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Nitric and Nitrous Oxides: Biological and Environmental Significance

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Deadline for manuscript submissions:
closed (15 December 2021)

Message from the Guest Editors

Dear Colleagues,

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.

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Message from the Editor-in-Chief

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