



**Annemie Bogaerts** studied chemistry at the University of Antwerp and obtained her Ph.D. degree in 1996, on numerical modelling of dc glow discharges. Subsequently, she also studied rare gas glow discharges (argon, helium, neon) with copper cathode sputtering, in dc, cc rf and pulsed operation modes, for analytical and laser applications. For this purpose, she has developed a hybrid modelling network, consisting of Monte Carlo, fluid, heat transfer and collisional radiative models for the various plasma species: electrons, argon ions, fast argon atoms, argon atoms in excited levels, sputtered copper atoms and the

corresponding ions, in the ground state and in excited levels. Subsequently, she was modelling the processes occurring during and after laser-solid interaction.

She founded the group PLASMANT when she became a professor (2004), and the research focus of the group is now on studying plasma chemistry, plasma reactors and plasma-surface interactions, by both modelling and experiments, for several applications, with main emphasis on gas conversion and green chemistry (e.g., CO<sub>2</sub>, N<sub>2</sub> and CH<sub>4</sub> conversion by plasma and plasma catalysis) and plasma medicine (cancer treatment).

She teaches physical chemistry (i.e., physical electrochemistry, colloid chemistry, gas kinetic theory and chemical reaction kinetics) for the 2<sup>nd</sup> and 3<sup>rd</sup> year chemistry students, a course on plasma technology for 3<sup>rd</sup> bachelor chemistry and physics students, a course on plasma modelling for 1<sup>st</sup> and 2<sup>nd</sup> master chemistry and physics students, and a course on "chemical reaction engineering" for the 1<sup>st</sup> master chemistry students.

Personal university webpage (including more information on teaching and academic activities): [www.uantwerpen.be/annemie-bogaerts](http://www.uantwerpen.be/annemie-bogaerts).