Dr. Christian Amatore, HonFRSC, HonFCSC, HonFCPSE

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Biography

Christian Amatore, 66, was educated at Ecole Normale Supérieure (ENS), the leading French center for higher education and research. Acting as Director of the Chemistry Department of ENS as ENS Professor of Chemistry—the position formerly held by Louis Pasteur— he brought it back into the global spotlight by giving it its present configuration, which encompasses chemical fields from theoretical physical chemistry to bioorganic chemistry, with a special focus on chemical issues of importance in life design and functions. He is now Emeritus Director of Research in CNRS, Full Member of the French Académie des Sciences where he served as a vice-President in charge of Education, Foreign Member of the Chinese Academy of Sciences, Member of the Academia Europaea, Member of The Third World Academy of Sciences, Foreign Member of the Brazilian Academy of Sciences, Honorary Fellow of the Royal Society of Chemistry and of the Chinese Chemical Society, Honorary Member of the Israeli Chemical Society, Distinguished Scientist of the French Chemical Society, Fellow of the International Society of Electrochemistry and of the Electrochemical Society, President and now Past President of the International Society of Electrochemistry. Over the past years he acted as one of the twenty members of the High Council of Science and Technology which advised the French Governments on scientific matters. He has been thrice knighted by the French Republic in the Order of National Merits and the Order of Legion d'Honneur for his scientific achievements, as well as the Order of Academic Palms for his deep involvement in scientific education in universities but also in schools.

His research involves the development of advanced electrochemical concepts, methodologies, and instrumentation for investigating extremely complex mechanisms of organic and organometallic chemistry under the very conditions used by synthetic chemists. Amatore's activity in molecular kinetics is best illustrated by the rationalization of electron transfer catalysis, electron transfer activation of molecules, and more recently, by comprehensive work that elucidates the most important mechanistic aspects of catalysis by homogeneous palladium complexes, an extremely active area in today's catalysis for carbon-carbon bond making in fine chemical industry. The well recognized contributions of Amatore's group in this area have opened new perspectives for rationalizing these important processes, which have already led to the development of new synthetic strategies.

Amatore's contributions gave electrochemistry new concepts and new tools that are essential in offering electrochemistry new entries in several mechanistic problems in organic, inorganic, and organometallic chemistries, and more recently into the biology of living cells. These research were published in 486 primary research publications, cumulating above 22000 citations and corresponding to a "h-index" of 74 (ISI Web of Science, December 2017) with a growing average citations rate, reaching above 1 250 per year over the past 5 years.

Amatore received many important French and international awards and distinctions, among which the Silver Medal (CNRS), the Reilley Award (SEAC), the de Broglie Medal (Academia dei Lincei), the Bourke Medal (RSC), the Galvani Medal (SCI), the Breyer Medal (RACI), the Heyrovsky award (Charles University, Prague), the Faraday Medal (RSC), and the Volta Medal (ECS). He has been distinguished lecturer in many outstanding universities (Royal Society (London), Oxford, Durham, Cornell, Pittsburgh, Prague, Caltech, Padova, Modena, Roma La Sapienza, Japan JSPS, Bologna, Bucarest, etc.) and is Honorary Professor or Doctor Honoris Causa of several universities in Europe and Asia.