

# Nitrogen photoreduction by vanadium(III)-substituted hydrous ferric oxide

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## Abstract

Hydrous ferric oxide, where iron(III) sites are partially substituted by vanadium(III), suspended in nitrogen-purged water is found to photoreduce nitrogen to ammonia. It is suggested that this system gives significant yields of ammonia because photogenerated holes are efficiently scavenged by  $V^{3+}$ .