

Preface to the Special Issue

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Published online: 15 September 2015

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This special issue of Topics in Catalysis is dedicated to Professor Constantinos (Costas) G. Vayenas on the occasion of his 65th birthday and in recognition of his outstanding contributions to the field of heterogeneous catalysis and electrochemistry, in particular in electrocatalysis, promotion and metal-support interactions. The manuscripts were submitted in response to direct invitations from the guest editors, and consist of contributions from well-known scientists in the above fields. All the manuscripts followed the peer-review process of the Journal. The guest editors are grateful to the authors for their excellent work.

Costas Vayenas studied Chemical Engineering at the National Technical University of Athens (NTU, 1968–1973) and received his PhD from the University of

Rochester in NY, USA in 1976. He then taught as Assistant Professor at Yale University (1976–1977) and as Assistant and Associate Professor at the Massachusetts Institute of Technology (MIT, 1977–1982). Since 1982 he is Professor of Chemical Engineering at the University of Patras. He has also been Visiting Professor at Yale, EPFL (Lausanne) and the University of Lyon.

His research focuses in the areas of Catalysis, Electrochemistry and mathematical modeling of physicochemical phenomena. He has coauthored 250 refereed publications in International Journals, four of them in the journals *Science* and *Nature*. He has received several international Awards which include the Outstanding Achievement Award of the High Temperature Materials Division of the Electrochemical Society (ECS) in 1996, the Wason Medal for Materials Research of the American Concrete Institute in 1992, the Chemistry Award of the Academy of Athens in 1992, and the Outstanding Faculty Award of the Chemical Engineering Department at MIT in 1979 and 1981.

Together with his coworkers at MIT and at the University of Patras he has discovered the phenomenon of the Non-Faradaic Electrochemical Modification of Catalytic Activity (NEMCA effect) which is also known in the literature as the phenomenon of the Electrochemical Promotion of Catalysis (EPOC).

In 2005 he was elected Fellow of the International Society of Electrochemistry (ISE), being chronologically the 14th scientist to receive this honor. He is Editor of the well known Electrochemistry book series *Modern Aspects of Electrochemistry* and has coauthored three books published by Springer and Marcel Dekker. He has supervised 40 PhD Theses and 12 of these PhD students have become Professors in Greek but also non-Greek (USA, China) Universities and Research Centers. In 2010 he was elected

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as a full member of the Academy of Athens in the Chair of Chemical Sciences.

This issue commemorates the 65th birthday of Costas Vayenas but he, of course, has not retired yet! We are sure

that Costas will continue his innovative career during the next decades and we, together with the whole electrocatalytic community, wish him a happy birthday and continuing health, progress, and success.