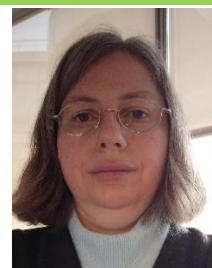




Dr Cécile BARBOT



Rouen Normandy University, UFR Santé, MCU

Bioorganic team

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PROFESSIONAL EXPERIENCES

- 2010 COBRA bioorganic team integration, Rouen, France
- 2005 MCU, Rouen Normandy University, UFR Santé, France. General and mineral chemistry laboratory
- 2003-2005 ATER, Rouen Normandy University, UFR Santé, France.
- 2002-2003 Postdoctoral Researcher, GERMETRAD-CEA laboratory (Dr Françoise GOUDARD), SMAB group UPRES EA 2160 (Pr Pouchus), University of Nantes, France, GSF (Munich), MIT (Boston), FZK-INE (Karlsruhe)
Financial : European HUPA FIKW-CT-2001-00128 contract and regional post-doctoral fellowship from Pays-de Loire region

EDUCATION

- 1998-2001 Ph.D. Radiochemistry, GERMETRAD-CEA laboratory (Dr Françoise GOUDARD), SMAB group UPRES EA 2160, University of Nantes, France.
- 1997-1998 DEA physico-chemistry and quality of bioproducts, University of Nantes, France.

ADMINISTRATIVE & INSTITUTIONAL RESPONSIBILITIES

- 2005-2014 Vice-President of the Advisor Commission of faculty specialists (CCSE, section 85) – University of Rouen, France.
- 2015- Titular member from CCSE section 85, 86, 87

RESEARCH INTERESTS

Complexation characterizations metals/modified cyclodextrins for IRM, depollution...

SCIENTIFIC ACHIEVEMENTS

Academic record (h-index: 5, Scopus) 16 publications, 1 book, 3 book chapters

TEACHING ACTIVITIES

- Member of the commission of doublement and triplement in PACES
- Referent tutor for all the UEs where I am teaching

UFR Santé, 22 bd Gambetta 76183 Rouen cedex 03

PACES, PASS :

Atomistic

Chemical thermodynamics

Chemical kinetics

Biophysics

Oxydo-reduction

Geometry of molecules and ions

PH2 :

Practical work in general and mineral chemistry

Coordination chemistry (transition metal complexes, lanthanides, actinides)

Chemistry of the solid state

Physical chemistry : binary and ternary equilibria

Inorganic pharmaceutical chemistry

MEMBERSHIPS OF SCIENTIFIC SOCIETIES

2006-...- Member of the AECCPCM (Association des Enseignants-Chercheurs de Chimie Physique et Chimie Minérale) from French UFRs of pharmacy

Second European Conference on Cyclodextrins

New smart contrast agents for MRI.

Gouhier G., Zgani I., Idriss H., Nicol L., Mulder P., [Barbot C.](#), Hubert M., Estour F.

Asti (Italie), 2-4 octobre 2011 Abstract book III-O4

Rencontres internationales de chimie thérapeutique (RICT, 52)

Development of new contrast agents for MRI based on β -cyclodextrin regiofunctionalized by innovative gadolinium ligands.

Géraldine G., [Barbot C.](#)

Caen, Juillet 2016

Journées du Club français des cyclodextrines (18)

Synthèse et caractérisation d'agents de contraste pour IRM à base de complexes β -cyclodextrine modifiée et de Gadolinium.

Géraldine G., [Barbot C.](#)

Lens, Novembre 2017

Journées du Groupement de recherche agents d'imagerie moléculaire (GDR AIM, 2)

Polyaminocarboxylate based on β -cyclodextrin scaffold: new contrast agents for MRI., 2019),

Gouhier G., [Barbot C.](#)

Dijon, Mai 2019.

6th European Conference on Cyclodextrins

High relaxivity and high stability supramolecular MRI contrast agents based on modified β -cyclodextrin/gadolinium complexes

Champagne P.-L., [Barbot C.](#), Zhang P., Han X., Gaamoussi I., Hubert-Roux M., E. Bertelosi G., Gouhier G., Ling C.-C.

Saint Jacques de Compostelle, 2-4 octobre 2019 Abstract book.

XIX èmes Journées de l'AECCPCM

Caractérisation physico-chimique de nouveaux agents de contrastes à base de cyclodextrines modifiées par des fonctions carboxyliques

[Barbot C.](#), Chekkal A., Idriss H. and Gouhier G.

Toulouse 19-20 avril 2012

GPOL 2014

Etude de stabilité thermodynamique d'un nouveau complexe gadolinium-cyclodextrine pour le développement d'agents de contraste bio-activables

[Barbot C.](#), Déchamps I., Biscotti A., Estour F., Mofaddel N. and Gouhier G.

Klingenthal 23-25 juin 2014

XXI èmes Journées de l'AECCPCM

Etude de stabilité thermodynamique d'un nouveau complexe gadolinium-cyclodextrine pour le développement d'agents de contraste bio-activables.

[Barbot C.](#), Déchamps I., Biscotti A., Estour F., Mofaddel N. and Gouhier G.

Montpellier 5-6 juin 2014

Canadian Glycomics Symposium (2)

Géraldine G., [Barbot C.](#)

Synthesis, thermodynamic and relaxivity properties of novel β -cyclodextrins bicarboxylates MRI probe.

Alberta (Canada), Mai 2017

XXIV èmes Journées de l'AECCPCM

Etude thermodynamique d'un complexe gadolinium- β -cyclodextrin modifié par sept ligands triazole aminobiscarboxylate.

[Barbot C.](#), Champagne P.-L., Gaamoussi I., Ling C.-C., and Gouhier G.

Tours 8-9 juin 2017

19^{ème} Journées du Club français des cyclodextrines

Etude IRM *in vivo* d'une sonde cardiaque basée sur des complexes β -cyclodextrines-Gd(III).

Sembo S., Biscotti A., [Barbot C.](#), Nicol L., Mulder P., Hubert Roux M., Déchamps-Olivier I., Estour F., Gouhier G.

Besançon, octobre 2018

PUBLICATIONS

P1) Czerwinski K.R., Cerefice G.S., Buckau G., Kim J.I., Milcent M.C., [Barbot C.](#), Pieri J.

Interaction of europium with humic acid covalently bound to silica beads.

Radiochimica Acta **2000**, 88, 417-424.

IF : 0,775 - DOI: 10.1524/ract.2000.88.7.417

P2) [Barbot C.](#), Czerwinski K, Buckau G., Kim J.I., Moulin V., Vial M., Pieri J., Durand J.-P., Goudard F. Characterization of a humic gel synthesized from an activated epoxy silica gel.

Radiochimica Acta **2002**, 90, 211-218.

IF : 0,809 - DOI: 10.1524/ract.2002.90.4_2002.211

P3) Durand J.P., Goudard F., [Barbot C.](#), Pieri J., Fowler S.W., Cotret O.

Ferritin and hemocyanin : ^{210}Po molecular traps in marine fish, oyster and lobster.

Marine Ecology Progress Series **2002**, 233, 199-205.

IF : 2,222 - DOI: 10.3354/meps233199

P4) Boisson F., Goudard F., Durand J.-P., [Barbot C.](#), Pieri J., Amiard J.-C., Fowler S.W.

Comparative radiotracer study on cadmium uptake, tissue distribution, subcellular fractionation and depuration in oysters originating from a contaminated and a clean environment - Potential adaptive mechanisms

Marine Ecology Progress Series, **2003**, 254, 177-186.

IF : 2,135 - DOI:10.3354/meps254177

P5) Den Auwer C., Llorens I., Moisy Ph., Vidaud C., Goudard F., [Barbot C.](#), Solari P.L., Funke H. Actinide uptake by transferrin and ferritin metalloproteins.

Radiochimica acta **2005**, 93, 699-703.

IF : 0,846 - DOI: 10.1524/ract.2005.93.11.699

P6) Metian M., Hédouin L., [Barbot C.](#), Teyszié J.-L., Fowler S.W., Goudard F., Bustamante P., Durand J.-P., Piéri J., Warnau M.

Use of radiotracer techniques to study subcellular distribution of metals and radionuclides in bivalves from the Noumea lagoon, New Caledonia.

Bulletin of Environmental Contamination and Toxicology **2005**, 75, 89-93.

IF : 0,626 - DOI: 10.1007/s00128-005-0722-z

P7) Skiba M., Bounoure F., [Barbot C.](#), Arnaud P., Skiba M.

Development of cyclodextrin microspheres for pulmonary drug delivery.

Journal of Pharmacy and Pharmaceutical sciences **2005**, 8, 409-418.

IF : 2,042

P8) Lahiani-Skiba M., [Barbot C.](#), Bounoure F., Joudieh S., Skiba M.

Solubility and dissolution rate of progesterone-cyclodextrin-polymer systems.

Drug development and industrial pharmacy **2006**, 32, 1043-1058.

IF : 0,821 - DOI: 10.1080/03639040600897093

P9) [Barbot C.](#), Bouloussa O., Szymczak W., Plaschke M., Buckau G., Durand J.-P., Pieri J., Kim J.I., Goudard F. Self-assembled monolayers of aminosilanes chemically bonded onto silicon wafers for immobilization of purified humic acids.

Colloids and Surfaces A: Physicochemical Engineering Aspects **2007**, 297, 221-239.

IF : 1,601 - DOI: 10.1016/j.colsurfa.2006.10.049

P10) Dutet J., Lahiani-Skiba M., Didier L., Soizic J., Bounoure F., [Barbot C.](#), Arnaud P. and Skiba M. Nimesulide cyclodextrin PEG 6000 ternary complexes : physicochemical characterization, dissolution and bioavailability in rats. *Journal of inclusion phenomena and macrocyclic Chemistry* **2007**, 57, 203-209.

IF : 1,153 - DOI: 10.1007/s10847-006-9193-z

P11) Bounoure F., Lahiani-Skiba M., [Barbot C.](#), Sughir A., Mallet E., Jezequel S., Didier L., Arnaud P., Skiba M.

Effect of partially methylated β -cyclodextrin on percutaneous absorption of metopimazine. *Journal of inclusion phenomena and macrocyclic Chemistry* **2007**, 57, 191-195.

IF : 1,153 - DOI: 10.1007/s10847-006-9195-x

P12) Lahiani-Skiba M., Barbot C., Bounoure F., Joudieh S., Skiba M..

Solubility and Dissolution Rate of Progesterone-Cyclodextrin-Polymer Systems.

Drug Development and Industrial Pharmacy, Taylor & Francis **2008**, 32, 1043-1058.

IF : 1.134 – DOI: 10.1080/03639040600897093

P13) Idriss H., Estour F., Zgani I., [Barbot C.](#), Biscotti A., Petit S., Galaup C., Roux M.-H., Nicol L., Mulder P., Gouhier G.

Effect of the second coordination sphere on new contrast agents based on cyclodextrin scaffolds for MRI signals

RSC Advances **2013**, 3, 4531-4534.

IF : 3,708 - DOI: 10.1039/C3RA40314A

P14) Zgani I., Idriss H., [Barbot C.](#), Djedaïni-Pilard F., Petit S., Hubert-Roux M., Estour F. and Gouhier G.

Positive variation of the MRI signal via intramolecular inclusion complexation of a C-2 functionalized β -cyclodextrin

Organic and Biomolecular Chemistry **2017**, 15, 564-569.

IF : 3,559 – DOI : 10.1039/C6OB02583H

P15) Biscotti A., [Barbot C.](#), Nicol L., Mulder P., Sappei C., Roux M.-H., Déchamps-Olivier I., Estour F., Gouhier G.

MRI Probes based on C6-peracetate β -cyclodextrins: synthesis, gadolinium complexation and *in vivo* relaxivity studies.

Polyhedron **2018**, *148*, 32-43.

IF : 2,27 - DOI: 10.1016/j.poly.2018.03.013

P16) Champagne P.-L., [Barbot C.](#), Zhang P., Han X., Gaamoussi I., Hubert-Roux M., Bertolesi G.E., Gouhier G., Ling C.-C.

Synthesis and unprecedented complexation properties of β -cyclodextrin-based ligand for lanthanide ions.

Inorganic chemistry **2018**, *57*, 8964-8977.

IF : 4,85 - DOI: 10.1021/acs.inorgchem.8b00937