

CURRICULUM VITAE :

NAME: PIGUET Claude
DATE OF BIRTH: 4th avril 1961
FUNCTION Full Professor
ADDRESS Department of Inorganic Chemistry, University of Geneva,
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EDUCATION :

1967-1976 Primary School, Geneva
1976-1980 Secondary School, scientific option, Collège Voltaire, Geneva
1979 Certificate in Computer Sciences
1980 Certificate in Astronomy
1980 **Secondary Swiss Certificate (Maturité Fédérale) with distinction**, scientific option
1980 Instruction in astronomy, Observatory of Jungfraujoeh (Switzerland)
1981 Instruction in astronomy, Observatory of Gornergrat (Switzerland)

ACADEMIC EDUCATION

1980-1986 Faculty of Sciences, University of Geneva, Chemistry section
1984 **Certificate in Chemistry**
1986 **Master of Sciences in Chemistry with distinction**
1984 Instruction periods:
Organic Chemistry (Prof. P. Müller)
Organometallic Chemistry (Prof. E.-P. Kündig)
Coordination Chemistry (Prof. A.F. Williams)
1984 Assistant in Chemistry, Collège Claparède (Geneva)
1985 MS in Coordination Chemistry (supervisor: Prof A.F Williams) :
Synthesis and Reactivity of Cu(II) Complexes with Hydrogen Peroxyde
1985-1989 Assistant in charge for teaching in Inorganic Chemistry: 1st and 3rd year students in chemistry, Department of Inorganic Chemistry, University of Geneva
1986-1989 **PhD in Inorganic and Coordination Chemistry** (supervisors: Profs. A.F. Williams and W. Haerdi), Department of Inorganic Chemistry, University of Geneva:
Structures et Reactivities of Meridionally Tricoordinated Copper Complexes with Dioxygen and its Reduction Products

- 1987 First PhD examination: Lanthanide and Actinide Chemistry (Examinator: Prof. C.K. Jorgensen)
- 1989 Second PhD examination: Anionic Coordination Complexes (Examinators: Profs. U. Burger, W. Haerdi and A.F. Williams)
- 1989: **Final PhD examination with felicitations** (Examinators: Profs W. Haerdi (University of Geneva), A.E. Merbach (University of Lausanne), J.-P. Sauvage (University of Strasbourg), A.F. Williams (University of Geneva) and A. Zuberbühler (Basel))

POST-GRADUATE EDUCATION

- 1989-1990 Post-doctoral Fellow in Supramolecular Chemistry in the group of Prof. J.-M. Lehn (Nobel Prize recipient (1987), Université Louis Pasteur, Strasbourg): **Synthesis and Characterization of Polynuclear Double Helical Complexes with 4,4'-substituted Oligobipyridine Ligands**
- 1991-1995 Maître-Assistant in Supramolecular Chemistry, Department of Inorganic Chemistry, University of Geneva: **Methodical Studies of Self-Assembled Supramolecular Complexes with d-block Metal Ions and Development of Lanthanide Probes and Sensors with Predetermined Structural, Photophysical and Magnetic Properties**
- 1995 Post-doctoral Fellow in Spectroscopy of 4f elements in the group of Prof J.-C.G. Bünzli (University of Lausanne): **Structural and Photophysical Studies of Strongly Luminescent Heteronuclear Lanthanide Building Blocks.**
- 1995 **Werner Medal 1995** (New Swiss Chemical Society) for innovative research aiming at the synthesis of homo- and heteronuclear supramolecular lanthanide complexes with high quantum yield and directional intramolecular energy transfers
- 1995-1998 Recipient of the **Werner Grant 1995-1998** for the project 'Toward Organized Luminescent Materials'

PROFESSIONAL CAPACITIES

- 1991 First Assistant in charge for teaching in Inorganic Chemistry: 1st and 3rd year students in chemistry, Department of Inorganic Chemistry, University of Geneva
- 1992-1995 Maître-Assistant in charge for teaching in Inorganic Chemistry: 1st year students in biology and medicine, Department of Inorganic Chemistry, University of Geneva

- 1991-1995 Collaboration with Prof. A.F. Williams, Department of Inorganic Chemistry, University of Geneva: **Self-Assembly of Helical Complexes with 3d-block Metal Ions**. First co-applicant for the research project "Coordination Chemistry of Structured Ligands": National Swiss Foundation for Scientific Research (grant 21.30139.90)
- 1991 Collaboration with Prof. J.-C.G. Bünzli, Institute of Analytical Chemistry, University of Lausanne: **Supramolecular Chemistry of Luminescent and Magnetically Active Lanthanide Assemblies**
- 1992 Collaboration with Dr. G. Hopfgartner, Pharma Division, Bioanalytical Section, Hoffmann-La-Roche, Basel: **Electrospray-Mass Spectrometric Characterization of Supramolecular Complexes**
- 1994 Collaboration with Dr. A.-M. Albrecht-Gary, Laboratoire de Physicochimie, University of Strasbourg, France: **Thermodynamic and Kinetic Studies of Self-Assembled Lanthanide Helicates**
- 1996-1998 Senior Applicant for the research project: **"Tailored Tripodal Podands as Preorganized Receptors for the Complexation of Lanthanide Metal Ions"** National Swiss Foundation for Scientific Research (grant 2100-045277.95/1, 202'870 Frs)
- 1995 Scientific leader and founder of the research group: **Supramolecular Chemistry of f-Elements** in the Department of Inorganic Chemistry, University of Geneva
- 1996 Invited by the American Chemical Society to prepare a full review: **Helicates as Versatile Supramolecular Complexes**
- 1997 Lecturer in Inorganic Chemistry (3rd year students in chemistry), University of Geneva: Magnetism, stability, electronic structure and characterization of complexes.
- 1997 Invited lecturer, Institute of Inorganic Chemistry, University of Lausanne, Advanced training in Inorganic Chemistry of 4f Elements.
- 1997 Invited lecturer, Convention Intercantonale Romande 3rd cycle in chemistry, Supramolecular School, Champéry.
- 1997 Collaboration with Prof. R. Deschenaux, Institute of Chemistry, University of Neuchâtel: **Thermotropic Lanthanide-Containing Liquid Crystals**
- 1997 Lecturer in General Chemistry (1st year students in medicine and biology), University of Geneva.
- 1997 Chargé de Cours, University of Geneva
- 1997-2005 President of The Library Commission, University of Geneva.
- 1997 Expert in the team for the redaction of the research project: Molekulare Bauelemente und Supramolekulare Strukturen (Swiss National Office for Education and Sciences).

- 1998–2000 Senior Applicant for the research project: “**Tailored Tridentate Receptors Predisposed for the Complexation of Lanthanide Metal Ions in Homo- and Heteropolynuclear Assemblies**” National Swiss Foundation for Scientific Research (grant 200-052288.97/1, 244'636 Frs).
- 1999 Full Professor in Chemistry, University of Geneva.
- 1999 Senior Applicant for the research project: “**Structural Studies of Complex Supramolecular Architectures and Cristallographically Disordered Structures**” National Swiss Foundation for Scientific Research (grant R'equip 200-56415.99, 130'000 Frs).
- 2000-2002 Senior Applicant for the research project: “**Tailored Tridentate Receptors for Complexing Lanthanide Metal Ions in Organized Homo- and Heteropolymetallic Assemblies with Predetermined Functions**” National Swiss Foundation for Scientific Research (grant 2000-058866.99/1, 287'896 Frs).
- 2000-2003 Senior Applicant for the research project: “**Lanthanide-containing Liquid Crystalline Mesophases with Switchable Optical Properties**” National Swiss Foundation for Scientific Research, NRP 'Supramolecular Functional Materials' (grant 4047-057479, 428'263 Frs).
- 2002-2004 Senior Applicant for the research project: “**Programming Structures and Functions in Lanthanide-containing Molecular and Supramolecular Edifices via Non-covalent Intra- and Intermolecular Interactions**” National Swiss Foundation for Scientific Research (grant 2000-066714.01, 328'578 Frs).
- 2000-2003 Co-applicant for the project of the Swiss Virtual Campus: “**General chemistry for students enrolled in a life sciences curriculum**” Conférence Universitaire Suisse (grant 200-052288.97/1, 2'000'000 Frs).
- 2003 Co-applicant for the research project: “**NMR Spectroscopy for Supramolecular Coordination Chemistry**” Commission administrative Université de Genève (grant: 50'000 Frs)..
- 2003-2005 Co-applicant for the research project: “**NMR Spectroscopy for Supramolecular Coordination Chemistry**” National Swiss Foundation for Scientific Research (grant: 150'000 Frs).
- 2003-2005 Senior applicant for the research project: “**Lanthanide-containing Liquid Crystalline Mesophases with Switchable Optical Properties**” National Swiss Foundation for Scientific Research, NRP 'Supramolecular Functional Materials' (grant 4047-057479/2, 323'987 Frs).
- 2004-2006 Senior applicant for the research project: “**Pushing Lanthanide Coordination Chemistry Toward the Nanometric Scale**” National Swiss Foundation for Scientific Research (grant 200020-103423, 299'146 Frs).
- 2005 Senior applicant for the research project: “**Low-angle X-ray Scattering for Lanthanide-containing Metallomesogens**” Commission administrative Université de Genève (grant: 50'000 Frs)..

- 2005-2008 Senior applicant for the research project: **“Unravelling Deviations from Repetitive Binding in the Self-assembly of Multicomponent Helicates: Assessment of Preorganization and Cooperativity”** COST D31 European Community Project (grant SBF CO5.0056, 150'000 Frs).
- 2006-2009 Senior applicant for the research project: **“Manipulating Intramolecular and Intermolecular Interactions in Multimetallic Nanoscopic Complexes”** National Swiss Foundation for Scientific Research (grant 200020-111641/1, 525'418 Frs).
- 2006 Senior applicant for the research project: **“Low-angle X-ray Scattering for Lanthanide-containing Metallomesogens”** National Swiss Foundation for Scientific Research (grant 206021-112996/1, 100'000 Frs).
- 2006-2008 Marie Curie Intra-European Fellowships, Structuring the European Research Area, FP6-2005-Mobility-5: **“Charge Compensation Effects in Lanthanide Assisted Self-assembly”** (grant 038606-CCELAS, 281'000 Frs).
- 2009-2012 Senior applicant for the research project: **“Expanding the Potential of 4f-block Ions in Chemistry via the Rational Control of Nanometric and Macroscopic Lanthanide-Containing Assemblies”** National Swiss Foundation for Scientific Research (grant 200020-124335/1, 618'259 Frs).
- 2009 Senior applicant for the research project: **“Extrusion Chromatography for Monodimensional Polymers”** Administrative Commission, University of Geneva (50'000 Frs).
- 2011 Senior applicant for the research project: **“Molecular Upconversion”** INNOGAP Technology, UNITEC, University of Geneva (30'000 Frs).
- 2012-2015 Senior applicant for the research project: **“Some Unsolved Chemical Challenges in Lanthanide Chemistry: from Simple Building Blocks Toward Semi-Organized Materials”** National Swiss Foundation for Scientific Research (grant 200020-140222/1, 570'161 Frs).
- 2013 Senior applicant for the research project: **“Multimetallic Lanthanide-containing Oligomers and Polymers for Optical Down- and Upconversion”** National Swiss Foundation for Scientific Research (grant 206021-144948/1, 247'340 Frs).
- 2013 Senior applicant for the research project: **“Multimetallic Lanthanide-containing Oligomers and Polymers for Optical Down- and Upconversion”** Commission administrative (60'000 Frs).
- 2013 Senior applicant for the research project: **“Multimetallic Lanthanide-containing Oligomers and Polymers for Optical Down- and Upconversion”** Investment fund University of Geneva (178'100 Frs).
- 2013-2016 Senior applicant for the research project: **“Organized Multimetallic Lanthanide-containing Oligomers and Polymers”** National Swiss Foundation for Scientific Research (grant 200021-146655/1, 203'400 Frs).

- 2013 Senior applicant for the research project: “**Multimetallic Lanthanide-containing Oligomers and Polymers for Optical Down- and Upconversion**” Schmidheiny Foundation (30'000 Frs).
- 2015-2018 Senior applicant for the research project: “**From Discrete Lanthanide Complexes toward Luminescent Polymers and Supramolecular Light-Upconverters**” National Swiss Foundation for Scientific Research (grant 200020-159881/1, 768'115 Frs).
- 2015 Co-applicant for the research project: “**Luminescent Dendrimer Macromolecules and Metal-Organic Frameworks for Bioanalytical Applications and Biological Imaging – Detection of Potassium Channels for Cancer Detection**” National Swiss Foundation for Scientific Research (grant 206021_164019 / 1, 77'000 Frs).
- 2016 Co-applicant for the research project: “**Luminescent Dendrimer Macromolecules and Metal-Organic Frameworks for Bioanalytical Applications and Biological Imaging – Detection of Potassium Channels for Cancer Detection**” Schmidheiny Foundation (15'125 Frs).
- 2016 Co-applicant for the research project: “**Luminescent Dendrimer Macromolecules and Metal-Organic Frameworks for Bioanalytical Applications and Biological Imaging – Detection of Potassium Channels for Cancer Detection**” Birkigt Foundation (15'125 Frs).
- 2016 Co-applicant for the research project: “**Luminescent Dendrimer Macromolecules and Metal-Organic Frameworks for Bioanalytical Applications and Biological Imaging – Detection of Potassium Channels for Cancer Detection**” Fonds Général de l'Université de Genève (4900 Frs).
- 2016 Co-applicant for the research project: “**Luminescent Dendrimer Macromolecules and Metal-Organic Frameworks for Bioanalytical Applications and Biological Imaging – Detection of Potassium Channels for Cancer Detection**” Commission administrative de l'Université de Genève (50'000 Frs).
- 2018-2022 Senior applicant for the research project: “**Can Functional Metallopolymers and Supramolecular Assemblies Benefit from Molecular Organization Mastered by Coordination Chemists ?**” National Swiss Foundation for Scientific Research (grant 200020-1778758/1, 1'1214'863 Frs).
- 2019 Senior applicant for the research project: “**Pushing Cheap Trivalent Chromium as an Alternative to Costly Divalent Ruthenium for the Design of Metallo-supramolecular Optical Devices**” National Swiss Foundation for Scientific Research (grant 206021-183324/1, 272'837 Frs).
- 2019 Senior applicant for the research project: “**Pushing Cheap Trivalent Chromium as an Alternative to Costly Divalent Ruthenium for the Design of Metallo-supramolecular Optical Devices**” Commission administrative de l'Université de Genève (40'000 Frs).

- 2019 Senior applicant for the research project: **“Pushing Cheap Trivalent Chromium as an Alternative to Costly Divalent Ruthenium for the Design of Metallosupramolecular Optical Devices”** Fonds Firmenich-Chuit (20'000 Frs).
- 2020 Senior applicant for the research project: **“Circularly Polarized Luminescence in Heteroleptic Earth Abundant Chromium Complexes”** Commission administrative de l'Université de Genève (19'400 Frs).

Supervisor of Bibliographies in Chemistry

- 1998 C. Decurnex: *Syntheses of Water-soluble Ligands Containing Sulfonic Groups: Studies of their Complexes with d- and f-block Metal Ions.*
- 1998 B. Marcelli: *Syntheses and Complexation of Podands Derived from the Covalent Tripod 2,2',2''-Triaminotriethylamine (TREN).*
- 1999 L. Coppex: *Study of the Podand Tripydaeta and of Lutetium Complex with Lithium and Magnesium.*
- 2000 P. Kabengele: *Cristaux liquides impliquant des complexes de lanthanide magnétiquement et optiquement actifs.*
- 2005 S. Zebret: *Les hélicates circulaires : synthèses, structures et propriétés.*
- 2016 A. Furlanetto : *Thermodynamic Models of Liquid Crystals for Programming Phase Transition Temperatures.*
- 2017 R. Jamagne: *Rational Metal Loading of Multisite Polymeric Materials.*
- 2017 N. Andrey: *Kinetically Inert [CrN₆] Chromophores for Sensitizing Luminescent Trivalent Lanthanides.*
- 2017 A. Poncet: *Le fer, de l'atome au conflit pathogène hôte.*
- 2018 J. Lyonnet : *Ru(II) Complexes on the Cornerstone of dye-Sensitized Solar Cells.*
- 2018 A. Zniber: *Combining SCO Processes with Emission Properties.*

Supervisor of Stages in Chemistry

- 1996 M.V. Ferrel: *Studies of the Solution structure of Complexes [Ln(mbzimpy)₃]³⁺*
- 1997 C. Fouillet: *Synthesis and study of 2,6-bis[1-ethyl-5-(4-dodécyloxy-benzyloxy)-benzimidazol-2-yl]pyridine*
- 1999 L. Coppex: *Study of the ligand Tripydaeta et de its complexes with Lu(III), Li(I) and Mg(II).*
- 1999 B. Brissault: *Syntheses of ligands with large molecular anisometries.*
- 1999 C. Poltera: *Toward the preparation of C₂₂ semi-rigid lipophilic tails.*
- 2001 P. Altmann: *Etude des complexes [LnL₃]³⁺ par RMN.*
- 2001 C. Aliprandini: *Etude des complexes de Lanthanides avec deux Ligands Tridentés.*
- 2002 C. Lamelas: *Premières études structurales d'un complexe trimétallique de lanthanide en solution par RMN paramagnétique.*
- 2002 N. Donnier: *Caractérisation de complexes de palladium et de platine avec des ligands tridentés.*

- 2005 N. Dalla Favera: *Synthèse d'un ligand segmentiel étendu pour la complexation de quatre cations lanthanides en ligne.*
- 2007 H. Reyneri: *Synthèse de ligands amides et thioamides secondaire déprotonables pour la complexation des lanthanides.*
- 2007 S. Perrothon: *Synthèse d'un ligand amide secondaire déprotonable pour la complexation des lanthanides.*
- 2008 D. Simond: *Synthèse d'un Complexe Tripode d'Osmium sous Contrôle Cinétique.*
- 2008 J.-F. Vigier: *Synthèse d'un Ligand Coordinant les Cations Lanthanides en Vue de l'Obtention de Polymères Luminescents et Complexants.*
- 2010 R. Letrun: *Synthèse d'un Ligand Dérivé de Pyrazine-Benzimidazole.*
- 2011 E. Croset: *Synthèse du Ligand Tridenté en Vue de l'Obtention des Complexes Hélicoïdaux de Lanthanides.*
- 2011 C. Walder: *Synthèse d'un Ligand Bis-Tridenté Disymétrique pour la Formation de Complexes Binucléaires Faciaux.*
- 2011 L. Babel: *Synthèse d'un Synthon Bis(benzimidazole) et d'un connecteur (perfluoro-2,4-phenylene)acide diboronique.*
- 2011 F. Clerc: *Influence Thermodynamique de la Méthylation des 4-Hydroxyalkoxybenzoates de Cyanobiphenyl-4-yl.*
- 2012 L. Egger : *Synthesis of a Bis-Tridentate Ligand for Triple-Stranded Binuclear Helicate Complexation.*
- 2013 J. Bultel : *Synthèse d'un Nouveau Ligand Bidenté et Formation d'un Complexe d'Aluminium en Solution.*
- 2013 A. Berhault : *Synthèse et Etudes de Composés Mesogènes.*
- 2014 C. Nançoz: *Synthèse d'un Récepteur Segmentiel pour la Fixation Simultanée du Cr(III) et des Lanthanides.*
- 2014 Y. Monbaron: *Synthèse d'un Récepteur Polymérique Multi-tridenté pour la Complexation des Lanthanides.*
- 2016 L. Gervasutti : *The Thermodynamic Consequences on Host-guest Affinity of variable Solvent Chemical Potential.*
- 2016 V. Sadat-Noorbakhsh: *Heteroleptic Complexes of Chromium(III) with Diimine Ligands.*
- 2016 M. Sontag: *Synthesis of Sophisticated Ligands for Helicate Assembly.*
- 2017 M. Gasser: *Thermodynamic Control of Cr(III) Complexes.*
- 2018 E. A. Bolomey: *Synthesis, Characterization and Photophysical Properties of Cr(III) Heteroleptic Complexes.*
- 2018 C. Egger: *Synthesis and Exploitation of Unsymmetrical Tridentate Receptors.*
- 2020 F. Alves: *Design and synthesis of polyaromatic tridentate ligands equipped with near-infrared antenna.*

Supervisor of MS in Chemistry

- 1996 H. Nozary: *Synthesis and Study of 2,6-bis[1-ethyl-5-(4-dodecyloxy-benzoic acid)-methyl ester-benzimidazol-2-yl]pyridine.*
- 1997 C. Edder: *Synthesis and Studies of Heterodinuclear d-f Self-Assembled Helical Complexes [LnZnL₃](ClO₄)₂ (Ln = La, Eu).*
- 1998 T. K'Bourch: *Synthesis of Tridentate Aminopodates for their Complexation to Lanthanide Metal Ions.*
- 1998 M.V. Ferrel: *Synthesis of complexes between 2-{6-[N,N-diethylcarbamoyl]pyridine-2-yl}-1,1'-dimethyl-5,5'-methylene-2'-(5-methylpyridine-2-yl)bis[1H-benzimidazole] and chromium(III).*
- 1999 C. Decurnex: *Synthesis of the podand Tripydapropa et studies of its complexes with rare earths.*
- 2003 P. Bettens: *Détermination de l'effet d'antenne des ligands 2,6-bis-amido-pyridine avec Eu(III) et Tb(III)*
- 2004 J. Mercier: *Synthèse d'un ligand segmentiel de type 2-3-2 complètement aromatique pour l'auto-assemblage de metallocryptates CrLnCr.*
- 2004 S. Zebret: *Synthèses multi-étape de ligands segmentiels bis-tridentés et étude de leur interaction avec les lanthanides.*
- 2005 N. Dalla Favera: *Etude des complexes linéaires de lanthanides avec le ligand tetra-tridenté L4.*
- 2008 S. Perrothon: *Synthèse d'un Edifice Moléculaire Contenant des Cations Chrome(III) et un Cation Lanthanide(III) pour des Applications Biologiques.*
- 2012 T. Lathion: *Trinuclear Complexes for Upconversion.*
- 2017 V. Sadat-Noorbakhsh: *Comparison of Analytical Methods Applied to Phytocannabinoids and Cannabis Sativa Extracts.*
- 2020 M. Poncet: *Synthesis of Optimized Cr(III) Chromophores as Potential Sensitizers for Light Upconverted-Emission in Polynuclear Cr-Er Assemblies.*

Co-supervisor of PhD thesis in Chemistry (University of Lausanne)

- 1992-1997 Dr.S. Petoud: *Stability and Photophysical Properties of Lanthanide Complexes with bis(benzimidazole)pyridine.*

Supervisor of PhD thesis in Chemistry

- 1995-2000 Dr. F. Renaud: *Etudes de Complexes de Terres Rares avec des Ligands Tridentés et des Ligands Podands Nonadentés (thèse n° 3164).*
- 1996-2001 Dr. S. Rigault: *Etudes de Complexes Podates Non-covalents Auto-assemblés des Lanthanides par Spectroscopie RMN Paramagnétique : Géométrie et Structures Magnétiques en Solution.*

- 1996-2001 Dr H. Nozary: *Incorporation d'Unités Tridentées Coordinantes Coudées Photoactives dans les Mésophases: Structure, Réactivité et Coordination aux Lanthanides.*
- 1997-2001 Dr C. Edder: *Contrôle des Propriétés Électroniques et Magnétiques de Complexes Hétérodimétalliques d-f par Substitution Périphériques des Ligands.*
- 2000-2004 Dr J.-M. Senegas: *Organisation Faciale d'Unités Tridentées Dissymétriques autour des Lanthanides à l'Aide d'un Tripode Covalent.*
- 2000-2005 Dr M. Cantuel: *Communication Intermétallique Ln(III)-Cr(III) dans des Triples Hélices Auto-assemblées Inertes.*
- 2001-2006 Dr E. Terazzi: *Contrôle Moléculaire de l'Organisation Mésoscopique et des Propriétés Magnétiques de Complexes Mésogéniques de Lanthanides.*
- 2005-2009 Dr A. Escande: *Contrôle des Températures de Fusion de Lanthanidomésogènes Thermotropes par la Connexion de Chaînes Flexibles Divergentes.*
- 2005-2010 Dr N. Dalla-Favera: *Rationaliser et Manipuler les Paramètres Thermodynamiques Contrôlant les Auto-assemblages de Complexes Polynucléaires en Solution.*
- 2006-2011 Dr L. Aboshyan: *Conversion de lumière dans les complexes moléculaires contenant du chrome et des lanthanides.*
- 2007-2012 Dr P. Ryan : *Etude de podants pour la complexation des lanthanides : approche thermodynamique et structurale.*
- 2009-2013 Dr A. Zaïm: *The Molecular Structures, Solution Behaviors and Photophysical Properties of Mononuclear to Trinuclear Ternary $[Ln_x(L)(hfac)_{3-x}]$ Complexes.*
- 2010-2015 Dr T. Dutronc : *Enthalpy Entropy Compensation in Phase Transition Processes.*
- 2012-2017 Dr L. Simond: *From Monomeric to Polymeric Lanthanide Complexes Thermodynamically Assembled in Solution..*
- 2012-2017 Dr D. Zare : *Implementing near-Infrared to Visible Light-Upconverted Emission in Discrete Polynuclear d-f- Complexes.*
- 2013-2018 Dr T. Lathion: *Transitions de Spin dans des Complexes Mono et Dinucléaires de Fe(II).*
- 2013-2018 K. Baudet: *Revisiting the Thermodynamics of Lanthanide Adducts with Neutral Receptors in Organic Solvents.*
- 2014-2019 B. Goleosorkhi: *Induction of Linear Light-Upconversion in Mononuclear Erbium Coordination Complexes.*
- 2017- M. Mirzakhani: *Controlled Metal Loading of Lanthanidopolymers*
- 2018- I. Taarit: *Energy-transfer Upconversion in Chromium(III)-Lanthanide(III) Architectures.*
- 2018- N. Deorukhkar: *Tuning the Spin Transition Temperature in Heterometallic Iron(II)-Lanthanide(III) Spin Crossover Assemblies.*
- 2018- S. Naseri: *Rigidifying Segmental Multi-Tridentate Polymeric Backbones for the Selective Complexation of Trivalent Lanthanides*

Expert of PhD thesis in Chemistry

- 1999 F. Marmolle: *Propriétés de Coordination Métallique des Polyphenols*. University Louis Pasteur, Strasbourg (supervisor: Dr A.-M. Albrecht-Gary).
- 1999 R. Wietzke: *Complexation des Elements f par des Ligands Azotés. Application à l'Extraction Selective des Actinides(III)*. Commissariat à l'Energie Atomique, Grenoble (supervisor: Dr M. Mazzanti).
- 1999 R. F. H. Viguié: *Synthèse de Nouveaux Ligands Polypodes: Complexation des Ions Lanthanides en Solution Aqueuse*. Université Joseph Fourier, Grenoble (supervisor: Prof. C. Dupuy).
- 2000 G. Muller: *Stabilité et Propriétés Photophysiques de Complexes de Lanthanides avec des Ligands Tridentés Chiraux*. Université de Lausanne, (supervisor: Prof. J.-C. Bünzli).
- 2000 A. Kuebel Pollak: *Hydroxylation aromatique catalysée par le cuivre: études de benzimidazole et de ligands analogues*. Université de Genève, (supervisor: Prof. A. F. Williams).
- 2000 J. J. Jodry: *Interactions asymétriques entre cations et anions chiraux*. Université de Genève, (directeur de thèse: Dr. J. Lacour).
- 2001 D. Chapon: *Coordination des éléments 4f et 5f par des ligands cyclohexaniques polyfonctionnels : Complexes homo- et hétérotrinucléaires en solution*. Université Joseph Fourier, Grenoble (supervisor: Prof. P. H. Fries).
- 2001 S. Floquet: *Conversion de spin thermo et photo-induite de complexes ioniques de Fe(III)*. Université Paris-Sud, Orsay (supervisor: Prof. R. Clément).
- 2001 V. Esposito: *Synthesis, Structure, and Reactivity of Iron and Bismuth Complexes of the Calixarene Ligand*. Université Lausanne, (supervisor: Prof. G. Chappuis).
- 2002 S. Clemente: *Synthèse de ligands tridentés dérivés du ligand bis(benzimidazol-2-yl)pyridine et utilisation de ces ligands dans la synthèse de précurseurs de caténates octaédriques*. University of Geneva, (supervisor: Prof. A. F. Williams).
- 2002 N. André: *'Des Complexes Monométalliques 4f aux Hélicates Hétérodimétalliques 4f-4f' par Reconnaissance Spécifique Ligand-Cation Lanthanide. Synthèse, Structure, Stabilité et Propriétés Photophysiques*. EPFL-Lausanne, (directeur de thèse: Prof. J.-C. Bünzli).
- 2003 E. Guenau: *Synthèse et Caractérisation de Clusters de Métaux Alcalins et/ou Alcalino-terreux*. Université de Genève, (directeur de thèse: Prof. A. F. Williams/ Dr K. Fromm).
- 2003 G. Stupka: *Contrôle par le pH des Propriétés Redox et Diastéréosélectives de Complexes de Ligands Azotés*. Université de Genève, (directeur de thèse: Prof. A. F. Williams).
- 2003 J. Mathieu: *Auto-Assemblage et Auto-Organisation d'Helices Metallo-Supramoléculaires*. Université Henry Poincaré, Nancy I (directeur de thèse: Prof. A. Marsura).

- 2003 K. Isele: *A study of structures and properties of new bisbenzimidazole complexes using the ligand 1,2-bis[1H-benzimidazol-2-yl]-1,2-ethandiol and the late 3d transition metals Co(II), Ni(II), Cu(II) and Zn(II)*. Université de Genève, (directeur de thèse: Prof. A. F. Williams).
- 2004 S. Suarez: *'Auto-organisation de complexes de lanthanides dans les structures supramoléculaires. Synthèse, propriétés mésomorphes et photophysiques de cristaux-liquides luminescents*. EPFL-Lausanne, (directeur de thèse: Prof. J.-C. Bünzli).
- 2004 G. Canard: *'Matériaux hybrides organiques-inorganiques incorporant des métalloporphyrines de cobalt(III). Application à l'adsorption sélective du monoxyde de carbone*. Université de Bourgogne, (directeur de thèse: Dr J.-M. Barbe).
- 2005 S. Delahaye: *'Photophysical study of some Ru(II) and Pt(II) complexes with α, α' -diimines ligands'*. Université de Genève, (directeur de thèse: Prof. A. Hauser).
- 2006 T. B. Jensen: *'Heterobimetallic Lanthanide Helicates : Deciphering Substituent Effects by Crystallography and NMR Analyses'*. EPFL, (directeur de thèse: Prof. J.-C. Bünzli).
- 2006 R. Pericet-Camara: *'Interaction Forces between Surfaces Coated with Highly Branched Polyelectrolytes'*. Université de Genève, (directeur de thèse: Prof. M. Borkovec).
- 2007 L. A. Leuthold: *'Microchip Infusion and Desorption Electrospray Ionization Coupled to Mass Spectrometry'*. Université de Genève, (directeur de thèse: Prof. G. Hopfgartner).
- 2007 M. Lelli : *'Solution Structure and Solution Dynamics in Chiral Ytterbium(III) Complexes'*. Scuola Normale Superiore, Pisa, Italy (directeur de thèse: Prof. L. DiBari).
- 2007 J.-F. Lemonnier : *'Architectures Cycliques à Partir de Synthone Oxothiomoxydique. Synthèses, Structures et Réactivité Supramoléculaire'*. Université de Versailles Saint-Quentin-en-Yvelines, France (directeur de thèse: Prof. E. Cadot).
- 2007 S. Verdan : *'Synthone Benzimidazole en Ingénierie Cristalline'*. Université de Genève, Suisse (directeur de thèse: Prof. A. Williams).
- 2008 S. Comby: *'Luminescent Lanthanides Bioprobes Emitting in the Visible and/or Near-Infrared Ranges'*. EPFL, (directeur de thèse: Prof. J.-C. Bünzli).
- 2008 C. Marchal: *Complexes Polymétalliques de Lanthanides(III) pour le Développement de Nouveaux Matériaux Luminescents*. Université Joseph Fourier, Grenoble, France (directeur de thèse: Dr M. Mazzanti).
- 2009 P. Kadjane: *Sondes Luminescentes à Base de Lanthanides Solubles dans l'Eau*. Université de Strasbourg, France (directeur de thèse: Dr L. Charbonnière).

- 2009 G. Calvez: *Synthèse et étude des applications potentielles de matériaux moléculaires à bases d'entités hexanucléaires de terres rares*. Université de Rennes, France (directeur de thèse: Dr O. Guillou).
- 2010 I. V. Popa: *Surface Interactions Induced by Polyelectrolytes, Dendrimers, and Dendronized Polymers*. Université de Genève, Suisse (directeur de thèse: Prof. M. Borkovec).
- 2011 A. Bourdolle: *Conception de sondes et nano-sondes à base de lanthanides émettant dans le proche infrarouge pour la microscopie biphotonique*. Ecole Normale Supérieure de Lyon, France (directeur de thèse: Dr O. Maury).
- 2012 S. Zebret: *Complexes Polynucléaires Bi- et tridimensionnel de Lanthanides. Conception, Synthèse et Caractérisation*. Université de Genève (directeur de thèse: Dr J. Hamacek).
- 2013 L. Ancel : *Reconnaissance de l'ADN par des Complexes peptidiques des Lanthanides*. Université de Grenoble, France (directeur de thèse: Dr P. Delangle)
- 2016 M. Granelli : *'The Coordination Chemistry of 1,2-bis(benzimidazol-2-yl)ethanol: a Chiral Tridentate Ligand Forming heterocubanes and Hydrogen Bonded Dimers'*. Université de Genève, Suisse (directeur de thèse: Prof. A. Williams).
- 2020 S. Bravo-Veyrat: *'Application of Differential Mobility Spectrometry-Mass Spectrometry for the Development of Enhanced Throughput Workflows'*. Université de Genève, Suisse (directeur de thèse: Prof. G. Hopfgartner).
- 2020 M. Raetz: *'Exploration and Implementation of Automated Sample Preparation and Data Independent Mass Spectrometry for Lipidomics Analysis'*. Université de Genève, Suisse (directeur de thèse: Prof. G. Hopfgartner).

Expert for Habilitations in Chemistry

- 2002 Dr C. Bochet: *Selective Photochemical Control of Organic Reactions*. University of Geneva.
- 2005 Dr P. Delangle: *Complexation Selective d'Ions Métalliques: Paramètres Déterminant l'Affinité et la Sélectivité*. Université Joseph Fourier et CEA-Grenoble, France.
- 2012 Dr F. Camerel: *Des Fluides Complexes Minéraux aux Organogélifiants : La Matière dans tous ses Etats*. Université Rennes 1, France.
- 2012 Dr L. Salmon: *Synthèse, étude des propriétés de bistabilité et mise en application de matériaux à transition de spin nano-structuré*. Université de Toulouse, France.
- 2013 Dr E. Terazzi: *Assemblages nanostructures: une Approche Basée sur L'Etat Cristal Liquide*. University of Geneva.

Consulting in Chemistry

- 2008 Institut de Chimie Moléculaire de Paris Centre-AERES, January 28-30, 2008.

- 2009 Institut des Sciences Moléculaires, Université de Bordeaux I-AERES, october 26-29, 2009.
- 2009 Laboratoire des Polymères Organiques, Université de Bordeaux I-AERES, october 26-29, 2009.
- 2012 Laboratoire de Chemistry of Complex Matter, Université de Strasbourg-AERES, january 11-13, 2012.
- 2018 Membre du Conseil Scientifique de l'Institut de Chimie du CNRS.
- Invited professor
- 2009 Invited professor, Ecole National Supérieure, Paris, France.
- 2013-2018 Invited professor, Ecole National Supérieure, Paris, France.

Organization of Congresses

- 1999 2nd Rencontre Lémanique sur La Chimie Metallosupramoléculaire des Lanthanides, 19.10.99, University of Geneva.
- 2000 Molecular Magnetism (dedicated to the late Olivier Kahn) Autumn Assembly NSSC, 18.10.2000, University of Lausanne
- 2002 Perspectives in Supramolecular Chemistry, Spring Meeting 2002 SCS, 21.03.2002, University of Geneva.
- 2003 5th International Conference on f Elements (Icfe-5), 24.08-29.08.2003, CICG, Geneva.
- 2006 Conférence Universitaire de Suisse Occidentale, Summer School on Fundamental of Kinetics and Thermodynamics in (Metallo)Supramolecular Assemblies, September 10-14, 2006, Villars-sur-Ollon, Switzerland.
- 2008 Symposium Advanced Organic and/or Inorganic Functional Materials, May 24-28, 2008, Strasbourg.
- 2014 Geneva chemistry & biochemistry days 2014, January 16-17, 2014, Geneva.

Academic Teaching

- 1997 - 2014 General Chemistry for students in Life Sciences
- 1998 - Inorganic chemistry II: Molecular magnetism
- 1999 Inorganic chemistry II: Electronic structure of transition elements
- 1999 - Inorganic chemistry III: Advanced coordination chemistry
- 1999 - Inorganic chemistry III: Metallosupramolecular chemistry
- 1999 - Inorganic chemistry III: Methods of characterization
- 2006 - Inorganic chemistry III: Lanthanide Supramolecular chemistry
- 2008 - Inorganic chemistry II: Kinetics and Mechanisms in Inorganic Chemistry
- 2009 - 2014 Analytical chemistry for students in biology, pharmacy and geology.
- 2015 - General Chemistry for students in biochemistry and chemistry

CERTIFICATES :

- 1979: **Advanced Certificate in Computer Sciences** (Collège Voltaire)
 1980: **Certificate in Astronomy-Observation**
 1980: **Secondary Swiss Certificate** with distinction, scientific option (Maturité fédérale scientifique, mention très bien)
 1985: **Master of Sciences in Chemistry** with distinction
 1989: **PhD in Chemistry** with felicitations
 1999: **Full Professor in Chemistry** (University of Geneva)
 2009: **Invited Professor in Chemistry** (Ecole Normale Supérieure, ENS-Paris, France)

AWARDS:

- 1980: **Gillet Award:** 1st rank at the Secondary Swiss Certificate, Geneva
Rotary-Club Award: 1st rank at the Secondary Swiss Certificate, Collège Voltaire
Givaudan Award: 1st rank in chemistry and physics
Alfred Treuthard Award: 1st rank in mathematics
Mark Birkigt Award : 1st rank in mathematics, physics and geometry
 1995: **Werner Medal** form the New Swiss Chemical Society
 1996: **Scientia Europæa no1**, Rhône-Poulenc Fondation, Institut de France
 2007 **Highly Cited Paper:** "Helicates as Versatile Supramolecular Complexes", published in Chemical Reviews is being featured on the ACS Publications website as a "Highly Cited Paper", i.e. in the top 1% of the most-cited papers during the last 10 years.
 2008 **Highly Cited Paper:** "Self-Assembly of Polymetallic Helicates: the Concepts Behind the Semantics", published in Chemical Coordination Reviews has been recognized as a 'top 25' most cited articles from this journal, 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.
 2018 **Selected by the Editorial Office for our Showcase of outstanding Review-type articles www.chemeurj.org/showcase.** "A Rational Approach to Metal Loading of Organic Multi-Site Polymers: Illusion or Reality?"

LANGUAGE: French, mother tongue
 English, spoken and written
 German, good knowledges

CHEMICAL SOCIETIES

Ordinary member of the New Swiss Chemical Society

Ordinary member of the American Chemical Society

Comity member of The Geneva Chemical Society

Ordinary member of the European Rare Earth and Actinide Society (ERES)

Ordinary member of the European Chemical Society

Ordinary member of the Academic Society of Geneva

OTHER ACTIVITIES

1973 - 1983: Instruction in Oboe, Conservatoire de Musique de Genève

1983: Master in Oboe

PUBLICATIONS (ARTICLES)

Coordination Chemistry

- 1) **2,2'-Bis(6-(2,2'-bipyridyl))biphenyl (TET), a Sterically Constricted Tetradentate Ligand : Structure and Properties of its Complexes with Copper(I) and Copper(II)**
Müller E.,* Piguet C., Bernardinelli G., Williams A.F. *Inorg. Chem.* 27, 849 (1988)
- 2) **The Preparation and Crystal Structure of the Unusual Double Helical Copper(I) Complex [Cu₂(2,6-bis(1-methyl-benzimidazol-2-yl)pyridine)₂]naphtalene-1,5-disulfonate**
Piguet C., Bernardinelli G., Williams A.F.* *Inorg. Chem.* 28, 2920-2925 (1989).
- 3) **Models for Copper-Dioxygen Complexes : the Chemistry of Copper(II) with some Planar Tridentate Nitrogen Ligands**
Piguet C., Bocquet B., Müller E., Williams A.F.* *Helv. Chim. Acta* 72, 323-337 (1989).
- 4) **Synthesis and Electronic Properties of Intensely Coloured Iron(II) Complexes with New 4-Substituted Planar Tridentate Nitrogen Ligands Analogous to 2,2':6',2'' Terpyridine**
Piguet C.,* Bochet C.G., Williams A.F. *Helv. Chim. Acta* 76, 372-384 (1993).
- 5) **On-Demand Degradation of Metal-Organic Framework Based on Photocleavable Dianthracene-Based Ligand**
Collet G.,* Lathion T., Besnard C., Piguet C., Petoud S.* *J. Am. Chem. Soc.* 140, 10820-10828 (2018)

Organic Synthesis

- 1) **Synthesis of Unsubstituted and 4,4' Substituted Oligobipyridines as Ligand Strands for Helicate Self-Assembly**
Harding M, Koert U., Lehn J.-M.,* Piguet C., Rigault A., Siegel J. *Helv. Chim. Acta* 74, 594-610 (1991).
- 2) **Synthesis of Segmental Heteroleptic Ligands for the Self-Assembly of Helical Complexes**
Piguet C.,* Bocquet, B., Hopfgartner, G. *Helv. Chim. Acta* 77, 931-942 (1994).
- 3) **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**
Poggiali D., Homberg A., Lathion T., Piguet C., Lacour J.* *ACS Catal.* 6, 4877-4881 (2016).

Supramolecular Chemistry of d-block Metal Ions

- 1) **A Self-Assembly Triple-Helical Co₂ complex: Synthesis and Structure**
Williams A.F.,* Piguet C., Bernardinelli G. *Angew. Chem. Int. Ed. Engl.* 30, 1490-1492 (1991)
- 2) **Self-Assembly of Dinuclear Helical and Non-helical Complexes with Copper(I)**
Rüttimann S., Piguet C., Bernardinelli G., Bocquet B., Williams A.F.* *J. Am. Chem. Soc.* 114, 4230-4237 (1992)

- 3) **Self-Assembly of Double and Triple Helices Controlled by Metal Ion Stereochemical Preference**
Piguet C., Bernardinelli G., Bocquet B., Quattropanni A., Williams A.F.* *J. Am. Chem. Soc.* 114, 7440-7451 (1992)
- 4) **Co(III)/Co(II) Electrochemical Potential Controlled by Sterical Constraints in Self-Assembled Dinuclear Triple-Helical Complexes**
Piguet C., Bernardinelli G., Bocquet B., Schaad O., Williams A.F.* *Inorg. Chem.* 33, 4112-4121 (1994)
- 5) **Structure and Resolution of a Dinuclear Co(III) Triple Helix**
Charbonnière L.J., Bernardinelli G., Piguet C., Sargeson A.M., Williams A.F.* *J. Chem. Soc. Chem. Comm.* 1419-1420 (1994)
- 6) **Self-Assembly of Heteronuclear Supramolecular Helical Complexes with Segmental Ligands**
Piguet C.,* Hopfgartner G., Bocquet B., Schaad O., Williams A.F. *J. Am. Chem. Soc.* 116, 9092-9102 (1994).
- 7) **Formation of the First Isomeric [2]-Catenates by Self-Assembly about two Different Metal Ions**
Piguet C.,* Bernardinelli G., Williams A.F., Bocquet B. *Angew Chem. Int. Ed. Engl.* 34, 582-584 (1995)
- 8) **Structural, Magnetic and Electrochemical Properties of Dinuclear Triple Helices: Comparison with their Mononuclear Analogues**
Charbonnière L.J., Williams A.F.,* Piguet C., Bernardinelli G., Rivara-Minten E. *Chem. Eur. J.* 4, 485-493 (1998).
- 9) **Stability and Lability of Dicopper Double-Stranded Helicates in Solution**
Carina R.F., Williams A.F.,* Piguet C. *Helv. Chim. Acta* 81, 548-557 (1998).
- 10) **Structure, Formation, and Dynamics of Mo₁₂ and Mo₁₆ Oxothiomolybdenum Rings Containing Terephthalate Derivatives**
Lemonnier J.-F., Floquet S.,* Marrot J., Terazzi E., Piguet C., Lesot P., Pinto A., Cadot E.* *Chem. Eur. J.* 13, 3548-3557 (2007)
- 11) **Host-Guest Adaptability Within Oxothiomolybdenum Wheels: Structures, Studies in Solution and DFT Calculations**
Lemonnier J.-F., Floquet S.,* Kachmar A., Rohmer M.-M., Bénard M., Marrot J., Terazzi E., Piguet C., Cadot E.* *Dalton Trans.* 3043-3054 (2007)
- 12) **Looking for the Origin of the Switch Between Coordination-Captured Helicates and Catenates**
Aboshyan-Sorgho L., Cantuel M., Bernardinelli G., Piguet C.* *Dalton Trans.* 41, 7218-7226 (2012)
- 13) **Thermodynamic N-Donor Trans Influence in Labile Pseudo-Octahedral Zinc Complexes: A Delusion**
Aboshyan-Sorgho L., Lathion T., Guénée L., Besnard C., Piguet C.* *Inorg. Chem.* 53, 13093-13104 (2014)
- 14) **Cr(III) as an Alternative to Ru(II) in Metallo-Supramolecular Chemistry**
Zare D., Doistau B.,* Nozary H., Besnard C., Guénée L., Suffren Y., Pelé A.-L., Hauser A.,* Piguet C.* *Dalton Trans.* 46, 8992-9009 (2017)

- 15) **Cis and Trans-9-10-di(1Himidazol-1-yl)-Anthracene Based Coordination Polymers of Zn(II) and Cd(II): Synthesis, Crystal Structures and Luminescence Properties**
Valylevskiy S. I., Regeta K., Ruggi A., Petoud S., Piguet C., Fromm K. M.* *Dalton Trans.* 47, 596-607 (2018)
- 16) **Excimer-Based On-Off Bis(pyreneamide) Macrocyclic Chemosensors**
Vishe M., Lathion T., Pascal S., Yushchenko O., Homberg A., Brun E., Vauthey E.*, Piguet C.*, Lacour J.* *Helv. Chim. Acta* 101, e1700265 (2018)
- 17) **Heteroleptic Ter-Bidentate Cr(III) Complexes as Tunable Optical Sensitizers**
Doistau B.*, Collet G., Acuna Bolomey E., Sadat-Noorbakhsh S., Besnard C., Piguet C.* *Inorg. Chem.* 57, 14362-14373 (2018)
- 18) **Versatile Heteroleptic Bis-Terdentate Cr(III) Chromophores Displaying Room Temperature Millisecond Excited State Lifetimes**
Jimenez J.-J.*, Doistau B.*, Besnard C., Piguet C.* *Chem. Commun.* 54, 13228-13231 (2018)
- 19) **Deciphering the Influence of Meridional versus Facial Isomers in Spin Crossover Complexes**
Lathion T., Guénée L., Besnard C., Bousseksou A., Piguet C.* *Chem. Eur. J.* 24, 16873-16888 (2018)
- 20) **Chiral Molecular Ruby [Cr(dqp)₂]³⁺ with Long-Lived Circularly Polarized Luminescence**
Jimenez J.-J.*, Doistau B., Cruz C. M., Besnard C., Cuerva J. M., Canpana A. G.* Piguet C.* *J. Am. Chem. Soc.* 141, 13244-13252 (2019)
- 21) **A Key Strategy for the Rational Incorporation of Long-lived NIR Emissive Cr(III) Chromophores into Polymetallic Architectures**
Doistau B.*, Jimenez J.-J., Guerra S., Besnard C., Piguet C.* *Inorg Chem.* 59, 1424-1435 (2020)
- 22) **The Tyranny of Arm-Wrestling Methyls on Iron(II) Spin State in Pseudo-Octahedral [Fe(didentate)₃] Complexes**
Deorukhkar, N., Lathion, T., Guénée, L., Besnard C., Piguet C.* *Chemistry* 2, 231-252 (2020).
- 23) **Luminescent Polypyridyl Heteroleptic Cr^{III} Complexes with High Quantum Yields and Long Excited State Lifetimes**
Jimenez J.-J.*, Poncet M, Doistau B., Besnard C., Piguet C.* *Dalton Trans.* 49, 13528-13532 (2020)

Supramolecular Lanthanide Probes

- 1) **Structural and Photophysical Properties of Lanthanide Nitrate 1:1 Complexes with Planar Tridentate Nitrogen Ligands Analogous to 2,2':6',2" Terpyridine**
Piguet C.*, Williams A.F., Bernardinelli G., Moret E.*, Bünzli J.-C.G. *Helv. Chim. Acta* 75, 1697-1717 (1992)
- 2) **The First Self-Assembled Dinuclear Triple-Helical Lanthanide Complex: Synthesis and Structure**
Piguet C.*, Bernardinelli G., Williams A.F. *Angew. Chem. Int. Ed. Engl.* 31, 1624-1626 (1992)

- 3) **Self-Assembly and Photophysical Properties of Lanthanide Dinuclear Triple-Helical Complexes**
Piguet C.,* Bünzli J.-C.G., Bernardinelli G., Hopfgartner G., Williams A.F. *J. Am. Chem. Soc.* **115**, 8197-8206 (1993)
- 4) **Structural and Photophysical Properties of Lanthanide Complexes with Planar Aromatic Tridentate Nitrogen Ligands as Luminescent Building Blocks for Triple-Helical Structures**
Piguet C.,* Bünzli J.-C.G.,* Bernardinelli G., Williams A.F. *Inorg. Chem.* **32**, 4139-4149 (1993)
- 5) **Design of Luminescent Building Blocks for Supramolecular Triple-Helical Lanthanide Complexes**
Piguet C.,* Bünzli J.-C.G.,* Bernardinelli G., Bochet C.G., Froidevaux P. *J. Chem. Soc. Dalton Trans.* 83-97 (1995)
- 6) **Luminescent Properties of Lanthanide Complexes with Substituted Bis(benzimidazole)pyridines**
Petoud S., Bünzli, J.-C.G.,* Schenk K.J., Piguet C.* *Inorg. Chem.* **36**, 1345-1353 (1997)
- 7) **In Search for Mononuclear Helical Lanthanide Building Blocks with Predetermined Properties: Triple-Stranded Helical Complexes with 2,6-Pyridinedicarboxylic Acid-bis-diethylamide**
Renaud F., Piguet C.,* Bernardinelli G., Bünzli J.-C.G., Hopfgartner G. *Chem. Eur. J.* **3**, 1646-1659 (1997).
- 8) **In Search for Mononuclear Helical Lanthanide Building Blocks with Predetermined Properties: Lanthanide Complexes with 2,6-Pyridinedicarboxylic Acid-bis-ethylester**
Renaud F., Piguet C.,* Bernardinelli G., Bünzli J.-C.G., Hopfgartner G. *Chem. Eur. J.* **3**, 1660-1667 (1997).
- 9) **Stability and Size-Discriminating Effects in Mononuclear Lanthanide Triple Helical Building Blocks with Tridentate Aromatic Ligands**
Petoud S., Bünzli J.-C.G.,* Renaud F., Piguet C.,* Schenk K.J., Hopfgartner G. *Inorg. Chem.* **36**, 5750-5760 (1997).
- 10) **Self-Assembled Dinuclear Helicates: Substantial Luminescence Enhancement Upon Replacing Terminal Benzimidazole Groups by Carboxamide Binding Units**
Martin N., Bünzli J.-C.G.,* McKee V., Piguet C.,* Hopfgartner G. *Inorg. Chem.* **37**, 577-589 (1998).
- 11) **Influence of Charge-Transfer States on the Eu(III) Luminescence in Mononuclear Triple Helical Complexes with Tridentate Aromatic Ligands**
Petoud S, Bünzli J.-C.G.,* Glanzman T., Piguet C., Xiang Q., Thummel R. *J. Luminesc.* **82**, 69-79 (1999).
- 12) **The First Lanthanide-containing Helicates Self-assembled in Water**
Elhabiri M., Scopelliti R., Bünzli J.-C.G.,* Piguet C. *Chem. Commun.* 2347-2348 (1998).
- 13) **Lanthanide Helicates Self-assembled in Water: a New Class of Highly Stable and Luminescent Bimetallic Carboxylates**
Elhabiri M., Scopelliti R., Bünzli J.-C.G.,* Piguet C. *J. Am. Chem. Soc.* **121**, 10747-10762 (1999).

- 14) **Effect of a Halogenide Substituent on the Stability and Photophysical Properties of Lanthanide Triple-stranded Helicates with Ditopic Ligands Derived from Bis(benzimidazole)pyridine**
Platas Iglesias C., Elhabiri M., Hollenstein M., Bünzli J.-C.G.,* Piguet C. *J. Chem. Soc., Dalton Trans.* 2031-2043 (2000).
- 15) **Theoretical Modelling of the Low Quantum Yield Observed in an Eu(III) Triple Helical Complex with a Tridentate Aromatic Ligand**
Gonçalves e Silva F. R.,* Longo R., Malta O. L., Piguet C., Bünzli J.-C.G., *Phys. Chem. Chem. Phys.* 2, 5400-5403 (2000).
- 16) **Influence of Bulky N-Substituents on the Formation of Lanthanide Triple Helical Complexes with a Ligand Derived from Bis(benzimidazole)pyridine: Structural and Thermodynamic Evidences**
Muller G., Bünzli J.-C.G.,* Schenk K. J., Piguet C., Hopfgartner G., *Inorg. Chem.* 40, 2642-2651 (2001).
- 17) **Lanthanide Triple Helical Complexes with a Chiral Ligand Derived from 2,6-Pyridine-Dicarboxylic Acid**
Muller G., Schmidt B., Jiricek J., Hopfgartner G., Riehl J. P., Bünzli J.-C.G.,* Piguet C., *J. Chem. Soc., Dalton Trans.* 2655-2662 (2001).
- 18) **Lanthanide Triple-stranded Helical Complexes with a Substituted 2,6-pyridinedicarboxylate**
Platas Iglesias C., Piguet C., André N., Bünzli J.-C.G., *J. Chem. Soc., Dalton Trans.* 3084-3091 (2001).
- 19) **Visible and Near Infrared Luminescence of Lanthanide-Containing Dimetallic Triple-Stranded helicates: Modelling of the Energy Transfer Processes in the Sm(III) and Yb(III) Molecular Edifices**
Gonçalves e Silva F. R., Malta O. L., Reinhard C., Güdel H.-U., Piguet C., Moser, J. E., Bünzli J.-C.G.,* *J Phys. Chem. A* 106, 1670-1677 (2002).
- 20) **Self-assembled Triple-stranded Lanthanide Dimetallic Helicates with a Ditopic Ligand Derived from Bis(benzimidazole)pyridine and Featuring an (4-Isothiocyanatophenyl)ethynyl Substituents**
Tripier R., Hollenstein M., Elhabiri M., Chauvin A. S., Zucchi G., Piguet C., Bünzli J.-C.G.,* *Helv. Chim. Acta* 85, 1915-1929 (2002) .
- 21) **The First Self-Assembled Trimetallic Lanthanide Helicate: Different Coordination Sites in Symmetrical Molecular Architectures**
Bocquet B., Bernardinelli G., Renaud F., Ouali N., Floquet S., Hopfgartner G., Piguet C. * *Chem. Commun.* 930-931 (2002).
- 22) **Discriminating between Lanthanide Ions: Self-Assembly of Heterodimetallic Triple-stranded helicates**
André N., Scopelliti R., Hopfgartner G., Piguet C., Bünzli J.-C. G.* *Chem. Commun.* 214-215 (2002).
- 23) **Lanthanide Triple Helical Complexes with a Chiral Bis(benzimidazole)pyridine Derivative**
Muller G., Riehl J. P., Schenk K. J., Hopfgartner G., Piguet C., Bünzli J.-C. G.,* *Eur. J. Inorg. Chem.* 3101-3110 (2002).

- 24) **Self-Assembly Mechanism of a Bimetallic Europium Triple-stranded Helicate.**
Hamacek J., Blanc S., Elhabiri M., Leize E., van Dorsselaer A., Piguet C., Albrecht-Gary A.-M.* *J. Am. Chem. Soc.* 125, 1541-1550 (2003)
- 25) **The First Self-Assembled Trimetallic Lanthanide Helicates Driven by Positive Cooperativity.**
Floquet S., Ouali N., Bocquet B., Bernardinelli G., Imbert D., Bünzli J.-C. G., Hopfgartner G., Piguet C.* *Chem. Eur. J.* 9, 1860-1875 (2003)
- 26) **Structural, Photophysical and Chiro-optical Properties of Lanthanide Complexes with a bis(benzimidazole)pyridine-based Chiral Ligand**
Muller G., Maupin C. L., Riehl J. P., Birkedal H., Piguet C., Bünzli J.-C. G.,* *Eur. J. Inorg. Chem.* 4065-4072 (2003).
- 27) **Supramolecular Recognition of Hetero Pairs of Lanthanide Ions: a Step toward Self-assembled Bifunctional Probes**
André N., Jensen T. B., Scopelliti R., Imbert D., Elhabiri M., Hopfgartner G., Piguet C., Bünzli J.-C. G.,* *Inorg. Chem.* 43, 515-529 (2004).
- 28) **Monometallic Lanthanide Complexes with Tridentate 2,6-Dicarboxamido-Pyridine Ligands. Influence of Peripheral Substitutions on Steric Congestion and Antenna Effect**
Le Borgne T., Bénech J.-M., Floquet S., Bernardinelli G., Aliprandini C., Bettens P., Piguet C.,* *Dalton Trans.* 3856-3868 (2003).
- 29) **Tuning Facial-Meridional Isomerisation in Monometallic Nine-Coordinate Lanthanide Complexes with Unsymmetrical Tridentate Ligands**
Le Borgne T., Altmann P., André N., Bünzli J.-C. G., Bernardinelli G., Morgantini P.-Y., Weber J., Piguet C.,* *Dalton Trans.* 723-733 (2004).
- 30) **Isolation and Characterization of the First Circular Single-stranded Polymetallic Lanthanide-containing Helicate**
Senegas J.-M., Koeller S., Piguet C.,* *Chem. Commun.* 2235-2237 (2005).
- 31) **Predictions, Synthetic Strategy, and Isolation of a Linear Tetrametallic Triple-stranded Lanthanide Helicate**
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- 164) **Dual Behavior of Trivalent Erbium with Ditopic Ligands in Coordination Compounds**
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- 166) **A Novel Thermodynamic Analysis of Intermolecular Association Processes**
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- 168) **Anhydrous Lanthanide Salts for Complexing Neutral Tridentate Binding Units with Six-Membered Chelate Rings**
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- 169) **Synthesis and Characterization of Dual Visible/NIR Luminescent Erbium Coordination Complexes**
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- 170) **Solvent Free Solid State Synthesis of Lanthanide Complexes**
Guénée L., Golesorkhi B., Piguet C., The European Powder Diffraction Conference, EPDIC 15, Bari, Italy (12-15.06.2016).
- 171) **Modelling the Conjugation Length in Aromatic Antenna: A Simple Predictive Tool for the Synthesis of Functional Material**
Humbert-Droz M., Piguet C., Wesolowski T. A., ISTCP IX 2016 Conference, Gran Forks, USA (17-22.07.2016).
- 172) **Increasing Kinetic Inertness in Polynuclear Lanthanide Complexes**
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- 174) **How Should Coordination Chemists Deal with the Chemical Potential of the Solvent ?**
Baudet K., Guerra S., Piguet C., ISMSC and ISACS 2017, Cambridge, UK (2-6.07.2017).
- 175) **Cr(III) as a Substitute to Ru(II) in Energy Conversion Devices**
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- 176) **Iron(II) Spin Crossover in Heterodinuclear Helicates: a Comparison with their Mononuclear Analogues**
Lathion T., Guénée L., Piguet C., ISMSC and ISACS 2017, Cambridge, UK (2-6.07.2017).
- 177) **Rational Design of Tetranuclear d-f Complexes with Janus-type Aromatic Ligands**
Asadnia M., Zare D., Doistau B., Nozary H., Piguet C., Autumn Assembly Swiss Chemical Society, Bern (21-22.08.2017).
- 178) **Iron(II) Spin Crossover in Mononuclear and Heterodinuclear d-f Complexes**
Lathion T., Guénée L., Besnard C., Piguet C., Annual Meeting of the Swiss Society for Crystallography, Geneva (12.09.2017).
- 179) **Crystal Structures of Cr(III) Bimetallic Complexes: a Key for Unravelling Electronic Communication**
Doistau B., Zare D., Besnard C., Guénée L., Suffren Y., Hauser A., Piguet C., Annual Meeting of the Swiss Society for Crystallography, Geneva (12.09.2017).
- 180) **Solvent Chemical Potential: A Key Player in Intermolecular Association Processes**
Baudet K., Guerra S., Piguet C., International Conference on f-Elements, ICFE-10, Lausanne (3-6.09.2018).
- 181) **Cr^{III} Tris-Didentates Sensitizers for Energy Converting Devices**
Doistau B., Collet G., Acuna-Bolomey E., Besnard C., Piguet C., Autumn Assembly Swiss Chemical Society, Lausanne (07.09.2018).
- 182) **Stepwise Introduction of Large Bite Angle Ligands in Cr(III) Complexes.: From Terpyridine to Dipyridine-2-yl-pyridine-2,6-diamine.**
Jiménez J.-R., Doistau B., Besnard C., Guénée L., Piguet C., Autumn Assembly Swiss Chemical Society, Lausanne (07.09.2018).
- 183) **Implementing Room-Temperature Dual Emission in Molecular Erbium Complexes for Molecular-Based Upconversion.**
Golesorkhi B., Suffren Y., Guénée L., Nozary H., Fürstenberg A., Eliseeva S. V., Petoud S., Hauser A., Piguet C., Autumn Assembly Swiss Chemical Society, Lausanne (07.09.2018).
- 184) **Anticooperative Lanthanide Loading on Tridentate Oligomers**
Mirzakhani M., Nozary H., Piguet C., International Conference on f-Elements, ICFE-10, Lausanne (3-6.09 2018).
- 185) **Rational Incorporation of Long Lived Near Infra-Red Cr(III) Chromophores Into Designed Polymetallic Architectures**
Doistau B., Guerra S., Besnard C., Piguet C., 14th International Symposium on Macrocyclic and Supramolecular Chemistry (ISMCS2019), Lecce, Italy (2-6.06 2019).

- 186) **Self-Assembly of d–f Heteronuclear Triple Helices**
Taarit I., Guerra S., Doistau B., Piguet C., 14th International Symposium on Macrocyclic and Supramolecular Chemistry (ISMSC2019), Lecce, Italy (2-6.06 2019).
- 187) **Tris-diimine Fe^{II} Spin Crossover Complexes Using Various N-Heterocyclic Ligands**
Deorukhkar N., Lathion T., Besnard C., Guénée L., Piguet C., 14th International Symposium on Macrocyclic and Supramolecular Chemistry (ISMSC2019), Lecce, Italy (2-6.06 2019).
- 188) **Lanthanide Loading of Linear Polymers Under Thermodynamic Control**
Mirzakhani M., Besnard C., Nozary H., Piguet C., 14th International Symposium on Macrocyclic and Supramolecular Chemistry (ISMSC2019), Lecce, Italy (2-6.06 2019).
- 189) **Rigidifying Bis(Benzimidazole-2-yl)Pyridines: a First Step Toward Preorganization of Linear Lanthanidopolymers**
Naseri S., Besnard C., Nozary H., Piguet C., 14th International Symposium on Macrocyclic and Supramolecular Chemistry (ISMSC2019), Lecce, Italy (2-6.06 2019).
- 190) **Tris-diimine Fe^{II} Spin Crossover Complexes Using Pyrimidine Ligands**
Deorukhkar N., Lathion T., Besnard C., Guénée L., Piguet C., Autumn Assembly Swiss Chemical Society, Lausanne (06.09.2019).
- 191) **Self-Assembly of Heteronuclear Triple Helices for Efficient Upconversion**
Taarit I., Guerra S., Doistau B., Piguet C., Autumn Assembly Swiss Chemical Society, Lausanne (06.09.2019).

LECTURES AND PRESENTATIONS

- 1) **Helical Complexes of Cu(I) with fully 4,4'-substituted Oligopyridines: Criterion for Helicate Formation and Secondary Recognition**
University Louis Pasteur, Strasbourg, 15.1.91, France.
- 2) **Encoding and Decoding Structures: A Contribution from Coordination Chemistry to Supramolecular Chemistry**
University of Lausanne, Institute of Inorganic Chemistry, 3.7.91, Switzerland.
- 3) **Organic Synthesis in Supramolecular and Coordination Chemistry: an Art for Designing Sophisticated ligands**
University of Geneva, Department of Inorganic Chemistry, 8.11.91, Switzerland.
- 4) **Crystal Structures and Luminescent Properties of Lanthanide Complexes with Planar Tridentate Nitrogen Ligands Analogous to 2,2':6',2'' Terpyridine**
University of Lausanne, Institute of Inorganic Chemistry, 17.12.91, Switzerland.
- 5) **Self-Assembly of Helical and Non-Helical Dinuclear Cu(I) Complexes: Structural and Electronic Informations Stored in the Intermetallic Bridge**
University of Geneva, Department of Inorganic Chemistry, 15.5.92, Switzerland.
- 6) **Polynuclear Helical Complexes with Lanthanide Ions**
University of Geneva, Department of Inorganic Chemistry, 13.11.92, Switzerland.
- 7) **Self-Assembly of Helical Structures with Heterocyclic Nitrogen Ligands. A New Approach toward Polynuclear Luminescent Probes**
Ecole Polytechnique de Lausanne, Department of Physical Chemistry, 3.6.93, Switzerland.

- 8) **Syntheses of Polydentate Heterocyclic Nitrogen Ligands based on Pyridine and Benzimidazole Aromatic Rings for the Assembly of Supramolecular Complexes**
University of Genève, Department of Inorganic Chemistry, 18.25.6.93, Switzerland.
- 9) **Helical Complexes with Heterocyclic Nitrogen Ligands. A New Approach toward Polynuclear Luminescent Probes**
Swiss-Alsace Meeting, University of Neuchâtel, 21-22.9.93, Switzerland.
- 10) **Heterodinuclear Self-assembly of Helical Supramolecular Complexes. A New Perspective for the Development of Molecular Devices**
University of Lausanne, Institute of Inorganic Chemistry, 16.11.93, Switzerland.
- 11) **Complexes Hélicoïdaux de Ligands Hétérocycliques avec les Lanthanides. Une Approche Nouvelle pour le Développement de Sondes Polynucléaires Luminescentes**
University Louis Pasteur, Strasbourg, 10.2.94, France.
- 12) **Utilisation Combinée de Sondes Diastéréotopiques et d'Effets NOE pour la Caractérisation de Structures Supramoléculaires en Solution**
University of Geneva, Department of Inorganic Chemistry, 18.2.94, Switzerland.
- 13) **Auto-Assemblage de Complexes Hélicoïdaux de Ligands Hétérocycliques Polydentés avec les Lanthanides**
Université de Geneva, Department of Organic Chemistry, 26.5.94, Switzerland.
- 14) **Self-Assembly of Helical Supramolecular Lanthanide Complexes**
Session Lecture, 2nd International Conference on f-Elements, Helsinki, 2.8.94, Finland.
- 15) **Complexes Hétérodinucléaires d-f Pseudo-Cylindriques Auto-Assemblées: Du Concept à la Réalisation**
Université de Lausanne, Unité de recherche sur les éléments f, 25.11.94, Switzerland.
- 16) **Molecular Magnetism as a Probe in Heterodinuclear d-f Complexes**
Université de Genève, Department Inorganic Chemistry, 9.3 et 23.3 95, Switzerland
- 17) **Lanthanide-Containing Light-Converting Nanometric Devices**
Session Lecture, 3rd International Conference on Rare Earth Development & Applications, Baotou, China, 15.8.95. Abstract: J.-C.G. Bünzli, C.Piguet *J. Rare Earth*, Special issue vol 1, 9-11 95
- 18) **Supramolecular Lanthanide Building Blocks for Organized Luminescent Materials**
Werner Lecture, Autumn assembly of the New Swiss Chemical Society, 20.10.95.
- 19) **f-f and d-f Building Blocks as Precursors of Magnetic and Luminescent Materials**
Bünzli J.-C.G., Piguet C.
6th Meeting: Syntheses and Methodologies in Inorg. Chemistry, New Compounds and Materials, Bressanone, Italy, 18-21.12.95.
- 20) **Towards Materials with Planned properties: Dinuclear f-f and d-f Helicates with Podands based Benzimidazolepyridines**
Bünzli J.-C.G., Piguet C.
21th Rare Earth Research Conference, Duluth Minnesota USA, 7-12.7.96

- 21) **Supramolecular Chemistry of 4f Elements**
Werner Foundation, Basel, 29.03.96, Switzerland.
- 22) **Non-Covalent Interactions in Lanthanide Chemistry**
University of Geneva, Department of Inorganic Chemistry, 4.9.1996, Switzerland.
- 23) **Non-Covalent Synthesis of Organized Metallosupramolecular Architectures**
Neuere Synthetische Methoden 1996, Hoffmann - La Roche, Gersau 15-18.09.96, Switzerland.
- 24) **Functional Molecular Devices Based on Self-Assembled Lanthanide Complexes**
Conférence Scientia Europea N°0, Annecy, France, 22-25.11.96
- 25) **Supramolecular Lanthanide Devices with Predetermined Structural, Optical and Magnetic Properties**
Université de Bordeaux 1, 26.11.96, France.
- 26) **Metallosupramolecular Chemistry: Concepts and Application to Transition Metals**
Université de Lausanne, 16.01.97, Switzerland.
- 27) **Supramolecular Approach to 4f Complexes**
Université de Lausanne, 23.01.97, Switzerland.
- 28) **Lanthanide Containing Helicates: Supramolecular Assemblies with Planned Properties**
Bünzli J.-C.G., Piguet C., 3rd Swiss-Alsace Meeting, Mulhouse, 15.05.97, France.
- 29) **Recognition and Incorporation of Lanthanide Ions into Functional Organized Architectures**
Université Joseph Fourier, Grenoble, 01.07.97, France.
- 30) **In Search for Lanthanide Building Blocks with Predetermined Properties**
Piguet C., Bünzli J.-C.G., 36th IUPAC Congress, Geneva, 17-22.08.97, Switzerland.
- 31) **Helicates as Versatile Supramolecular Complexes and Functional Devices**
Supramolecular School, (3rd cycle in chemistry), Champery, 7-12.09.97, Switzerland.
- 32) **Non-Covalent Lanthanide Podates with Predetermined Properties**
Piguet C., 3rd International Conference on f-Elements (ICFE3), Paris, 14-18.09.97, France.
- 33) **Self-Organized and Functional Lanthanide Assemblies**
Piguet C., University of Basel, 17.11.97, Switzerland.
- 34) **De l'Atome aux Supermolecules Fonctionnelles**
Piguet C., University of Geneva, 27.11.97, Switzerland.
- 35) **Lanthanide Metal Ions in Metallosupramolecular Chemistry: a Duality**
Piguet C., University of Bern, 16.04.98, Switzerland.

- 36) **Design of Functional Self-Assembled Lanthanide Triple Helical Complexes**
Bünzli J.-C.G., Piguet C., 92nd Meeting of Kyushu Association of Coordination Chemists, 28.05.98, Japan
- 37) **Lanthanide Metal Ions as Cornerstones in Metallosupramolecular Devices**
Piguet C., University of Freiburg in Brisgau, 20.05.98, Germany
- 38) **Lanthanide Metal Ions in Functional and Organized Supramolecular Devices**
Piguet C., Chemical Society of Fribourg, 26.05.98, Switzerland.
- 39) **Structure of Lanthanide Complexes in Solution: an Interplay between Magnetism and NMR**
Piguet C., Rigault S., Rivara-Minten E., 1st Lemanic Meeting on Lanthanide Metallosupramolecular Chemistry, 7.07.98, Lausanne, Switzerland
- 40) **Vers de Nouveaux Outils Moléculaires Fonctionnels. Complexes des Lanthanides aux Propriétés Structurelles et Electroniques Modulables**
Piguet C., University of Geneva, 23.09.98, Switzerland.
- 41) **Chimie Supramoléculaire des Lanthanides: Entre Tradition et Nouveauté**
Piguet C., Société Chimique de Genève, 18.01.99, Suisse.
- 42) **Adéquation Induite en Chimie de Coordination des Lanthanides. Un Pas vers le Développement d'Outils Supramoléculaires Fonctionnels**
Piguet C., Université de Neuchâtel, 10.03.99, Suisse
- 43) **Vectorisation d'Unités Tridentées Disymétriques autour des Cations Lanthanides: Un pas vers le Développement d'Outils Supramoléculaires Fonctionnels**
Piguet C., Université Joseph Fourier, 20.05.99, Grenoble, France.
- 44) **Organized Nine-Coordinate Lanthanide Building Blocks as Cornerstones in Functional Supramolecular Devices**
Piguet C., 22nd Rare Earth Research Conference, 10-15 July 1999 Argonne (USA)
- 45) **De l'Atome aux Supermolécules Fonctionnelles: Un Défi pour la Chimie du 21^{ème} Siècle**
Piguet C., Culture & Rencontre, Grands soirs: La Science entre doute et certitude, 16.02.2000, Collège de Saussure, (Suisse).
- 46) **Organizing Lanthanide-Containing Architectures According to the Induced Fit Concept: isolated d-f Pairs in Supramolecular Complexes**
Piguet C., 34th International Conference on Coordination Chemistry, Golden Jubilee Lecture, 9-14.07.2000, Edinburgh, Scotland.
- 47) **Paramagnetic NMR for Characterising Lanthanide Supramolecular Complexes**
Piguet C., 4th International Conference on f-Elements, 17-24.09.2000, Madrid, Spain.

- 48) **Chimie Supramoléculaire des Lanthanides: un Défi pour le 21^{ème} Siècle**
Piguet C., Société Vaudoise des Sciences Naturelles, 17.01.2001, Lausanne, Switzerland.
- 49) **Long-range Intermetallic Communications Involving Lanthanide Metal Ions in Functional Materials**
Piguet C., New Swiss Chemical Society, Spring Meeting 2001, 30.03.2001, Neuchâtel, Switzerland
- 50) **Supramolecular Dimetallic Functional Assemblies: A New Bonanza for Lanthanide Ions**
Bünzli J.-C. G. and Piguet C., Rare Earth 2001, Sao Paulo, Brazil (2001)
- 51) **Micro- and Macroscopic Properties of Lanthanide Complexes Controlled by Intra-and Intermolecular interactions**
Piguet C., Institut de Physique et Chimie des Matériaux de Strasbourg, 11.10.2001, Strasbourg, France
- 52) **Micro- and Macroscopic Properties of Lanthanide Complexes Controlled by Non-covalent Interactions**
Piguet C., Université Paris-Sud, Orsay, 09.11.2001, Paris, France.
- 53) **Lanthanide Metal Ions as Paramagnetic NMR Probes for Solving Structures of Supramolecular Assemblies in Solution**
Piguet C. Synthetic Approaches to Molecular Magnets: Chemical Tools and New Trends ESF Advanced Workshop, 06.04-10.04 2002, Dourdan, France
- 54) **Une Carrière Académique en Chimie**
Piguet C., Société Chimique de Genève, 27.05.2002, Suisse.
- 55) **Kinetically Inert d-Block Partners in Self-assembled Functional Heterodimetallic Lanthanide Probes and Sensors**
Piguet C., Cantuel M., Bernardinelli G. International Conference on Coordination Chemistry ICCC35, 21.07-26.07 2002, Heidelberg, Germany
- 56) **Micro- and Macroscopic Order in Lanthanide Complexes for Controlling Electronic and Magnetic Properties**
Piguet C., Symposium of the Swiss Society of Photochemistry and Photobiology, 07.10.2002, Lausanne, Switzerland.
- 57) **Auto-assemblage Thermodynamique d'Hélicates Trimétalliques de Lanthanides**
Floquet S., Ouali N., Bocquet B., Bernardinelli G., Imbert D., Bünzli J.-C.G., Piguet C. Laboratoire de Chimie Inorganique et Matériaux Moléculaires (CIM2), Université Pierre et Marie Curie (Paris VI), 04.11.2002, Paris, France
- 58) **Auto-assemblage Thermodynamique d'Hélicates Trimétalliques de Lanthanides**
Floquet S., Piguet C. Institut des Matériaux Jean Rouxel, 14.02.2003, Nantes, France

- 59) **Selective and Positively Cooperative Self-Assembly of Heterotrimetallic Lanthanide Helicates**
Piguet C., Floquet S., Ouali N., Bocquet B., Rivera J.-P., Bernardinelli G., Hopfgartner G. Dalton Discussion Meeting 'Ligand design for functional complexes', Noordwijkerhout, The Netherlands (10-12.04.2003).
- 60) **Metallomesogens with Extended Bent Tridentate Receptors; Complexation with d and f-Metals. Columnar and Cubic Mesomorphism Tuned by the Size of the Lanthanide Metal Ions**
Terazzi E., Bernardinelli G., Rivera J.-P., Piguet C., Donnio B., Guillon D. 8th International Symposium on Metallomesogens' (ISM 2003), Namur, Belgique (28-31 may 2003).
- 61) **New Luminescent Lanthanide-containing Liquid Crystals with Macrocyclic pro-Mesogenic Ligands**
Mamula O., Suarez S., Imbert D., Piguet C., Bünzli J.-C. G. 8th International Symposium on Metallomesogens' (ISM 2003), Namur Belgique (28-31 may 2003).
- 62) **A Bottom-to-top Approach for Introducing Functional Metal Ions into Organized Materials**
Piguet C. Symposium of the National research Program on Supramolecular Materials, Geneva, Switzerland (29.04.2003).
- 63) **Luminescence as a Probe of Phase Transitions in Lanthanide-containing Mesogens**
Bünzli J.-C. G., Imbert D., Suarez S., Terazzi E., Piguet C. 227th ACS National Meeting, Anaheim, CA, USA (28.03.2004-01.04.2004).
- 64) **Extending Lifetimes of Lanthanide-based NIR Emitters (Nd, Yb) in the Millisecond Range through Cr(III) sensitization in discrete bimetallic edifices**
Cantuel M., Imbert D., Bünzli J.-C. G., Bernardinelli G., Piguet C. 227th ACS National Meeting, Anaheim, CA, USA (28.03.2004-01.04.2004).
- 65) **Self-Assembly of Nanoscale Polymetallic Lanthanide Helicates: New Words for Old Concepts**
Piguet C., University of Basle, Switzerland (24.06.2004)
- 66) **Cr^{III} in self-assembled heterobimetallic podates : versatility of intermetallic communications with Ln^{III} ions**
Cantuel M., E., Bernardinelli G., Imbert D., Bünzli J.-C. G., Muller G., Riehl J. P., Piguet C. XXXVIth International Conference on Coordination Chemistry, Merida, Mexico (18-23.7.2004).
- 67) **Controlling functionalities in 4f-4f and 4f-3d polymetallic edifices**
Bünzli J.-C. G., Piguet C. XXXVIth International Conference on Coordination Chemistry, Merida, Mexico (18-23.7.2004).
- 68) **Self-assembly of [Ln_xLn_{a-x}(Li)₃]^{3a+} and their thermodynamic interpretation**
Zeckert K., Pinto A., Piguet C. XXXVIth International Conference on Coordination Chemistry, Merida, Mexico (18-23.7.2004).
- 69) **Auto-Assemblages d'Hélicates Polymétalliques à l'Echelle Nanométriques, ou Quand la Sémantique cache les Concepts**
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HIGHLIGHTS

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Keystone ATS / Agence Télégraphique Suisse, 04.03.2019
Il y a 150 ans, le 6 mars 1869, Dmitri Mendeleïev présentait son Tableau périodique devant la société russe de chimie, un outil toujours incontournable pour les chimistes. Des Genevois y ont associé leurs noms par la suite en y ajoutant trois nouveaux éléments. Explications de Claude Piguet, professeur de chimie minérale à l'Université de Genève (UNIGE).
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