

Jean-Paul Gisselbrecht

Directeur de recherches CNRS



Jean-Paul Gisselbrecht studied physical chemistry and electrochemistry at the "Université Louis Pasteur" at Strasbourg. He got a position as "Attaché de Recherche" at the CNRS in 1978, and got his PhD in 1980 under the direction of Pr. M. Gross at the "Université Louis Pasteur" at Strasbourg. After a postdoctoral stay (1982/83) at the University of Aarhus (Denmark) where he studied electrosynthesis under the supervision of Professor Henning Lund, he came back to the "Université Louis Pasteur" where he developed molecular electrochemistry, investigating new molecular and supramolecular systems (new polypyrrolic macrocycles – porphycenes, extended porphycenes - porphyrin oligomers, oligomers of conjugated systems, functionalized fullerenes, dendritic systems, self assembled grids). He is Directeur de Recherche at the CNRS since 1995. His current interests are mainly focused on molecular and supramolecular electrochemistry of highly conjugated Donor-Acceptor systems and functionalized porphyrins.

Research topics:

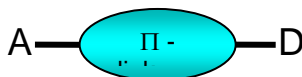
Electrochemical reactivity, Electron transfer, Structure-redox reactivity correlations, Reactivity of the electrogenerated species.

Electron transfer mechanism in complex molecular systems :

Structure-redox reactivity correlations in new nanometric molecular systems

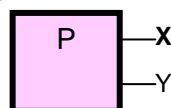
- Redox properties of complex molecular systems.
- Identification and reactivity of the electrogenerated species (in situ spectroelectrochemistry)
- Molecular modelling.

« Structure-redox reactivity » of Conjugated Acceptor-Donor chromophores.

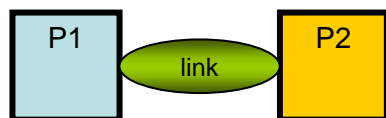


New porphyrinic systems:

Functionalized porphyrins



Porphyrin dimers and oligomers



Selected recent publications :

Synthesis, Characterization, and Electronic Properties of Metalloporphyrins Annulated to Exocyclic Imidazole and Imidazolium Rings. J.-F. Lefebvre, D. Leclercq, J.-P. Gisselbrecht, S. Richeter. *Eur. J. Org. Chem.*, (2010) 1912-1920

Donor-substituted octacyano[4]dendralenes: a new class of cyano-rich non-planar organic acceptors. Breiten B., WU Y.-L.; Jarowski P. D., Gisselbrecht J.P., Boudon C., Griesser M., Onitsch C., Gescheidt G., Schweizer W. B., Langer N., Lennartz C., Diederich F. *Chem. Sci.*, 2, (2011) 88-93.

Comparison of CC Triple and Double Bonds as Spacers in Push-Pull Chromophores. Frank B.B., Laporta P.R., Breiten B., Kuzyk M.C., Jarowski P.D., Schweizer W.B., Seiler P., Biaggio I., Boudon C., Gisselbrecht J.P. and Diederich F. *Eur. J. Org. Chem.* (2011) 4307-4317

Diporphyrinylamines: Synthesis and Electrochemistry. Pereira A.M.V.M., Neves M.G.P.M.S., Cavaleiro J.A.S., Jeandon C., Gisselbrecht J.P., Choua S., and Ruppert R. *Organic Letters*, 13 (2011) 4742-4745