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Jean-Paul Booth is a Research Director at the French Centre Nationale de Recherche Scientifique (CNRS), based (since 2000) at the Laboratoire de Physique de Plasmas at Ecole Polytechnique, France. He obtained his PhD at the Oxford University Physical Chemistry Laboratory before joining CNRS (initially at Grenoble University). He was also a Technical Director (2006-08) at Lam Research Corporation in California, responsible for sensors and endpoint detection applied to plasma etch reactors. He specialises in the experimental study of the physics and chemistry of low pressure plasmas in reactive gases and their interaction with surfaces. He has focussed on radiofrequency plasmas for materials processing in the microelectronics industry, and is currently working on rigorous validation of models of plasmas in diatomic gases through comprehensive diagnostic measurements. He has perfected and applied many novel optical diagnostic techniques (one- and two-photon laser-induced fluorescence, high-sensitivity broad-band absorption spectroscopy, cavity ring-down spectroscopy, synchrotron vacuum-ultraviolet absorption) to measure absolute reactive species densities and kinetics. He has also developed novel electrical probes and microwave resonance techniques for charged particle diagnostics, as well as simpler sensors for in-situ control of industrial plasma processes. He also has an interest in the physics of capacitively-coupled radiofrequency plasmas: RF breakdown, electromagnetic effects in VHF plasmas, and tailored voltage waveform excitation for control of ion and electron fluxes and energy distributions.