



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 unequalled 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 (¹³C and D₂). 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 characteristics, he was profoundly interested in everything that happened around him, always 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 personality, 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 quality manuscripts. We also thank all the reviewers for their valuable and committed work. We would like to express our warm thanks to Piet van Leeuwen, Matt Cude and Carri Cotton, who coordinated the handling and collection of the manuscripts for this special issue with a high degree of professionalism. We sincerely thank all of the editors of Catalysis Science & Technology who were involved in this special issue. We hope that the publication of this collection of articles motivates researchers and improves our fundamental and applied understanding of the complex phenomena behind surface-adsorbate interactions and their effects on natural and man-made catalytic reactions.

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