



Personal information

Name: Carmelo Sgarlata
Location: Catania, IT
AICAT member since: 2002



Position: Associate Professor of Analytical Chemistry (CHIM/01)

Affiliation: Department of Chemical Sciences, University of Catania, V.le Andrea Doria 6, 95125 Catania



sgarlata@unict.it



<http://www.dsc.unict.it/docenti/carmelo.sgarlata>

ORCID 0000-0002-9284-1303

Scopus 6505993584

Education and positions: MS in Chemistry, University of Catania (1999); PhD in Chemical Sciences, University of Catania (2004); Post-doc Researcher, University of Catania (2004-2008); Postdoctoral Fellow, Lawrence Berkeley National Lab and University of California, Berkeley, USA (2008-2010); Assistant Professor of Analytical Chemistry, University of Catania (2011-2018); Associate Professor of Analytical Chemistry, University of Catania (2018-).

Main fields of interest: Solution thermodynamics of metal complexes and host-guest systems; Molecular recognition of species of biological and environmental relevance; Solution nanocalorimetry; Software design and multi-observable data analysis; Fluorescent sensors and sequestering agents for metal ions; Self-assembled capsules; Supramolecular amphiphilic aggregates

Methods: Isothermal titration calorimetry, UV-vis spectroscopy, Quartz crystal microbalance

Professional activities: Editorial Board member of *Frontiers in Analytical Chemistry*; Board member of AICAT, GICAT, SCI-Sicily Section and Italian Supramolecular Chemistry steering committee; Board member of the Doctoral program in Chemical Sciences, University of Catania

Publication record (February 2020): 44 peer-reviewed papers, one book chapter, citations: 700, *h*-index: 17

Equipments: Nano ITC (TA Instruments), UV-vis spectrophotometers (Agilent and Varian), QCM-D microbalance (Biolin)

5 most important publications:

Sgarlata C., Raymond K. N. Untangling the diverse interior and multiple exterior guest interactions of a supramolecular host by the simultaneous analysis of complementary observables. *Analytical Chemistry*, **2016**, *88*, 6923–6929.

Sgarlata C., Mugridge J. S., Pluth M. D., Zito V., Arena G., Raymond K. N. Different and often opposing forces drive the encapsulation and multiple exterior binding of charged guests to a M_4L_6 supramolecular vessel in water. *Chemistry, A European Journal*, **2017**, *23*, 16813-16818.

Arena G., Gans P., Sgarlata C. HypCal, a general-purpose computer program for the determination of standard reaction enthalpy and binding constant values by means of calorimetry. *Analytical Bioanalytical Chemistry*, **2016**, *408*, 6413-6422.

Bonaccorso C., Brancatelli G., Forte G., Arena G., Geremia S., Sciotto D., Sgarlata C. Factors driving the self-assembly of water-soluble calix[4]arene and gemini guests: a combined solution, computational and solid-state study. *RSC Advances*, **2014**, *4*, 53575–53587.

Sgarlata C., Mugridge J. S., Pluth M. D., Tiedemann B. E. F., Zito V., Arena G., Raymond K. N. External and internal guest binding of a highly charged supramolecular host in water: deconvoluting the very different thermodynamics. *Journal of the American Chemical Society*, **2010**, *132*, 1005-1009.