomsk State University, Tomsk, Russia.
- ELITECAT 2019, "Summer School in Catalysis" 1-5 July 2019, Villeurbanne, France.
- Scientific School for Young Scientists 1-2 October 2019, Tomsk, Tomsk State University, Tomsk, Russia.
- 5th International Scientific School-Conference for Young Scientists "Catalysis: from Science to Industry" 25-29 September 2018, Tomsk State University, Tomsk, Russia.
- ELITECAT 2017 "Summer School in Catalysis" 3-7 July 2017 Villeurbanne, Lyon, France.
- 1st International Conference on Reaction Kinetics, Mechanisms and Catalysis,
- Budapest, Hungary, 6-9 June, 2018.
- 4th International Scientific School Conference for Young Scientists in memory of Prof. L.N. Kurina, University of Tomsk, Russia, October 2016;
- ELITECAT 2015, "Summer School in Catalysis" July 2015, Lyon, France;
- Catalysis Training Course, August 2013, Lyon, France
- 7th International Conference on Environmental Catalysis (ICEC 2012), Lyon, September 2012.

Visiting Professor at:

- University of Lille, UCCS UMR CNRS, Villeneuve d'Ascq Cedex, France 2021 and 2016.
- University of Littoral Cote D'Opale, Dunkerque, France, 2019 and 2022
- University Claude Bernard, Lyon 1, Lyon, France, 1 month July 2019, 2014
- Sorbonne Université, CNRS UMR 7190, Institut Jean Le Rond d'Alembert, F-78210 Saint-1Cyr-l'École, 2019 (CNR Program Short Term Mobility (2018).
- Laboratory of Physico-Chemistry of Materials and Catalysis, Department of Chemistry, University of Rabat, Morocco (2014, 2012).
- Northwestern Polytechnical University of Shanxi, China, 2016.

Editorial Board Member and Guest Editor roles:
Editor in Chief of the Section "Metal Catalysts", Catalysts MDPI and Guest Editors di several special issues of Catalysts: Women in Catalysts, CO_2 Capture, Utilization and Storage: Catalysts Design; DeNOx Systems and VOCs for Pollution Abatement in Catalysis, Topical Collection "Gold Catalysts".
Associate Editor in Frontiers in Catalysis - Heterogeneous Catalysis.
Guest Editor of Green materials for Energy Storage Section of Current Opinion in Green and Sustainable Chemistry (Elsevier).
After the first successful edition of the *Topical Collection of Gold Catalysts*, started in 2016, Dr Liotta was invited to coediting a new Topical Collection of Gold Catalysts that is now running (2022).

She participates to several International and National projects and collaborations.

Representative publications in the last 5 years:

La Greca, E., Kharlamova, T. S, Grabchenko, M. V., Consentino, L., Savenko, D.Y., Pantaleo, G., Kibis, L. S., . Stonkus, A.O., Vodyankina, O. V., Liotta, L.F. Ag Catalysts Supported on CeO2, MnO2 and CeMnOx Mixed Oxides for Selective Catalytic Reduction of NO by C_3H_6, **(2023)** Nanomaterials, 13, 873.

La Parola, V., Pantaleo, G., Liotta, L.F., Venezia, A.M., Gabrovska, M., Nikolova, D., Tabakova, T., Gold and Ceria Modified NiAl Hydrotalcite Materials as Catalyst Precursors for Dry Reforming of Methane, **(2023)** Catalysts, 13, 606

Salaev, M.A., Liotta, L.F., Vodyankina, O.V. Lanthanoid-containing Ni-based catalysts for dry reforming of methane: A review (**2022**) International Journal of Hydrogen Energy, 47 (7), pp. 4489.

CO2 reforming of CH4 over Ni supported on SiO_2 modified by TiO_2 and ZrO_2: Effect of the support synthesis procedure, La Parola, V., Liotta L.F., Pantaleo, G., Testa, M.L., Venezia, A.M., **(2022)** Applied Catalysis A, General 642 118704.

Sboui, M., Lachheb, H., Bouattour, S., Gruttadauria, M., La Parola, V., Liotta, L.F., Boufi, S. TiO_2/Ag_2O immobilized on cellulose paper: A new floating system for enhanced photocatalytic and antibacterial activities **(2021)** Environmental Research, 198, art. no. 111257.

Zhang, W., Zhang, X., Zhu, Q., Zheng, Y., Liotta, L.F., Wu, H. High-efficiency and wide-bandwidth microwave absorbers based on MoS2-coated carbon fiber **(2021)** Journal of Colloid and Interface Science, 586, pp. 457.

Grabchenko, M.V., Mamontov, G.V., Zaikovskii, V.I., La Parola, V., Liotta, L.F., Vodyankina, O.V. The role of metal–support interaction in Ag/CeO2 catalysts for CO and soot oxidation **(2020)** Applied Catalysis B: Environmental, 260, art. no. 118148.

Sboui, M., Bouattour, S., Gruttadauria, M., Marcì, G., Liotta, L.F., Boufi, S. Paper functionalized with nanostructured TiO2/AgBr: Photocatalytic degradation of 2–propanol under solar light irradiation and antibacterial activity **(2020)** Nanomaterials, 10 (3), art. no. 470.

Dutov, V.V., Mamontov, G.V., Zaikovskii, V.I., Liotta, L.F., Vodyankina, O.V. Low-temperature CO oxidation over Ag/SiO2 catalysts: Effect of OH/Ag ratio **(2018)** Applied Catalysis B: Environmental, 221, pp. 598.

Mesrar, F., Kacimi, M., Liotta, L.F., Puleo, F., Ziyad, M., Syngas production from dry reforming of methane over ni/perlite catalysts: Effect of zirconia and ceria impregnation, **(2018**) Internal Journal of Hydrogen Energy, 43, 17142.