

Preface

Scientific program of the School “Optical Spectroscopy of Molecules and Radiative Processes in the Atmosphere” (Grant No. NSh-373-2003.5) is formulated rather definitely and exactly: application of present-day methods and achievements of classic molecular spectroscopy to problems of atmospheric optics. They, in turn, are clustered in the radiation block for climatic models and other applications of atmospheric spectroscopy, i.e., the necessity to adequately combine the needed accuracy in calculations of atmospheric radiation characteristics and sufficiently resource-saving computer algorithms. The latter, undoubtedly, assumes invoking modern ideas of applied informatics. Evidently, solving these problems requires a wide scientific cooperation, sometimes going far beyond the scope of one (basic for the School) Institute.

All these elements are represented in the contents of the given topical issue.

The third and fourth papers describe information systems for spectroscopy. The fifth paper discusses some aspects of the problem of radiation transfer in aerosol-molecular media. The traditional problems of the atmospheric gas spectroscopy are presented in papers from eighth to fourteenth. The first, second, sixth, and seventh papers are devoted to problems ideologically close to the School program.

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