

**NITRIFICATION – DENITRIFICATION SYSTEMS UNDER TRANSIENT
LOADING CONDITIONS.**

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ABSTRACT

This paper presents the results of an experimental investigation of biological nitrogen removal activated sludge systems under shock loading conditions. The capacity of the system to handle increased nitrogen loads depends mainly on the steady state organic loading, while increased nitrification potential of predenitrification systems compared to fully aerobic systems, is attributed to higher nitrifiers population developed. High oxygen uptake rates measured in the anoxic reactor, imply possible reactor deactivation under transient loadings, due to electron acceptor shortage.