Abstract

This work handles the role of nitric oxide (NO) in both physiological, and stress metabolism of plants, it introduces the history of NO studies, including necessary inclusion of some facts related to the animal kingdom. It summarizes the physical and chemical properties of NO, which largely influence the way it acts in physiological processes. The work further discusses the various ways NO is synthetized in plants, including enzymatic, and non-enzymatic means. It further deals with various ways NO can influence different physiological processes, antioxidant mechanisms, and finaly concernes itself with various stress inducing facotrs, their impact on plants, and the role of NO in influencing physiological responses. Finally, this work includes a chapter discussing the so called "heavy metals", mechanisms of their toxicity and the role of antioxidant mechanisms, with emphasis to role of NO.