

Festschrift in Honor of Prof. Jean-Luc Brédas on His 65th Birthday

It is our great honor to dedicate this special issue of *Chemistry of Materials* to Professor Jean-Luc Brédas in honor of his 65th birthday. As a mentor, collaborator, colleague, and friend, Jean-Luc epitomizes many of the idealized qualities and worldview of the 21st century teacher-scholar. It is this second descriptor—collaborator—where perhaps Jean-Luc has made his biggest impact on his students and colleagues. As a theoretical materials chemist, Jean-Luc has insisted that any theory or model be confronted with experiment, and that if the model fails then it must be improved. This directive has resulted in a dense web of synthetic, experimental, and theoretical collaborators and an uncanny ability to translate the varied languages of these scientific disciplines so that results of any work have the greatest impact. As can be seen by many of the papers that appear in this special issue, with reports that span a diverse array of the materials chemistry landscape, the tight feedback loop of the synthesis–theory–experiment triumvirate that Jean-Luc so strongly believes in permeates the field.

Jean-Luc received his B.Sc. in Chemistry from the Université de Namur, Belgium, in 1976, and his Ph.D. from the same university in 1979 under the supervision of Professor Jean-Marie André. In 1980, Jean-Luc began what would become a set of long-standing and fruitful collaborations and friendships when he started work as a postdoctoral researcher with Dr. Ron Chance (then of Allied Chemicals) and Professor Robert Silbey (Massachusetts Institute of Technology). Jean-Luc then moved back to the University of Namur where he was appointed as research fellow of the Belgian National Science Foundation (FNRS). In 1988, he was appointed Professor at the Université de Mons, Belgium, where he founded the Laboratory for Chemistry of Novel Materials. While keeping an “Extraordinary Professorship” appointment in Mons, Jean-Luc moved to the United States in 1999 and became Full Professor of Chemistry at the University of Arizona. In 2003, Jean-Luc joined the Georgia Institute of Technology (Georgia Tech) as Full Professor of Chemistry and Biochemistry, and in July 2014, he took a two and one-half year leave of absence to King Abdullah University of Science and Technology (KAUST) in Saudi Arabia where he served as Distinguished Professor of Materials Science and Engineering and Director of the KAUST Solar and Photovoltaics Engineering Research Center. At Georgia Tech, where he resumed his activities in January 2017, Jean-Luc is Regents’ Professor of Chemistry and Biochemistry and holds the Vasser-Woolley and Georgia Research Alliance Chair in Molecular Design; he has also been a Georgia Research Alliance Eminent Scholar since 2005. With respect to contributions he has made to the materials chemistry community outside of his research group, Jean-Luc has been a long-standing editor at *Chemistry of Materials*, since 2008, and has overseen more than 3000 manuscripts in this role.

To quantify Jean-Luc’s scientific output as prolific is perhaps an understatement. Throughout his career, Jean-Luc’s research has sought to detail the fundamental physicochemical



characteristics of organic semiconductors with promising characteristics in the field of electronics, photonics, and information technology. Implementing computational techniques from quantum chemistry, molecular dynamics, and condensed-matter physics, Jean-Luc and his team model compounds and materials to explore characteristics such as charge-carrier mobilities that range from the semiconducting to the metallic regime, luminescence or photovoltaic response, nonlinear optical properties, and interfacial chemistry with

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other organic materials, metals, or conducting oxides. Jean-Luc has over 1100 refereed publications to his credit and has presented nearly 600 invited lectures throughout his career. He is a member of the International Academy of Quantum Molecular Science, the Royal Academy of Belgium, and the European Academy of Sciences, and he has received numerous awards, including: the 1997 Francqui Prize, the 2000 Quinquennial Prize of the Belgian National Science Foundation, the 2001 Italgas Prize, the 2003 Descartes Prize of the European Union, the 2010 Charles H. Stone Award of the American Chemical Society, the 2013 David Adler Award in Materials Physics of the American Physical Society, and the 2016 Award in the Chemistry of Materials of the American Chemical Society. Jean-Luc is a Fellow of the American Chemical Society (Inaugural Class of 2009), American Physical Society (Inaugural Class of 2009), American Physical Society, Optical Society of America, Royal Society of Chemistry, and Materials Research Society (Inaugural Class of 2008) and an Honorary Professor of the Institute of Chemistry of the Chinese Academy of Sciences. He was conferred honorary degrees from Université Libre de Bruxelles and Linköping University. Over forty Ph.D. students have been supervised by Jean-Luc, and he has mentored thrice as many postdoctoral researchers, research scientists, and visiting researchers; many of these former students have gone on to build fantastic careers in academics, industry, and law.

This Festschrift has brought together friends, collaborators, and colleagues of Jean-Luc from around the world. As testament to the breadth of the scientific impact of Jean-Luc, the topics within the 80 papers of this special issue range from computational materials chemistry to applied organic electronics, energy storage, light emitting materials, and many others. We hope that Jean-Luc is as proud of this issue as we are, and we wish him a very happy 65th birthday, and many more to follow.

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Notes

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