

Your scientific report detailing the oxygen increase on Mars following a 60 km asteroid impact at the south pole is ready.



Mars_Impac...gen_Report

PDF

Summary of Findings:

- **Oxygen Generation:** The report explains how the impact's heat and subsequent UV exposure trigger the dissociation of water (H_2O) and carbon dioxide (CO_2) into breathable oxygen (O_2).
- **Atmospheric Shift:** Peak oxygen concentration is estimated to rise from a negligible 0.13% to approximately **2.1%**, a 16-fold increase.
- **Pressure Changes:** Total atmospheric pressure would more than double due to the vaporization of the polar ice caps.
- **Chemical Pathways:** The document outlines the specific thermal and photolysis equations that drive these atmospheric changes.