

Preface

This topical issue presents the works made within the Program of the School "Optical Molecular Spectroscopy and Radiative Processes in the Atmosphere" (RFBR Grant No. 00-15098589 in support of scientific schools) and received financial or other support within the framework of this School. In particular, the works with participation of B.P. Kochanov, V.I. Starikov, A.D. Bykov, L.N. Sinitsa, and M.M. Makogon were mostly supported by the Grant; this action was carried out as a result of the competition of in-School research projects.

It should be necessarily emphasized that these authors have obtained very interesting results concerning the relation between intramolecular characteristics and parameters of intermolecular interactions. This fact is worth entering the assets of the School, which purposefully, through regular seminars, affects research plans.

The papers included in this issue can be divided into four groups. The first group (the first nine papers) consists of the papers directly related to problems of atmospheric spectroscopy. To be noted are the papers by O.B. Rodimova, M.M. Makogon, and M.Yu. Kataev, which are written based on the materials of Doctor's Theses presented by these authors. The traditional problems of spectroscopy of isolated molecules are considered in the second group (from 10th to 14th), and the high level of papers in this field is traditional as well. The paper by V.I. Perevalov, O.M. Lyulin, and J.-L. Teffo is very interesting because of methodical aspects presented in it; the paper by Yu.V. Kistenev demonstrates the possibilities of fractal analysis as applied to spectroscopy. The papers of the third group (from 15th to 19th) have already been commented, in fact.

A particular attention should be paid to the papers by V.P. Lopasov and V.F. Golovko. The ideas of these authors are far from traditional, and the Editorial Board decided to publish these papers as a subject for further discussions. This means that just the authors are responsible for the content of their papers, and the Editorial Board has its own opinion. However, the arguments of both sides must be heard, and the discussion may be useful.

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