

Design and Synthesis of Phthalocyanine-Fullerene Systems

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The incorporation of fullerenes into molecular systems that mimic various aspects of photosynthetic energy conversion is currently a very active task for synthetic chemists. Their exceptional ability to act as reversible electron acceptors in such systems, when attached to electronically rich molecular units has produced quite interesting examples of photoinduced charge separation.

During the last years our group has contributed to the development of the chemistry and properties of phthalocyanines and related macrocycles.¹ In view of their excellent photophysical and redox characteristics, we have recently got very interested in the design and synthesis of molecular systems in which this family of macrocycles are connected to other chromophores in order to study their electronic interactions.

In this communication we present our recent advances on the synthesis and properties of phthalocyanine-C₆₀ dyads and related systems.²

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- [2] a) A. Sastre, A. Gouloumis, P. Vazquez, T. Torres, V. Doan, B.J. Schwartz, F. Wudl, L. Echegoyen, J. Rivera, *Org. Lett.* **1999**, 1, 1807-1810; b) A. Gouloumis, S. Liu, A. Sastre, P. Vazquez, L. Echegoyen, T. Torres, *Chem. Eur. J.* **2000**, 6, 3600-3607. c) D. Gonzalez-Rodríguez, T. Torres, D. M. Guldi, J. Rivera, L. Echegoyen. *Org. Lett.* In press. d) M. V. Martínez-Díaz, N. S. Fender, M. S. Rodríguez-Morgade, M. Gómez-López, F. Diederich, Luis Echegoyen, J. F. Stoddart and T. Torres. *J. Mat. Chem.* In press.