
FOREWORD

The 5th International Conference “Electronic Processes in Organic Materials” (ICEPOM-5) has been held in Kyiv (Ukraine) on May 24–29, 2004. More than 100 scientists from 12 European countries, the USA, and Japan presented their reports at the conference. Eight plenary and three poster sessions were held.

The objective of the conference was to discuss physical phenomena and processes in organic materials and at their interfaces with other materials as well as prospects of their practical applications in the frame of following topics:

1. Energy structure of organic composites, processes of photogeneration, transport and recombination of charge carriers;
2. Electronic processes at interfaces of organic materials with metals, as well as biological, organic, inorganic media and nanostructures;
3. Electro-optic processes in confined liquid crystals;
4. Electronic processes within polymer composites and nanostructures;
5. Nonlinear properties of organic structures and composites
6. Novel organic materials and technologies for technical applications and medicine;
7. Plastic solar cells based on composites and heterostructures;
8. Physical aspects of composites application (LEDs, sensors, recording media, etc.)

It can be seen that the sessions of ICEPOM-5 concern the frontier problems of novel organic materials and composites, including polymer systems, nanostructures, and confined liquid crystals. A review of the current status of nonlinear properties of organic composites as well as new results in the field of flexible solar cells were presented during the special sessions.

56 papers presented at ICEPOM-5 will be published in two special volumes of the international journal “Molecular Crystals and Liquid Crystals”.

This issue consists of the papers based on selected reports presented at ICEPOM-5 in the field of physical phenomena and processes in composites and confined liquid crystals and their applications.

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