Catalytic reactivity of surfaces: in recognition of François Gault

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François Gault (7 January 1931–4 August 1979), a French scientist whose 85th birthday we celebrated in 2016, was a star of unequaled brilliance in Europe's intellectual firmament. As the founder of the Laboratories of Catalysis of Caen (1960) and Strasbourg (1971), he was interested in the study of the catalytic mechanisms of hydrocarbons using isotope tracing (^{13}C and D_2). He was the first to demonstrate the isomerization of alkanes on platinum metal films. François Gault was a perfectionist; the development of his research followed the same trend as analytical progresses and he always pushed the limits of techniques for the highest possible data quality. He was a forerunner in his field, as the use of labelled molecules to understand better the catalytic mechanisms of hydrocarbon rearrangement demonstrated. Each article in this issue is the culmination of a detailed study on a current topic in heterogeneous catalysis. These articles highlight a number of fundamental aspects of modern heterogeneous catalysis, surface phase behavior, adsorption and reaction properties and particle size effects on chemical reactions.

Among Gault's personal characteris-tics, he was profoundly interested in ev-erything that happened around him, al-ways asking essential questions and seeking explanations. He had all the qualities of a leader and knew it. Above all, he was kind and he is very sadly missed by many of his friends and pupils.

In recognition of his work and per-sonality, the European Federation of the Catalysis Societies (EFCATS) has founded the François Gault Lectureship Award. The award is given every two years to a distinguished scientist as Europe's highest honor in the field of catalysis. This special issue is based on papers presented by winners of the François Gault Lectureship Award, and former students, colleagues, and friends of Gault.

We are grateful to all the authors of this special issue of Catalysis Science & Technology, who dedicated great time and effort to preparing these high qual-ity manuscripts. We also thank all the reviewers for their valuable and commit-ted work. We would like to express our warm thanks to Piet van Leeuwen, Matt Cude and Carri Cotton, who coordi-nated the handling and collection of the manuscripts for this special issue with a high degree of professionalism. We sin-cerely thank all of the editors of Cataly-sis Science & Technology who were in-volved in this special issue. We hope that the publication of this collection of articles motivates researchers and im-proves our fundamental and applied un-derstanding of the complex phenomena behind surface–adsorbate interactions and their effects on natural and man-made catalytic reactions.

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