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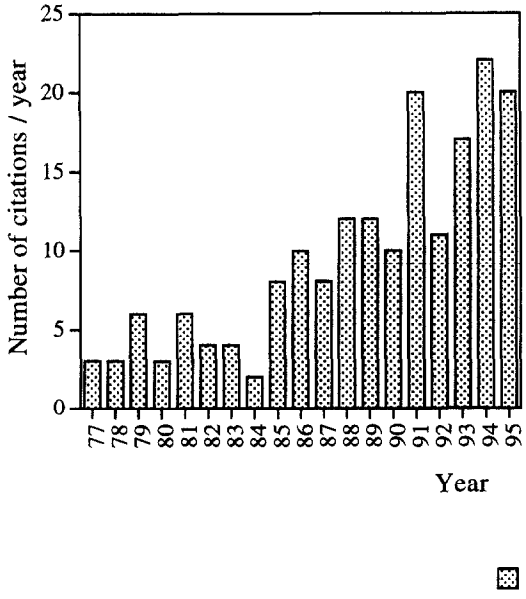
Editorial

This volume of the *Journal of Molecular Catalysis* provides an exciting illustration of how the field of biomimetic oxidations is being expanded through research on the frontiers of catalytic oxidation reactions. Driven at the beginning by the understanding of enzyme-mediated oxidations and by the necessity to create new catalytic oxidations outside of the field of classical autoxidations, this research domain has been extended to virtually all different aspects of catalysis: homogeneous, supported or heterogeneous catalytic systems. This breadth is reflected in part in the 37 articles or reviews of this volume.

Eighteen years after one of the first meetings on biomimetic oxidations held in Bandol, on the french mediterranean cost, in September 1979, I hope that the readers of this volume will be convinced that this research field created by a small group of chemists is expanding in the correct directions and will provide returns of fundamental and technological significance, profoundly impacting all different aspects of catalytic oxidations, even if some of these new catalytic oxidations are less and less biomimetic, but creativity should not be encaged by words. A search in the Chemical Abstracts files indicates that the two words 'biomimetic' and 'oxidation' started to be regularly used in article titles from 1977 as indicated in the figure below.



Number of articles per year using the words 'biomimetic' and 'oxidation' in the title.

This volume provides a panoramic view of this so-called biomimetic oxidation field. I hope it will serve as a book of reference as well as a source of inspiration for all people aspiring to create and develop new efficient and environmentally friendly catalytic methods for the conversion of methane to methanol, for stereospecific epoxidations and hydroxylations,... etc. To reach such different targets, we need to keep working together researchers involved in all different fields of catalysis (from solid state chemistry to catalytic antibodies). For this reason, the word 'biomimetic' will still be useful in the future, but should not be used to cover with a fresh flavor reports corresponding to classical autoxidation reactions.

I am highly grateful to the authors for responding with great enthusiasm to my invitation

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and for the considerable effort in producing all these different contributions to testify to the recent advances in the field of biomimetic oxidations. I also thank all reviewers for their constructive comments and Maryse Béziat for her efficient handling of the different manuscripts and correspondences.

Bernard Meunier
Toulouse, May 1996