

Special Issue

Nitric and Nitrous Oxides: Biological and Environmental Significance

Message from the Guest Editors

Nitric oxide (NO) and nitrous oxide (N₂O) are nitrogen cycle intermediates that play very important roles in nature, with environmental and biological relevance. NO is small size, membrane-diffusible and highly reactive molecule that participates in cell signaling and nitrosative stress, affecting multiple biological processes, from bacteria to humans. Thus, in mammals NO participates in vasodilatation, hypoxia signaling, energy metabolism and bacterial pathogenesis, among other processes, and in higher plants it is involved in many functions related with plant growth and stress defense mechanisms. In general, NO is produced from arginine by nitric oxide synthases or from nitrite by nitrite reductases that participate in denitrification, a process that significantly contributes to the production of NO and N₂O gasses, which may accumulate in the atmosphere, particularly the potent greenhouse gas N₂O.

For this Special Issue, we invite authors to contribute original research articles, method papers, as well as review articles that will address the biological mechanism of Nitric and Nitrous Oxides.

Guest Editors

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Deadline for manuscript submissions

closed (15 December 2021)



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The International Journal of Molecular Sciences (*IJMS*, ISSN 1422-0067) is an open access journal, which was established in 2000. The journal aims to provide a forum for scholarly research on a range of topics, including biochemistry, molecular and cell biology, molecular biophysics, molecular medicine, and all aspects of molecular research in chemistry. *IJMS* publishes both original research and review articles, and regularly publishes special issues to highlight advances at the cutting edge of research. We invite you to read recent articles published in *IJMS* and consider publishing your next paper with us.

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