

Special Issue

From Traditional to Emerging Air Pollutants: Tools and Health Risk Assessment

Message from the Guest Editors

Air quality is a highly relevant topic for the global scientific community. Due to the significant impact of air pollutants on both the environment and living organisms, even at trace and ultra-trace concentrations, there is a strong need for in-depth investigations aimed at developing innovative tools and approaches. For traditional air pollutants, while the implementation of innovative tools has been proposed, the lack of harmonization in methodologies remains a significant challenge, hindering the comparability of the results. The absence of validation for the most innovative approaches, from sampling to chemical analysis, impedes the ability to legislatively define the suitability of methods for detecting trace and ultra-trace contaminants. This validation is crucial for standardizing the results obtained from different approaches across various geographical regions. For emerging air pollutants, the variability in approaches further complicates the comparison of levels and the accurate assessment of exposure risks to living organisms. This Special Issue invites contributions describing both traditional and innovative approaches for detecting gaseous and airborne pollutants.

Guest Editors

Dr. Cristina Di Fiore

Department of Agriculture, Environmental and Food Sciences,
University of Molise, Via De Sanctis, 86100 Campobasso, Italy

Prof. Dr. Pasquale Avino

1. Department of Agricultural, Environmental and Food Sciences (DiAAA), University of Molise, Via de Sanctis, 86100 Campobasso, Italy
2. Institute of Atmospheric Pollution Research, Division of Rome, c/o Ministry of Environment and Energy Security, 00147 Rome, Italy

Deadline for manuscript submissions

31 October 2025



Atmosphere

an Open Access Journal
by MDPI

Impact Factor 2.3
CiteScore 4.9



mdpi.com/si/216447

Atmosphere
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
atmosphere@mdpi.com

[mdpi.com/journal/
atmosphere](https://mdpi.com/journal/atmosphere)





Atmosphere

an Open Access Journal
by MDPI

Impact Factor 2.3
CiteScore 4.9



[mdpi.com/journal/
atmosphere](https://mdpi.com/journal/atmosphere)



About the Journal

Message from the Editor-in-Chief

Continued developments in instrumentation and modeling have driven atmospheric science to become increasingly more complex with a deeper understanding of concepts, mechanisms, and interactions. This is the field that innovation built and it has led to a better appreciation for the complexity with atmosphere. Human life is intertwined in this complexity as we strive to better understand our atmosphere. Climate change is constantly stretching the limits of our thinking and forcing new ideas and concepts to be played out. Welcome to the Anthropocene!

Editor-in-Chief

Dr. Daniele Contini

Institute of Atmospheric Sciences and Climate (ISAC), National Research Council (CNR), Str. Prv. Lecce-Monteroni km 1.2, 73100 Lecce, Italy

Author Benefits

Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

indexed within Scopus, SCIE (Web of Science), Ei Compendex, GEOBASE, GeoRef, Inspec, CAPlus / SciFinder, Astrophysics Data System, and other databases.

Journal Rank:

CiteScore - Q2 (Environmental Science (miscellaneous))