CV of Professor Sebastiano Pappalardo

Sebastiano Pappalardo graduated in Chemistry at the University of Catania in 1970. With the exception of stay leaves in 1982 and 1985 as a visiting scientist at the Louisiana State University (Baton Rouge, U.S.A.) in the group of George R. Newkome, his academic career has mainly evolved in the University of Catania. After a period as a research associate (1975-1987), he was associate professor (1987-2001), and since 2001 he holds the position of full professor of organic chemistry at the University of Catania. He is presently involved in teaching courses of Basic Organic Chemistry (degree in Environmental and Natural Sciences) and Innovative Organic Synthesis (degree in Organic & Bioorganic Chemistry).

His research interests include the synthesis, structural aspects and host-guest properties of (hetero)cyclophanes and (hetero)heterophanes, the regio- and stereo-selective functionalization of small- to medium-sized calixarenes, and their potential as host molecules in the molecular recognition of positively charged guests. A central theme of his current research interest concerns the design and synthesis of new achiral and chiral calix[*n*]arene-based building blocks, the evaluation of their potential in host-guest and supramolecular chemistry, and the development of new hybrid materials via non-covalent assembly. Over the years, S. Pappalardo has been co-recipient of national research grants: PRIN-2009/10 ("Non-covalent synthesis of homo- and hetero-component modular systems" – n. 2009A5Y3N9_004); PRIN-2006/07 ("Calixarene-based supramolecular assemblies via iterative host-guest recognition events" – n. 2006034018_003); PRIN-2003/04 ("Ion-selective calixarene/perfluorocarbon nanostructured systems systems" – n. 2003030237_007).

S. Pappalardo has coauthored about 130 scientific articles, including two book chapters, and a selected list of publications from the last decade is provided below.

1 D'Urso, A., Nicotra, P.F., Centonze, G., Fragalà, M. E., Gattuso, G., Notti, A, Pappalardo, A, Pappalardo, S., Parisi, M.F., Purrello, R. Induction of chirality in porphyrin–(bis)calixarene assemblies: a mixed covalent–noncovalent *vs* a fully non-covalent approach *Chem. Commun.* **2012**, 48, 4046−4048.

2. Gattuso, G., Notti, A., Pappalardo, S., Parisi, M.F., Pilati, T., Terraneo, G. Picturing the induced fit of calix[5]arenes upon *n*-alkylammonium cation binding *CrystEngComm* **2012**, *14*, 2621-2625.

3. Gargiulli, C., Gattuso, G., Notti, A., Pappalardo, S., Parisi, M.F., Puntoriero, F. Photoisomerizable azobenzene-containing oxacalixarenes *Tetrahedron Lett.* **2012**, *53*, 616-619.

4. Brancatelli, G., Capici, C., Gattuso, G., Geremia, S., Notti, A., Pappalardo, S., Parisi, M.F., Sortino, S., Vittorino, E. Reversible molecular motion of a bis-calix[5]arene host driven by a photoresponsive guest *Chem. –Asian J.* **2012**, *7*, 50-54.

5. Capici, C., Cohen, Y., D'Urso, A., Gattuso, G., Notti, A., Pappalardo, A., Pappalardo, S., Parisi, M.F., Purrello, R., Slovak, S., Villari, V. Anion-assisted supramolecular polymerization: From achiral AB-type monomers to chiral assemblies *Angew. Chem. Int. Ed.* **2011**, 50, 11956-11961.

6. Capici, C., Gattuso, G., Notti, A., Parisi, M.F., Bruno, G., Nicolò, F., Pappalardo, S. Synthesis of BINOL-containing oxacalix[4]arenes *Tetrahedron Lett.* **2011**, *52*, 1351-1353.

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8. Capici, C., De Zorzi, R., Gargiulli, C., Gattuso, G., Geremia, S., Notti, A., Pappalardo, S., Parisi, M.F., Puntoriero, F. Calix[5]crown-3-based heteroditopic receptors for n-butylammonium halides *Tetrahedron* **2010**, *66*, 4987-4993.

9. Lupo, F., Capici, C., Gattuso, G., Notti, A., Parisi, M.F., Pappalardo, A., Pappalardo, S., Gulino, A. Optical recognition of n -butylammonium and 1,5-pentanediammonium picrates by a calix[5]arene monolayer covalently assembled on silica

substrates *Chemistry of Materials* **2010**, *22*, 2829-2834.

10. Gattuso, G., Notti, A., Parisi, M.F., Pisagatti, I., Amato, M.E., Pappalardo, A., Pappalardo, S. Threading the calix[5]arene annulus *Chem. –Eur. J.* **2010**, *16*, 2381-2385.

11. Gattuso, G., Notti, A., Pappalardo, S., Parisi, M.F., Pilati, T., Resnati, G., Terraneo, G. Ion-pair separation via selective inclusion/segregation processes *CrystEngComm* **2009**, *11*,1204-1206.

12. Gargiulli, C., Gattuso, G., Liotta, C., Notti, A., Parisi, M.F., Pisagatti, I., Pappalardo, S. Calix[5]arene-based heteroditopic receptor for 2-phenylethylamine hydrochloride *J. Org. Chem.* **2009**, *74*, 4350-4353.

13. Capici, C., Garozzo, D., Gattuso, G., Messina, A., Notti, A., Parisi, M.F., Pisagatti, I., Pappalardo, S. Chemically modified tetranitro-oxacalix[4]arenes: Synthesis and conformational preferences of tetra-*N*-(1-octyl)ureido-oxacalix[4]arenes *Arkivoc* **2009**, (8), 199-211.

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15. Parisi, M. F.; Pappalardo, S. Ten-membered Rings or Larger with One or More Oxygen Atoms *In*: Comprehensive Heterocyclic Chemistry III. (2008) vol. 14, 667–750. Editor(s): Katritzky, A. R.; Ramsden, C. A. Scriven, E. F. V.; Taylor, R. J. K. Publisher: Elsevier, Oxford (U.K.).

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From calixfurans to heterocyclophanes containing isopyrazole units *Tetrahedron* **2004**, *60*, 1895-1902.

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21. Ballistreri, F.P., Notti, A., Pappalardo, S., Parisi, M.F., Pisagatti, I. Multipoint molecular recognition of amino acids and biogenic amines by ureidocalix[5]arene receptors *Org. Lett.* **2003**, *5*, 1071-1074.

22. Notti, A., Occhipinti, S., Pappalardo, S., Parisi, M.F., Pisagatti, I., White, A.J.P., Williams, D.J. Calix[4]- and calix[5]arene-based multicavity macrocycles *J. Org. Chem.* **2002**, *67*, 7569-7572.

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