

Guest Editorial

Carbanion Chemistry from Carboxylic Acids: a Special Issue in Honor of Professor Ramón Mestres on his 65th Birthday.

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Introduction

This special issue of Molecules is to honour the 65th birthday of Professor Ramón Mestres. Although the papers presented cover a wide range of topics, we have chosen to entitle the issue Carbanion Chemistry from Carboxylic Acids, because this subject has been one of the most important research areas of Professor Mestres' long and illustrious career.

Biographical Remarks

Ramón Mestres was born in Barcelona (Spain) on January 28, 1937. He studied at the University of Barcelona where he received his Chemistry degree in 1958. He later obtained Ph.D. degrees from the University of Barcelona (1962) and from Oxford University (1965), under the supervision of Professors Pascual Vila and José Castells and Sir Ewart R.H. Jones, respectively. He then became a staff member (docent) at the Chemistry Department in Barcelona in 1965. He was an Associate Professor at the Universities of Navarra and Valencia from 1966 to 1976 and since 1976 he has held the position of Full Professor at the Universities of Pais Vasco, Illes Balears and Valencia, where he currently works.

He was named a laureate member of the Royal Academy of Pharmacy (Catalonia) and an Honorary Professor at the University of Piura (Peru) in 1996. He is the delegate of the Spanish Royal Society of Chemistry in the FECS Division for Chemistry and the Environment. In 2002, he was elected Chairman of the Committee for Green Chemistry of the Division for Chemistry and the Environment. He has also held numerous other administrative appointments as Head of the Chemistry Department at some of the universities where he has served.

Professor Mestres has always paid a great deal of attention to his role as a teacher, which has included the publication of a book on General Organic Chemistry and the preparation (currently in progress) of another on Advanced Organic Chemistry from a “green” point of view. He has supervised fourteen doctoral students and numerous undergraduate and postdoctoral students in his various research laboratories.

The research of Professor Mestres has dealt with the synthesis and structural characterization of Natural Products and more recently with Green Chemistry. Over 100 publications bearing his name have appeared on these and other subjects, but the area of chemistry to which he had dedicated the greatest effort had been the study of the structure and reactivity of dianions of unsaturated carboxylic acids. In this field his contributions to the control of regioselectivity in the additions of these dianions to carbonyl compounds, under either kinetic or thermodynamic control, that lead to very simple syntheses of retinoic acids and analogs, have been outstanding. The oxidative coupling of lithium dienediolates and trienediolates of unsaturated carboxylic acids that provide a useful synthetic method for the preparation of octa- and dodecadienedienoic acids are methods highlighted in several Advanced Organic Chemistry books. His studies on alkylation processes, the Michael addition and the aggregation structures of these dianions of carboxylic acids, have also contributed to Professor Mestres’ remarkable status in this research area. Since 1999, he has been involved in a new research area: Green Chemistry, where, we are convinced, Professor Mestres will remain active for many years. We wish him every success in his future endeavours.

It has been our privilege to be the colleagues of Prof. Mestres and now to pay deserved tribute to him as an outstanding researcher and teacher of Organic Chemistry.

