

soft woods, moreover, with increasing atmospheric pressure and decreasing temperature or elevation, it is necessary to reduce the pressure and to reduce the level of density with no significant increase in molecular motion along with the softening of wood by air. Thus, with increasing elevation, the basic mechanical properties of timber — (A.G.U. and structural) reduce gradually and finally reach zero.

PREFACE

This volume contains a selection of papers presented at the »Symposium on the Electronic Structure and Properties of Molecules and Crystals«. The meeting was held in Cavtat, Croatia, Yugoslavia, (29 August—3 September 1988) under the auspices of the Croatian Chemical Society, Union of Yugoslav Chemical Societies, Yugoslav Academy of Sciences and Arts and International Union of Pure and Applied Chemistry. It was organized by the Ruđer Bošković Institute, Zagreb.

The Symposium attracted about 190 participants from 23 countries including University centres like Trømsø within the Arctic and Christchurch in the deep South. Many outstanding scientists and leading experts in the fields took an active part at the Conference.

The meeting was structured so that it was multi- as well as interdisciplinary. This enabled an efficient cross-flow and exchange of ideas and information which hopefully will lead to their synthesis at a higher level and consequently to further advances in molecular sciences.

One of the aims of the Symposium was to build bridges between theory and experiment, as well as between different branches of molecular and solid state sciences and, last but not least, between researchers which should result in a better collaboration and joint ventures. This contributes not only to the scientific progress in the world but also to a better understanding between people of different countries thus fulfilling the humanistic role of science in the best sense of the Age of Enlightenment. This was the reason behind the motto of the conference: »Gens Una Sumus« meaning that we all belong to the same big family.

Cavtat is an ancient city founded by Greeks (Epidaurus). It was a part of the Dubrovnik Republic, which was a beacon of artistic culture and scientific endeavour for centuries past. Many important poets, artists and philosophers were born in this area to mention only the explorer Marco Polo and Ruđer Bošković — a great 18th century scientist. One of the landmarks of the meeting was a memorial lecture in honour of Ruđer Bošković delivered by Professor Ivan Supek.

The other two highlights of the conference consisted of the presentations to the doyen of modern molecular sciences Professor Linus Pauling of a copy of a special issue produced in his honour* and the session held in honour of Professor C. C. J. Roothaan on the occasion of his 70th birthday.

»The state of the art« invited lectures and inspired papers contributed to the success of the conference. A number of poster sessions were of high quality. Scientific achievements of the meeting were summarized by Professor P. O. Löwdin in his closing remarks.

One of the central events at the symposium was the Cavtat declaration. Peripatetic discussions beneath centennial cypresses were not confined only to

scientific questions, but many scientists expressed their concern about the future of this world which is facing a number of apocalyptic dangers to mention only nuclear annihilation, economic catastrophe on the global level, ecological holocaust and the overpopulation time bomb. An *ad hoc* Committee: Linus Pauling (double Nobel laureate from U.S.A.) — president, Ivan Supek (Yugoslavia) — vice-president, Kenichi Fukui (Nobel prize winner for Chemistry, Japan), Peter Fulde (FRG), Zvonimir B. Maksic (Yugoslavia) — chairman of the Organizing Committee of the Symposium, Roy McWeeny (UK), Clemens C. J. Roothaan (U.S.A.), and Judith Roothaan (U.S.A.) prepared a draft of the Declaration about world problems and a need for international cooperation in their solving. It was presented at the plenary session by Linus Pauling, improved by a fruitful discussion and finally accepted by all participants without dissenting vote.

The full text of the Cavtat Declaration is given on the following page.

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* »Six Decades of the Hybridization Model«. A Tribute to Linus Pauling, Z. B Maksić and W. J. Orville-Thomas, Editors. *J. Mol. Structure (Theochem)* 169 (1988)