



Jean-François Halet received his B.Sc. (First Class Hons.) in Physical Chemistry from the University of Nancy, France (1981), his M.Sc. (Hons.) in Physical Chemistry from the University of Rennes, France (1982), and his Ph.D. in Spectroscopy and Chemistry from the University Pierre-et-Marie Curie, Paris, France (1984) working with Professors G. Jaouen, IUF, and J.-Y. Saillard, IUF, on the electronic structure of organometallic clusters. Later, he received his D.Sc. in Chemical Sciences (1990) and his Research Habilitation (1991) from the University of Rennes, France. Following postdoctoral research with Professor D.M.P. Mingos, *FRS*, at the University of Oxford in England (1986-1987), he spent over a year as a Visiting Research Scientist with Professor R. Hoffmann (*Nobel laureate* 1981) at Cornell University, Ithaca, New York in USA (1987-1988). He was appointed as a CNRS Researcher Fellow at the University of Rennes, France, in 1984, and was Exceptional Class Research Director (Full Professor) at the Institute of Chemical Sciences of Rennes (ISCR) until his retirement in May 2025. From 2000 to 2003, he was the Head of the Laboratory of Solid-State and Inorganic Molecular Chemistry of the CNRS-University of Rennes, and from 2006 to 2009, the Head of the Theoretical Inorganic Chemistry group of the Institute of Chemical Sciences from the CNRS-University of Rennes. He has been Distinguished Visiting Scholar at University of Adelaide, Adelaide, Australia in 1997, and Visiting Scientist at the Max-Planck Institute, Dresden, Germany, in 2005 and 2013. By the end of 2020, he moved to the Laboratory for Innovative Key Materials and Structures (LINK), CNRS – Saint-Gobain – National Institute for Materials Science (NIMS), Tsukuba, Japan. From March 1 to August 31, 2023, he was the Head of this laboratory. In September 2023, he came back to the Institute of Chemical Sciences (ISCR) from the University of Rennes – CNRS – Ecole Nationale Supérieure de Chimie de Rennes (ENSCR). He is also a member of the French-Australian International Research Project (IRP) CNRS-ANU “MAITAI 2” focusing on Multiphoton Absorbers in Therapy and Imaging (2026-2030). Since May 1, 2025, he is CNRS Emeritus Research Director at ISCR, Rennes, France.

He was the recipient of the Bronze Medal of the CNRS in 1992 and the French Chemical Society Award in Coordination Chemistry in 1995. He is Member of the French Chemical Society, the American Chemical Society and Fellow of the Royal Society of Chemistry (FRSC). In 2019, he was elected Fellow of the *Academia Scientiarum et Artium Europaea* (European Academy of Sciences and Arts). He was Guest Editor of several journals (*J. Solid State Chemistry* (vol. 154, 2000), *J. Organomet. Chem.* (SI T.P. Fehlner, vol. 721-722, 2012), *Polyhedron* (SI C. Lapinte, vol. 86, 2015), *Struct. Bond.* (Ligated transition-metal clusters in solid-state chemistry: The legacy of Marcel Sergent, vol. 180, 2019) and has served on the editorial boards of *Polyhedron* (2013-present), *J. Cluster Science* (2013-2025), *Organometallics* (2014-2016), *Inorganics* (2018-present), and *Organometallic Science* (2025-present). He is a member of the International Board of ISBB Conferences and IMEBORON Conferences. He acted as a Member of the Commission on Crystallography of Materials of the *International Union of Crystallography* (2013-2017). Since 2021, he is Visiting Teaching Professor at the Chinese-French Institute *Chimie Shanghai* at the East China University of Science and Technology (ECUST), Shanghai, China.

His research interests center on the understanding of the *chemical bond* and the associated physical properties in main-group and transition-metal inorganic chemistry. He uses a variety of quantum chemical computational tools including Density Functional Theory methods to tackle problems of electron counting, structure, and physical properties of both molecular and solid-state systems. His main recent investigations include (i) The electronic structure and physico-chemical properties of large (molecular, nanosized, and solid-state) inorganic transition metal clusters; (ii) The study of the metal-to-carbon bonding and physical properties in polymetallic compounds containing carbon ligands for potential application in electronics and (linear and non-linear) optics; (iii) The electronic and optical properties of organic-boron and metal-boron molecular compounds, and (iv) The understanding of the structural arrangement and the physical (conducting, thermoelectric...) properties of diverse solid-state compounds (borides, boride carbides, nitrides, chalcogenides, intermetallics, etc.).

He has published over 350 papers and presented over 230 lectures and seminars at national and international conferences and at research institutions, worldwide. He has supervised or co-supervised more than 30 PhDs. He is or has been involved in many national and international (formalized and non-formalized) collaborations, in particular in France (D. Astruc (Bordeaux) on catalytic properties of nanoclusters and nanoparticles; F. Paul, C. Lapinte, J.-R. Hamon (Rennes) on the electronic and optical properties of mixed-valence molecular iron organometallic wires; D. Berthebaud (Nantes) on the thermoelectric properties of solids), Australia (M. I. Bruce (Adelaide), P. J. Low (Perth), M. I. Humphrey (Canberra), USA (J. A. Gladysz (College Station), H. Sahnoune (Algiers) on the electronic and optical properties of mixed-valence molecular transition-metal organometallic wires), China (V. W.-W. Yam (Hong Kong), on the optical properties of molecular transition-metal organometallic wires, K.-G. Liu, J. Wei (Yinchuan), on the electronic and optical properties of coinage ligated nanoclusters), Germany (T. B. Marder (Würzburg), on the optical properties of molecular boron-containing compounds; C. Braun (Karlsruhe), Yu. Grin (Dresden), B. Albert (Darmstadt), R. Pöttgen (Münster) on the structural properties of solids), India (S. Ghosh (Madras), on the electronic properties of metallaborane clusters), Ukraine (V. Babizhetskyy (Lviv) on the structural properties of solids), and Japan (J. Hill (Tsukuba), on the electronic and optical properties of extended pyrazinacenes, and T. Mori (Tsukuba), on the thermoelectric properties of solids).