
Preface

This issue of the *Journal of Photochemistry* is dedicated to the Conference on Singlet Molecular Oxygen (COSMO 84) held in Clearwater Beach, FL, U.S.A., January 4 - 7, 1984. As such it contains detailed accounts (or abstracts) of the work presented and provides the official record of the conference proceedings.

Any history of related conferences must include the following.

- 1970 International Conference on Singlet Molecular Oxygen and its Role in Environmental Sciences, New York, NY, U.S.A.
- 1976 Singlet Oxygen Reactions with Polymers, Stockholm, Sweden
- 1977 International Conference on Singlet Oxygen and Related Species in Chemistry and Biology, Pinawa, Manitoba, Canada
- 1978 Workshop on Photo-oxidation, Fort Worth, TX, U.S.A.
- 1980 International Conference on Oxygen and Oxy-radicals in Chemistry and Biology, Austin, TX, U.S.A.
- 1983 International Conference on Oxygen Radicals, Munich, F.R.G.

COSMO 84, however, does not claim any of these as its progenitor in that it *was not* limited to polymers, chemistry and biology, or environmental aspects, but *was* restricted to contributions involving singlet molecular oxygen as either an established or an implicated ingredient.

Its justification rests, *inter alia*, on the following: recent detection of $O_2(^1\Delta_g)$ phosphorescence in condensed phases providing improved measurements of its sensitized formation efficiency and lifetime and new insight into quenching and solvent-induced relaxation processes; developments in our understanding of its reaction with different classes of acceptor molecules; its further exploitation as a synthetic organic reagent and in the development of chemical actinometers, the oxygen-iodine laser and energy storage systems; its established genera-

tion in certain enzymic processes and atmospheric conditions and its increasingly implicated and potentially significant role in photobiological phenomena.

The major objective was to bring together scientists in the various disciplines, with a common interest in singlet molecular oxygen, to present accounts of their recent findings; in this way to catalyze the cross-fertilization of technical approach and observational interpretation, to promote interdisciplinary communication, to generate definitive statements and to identify areas of ignorance. In so far as attendance on the last morning was indistinguishable from that at the opening session, the participants certainly cooperated in this endeavor and any success must be to their credit.

It is a pleasure to thank the other members of the organizing committee for arranging the individual sessions and for their sustaining moral support, Irene Kochevar who volunteered to distribute the list of participants and Richard Wayne in his editorial capacity for guiding this volume through its gestation period.

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Sponsorship

The Office of Naval Research (Division of Biological Sciences)
The National Science Foundation (Biophysics and Atmospheric
Science Programs)

The Interamerican Photochemical Society
The American Society for Photobiology
Jacobs-Fendig Inc.
Mr. Robert Dressler
The University of South Florida

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