

SHORT CURRICULUM VITAE

NAME: PIGUET Claude
DATE OF BIRTH: 4th avril 1961
NATIONALITY: Swiss (Geneva)
TITLE : Full Professor
POSITION : Chair of Inorganic Chemistry, University of Geneva
FULL CV: <http://www.unige.ch/sciences/chiam/piguet/GroupMembers/ProfessorPiguet.html>

EDUCATION

1980: **Secondary Swiss Certificate (Maturité Fédérale) with distinction**, scientific option
1980 - 1986: Faculty of Sciences, University of Geneva, Chemistry section
1986: Master of Sciences in Chemistry with distinction
1986 - 1989: PhD in Inorganic and Coordination Chemistry (supervisors: Profs. A.F. Williams and W. Haerdi), Department of Inorganic Chemistry, University of Geneva.

POST-GRADUATE EDUCATION

1989 - 1991: Post-doctoral Fellow in Supramolecular Chemistry in the group of Prof. J.-M. Lehn (Nobel Prize recipient (1987), Université Louis Pasteur, Strasbourg).
1991 - 1995: Junior Lecturer in Supramolecular Chemistry, Department of Inorganic Chemistry, University of Geneva.
1995 -1996: Lecturer in Spectroscopy of 4f elements in the group of Prof J.-C.G. Bünzli (University of Lausanne).
1996 - 1998: Assistant Professor, recipient of the Werner Grant 1995-1998 for the project 'Toward Organized Luminescent Materials'

CERTIFICATES :

1979: Advanced Certificate in Computer Sciences
1980: Certificate in Astronomy-Observation
1980: Secondary Swiss Certificate with distinction, scientific option
1983 Master in Oboe (Conservatoire Musique Geneva)
1985: Master of Sciences in Chemistry with distinction
1989: PhD in Chemistry with felicitations
1999: Full Professor in Chemistry, Department of Inorganic and Applied Chemistry (University of Geneva)
2009: Invited Professor in Chemistry, (Ecole Normale Supérieure, Paris, France)
2012-2020: Visiting Professor: Supramolecular Lanthanide Chemistry, (Ecole Normale Supérieure, Paris, France)

AWARDS :

- 1980: **Gillet Award, Rotary-Club Award, Alfred Treuthard Award, Mark Birkigt Award, Givaudan Award** 1st rank at the Secondary Swiss Certificate, Geneva
- 1995: **Werner Medal** from the New Swiss Chemical Society
- 1996: **Scientia Europæa no1**, Rhône-Poulenc Fondation, Institut de France
- 2007 **Highly Cited Paper**: "Helicates as Versatile Supramolecular Complexes" (top 1% of the most-cited papers during the last 10 years for ACS publication).
- 2008 **Highly Cited Paper**: "Self-Assembly of Polymetallic Helicates: the Concepts Behind the Semantics", (top 25 most cited articles from Coord. Chem. Rev. as published 2005-2008).
- 2009 **Lecoq de Boisbaudran Award** of the European Rare Earth Society for a seminal contribution to supramolecular chemistry of lanthanides and more particularly to its rational understanding through thermodynamic models.
- 2013 **ACS Editors'Choice Paper 2013**: "Lanthanide Loading of Luminescent Multi-Tridentate Polymers Under Thermodynamic Control".
- 2016 **ACS Editors'Choice Paper 2016**: "Kinetics of Rh(II)-Catalyzed α -Diazo- β -ketoester Decomposition and Application to the [3+6+3+6] Synthesis of Macrocycles on a Large Scale and at Low Catalyst Loadings".

RESEARCH FIELD AND INTERESTS :

- Supramolecular chemistry of d and f elements.
- Preparation of metal-containing liquid crystals.
- Design of functional molecular, supramolecular and macroscopic materials.
- Molecular light-upconversion.
- Thermodynamics of multiple interactions in supramolecular architectures and polymers

PUBLICATIONS : 210 peer-reviewed articles and reviews and book chapters

See <https://archive-ouverte.unige.ch/documents/facets>

INVITED LECTURES : 193

<http://www.unige.ch/sciences/chiam/piguet/GroupMembers/ProfessorPiguet.html>

POSTERS : 191

<http://www.unige.ch/sciences/chiam/piguet/GroupMembers/ProfessorPiguet.html>

FUNDING GRANTS : 28

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BIBLIOMETRY: (October, 15, 2020)

204 contributions in peer-reviewed chemical journals considered by ISI Web of Knowledge. This leads to a *h*-index of 60 for a total number of 14681 citations (12666 without self-citation) and a citation per item of 71.97.

SELECTED PUBLICATIONS

Exhaustive list: <http://www.unige.ch/sciences/chiam/piguet/GroupMembers/ProfessorPiguet.html>

1. Piguet, C.; Bünzli, J.-C. G.; Bernardinelli, G.; Hopfgartner, G.; Williams, A. F., Self-assembly and photophysical properties of lanthanide dinuclear triple-helical complexes. *J. Am. Chem. Soc.* **1993**, *115*, 8197-8206.
2. Piguet, C.; Bernardinelli, G.; Hopfgartner, G., Helicates as versatile supramolecular complexes. *Chem. Rev.* **1997**, *97*, 2005-2062.
3. Bünzli, J.-C. G.; Piguet, C., Lanthanide-containing molecular and supramolecular polymetallic functional assemblies. *Chem. Rev.* **2002**, *102*, 1897-1928.
4. Piguet, C.; Geraldes, C. F. G. C., Paramagnetic NMR lanthanide induced shifts for extracting solution structures. In *Handbook on the Physics and Chemistry of Rare Earths*, Gschneidner Jr, K. A.; Bünzli, J.-C. G.; Pecharsky, V. K., Eds. Elsevier Science: Amsterdam, 2003; Vol. 33, pp 353-463.
5. Cantuel, M.; Bernardinelli, G.; Muller, G.; Riehl, J. P.; Piguet, C., The first enantiomerically pure helical noncovalent tripod for assembling nine-coordinate lanthanide(III) podates. *Inorg. Chem.* **2004**, *43*, 1840-1849.
6. Cantuel, M.; Gummy, F.; Bünzli, J.-C. G.; Piguet, C., Encapsulation of labile trivalent lanthanides into a homobimetallic chromium(III)-containing triple-stranded helicate. Synthesis, Characterization, and divergent intramolecular energy transfers. *Dalton Trans.* **2006**, 2647-2660.
7. Piguet, C.; Bünzli, J.-C. G.; Donnio, B.; Guillon, D., Thermotropic lanthanidomesogens. *Chem. Commun.* **2006**, 3755-3768.
8. Piguet, C., Five thermodynamic descriptors for addressing serendipity in the self-assembly of polynuclear complexes in solution. *Chem. Commun.* **2010**, *46*, 6209-6231.
9. Piguet, C., Enthalpy-entropy correlations as chemical guides to unravel self-assembly processes. *Dalton Trans.* **2011**, *40*, 8059-8071.
10. Aboshyan-Sorgho, L.; Cantuel, M.; Petoud, S.; Hauser, A.; Piguet, C., Optical sensitization and upconversion in discrete polynuclear chromium-lanthanide complexes. *Coord. Chem. Rev.* **2012**, *256*, 1644-1663.
11. Suffren, Y.; Golesorkhi, B.; Zare, D.; Guénée, L.; Nozary, H.; Eliseeva, S. V.; Petoud, S.; Hauser, A.; Piguet, C., Taming Lanthanide-Centered Upconversion at the Molecular Level. *Inorg. Chem.* **2016**, *55*, 9964-9972.
12. Zare, D.; Doistau, B.; Nozary, H.; Besnard, C.; Guénée, L.; Suffren, Y.; Pelé, A.-L.; Hauser, A.; Piguet, C., Cr(III) as an alternative to Ru(II) in metallo-supramolecular chemistry. *Dalton Trans.* **2017**, *46*, 8992-9009.

13. Babel, L.; Guénée, L.; Besnard, C.; Eliseeva, S. V.; Petoud, S.; Piguet, C., Cooperative Loading of Multisite Receptors with Lanthanide Containers: an Approach for Organized Luminescent Metallopolymers. *Chem. Sci.* **2018**, *9*, 325-335.
14. Doistau, B.; Collet, G.; Acuna Bolomey, E.; Sadat-Noorbakhsh, V.; Besnard, C.; Piguet, C., Heteroleptic Ter-Bidentate Cr(III) Complexes as Tunable Optical Sensitizers. *Inorg. Chem.* **2018**, *57*, 14362-14373.
15. Jimenez, J.-J.; Doistau, B.; Besnard, C.; Piguet, C., Versatile Heteroleptic Bis-Terdentate Cr(III) Chromophores Displaying Room Temperature Millisecond Excited State Lifetimes. *Chem. Commun.* **2018**, *54*, 13228-13231.
16. Golesorkhi, B.; Fürstenberg, A.; Nozary, H.; Piguet, C., Deciphering and Quantifying Linear Light Upconversion in Molecular Erbium Complexes. *Chem. Sci.* **2019**, *10*, 6876-6885.
17. Jimenez, J. R.; Doistau, B.; Cruz, C. M.; Besnard, C.; Cuerva, J. M.; Campana, A. G.; Piguet, C., Chiral Molecular Ruby $[\text{Cr}(\text{dqp})_2]^{3+}$ with Long-Lived Circularly Polarized Luminescence. *J. Am. Chem. Soc.* **2019**, *141*, 13244-13252.
18. Doistau, B.; Jimenez, J. R.; Guerra, S.; Besnard, C.; Piguet, C., Key Strategy for the Rational Incorporation of Long-Lived NIR Emissive Cr(III) Chromophores into Polymetallic Architectures. *Inorg. Chem.* **2020**, *59* (2), 1424-1435.
19. Golesorkhi, B.; Nozary, H.; Fürstenberg, A.; Piguet, C., Erbium Complexes as Pioneers for Implementing Linear Light-Upconversion in Molecules. *Mater. Horiz.* **2020**, *7*, 1279-1296.
20. Jimenez, J. R.; Poncet, M.; Doistau, B.; Besnard, C.; Piguet, C., Luminescent polypyridyl heteroleptic Cr(III) complexes with high quantum yields and long excited state lifetimes. *Dalton Trans.* **2020**, *49*, 13528-13532.