PREFACE

An unprecedented 113 scientists from 15 countries (including a sizeable proportion from East European countries) have recently participated in the sixth edition of the European Workshop on Molecular Spectroscopy and Photon-Induced Dynamics, held at the waterfront in Sant Feliu de Guíxols (Girona, Spain) on 28–31 May 1991. It is worth noting that the whole township, including industries and authorities, gave its wholehearted support to the Workshop and helped make it possible.

The general topics treated in this edition (which largely followed the division set down in precedent ones) were:

<i>Topics</i>	<i>Nr. contributions</i>
Dynamics of molecular photoionization	3
Dynamics of photodissociation	2
State-to-state chemistry	6
Spectroscopy and dynamics of clusters	4
Photon-induced processes at molecular	1
<i>Solids and surfaces</i>	
Dynamics and spectroscopy of excited molecules	5
Atoms and molecules in laser fields	3

In addition, a “Hot Topics Session” produced some lively, stimulating and well-led discussion on “The future of short pulses IR sources in molecular photophysics,” “The interest and limits of selective photochemistry by using X-ray radiation” and “The relation between cage effects in clusters and matrices.”

A perusal of the conference titles will show that both experimental and theoretical questions on such subjects as photodissociation, photoionization, inelastic and reactive processes, . . . have been studied and/or reviewed and that some new ground was broken on them.

Thus, on photoionization and photodissociation dynamics, there have been reports about progresses in the preparation of small molecules in selected states by using laser beams and synchrotron radiation. The characterization and state determination of the resulting fragments, which give information on their interactions, as well as on their kinetic behaviour when reactive processes are allowed, have also been treated.

A most interesting Workshop topic were the state-to-state elementary reactive processes. By measuring both their scalar and vector properties, information about the possible reaction intermediates can be obtained. A pictorial view of the intermediate states can be thus furnished. Use of lasers in combination with other techniques, as well as with light polarization, gives information on elementary reaction

stereodynamics, and also on the products' state formation. Some theoretical approaches covering the study of atom-diatom collisions have also been presented.

Alongside the more fundamental aspects of elementary processes, some other, more applied ones, have also been considered, such as the spectroscopy and dynamics of clusters, their preparation and characterization, or the photon induced processes of molecules condensed or adsorbed on surfaces. The importance of the new method developed in order to characterize cluster ions cannot be overstressed.

Tunable lasers, which make it possible to prepare molecules in highly excited vibrational and electronic states, which play an important role in chemical reactions, have received much attention. In order to study the behaviour of these excited states, different experimental spectroscopic techniques and theoretical techniques for spectral analysis have been considered.

In the last session attention was given to the effect of laser fields on the behaviour of relatively simple systems, with special emphasis on the theoretical behaviour of scattering on electron-atom and atom-monoatomic ion systems. It can be expected that these will lead to important progresses in the field of molecular dynamics.

To sum it up, we think that significant progresses have been made since the last Workshop, and that some fruitful new venues have been opened in the present one. We sincerely hope that this one will also result in further advances in these fields, that the collaboration between European researchers will be improved by this reunion, that all the participants will remember it fondly and that East European participation will increase in the near future.

On the organizational side, an important agreement was reached when a Permanent Board was formed with the mission of advising future organizing committees on all matters outside their experience. It was also decided to celebrate the next edition in Italy, with the research groups at Rome and Perugia in charge.

The Organizing Committee wishes to thank the Spanish Dirección General de Investigación Científica y Técnica (DGICYT), the Universitat de Barcelona, the Excel. lentíssima Diputació Provincial de Girona, the Sant Feliu Town Hall and both the Catalanian Comissió Interdepartamental de Recerca i Innovació Tecnològica (CIRIT) and its Department d'Ensenyament, and also the myriad small business and private persons who have sponsored this meeting. Last, but not least, we wish to thank "Laser Chemistry" for this opportunity to publish the information presented in the Workshop.

Universitat de Barcelona
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A. Aguilar-Navarro
J. de Andrés-Llopis