Personal information

Name: Giuseppe Arena
Location: Catania, IT
AICAT member since: foundation

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

Affiliation: Department of Chemical Sciences (DSC) University of Catania, V.le A. Doria 6, 95125 Catania

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Education and positions: *Laurea* in Industrial Chemistry, University of Catania (1973); Post-doc University of St. Andrews (Scotland, 1976); Associate Professor of Analytical Chemistry (University of Catania, 1982-1985); Full Professor of Analytical Chemistry (University of Messina, 1985 to 1990); NATO Senior scientist (BYU, USA, 1984); Lecturer (BYU, USA, 1984); Visiting Professor (BYU, USA, 1989 and 1998); Full Professor of Analytical Chemistry (1990 up to date).

Main fields of interest: Thermodynamic and Spectroscopic Studies of bio-functional ligand metal complexes and Speciation in aqueous solution; Optimization of calorimetric systems; Use of new carriers for the removal or detection of undesired species; Supramolecular chemistry.

Methods: Isoperibol Calorimetry, Isothermal Calorimetry, Isothermal Titration Calorimetry (ITC).

Professional activities: Honorary Member of the Editorial Board of the Journal of Thermal Analysis and Calorimetry; Member of the Editorial Board of the Journal of Inclusion Phenomena and Molecular Recognition.

Publication record (as of December 2018): 116 peer-reviewed papers, six book chapters, citations >3600, *h*-index: 32

Equipments: TAM, 450/550 (Tronac,) Nano ITC-2G (TA).

5 most important publications:

C. Sgarlata, J. S. Mugridge, M. D. Pluth, B. E. F. Tiedemann, V. Zito, G. Arena, and K. N. Raymond. External and Internal Guest Binding of a Highly Charged Supramolecular Host in Water: Deconvoluting the Very Different Thermodynamics. *J. Am. Chem. Soc., 2010 132(3), 1005-1009* DOI: 10.1021/ja9056739

C. Bonaccorso, C. Sgarlata, G. Grasso, V. Zito, D. Sciotto and G. Arena. A gemini guest triggers the self-assembling of a calixarene capsule in water at neutral pH. Chem. Commun., 2011, *47* (21), 6117 – 6119 DOI: 10.1039/c1cc11211b

G. Arena, G. Pappalardo, I. Sovago, E. Rizzarelli. Copper(II) interaction with amyloid-β: Affinity and speciation. Coord. Chem. Rev., 256 (2012) 3– 12 DOI: 10.1016/j.ccr.2011.07.012

G. Arena, P. Gans, C. Sgarlata. 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 DOI: 10.1007/s00216-016-9759-6

C. Sgarlata; J. S. Mugridge; M. D. Pluth; V. Zito; G. Arena; K. Raymond. 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**, DOI:10.1002/chem.201703202 DOI: 10.1002/chem.201703202