DIPARTIMENTO DI SCIENZE DI BASE
E APPLICATE PER L' INGEGNERIA

SAPIENZA
UNIVERSITÀ DI ROMA

**Leonardo Mattiello**
*Curriculum Vitae Brevis*

*Education*
1988 - Degree in Chemistry, University of Rome "La Sapienza", Magna cum Laude
1989 - Grant, C.N.R. (Italian National Research Council)

*Position*
1991 - Assistant Professor of Chemistry (CHIM/07)
2020 - Associate Professor of Chemistry (CHIM/07)
Dept. of Basic and Applied Sciences for Engineering - University of Rome "La Sapienza"

*Teaching*
From 1991-92 to date, charged with teaching of General Chemistry Courses for the Degree Courses in Electronic Engineering, Telecommunications, Information Technology, Management, and for the Master Degree in Telecommunication and in Industrial Nanotechnology, chairing the examination committees at the University of Rome "La Sapienza"
From 2000-01 to 2006-07, charged with teaching of General Chemistry Courses for the Degree Courses in Electronic Engineering, chairing the examination committees at the University of Roma TRE

*Memberships and affiliations*
Electrochemical Society (1990), Italian Chemical Society (2001), Institute for the Study of Nanostructured Materials (ISMN-CNR) (2004); Italian Interuniversity Consortium on Materials Science and Technology (INSTM) (2007), Research Centre for Nanotechnology Applied to Engineering (CNIS) (2007).

*Referee*
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 in University, Faculty and PRIN Research Programs since 1993.

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

*Research activities*
New Compounds for Organic Electronics: Chemical and electrochemical syntheses, characterization and electrochemical studies of new organic compounds used in the field of organic electronics and more (OLED, organic photovoltaics, organic THz materials, organic scintillators, erbium IR emitters, organic piezoelectric materials, organic thermoelectric materials, organic semiconductors for sensor applications) and their patenting.

*Recent Publications*

Graphene Oxide: A Smart (Starting) Material for Natural Methylxanthines Adsorption and Detection.
R. Petrucci, I. Chiarotto, L. Mattiello, D. Passeri, M. Rossi, G. Zollo and M. Feroci, *Molecules* **24**, 4247 (2019)

The Electrogenerated Cyanomethyl Anion: An Old Base Still Smart.
I. Chiarotto, L. Mattiello and M. Feroci, *Accounts of Chemical Research* **52**, 3297–3308 (2019).

Two Different Selective Ways in the Deprotonation of β-Bromopropionanilides: β-Lactams or Acrylanilides Formation.
F. Pandolfi, I. Chiarotto, L. Mattiello, R. Petrucci and M. Feroci, *ChemistrySelect* **4**, 12871–12874 (2019)

Electrochemical Oxidation of Theophylline in Organic Solvents: HPLC-PDA-ESI-MS/MS Analysis of the Oxidation Products.
Chiarotto, L. Mattiello, F. Pandolfi, D. Rocco, M. Feroci and R. Petrucci, *ChemElectroChem* **6**, 4511–4521 (2019)

Cathodic Reduction of Caffeine: Synthesis of an Amino-Functionalized Imidazole from a Biobased Reagent.
F. Pandolfi, I. Chiarotto, L. Mattiello, D. Rocco and M. Feroci, *Synlett* **30**, 1215–1218 (2019)

Electrochemical studies of new donor-acceptor oligothiophenes.
M. Feroci, T. Civitarese, F. Pandolfi, R. Petrucci, D. Rocco, D. Zane, G. Zollo and L. Mattiello, *ChemElectroChem* **6**, 4016–4021 (2019)

Electrochemical synthesis and amidation of benzoin: benzamides from benzaldehydes.
D. Rocco, I. Chiarotto, L. Mattiello, F. Pandolfi, D. Zane and M. Feroci, *Pure Appl. Chem.* **91**, 1709–1715, (2019)

Perovskite Photo-Detectors (PVSK-PDs) for Visible Light Communication.
L. Salamandra, N. Yaghoobi Nia, M. Di Natali, C. Fazolo, S. Maiello, L. La Notte, G. Susanna, A. Pizzoleo, F. Matteocci, L. Cinà, L. Mattiello, F. Brunetti, A. Di Carlo and A. Reale, *Organic Electronics* **69**, 220–226 (2019)

Synthesis and characterization of new D-π-A and A-π-D-π-A type oligothiophene derivatives.
F. Pandolfi, D. Rocco and L. Mattiello, *Org. Biomol. Chem.* **17**, 3018–3025 (2019)

Cathodic behaviour of dicationic imidazolium bromides: the role of the spacer.
M. Feroci, D. Rocco, I. Chiarotto, F. D'Anna, L. Mattiello, F. Pandolfi and C. Rizzo, *ChemElectroChem* **6**, 4275 (2019)

NHC in Imidazolium Acetate Ionic Liquids: Actual or Potential Presence?
I. Chiarotto, L. Mattiello, F. Pandolfi, D. Rocco and M. Feroci, *Front. Chem.* **6**, 7538 (2018)

Electrochemical behaviour of 9-methylcaffeinium iodide and in situ electrochemical synthesis of hymeniacidin.
F. Pandolfi, L. Mattiello, D. Zane and M. Feroci, *Electrochimica Acta* **280**, 71–76 (2018)

On the role of PTB7-Th:[70]PCBM blend concentration in ortho-xylene on polymer solar cells performance.
L. Salamandra, L. La Notte, G. Paronesso, G. Susanna, L. Cinà, G. Polino, L. Mattiello, A. Catini, C. Di Natale, E. Martinelli, A. Di Carlo, F. Brunetti, T. M. Brown and A. Reale, *Energy Technology* **131**, 2168–2174 (2017)

Electronic excitations in solution-processed oligothiophene small-molecules for organic solar cells.
F. Gala, L. Mattiello, F. Brunetti and G. Zollo, *The Journal of Chemical Physics* **144**, 084310 (2016)

Opportunities for Low Cost Processing of Erbium 8-Quinolinolates for Active Integrated Photonic Applications.
S. Penna, L. Mattiello, S. Di Bartolo, A. Pizzoleo, V. Attanasio, G. M. Tosi Beleffi, A. Otomo, *Journal of Nanoscience and Nanotechnology* **16**, 4, 3360 (2016).

*Patents*

Bifluorenylidene derivatives, their preparation and uses thereof.
Mattiello L.; Rampazzo L. Property of University of Rome "La Sapienza". WO2010038251 2010; EP2342172 2012.

Spirobifluorene derivatives, their preparation and uses thereof.
Mattiello L.; Fioravanti G.; Rampazzo L. Property of Merck. WO2004013080 2004; CN1678561A 2005; JP2005538999 2005; AU2003260342A1 2006; KR20060093800 2006; US2006006365A1 2006; CN100338022 2007; US2009302274 2009; US7557249 2009; KR100969179 2010; EP1534661 2011; US8188462 2012.

Spirobifluorene oligomerization derivative, its preparation and application.
Mattiello L.; Fioravanti G.; Rampazzo L. Property of Merck. CN101076508B 2011.

Carbonyl derivatives having a C3 symmetry, their preparation and uses thereof.
Mattiello L.; Rampazzo L. Property of University of Rome "La Sapienza". WO2010038252 2010.

Organic electroluminescent device.
Mattiello L.; Fioravanti G.; Rampazzo L.; Stoessel P.; Breuning E. Property of Merck. WO2006005626 2006; KR20070038110 2007; US2008093980 2008; CN101300214 2008; US7683229 2010.

Oligomeric derivatives of spirobifluorene, their preparation and use.
Mattiello L.; Fioravanti G.; Rampazzo L. Property of Merck. WO2006005627 2006; JP2008506658 2008; US2009234164 2009; US8614357 2013.

Derivati carbonilici a simmetria C3, loro preparazione e loro uso.
Mattiello L.; Rampazzo L. Property of University of Rome "La Sapienza". RM2008A523 2008.

Oligomeric derivatives of spirobifluorene, their preparation and use.
Mattiello L.; Fioravanti G.; Rampazzo L.; Stoessel P.; Breuning E. Property of Merck. JP2008506657 2008.

Derivati del bifluorenilidene, loro preparazione e loro uso.
Mattiello L.; Rampazzo L. Property of University of Rome "La Sapienza". RM2008A522 2008.

Spirobifluorene oligomerization derivative, its preparation and application.
Mattiello L.; Fioravanti G.; Rampazzo L.; Stoessel P.; Breuning E. Property of Merck. CN101076508A 2007.

Derivati oligomerici dello Spirobifluorene, loro preparazione e loro uso.
Mattiello L.; Fioravanti G.; Rampazzo L. Property of Merck. RM2004A000352 2004.

Derivati dello Spirobifluorene, loro preparazione e loro uso.
Mattiello L.; Fioravanti G.; Rampazzo L. Property of Merck. RM2002A000411 2002.