DIPARTIMENTO DI SCIENZE DI BASE
E APPLICATE PER L' INGEGNERIA

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Curriculum Vitae Brevis

Prof. Leonardo Mattiello
Associate Professor of Chemistry
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LEOS-MS Laboratory of Electrochemistry,
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Dept. of Basic and Applied Sciences for Engineering
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Education
Graduated in Chemistry (Magna cum Laude) at University of Rome "La Sapienza" (1988).

Current Position
Associate Professor of Chemistry (CHIM/07) at the Dept. of Basic and Applied Sciences for Engineering (SBAI), University of Rome "La Sapienza".

Research Activities
Chemical and electrochemical syntheses, characterization and electrochemical studies of new organic compounds and nanocomposite materials with applications in several fields: OLED, photovoltaics, plastic scintillators, fiber optics, sensors, drug delivery, protection of cultural heritage.
The scientific activity is documented by about 90 publications (articles in international peer-reviewed and conference proceedings), 5 national patents and 30 international patents. Most international patents (25 out of 30) have been sold outright, and are now property of Merck Patent GmbH.

Teaching
Since 1991, charged with teaching of General Chemistry Courses for the Degree Courses in Electronic Engineering, Telecommunications, Information Technology, Management, and for the Master Degree in Nanotechnology Engineering, chairing the examination committees at the University of Rome "La Sapienza".

Memberships and affiliations
Società Chimica Italiana (SCI), Istituto per lo studio dei materiali nanostrutturati (ISMN-CNR); Consorzio Interuniversitario Nazionale per la Scienza e Tecnologia dei Materiali (INSTM), Centro di Ricerca per le Nanotecnologie applicate all'Ingegneria (CNIS), Associazione Italiana Chimica per Ingegneria (AICIng), Centro di Ricerca Hydro-Eco.

Referee assignments
Tetrahedron; Journal of Electroanalytical Chemistry; Chemistry, A European Journal; Electrochimica Acta; Dyes and Pigments; Journal of Materials Chemistry; Mendeleev Communications.

Participation in Research Programs
Participant and PI in University, Faculty and PRIN National Research Programs since 1993.

Activities of organization, management and coordination of research groups
Degree thesis - "Chemistry, Pharmaceutical Chemistry and Pharmacy"
Master Degree thesis - "Nanotechnology Engineering"
PhD thesis - "Materials Engineering, Raw Materials, Metallurgy and Environmental Protection".

Recent Publications

A New Push–Pull Dye for Semi-Transparent p-Type Dye-Sensitized Solar Cells: Tuning Conjugation by Sexithiophene Chain Engineering. Scarano, V.; Gontrani, L.; Zarate, A. Y. S.; Galliano, S.; Borrelli, R.; Carbone, M.; Dini, D.; Mirante, D.; Feroci, M.; Bonomo, M.; Mattiello, L. *Solar Energy* **2023**, *265*, 112143. https://doi.org/10.1016/j.solener.2023.112143.

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Fluorescence Spectroscopy of Enantiomeric Amide Compounds Enforced by Chiral Light. Belardini, A.; Petronijevic, E.; Ghahri, R.; Rocco, D.; Pandolfi, F.; Sibilia, C.; Mattiello, L. *Appl. Sci.* **2021**, *11*, 11375. https://doi.org/10.3390/app112311375.

High resolution study of the n=7-9 p,p'-n-alkylazobenzenes phase transitions by photopyroelectric and adiabatic scanning calorimetries. S. Paoloni, U. Zammit, N. Orazi, F. Mercuri, L. Mattiello, D. Rocco, C. Glorieux, J. Thoen *Thermochimica Acta* 706, 179077 (2021). https://doi.org/10.1016/j.tca.2021.179077.

Electrochemistry, a Useful Tool in the Synthesis of Oligothiophenes. Pandolfi, F.; Bortolami, M.; Feroci, M.; Mattiello, L.; Scarano, L.; Rocco, D. *Current Organic Chemistry,* 25, 2028-2036 (2021). https://doi.org/10.2174/1385272825666210715104931.

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Organic Electrochemistry: Synthesis and Functionalization of β-Lactams in the Twenty-First Century. Bortolami, M.; Chiarotto, I.; Mattiello, L.; Petrucci, R.; Rocco, D.; Vetica, F.; Feroci, M. *Heterocyclic Communications,* 27, 32-44 (2021). https://doi.org/10.1515/hc-2020-0121.

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Novel Fast Identification and Determination of Free Polyphenols in Untreated Craft Beers by HPLC-PDA-ESI-MS/MS in SIR Mode, R. Petrucci, P. Di Matteo, G. De Francesco, L. Mattiello, G. Perretti, P. Russo, *J. Agric. Food Chem.* 68, 7984–7994 (2020). https://doi.org/10.1021/acs.jafc.0c02802.

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Patents

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