

**Toulouse** (other mentors in the chemistry/materials areas may be feasible as well in Toulouse )  
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Gwénaél Rapenne <sup>IV,III</sup>	Toulouse	Synthesis. of molecular machines and motors	5+
Christelle Hureau-Sabater <sup>IV,V</sup>	Toulouse	Metals and peptides	
Didier Marty-Dessus <sup>VI,VI,VII</sup>	LAPLACE Toulouse	Characterization of Materials for Electrical Engineering	
Karine Philippot <sup>IX,X,XI</sup>	LCC-CNRS, Toulouse	Synthesis and use of nanoparticles (for catalysis, energy, health ...)	
Erik Dujardin <sup>XI,XII,XIV</sup>	CEMES-CNRS, Toulouse	Graphene nanodevices, Colloidal quantum plasmonics, biomolecule-inorganic interfaces	
Sébastien Gauthier <sup>XI,XIV,XVII</sup>	CEMES-CNRS, Toulouse	STM and nc-AFM on molecules on insulating surfaces	
Christophe Tenailleau <sup>XVII,XIX,XX</sup>	CIRIMAT Toulouse	Preparation and characterization of oxide materials for Energy	
Olivier Neyrolles <sup>XVI</sup>	IPBS Toulouse		
Geanncarlo Lugo <sup>XVI, XXII</sup>	IPBS Toulouse		5+
André Gourdon <sup>XXIV, XXV,XXVI</sup>	CEMES-CNRS, Toulouse	Synthesis of small gap Polyaromatic Hydrocarbons	

<sup>i</sup> "Desymmetrization on both ligands of pentaphenylcyclopentadienylhydrotris(indazolyl) borate ruthenium(II) complexes: Prototypes of organometallic molecular gears and motors" Stefak, R.; Sirven, AM; Fukumoto, S; Nakagawa, H; Rapenne, G *Coord Chem Rev* **287** 79-88 (2015) DOI: 10.1016/j.ccr.2014.11.014

<sup>ii</sup> "Molecule Concept Nanocars: Chassis, Wheels, and Motors?" Joachim, C; Rapenne, G *ACS NANO* **7** (1) 11-14 (2013) DOI: 10.1021/nn3058246

<sup>iii</sup> "Controlled clockwise and anticlockwise rotational switching of a molecular motor Perera, UGE; Ample, F; Kersell, H; Zhang, Y; Vives, G; Echeverria, J; Grisolia, M; Rapenne, G; Joachim, C; Hla, SW *NATURE NANOTECHNOLOGY* **8** (1) 46-51 (2013) DOI: 10.1038/NNANO.2012.218

<sup>iv</sup> "Bi-functional peptide with  $\beta$ -sheet breaker and chelator moieties against Cu- amyloid- $\beta$ ." Jensen, M.;\* Canning, A.; Chiha, S.; Bouquerel, P.; Pedersen, J. T.; Østergaard, J.; Cuvillier, O.; Sasaki, I.; Hureau, C.; Faller, P., *Chem. Eur. J* **18** 4836-4839 (2012).

<sup>v</sup> "Cu(II) affinity for the Alzheimer's Peptide: Tyrosine fluorescence studies revisited."Alies, B.; Renaglia, E.; Rozga, M.; Bal, W.; Faller, P.;\* Hureau, C.,\* *Anal. Chem.*, **85**, 1501-1508 (2013). [10.1021/ac302629u](https://doi.org/10.1021/ac302629u).

<sup>vi</sup> "Three-Dimensional space charge cartographies by FLIMM in electron-irradiated polymers" A. Petre, CD. Pham, D. Marty-Dessus, L. Berquez, *J. Electrostatics*, **67**, 430-434 (2009)

<sup>vii</sup> "FLIMM and FLAMM: localization of 3D space charges at the micrometer scale" A. Petre, D. Marty-Dessus, L. Berquez, J. L. Franceschi, *Dielectric materials for Electrical Engineering* – ISBN 978 1 84821 165 0 ISTE & Willey, EGM. Electrical Engineering Series, Chap. 12, 251-259 (2010)

<sup>viii</sup> "Space charge distributions in insulating polymers: A new non-contacting way of measurement" Marty-Dessus, D; Ziani, AC; Petre, A; Berquez, L *Rev Sci Instruments* **86** 043905 (2015) DOI: 10.1063/1.4919008

<sup>ix</sup> "A betaine adduct of N-heterocyclic carbene and carbodiimide, an efficient ligand to produce ultra-small ruthenium nanoparticles" Martinez-Prieto, LM; Urbaneja, C; Palma, P; Campora, J; Philippot, K; Chaudret, B *Chem Commun* **51** 4647-4650 (2015) DOI: 10.1039/c5cc00211g

<sup>x</sup> "Probing the surface of platinum nanoparticles with <sup>13</sup>CO by solid-state NMR and IR spectroscopies" S. Kinnayyigit, P. Lara, P. Lecante, K. Philippot, B. Chaudret, *Nanoscale* (2014) **6**, 539.