Prof. Charles T. Campbell is the B. Seymour Rabinovitch Endowed Chair in Chemistry at the University of Washington, where he is also Adjunct Professor of Chemical Engineering and of Physics. He received his BS (1975) and PhD (1979, under JM White) degrees at the University of Texas at Austin in Chemical Engineering and Chemistry, then did postdoctoral research in Germany with Gerhard Ertl (2007 Nobel Prize Winner). He is the author of over 370 publications and two patents on surface chemistry, catalysis, physical chemistry and biosensing, with over 36,000 total citations and an h-index of 98 (Google Scholar). He is an elected Honorary Fellow of the Chinese Chemical Society, Fellow of the ACS, the AVS and the AAAS, and Member of the Washington State Academy of Sciences. He received the Arthur W. Adamson Award of the ACS, the ACS Award for Colloid or Surface Chemistry, the ACS Catalysis Award for Exceptional Achievements, the Gerhard Ertl Lecture Award, the Robert Burwell Award/Lectureship of the North American Catalysis Society, the Medard W. Welch Award of the AVS, the Gauss Professorship of the Göttingen Academy of Sciences, the Ipatieff Lectureship of Northwestern University and an Alexander von Humboldt Research Award. He serves as Editor-in-Chief of *Surface Science Reports*, and on the Boards of *Catalysis Reviews*, *Catalysis Letters, Surface Science* and *Topics in Catalysis*. He previously served as Editor-in-Chief of *Surface Science* for over ten years.

His most important research contributions include: (1) invention of the Degree of Rate Control and derivation of related equations that explain common kinetic parameters, (2) development of sensitive calorimeters for measuring heats of adsorption on clean, well-ordered single-crystalline surfaces, (3) application of these to measure benchmark heats of formation of many adsorbed catalytic reaction intermediates, (4) discovery through this that DFT methods have much larger energy errors than previously thought, (5) application of his adsorption calorimeter methods to measure the energy of metal atoms in supported metal catalysts, (6) discovery of the relationships between the chemical potential of metal atoms, nanoparticle size and the adhesion energy at the solid metal/support interface (E_{adh}), (7) discovery of trends in E_{adh} with metal and support material that impact sintering rates, (8) elucidation of surface structure-activity relations for important catalytic reactions, including ethylene epoxidation over silver, water-gas shift and methanol synthesis from CO_2 over Cu/ZnO, (9) development of theories for quantitative analysis of surface plasmon resonance (SPR) signals, and (10) elucidation of quantitative aspects of adsorption from liquid solutions (e.g., sticking probabilities and solvent effects on adsorption energies).