

演題: **Subphthalocyanines: Supramolecular Organization and Self-assembling Properties**

講師: **Prof. Tomás Torres**

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日時: 2017年4月4日(火) 16:00~17:30

場所: フロンティア応用科学研究棟 1階セミナー室

要旨:

Subphthalocyanines (SubPcs),¹ phthalocyanine analogues, are intriguing compounds made of three diiminoisoindoline units N-fused around a boron atom. Their 14 pi-electron aromatic core associated with their curved structures render them appealing building blocks for the construction of multicomponent photo- or electroactive assemblies. Recently, the development of an improved synthetic methodology for axially substituted SubPc allowed the efficient synthesis of a variety of SubPc-based hybrids. To enhance the understanding of the nature of these curve pi-extended surfaces, we have undertaken a series of studies, including the synthesis and characterization of SubPc-based capsules. SubPc pi-systems can be also organized at supramolecular level and used and active elements in molecular photovoltaics.



- (a) C. G. Claessens, D. González-Rodríguez, A. Medina, M. S. Rodríguez-Morgade, T. Torres. *Chem. Rev.* **2014**, 114, 2192; (b) E. Caballero, J. Fernández-Ariza, V. M. Lynch, C. Romero-Nieto, M. S. Rodríguez-Morgade, J. L. Sessler, D. M. Guldi, T. Torres, *Angew. Chem. Int. Ed.* **2012**, 51, 11337; (c) I. Sánchez-Molina, B. Grimm, R. M. Krick Calderon, C. G. Claessens, D. M. Guldi, T. Torres. *J. Am. Chem. Soc.* **2013**, 135, 10503; (d) B. Verreert, D. Cheyns, P. Heremans, A. Stesmans, G. Zango, C. G. Claessens, T. Torres, B. P. Rand. *Adv. Energy Mater.* **2014**, 4, 1301413; (e) J. Guilleme, M. J. Mayoral, J. Calbo, J. Aragón, P. M. Viruela, E. Ortí, D. González-Rodríguez, T. Torres, *Angew. Chem. Int. Ed.* **2015**, 54, 2543; (f) J. Guilleme, L. Martínez, D. González-Rodríguez, I. Corral, M. Yáñez, T. Torres, *J. Am. Chem. Soc.* **2014**, 136, 14289; (g) M. Rudolf, O. Trukhina, J. Perles, L. Feng, T. Akasaka, T. Torres, D. M. Guldi, *Chem. Sci.* **2015**, 6, 4141; (h) J. Guilleme, D. González-Rodríguez, T. Torres *Chem. Commun.*, **2016**, 52, 9793.

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