EDITOR'S PREFACE

On November 27 and 28, 1995, the Department of Oceanology, Atmospheric Physics and Geography (DOAP&G) of the Russian Academy of Sciences held the scientific session devoted to two most urgent ecological problems the mankind faced in recent decades, namely, the climate warming and the transformation of the ozone layer. Academician V.E. Zuev, secretary of DOAP&G was the initiator of this session and it was he who opened it. The session program included 11 reports:

1. Yu.M. Timofeev (St. Petersburg University). Study of gas and aerosol composition of the atmosphere from space.
2. V.U. Khattatov (CAO). State of the ozone layer over the territory of Russia and analysis of possible mechanisms of its depletion in winter-spring months.
3. G.S. Golitsyn and N.F. Elanskii (IFA RAS). Long-term variability of ozone and related gases.
4. V.V. Zuev (IAO SB RAS). Optical monitoring of the state of ozone layer over East Siberia.
5. E.P. Gordov, O.B. Rodimova, S.D. Tvorogov and A.Z. Fazliev (IAO SB RAS). Qualitative study of evolution and stability of the atmosphere and climate within the framework of small-size models.
6. E.I. Grechko and V.N. Aref'ev (IFA RAS). Long-term trends of climatically active gases.
7. B.D. Belan (IAO SB RAS). Same results of five-year-long monitoring of ozone in the ground air layer over Tomsk.
8. Yu.A. Izrael' (IGKE). The problem of adaptation of the climatic system and the economy to the increasing concentration of greenhouse gases and climate change.
9. M.E. Vinogradov and A.P. Lisitsyn (IO RAS). Carbon in ocean and global changes of environment.
10. O.G. Sorotokhin (IO RAS). Adiabatic theory of the greenhouse effect of the atmosphere.
11. L.S. Kuchment (IWP RAS). Influence of possible climate changes on formaton of water resources.

Besides, ten additional reports were presented:

1. G.M. Kruchenitskii, V.I. Bekoryukov, A.M. Zvyagintsev, N.E. Kodygrov, T.V. Kodygrova, S.P. Perov and V.N. Voloshchuk (CAO, UkrNIGMI). About the contribution of dynamic processes into formation of anomausly low values of the total ozone content in the nothern hemisphere.
2. S.P. Perov (CAO):
   a) About short-period variations of ozone in tropics and mid-latitudes.
   b) About the real technology of "parching upB ozone holes by a climatic method.
   c) About the possibility of creation of Russian national, high-sensitive, small-size and cheap ozonesonde.
3. A.P. Kapitsa (MSU). About the contradictions in the theory of ozone holes.
4. E.S. Kazimirovskii (ISTP SB RAS). About participation of ISTP in the ozone program.
5. K.V. Givishvili (IZMIR RAS). Reflecton of trends of the ground atmosphere in characteristics of the middle and upper atmosphere.
6. V.L. Syvorotkin (MSU). About the role of Earth decontamination in the ozone layer destruction.
7. V.I. Bekoryukov (CAO). Ozone depletion and climate warming in Europe.
8. A.M. Zvyagintsev (CAO). New Russian ozonesonde.
9. Yu. N. Kulikov(PIG KSC RAS). Some results of analysis of space measurements of IR radiation in the atmospheric ozone 9.6-μm band.
10. L.L. Lazutin (PIG KSC RAS). Some results of ozone studies in the Polar Institute of Geophysics (PIG).

Eight persons took part in the discussion. Participants of the session approved the creation of the Federal Scientific Program of Russia on the problems of atmospheric ozone. In his concluding remarks, Academician V.E. Zuev noted high proffessional skill and activity of all speakers. He proposed to compile a topical issue of the journal *Atmospheric and Oceanic Optics* devoted to the ozone problem. This is just the issue you have at hand now.

In general, the session was distinguished for its nontraditional character. For the first time, the prevailing part of anthropogenic factor in both problems discussed was put under question in contrast to the opinions commonly accepted now. It was noted that the part of natural factors is now poorly understood while just their effect may turn most significant. This idea has found its reflection in the majority of papers published in this issue.

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0235-6880/96/09 737-01 $02.00