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Review

Anammox bacteria in treating ammonium rich wastewater: Recent perspective and appraisal

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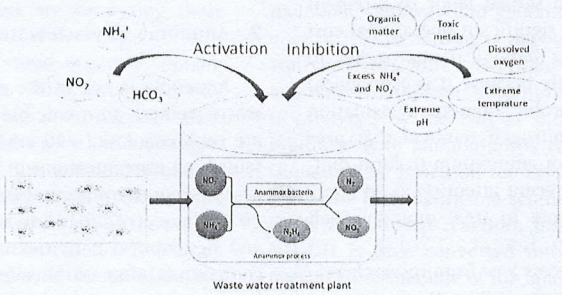
HIGHLIGHTS

- Metabolism, inhibition conditions, application of anammox bacteria are discussed.
- Anammox process is a successful venture in treatment of ammonia in wastewater.
- Efficiency of anammox process is determined by the operational conditions.

GRAPHICAL ABSTRACT



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ABSTRACT

The discovery of anammox process has provided eco-friendly and low-cost means of treating ammonia rich wastewater with remarkable efficiency. Furthermore, recent studies have shown that the possibility of operating the anammox process under low temperatures and high organic matter contents broadening the application of the anammox process. However, short doubling time and extensive levels of sensitivity towards nutrients and environmental alterations such as salinity and temperature are the limitations in practical applications of the anammox process. This review article provides the recent yet comprehensive viewpoint on anammox bacteria and the key perspectives in applying them as an efficient strategy for wastewater treatment.

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