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Diplômes

2003: **Habilitation à Diriger des Recherches** (HDR), Université de Versailles Saint Quentin

1995: **Doctorat** en chimie inorganique, Université Paris Sud Orsay, France.

1992: **Agrégation** de Physique, option Chimie

Ancienne étudiante de l'École Normale Supérieure, Paris (1998-1992)

Distinctions

2000: médaille de bronze du CNRS

Expérience en Recherche

Depuis 2009: **DR2 CNRS**, Institut Lavoisier de Versailles

Sujets: - Polyoxométallates (POMs) moléculaires multifonctionnels

- Réseaux de coordination construits à partir de polyoxométallates (POMOFs)

- Encapsulation de POMs dans des réseaux de type MOFs (POM@MOFs)

1997 – 2009: **Chargée de Recherche au CNRS** (section n°14), Institut Lavoisier de Versailles dans le groupe du Prof. F. Sécheresse

1996 – 1997: **Attachée Temporaire d'Enseignement et de Recherche** (ATER) dans le groupe du Prof. M. Verdaguer, Laboratoire de Chimie des Métaux de Transition, Université Paris VI.

Sujet: Synthèse d'analogues du bleu de Prusse

1995 – 1996: **Séjour postdoctoral** dans le groupe du Prof. A. M. Stacy à l'University of California at Berkeley, USA (bourse Lavoisier).

Sujet: Synthèse en sels fondus de nouveaux oxydes du cobalt et du rhodium

1991 – 1995: **Doctorat** (direction P. Batail) à l'Université Paris Sud Orsay.

Sujet: Constructions de caractère organique-inorganique basées sur des ions radicaux fonctionnalisés

124 publications, 3 chapitres de livre, 1 brevet

h-index: 41, sum of the time cited: 6281

Mots clefs

Chimie de coordination, polyoxométallates, matériaux moléculaires, relations structure-propriétés

Liste des publications 2014-2018

2018----

- P32 Polymorphism and Structural Filiations in New Supramolecular Assemblies of Phosphorescent Cyclometalated Ir(III) Complexes and Polyoxometalates. P. BOLLE, H. SERIER-BRAULT, A. BOULMIER, O. OMS, J. MARROT, P. MIALANE, **A. DOLBECQ**, R. DESSAPT *Cryst. Growth Des.* DOI: 10.1021/acs.cgd.8b01114
- P31 A Multifunctional Dual-Luminescent Polyoxometalate@Metal Organic Framework EuW₁₀@UiO-67 Composite as Chemical Probe and Temperature Sensor. W. SALOMON, **A. DOLBECQ**, C. ROCH-MARCHAL, G. PAILLE, R. DESSAPT, P. MIALANE, H. SERIER-BRAULT, *Frontiers in Chemistry* 2018, 6, 425. Special Issue "Polyoxometalates in Catalysis, Biology and Materials Science"
- P30 Bicapped Keggin Polyoxomolybdates: Discrete Species and Investigations on the Electronic Delocalization in a Chain Compound. W. SALOMON, E. RIVIERE, X. LOPEZ, N. SUAUD, P. MIALANE, M. HAOUAS, A. SAAD, J. MARROT, **A. DOLBECQ**, *Dalton Trans.* 2018, 47, 10636-10645. Special Issue "New Talent: Europe"
- P29 Simple and Efficient Polyoxomolybdate-Mediated Synthesis of Novel Graphene and Metal Nanohybrids for Versatile Applications. S. ZHANG, R. LIU, S. LI, **A. DOLBECQ**, P. MIALANE, L. SUO, L. BI, B. ZHANG, T. LIU, C.-X. WU, L.-K. YAN, Z. S. WU, G. ZHANG, B. KEITA, *J. Colloid and Interface Sci.* 2018, 514, 507-516.
- P28 Anderson-type Polyoxometalates Functionalized by Tetrathiafulvalene Groups : Synthesis, Spectroelectrochemical Studies and NLO Properties. A. BOULMIER, A. VACHER, D. ZANG, S. YANG, A. SAAD, J. MARROT, O. OMS, P. MIALANE, I. LEDOUX, L. RUHLMANN, D. LORCY, **A. DOLBECQ** *Inorg. Chem.* 2018, 57, 3742-3752.
- P27 A Fully Noble Metal-Free Photosystem Based on Cobalt-Polyoxometalates Immobilized in a Porphyrinic Metal-Organic-Framework for Water Oxidation. G. PAILLE, M. GOMEZ-MINGOT, C. ROCH-MARCHAL, B. LASSALLE-KAISER, P. MIALANE, M. FONTECAVE, C. MELLOTT-DRAZNIKS, **A. DOLBECQ**, *J. Am. Chem. Soc.* 2018, 140, 3613-3618.

2017 ----

- P26 High Oxygen Reduction Reaction Performances of Cathode Materials Combining Polyoxometalates, Coordination Complexes and Carbonaceous Supports. S. ZHANG, O. OMS, L. HAO, R. LIU, M. WANG, Y. ZHANG, H.-Y. He, **A. DOLBECQ**, J. MARROT, B. KEITA, L. ZHI, P. MIALANE, B. LI, G. ZHANG. *ACS Appl. Mater. Interfaces*, 2017, 9, 38486-38498.
- P25 The design of New Photochromic Polymers Incorporating Covalently or Ionically Linked Spiropyran/Polyoxometalate Hybrids. I. BAZZAN, P. BOLLE, O. OMS, H. SALMI, N. AUBRY-BARROCA, **A. DOLBECQ**, H. SERIER-BRAULT, R. DESSAPT, P. ROGER, P. MIALANE. *J. Mat. Chem. C* 2017, 5, 6343-6351.
- P24 Anticancer Activity of Polyoxometalate Bisphosphonate Complexes : Synthesis, Characterization, *In Vitro* and *In Vivo* Results. A. BOULMIER, X. FENG, O. OMS, P. MIALANE, J. MARROT, E. RIVIERE, C. J. SHIN, J. YAO, T. KUBO, E. OLDFIELD, **A. DOLBECQ**. *Inorg. Chem.* 2017, 56, 7558-7565.
- P23 Cobalt Based Water Oxidation Catalysis with photogenerated Ru(bpy)₃³⁺: Different Kinetics and Competent Species Starting from a Molecular Polyoxometalate and Metal Oxide Nanoparticles Capped with a Bisphosphonate Alendronate Pendant, I. BAZZAN, A. VOLPE, **A. DOLBECQ**, M. NATALI, A. SARTOREL, P. MIALANE, M. BONCHIO, *Catal. Today*, 2017, 290, 39. Special Issue "Photo and Electrocatalytic Water Splitting"

- P22 Photochromism and Dual-Color Fluorescence in a Polyoxometalate-benzospiropyran Molecular Switch. A. PARROT, A. BERNARD, A. JACQUART, S. A. SERAPIAN, C. BO, E. DERAT, O. OMS, **A. DOLBECQ**, A. PROUST, R. METIVIER, P. MIALANE, G. IZZET, *Angew. Chem. Int. Ed. Engl.* 2017, 56, 4872-4876.
- P21 Effect of Cations on the Structure and Electrocatalytic Response of Polyoxometalate-Based Coordination Polymers. W. SALOMON, G. PAILLE, M. GOMEZ-MINGOT, P. MIALANE, J. MARROT, G. NOCTON, C. MELLOTT-DRAZNIIEKS, M. FONTECAVE, **A. DOLBECQ**, *Cryst. Growth Des.* 2017, 17, 1600-1609.
- 2016 ----
- P20 Drastic Solid-State Luminescence Color Tuning of an Archetypal Ir(III) Complex using Polyoxometalates and its Application as a Vapoluminescence Chemosensor. P. BOLLE, H. SERIER-BRAULT, R. GENOIS, E. FAULQUES, A. BOULMIER, O. OMS, M. LEPETIER, J. MARROT, **A. DOLBECQ**, P. MIALANE, R. DESSAPT, *J. Mat. Chem. C.*, 2016, 4, 11392-11395.
- P19 Light- and Solvent-Controlled Self-Assembly Behavior of Spiropyran-Polyoxometalate-Alkyl Hybrid Molecules, Y. CHU, A. SAAD, P. YIN, J. WU, O. OMS, **A. DOLBECQ**, P. MIALANE, T. LIU, *Chem. Eur. J.*, 2016, 22, 11756-11762.
- P18 Single-Molecule Magnet Behaviour of Individual Polyoxometalate Molecules Incorporated within Biopolymer or Metal Organic Framework Matrices. W. SALOMON, Y. LAN, E. RIVIERE, S. YANG, C. ROCH-MARCHAL, A. DOLBECQ, C. SIMONNET-JEGAT, N. STEUNOU, N. LECLERC-LARONZE, L. RUHLMANN, T. MALLAH, W. WERNSDORFER, P. MIALANE, *Chem. Eur. J.*, 2016, 22, 6564-6574 (Hot Paper, Cover Picture).
- P17 Studies of the Effectiveness of Bisphosphonate and Vanadium-Bisphosphonate Compounds *in vitro* against *Axenica Leishmania tarentolae*. A. T. CHRISTENSEN, C. C. McLAUCHLAN, **A. DOLBECQ**, P. MIALANE, M. A. JONES, *Oxid. Med. Cell Longev.*, 2016, 9025627. Special issue « Vanadium Toxicological Potential versus its Pharmacological Activity : New Developments and Research ».
- P16 An All-inorganic Polyoxometalate-Polyoxocation Chemical Garden. L. J. POINTS, G. J. T. COOPER, **A. DOLBECQ**, P. MIALANE, L. CRONIN, *Chem Commun.*, 2016, 52, 1911-1914.
- P15 Heteroanionic Materials Based on Copper Clusters, Bisphosphonates and Polyoxometalates : Magnetic Properties and Comparative Electrocatalytic NO_x Reduction Studies O. OMS, S. YANG, W. SALOMON, J. MARROT, **A. DOLBECQ**, E. RIVIERE, A. BONNEFONT, L. RUHLMANN, P. MIALANE, *Inorg. Chem.*, 2016, 55, 1551-1561.
- 2015 ----
- P14 A High Fatigue Resistant Photoswitchable Fluorescent Spiropyran-Polyoxometalate-BODIPY Single-Molecule. A. SAAD, O. OMS, **A. DOLBECQ**, C. MENET, R. DESSAPT, H. SERIER-BRAULT, E. ALLARD, K. BACZKO, P. MIALANE. *Chem. Commun.*, 2015, 51, 16088-16091.
- P13 New Spiroaphtoxazine and Spiropyran/Polyoxotungstate Supramolecular Assemblies with Highly Efficient Solid-State Photochromic Properties. C. MENET, H. SERIER-BRAULT, O. OMS, **A. DOLBECQ**, J. MARROT, A. SAAD, P. MIALANE, S. JOBIC, P. DENIARD, R. DESSAPT, *RSC Advances*, 2015, 97, 79635-79643.
- P12 Covalent Attachment of Thiophene Groups to Polyoxomolybdates or Polyoxotungstates for the Formation of Hybrid Films. A. SAAD, N. ANWAR, G. ROUSSEAU, P. MIALANE, J. MARROT, M. HAOUAS, F. TAULELLE, T. Mc CORMAC, **A. DOLBECQ**, *Eur. J. Inorg. Chem.*, 2015, 4775-4782.
- P11 Synthesis and Characterization of the Europium (III) Dimolybdoeneatungsto-silicate Dimer, [Eu(α -SiW₉Mo₂O₃₉)₂]¹³⁻. L. PARENT, P. de OLIVEIRA, A.-L. TEILLOUT, **A. DOLBECQ**, M. HAOUAS, E. CADOT, I.-M. MBOMEKALLE, *Inorganics*, 2015, 3, 341-354, numéro spécial polyoxométallates (Editeurs G. Patzke, P.-E. Car).
- P10 Fully Oxidized and Mixed-Valent Polyoxomolybdates Structured by Bisphosphonates with Pendant Pyridine Groups : Synthesis, Structure and Photochromic Properties. O. OMS, T. BENALI, J. MARROT, P. MIALANE, M. PUGET, H.

SERIER-BRAULT, P. DENIARD, R. DESSAPT, **A. DOLBECQ**. *Inorganics*, 2015, 3, 279-294, numéro spécial polyoxométallates (Editeurs G. Patzke, P.-E. Car).

P9 Sequential Synthesis of 3d-3d, 3d-4d and 3d-5d Hybrid Polyoxometalates and Application to the Electrocatalytic Oxygen Reduction Reactions. G. ROUSSEAU, S. ZHANG, O. OMS, **A. DOLBECQ**, J. MARROT, R. LIU, X. SHANG, G. ZHANG, B. KEITA, P. MIALANE, *Chem. Eur. J.*, 2015, 21, 12153-12160.

P8 Polyoxomolybdate-Bisphosphonate-Heterometallic Complexes : Synthesis, Structure, and Activity on a Breast Cancer Cell Line. A. SAAD, W. ZHU, G. ROUSSEAU, P. MIALANE, J. MARROT, M. HAOUAS, F. TAULELLE, R. DESSAPT, H. SERIER-BRAULT, E. RIVIERE, T. KUBO, E. OLDFIELD, **A. DOLBECQ**, *Chem. Eur. J.*, 2015, 21, 10537-10547.

P7 Immobilization of Polyoxometalates in the Zr-based Metal Organic Framework UiO-67. W. SALOMON, C. ROCH-MARCHAL, P. MIALANE, P. ROUSCHMEYER, C. SERRE, M. HAOUAS, F. TAULELLE, S. YANG, L. RUHLMANN, **A. DOLBECQ**, *Chem. Commun.*, 2015, 51, 2972-2975.

P6 Tuning the Dimensionality of Polyoxometalate-Based Materials by Using a Mixture of Ligands. G. ROUSSEAU, L.-M. RODRIGUEZ-ALBELO, W. SALOMON, P. MIALANE, J. MARROT, F. DOUNGMENE, I.-M. MBOMEKALLE, P. de OLIVEIRA, **A. DOLBECQ**, *Cryst. Growth. Des.*, 2015, 15, 449-456.

2014 ----

P5 Immobilization of Co-containing Polyoxometalates in MIL-101(Cr): Structural Integrity versus Chemical Transformation. W. SALOMON, F.-J. YAZIGI, C. ROCH-MARCHAL, P. MIALANE, P. HORCAJADA, C. SERRE, M. HAOUAS, F. TAULELLE, **A. DOLBECQ**, *Dalton Trans.*, 2014, 43, 12698-12705.

P4 Design and Optical Investigations of a Spiroanthoxazine/Polyoxometalate/Spiropyran Triad. A. SAAD, O. OMS, J. MARROT, **A. DOLBECQ**, K. HAKOUK, H. EL BEKKACHI, S. JOBIC, P. DENIARD, R. DESSAPT, D. GARROT, K. BOUKHEDDADEN, R. LIU, G. ZHANG, B. KEITA, P. MIALANE, *J. Mat. Chem. C*, 2014, 2, 4748-4758.

P3 Polyoxometalate-Mediated Green Synthesis of Graphene and Metal Nanohybrids : High-performance Electrocatalysts. R. LIU, S. LI, G. ZHANG, **A. DOLBECQ**, P. MIALANE, B. KEITA, *J. Clust. Sci.* 2014, 25, 711-740 (numéro spécial dédié à la mémoire de L. Nadjo et R. Contant).

P2 Molybdenum Bisphosphonates with Cr(III) or Mn(III) Ions. A. SAAD, G. ROUSSEAU, H. EL MOLL, O. OMS, P. MIALANE, J. MARROT, L. PARENT, I.-M. MBOMEKALLE, R. DESSAPT, **A. DOLBECQ**, *J. Clust. Sci.*, 2014, 25, 795-809 (numéro spécial dédié à la mémoire de L. Nadjo et R. Contant).

P1 New Photoresponsive Charge-Transfer Spiropyran/Polyoxometalate Assemblies with Highly Tunable Optical Properties. K. HAKOUK, O. OMS, **A. DOLBECQ**, J. MARROT, A. SAAD, P. MIALANE, H. EL BEKKACHI, S. JOBIC, P. DENIARD, R. DESSAPT, *J. Mater Chem. C*, 2014, 2, 1628-1641.