



Prof. Annemie Bogaerts

University of Antwerp, Belgium

Annemie Bogaerts (48 years old) obtained her M.Sc. and Ph.D. in Chemistry in 1993 and 1996, respectively, at the University of Antwerp. After some postdoc years, she became professor in physical chemistry in 2003, at the University of Antwerp, where she is full professor since 2012. She is head of the Research group PLASMANT, which she founded from scratch, and which counts about 40 members.

Her research focuses on plasma chemistry, plasma sources/reactors and plasma-surface interactions (including liquid surfaces and biomolecules), both by modeling and experiments, with special focus on plasma-based gas conversion and plasma medicine (cancer treatment). In the field of plasma medicine, she closely collaborates with the Center for Oncological Research at the University of Antwerp, for in vitro (2D and 3D cell cultures), in ovo and in vivo cancer treatment studies, also in combination with immunotherapy. In addition, her group performs computer modeling, including both molecular dynamics simulations for molecular-level interactions of plasma species with biomolecules, fluid dynamics and chemical kinetics modeling for plasma jets interacting with liquids.

She has written almost 500 peer-reviewed publications since 1995, as well as about 20 invited book chapters. She was editor of the journal "Spectrochimica Acta: Part B", from 2002 till 2018, where she was responsible for the review papers. She is currently topics editor of J. Phys. D: Applied Physics, for the 3-years programme "Advances in Plasmas for a Sustainable Future". She is also member of the Editorial Board of 8 journals, including Plasma Proc. Polym., Plasma Chem. Plasma Process., J. Phys. Chem. A/B/C, and J. Appl. Phys. In addition, she was 12 times guest editor of a special issue related to plasma research. Overall, her work is very highly cited, with above 13,000 citations since 1997 (source: Web of Science), resulting in a h-index of 55 (Google Scholar: above 19,000 citations and h-index of 68).

She has presented above 140 invited talks at international conferences (since 1998) and above 60 invited seminar talks (since 1995). She is in the international scientific committee of several plasma conferences, member of the Board of Directors of the International Plasma Chemistry Society, and Vice-President from 2020. She was also the chair of the International Symposium on Plasma Chemistry in July 2015 in Antwerp, with almost 600 attendants.

Her international leadership is also recognized by a recent ERC Synergy Grant (2019-2025), on plasma-catalytic conversion of small molecules.