

Valter Maurino graduated in chemistry in 1987 at the university of Torino. From 1988 to 1990 he held a grant from Eniricerche for the study of $\text{Al}(\text{OH})_3$ nucleation in the Al/Air battery. From 1990 to 1994 worked at ITT automotive as friction material engineer, studying the tribological behavior of phenolic resin composites. From 1994 to 2001 was Faculty researcher in analytical chemistry at the University of Eastern Piedmont. Associate Professor of Analytical Chemistry at the University of Torino (Italy) since 2001 and from 2017 Full Professor. He authored 182 papers indexed in the scopus database (39 in the last 5 years) and two EU patents on oxidic thin films with high photocatalytic activity, one EU patent on a photocatalytic measurement apparatus. His bibliometric parameters are (29/06/2021): h index 48, citation 7727. He is member of the Società Chimica Italiana (SCI) and served as chair of the Piedmont section in 2011-2013. He was in the scientific committees of the International conference on Semiconductor Photocatalysis and Solar Energy Conversion (SPACEC) conferences in 2008-2013, of the French Italian Chemistry Days in 2010, 2012 and 2014. He participated in several EU research/innovation projects (ongoing: ProjectO (demonstration of planning and technology tools for a circular, integrated and symbiotic use of water, H2020-CIRC-2017TwoStage, 776816; Role: local coordinator, WP leader), NPSize (Improved traceability chain of nanoparticle size measurements, 17NRM04 nPSize, Role: local coordinator), SETNanoMETRO (Shape-engineered TiO_2 nanoparticles for metrology of functional properties: setting design rules from material synthesis to nanostructured devices, FP7-NMP, 604577, Role: WP leader)) and Italian research projects (Studio Preliminare e studio di soluzioni innovative di materiali d'attrito in ambito automotive, financed by Piedmont Region). He is the scientific coordinator of the Joint Lab ITT-UNITO, a public-private initiative for fundamental and applied research in the fields of tribology and tribochemistry. He served as referee to several international scientific journals (Journal of Physical Chemistry, ACS catalysis, Applied Catalysis D, Journal of American Chemical Society)

His research interests focus on (i) – Organic and inorganic nanomaterials and nanocomposites synthesis, characterization; (ii) nanomaterials in tribology; (iii) - heterogeneous photocatalysis and advanced oxidation processes, including the preparation of titanium dioxide thin layers, synthesis of morphology controlled metal oxide nanoparticles, and the study of the mechanisms that control the interfacial electron transfer in photocatalysis as well as the active species involved; (iv) environmental analytical chemistry, and in particular the identification and quantification of organic pollutants on airborne particulate matter, new derivatization procedures for highly hydrophilic organic compounds of environmental relevance, photoinduced and photosensitized abiotic transformation processes of anthropogenic compounds and natural organic matter; (iv) - the use of high productivity analytical techniques (e.g. SPME - GC- MS) combined with chemometric data analysis for the study of food matrices.