

Theodore St. Francis

John and Mary Franklin Foundation Award

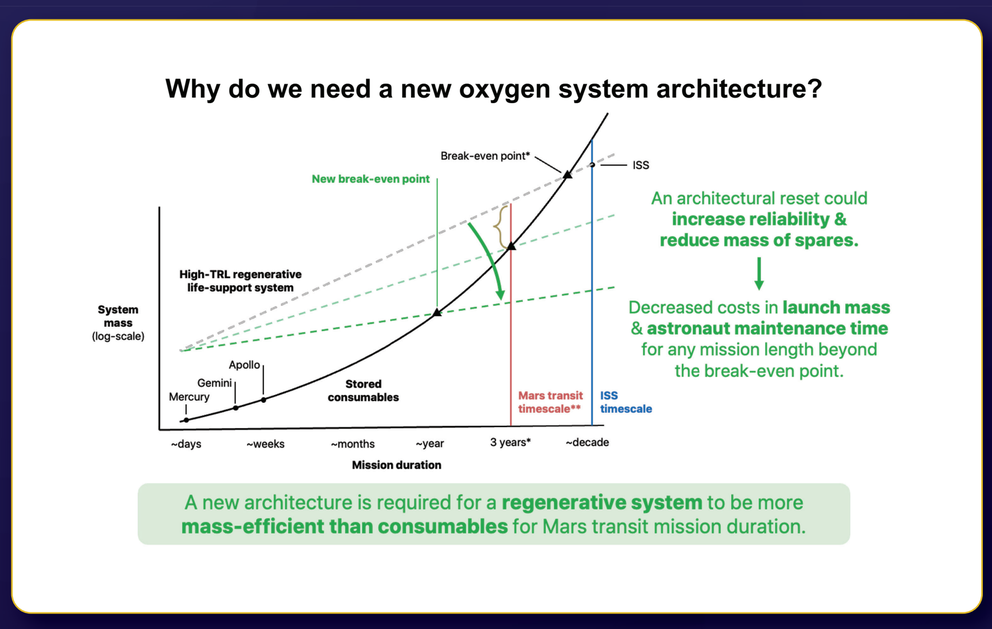
Ph.D. Student, Aerospace Engineering

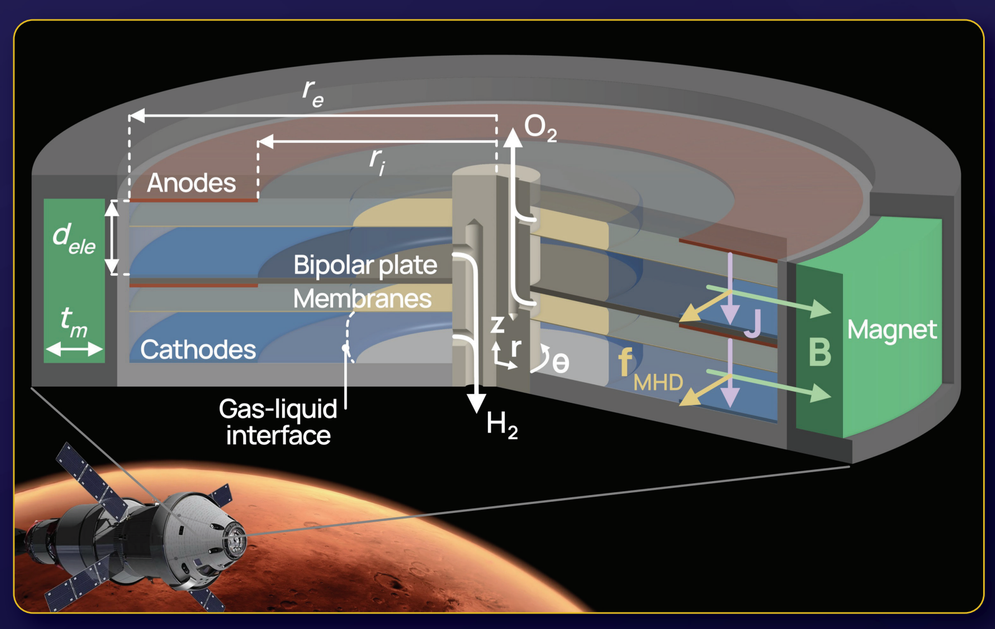
Third Year ARCS Scholar

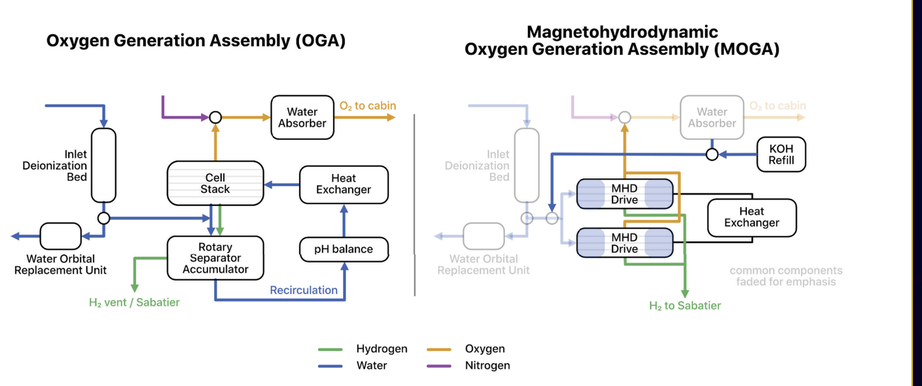
Georgia Tech

Breathing Beyond Earth: A Magnetohydrodynamic Drive for Oxygen Production on a Mars Mission

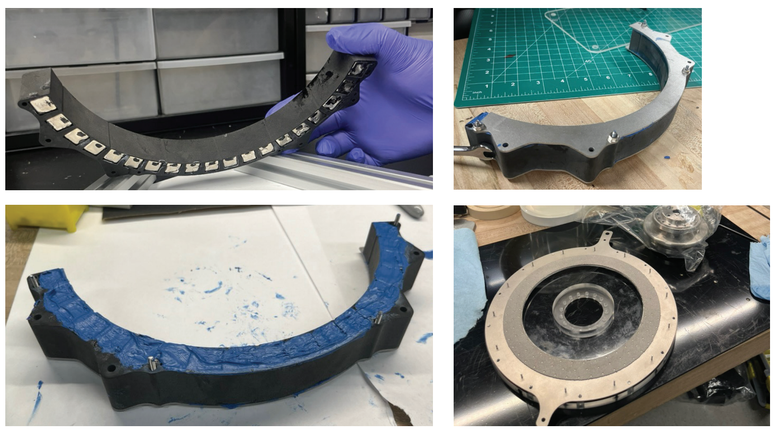
The Magnetohydrodynamic Oxygen Generation Assembly (MOGA) employs permanent magnets in an electrolytic cell to produce and separate oxygen and hydrogen efficiently in microgravity without moving parts.







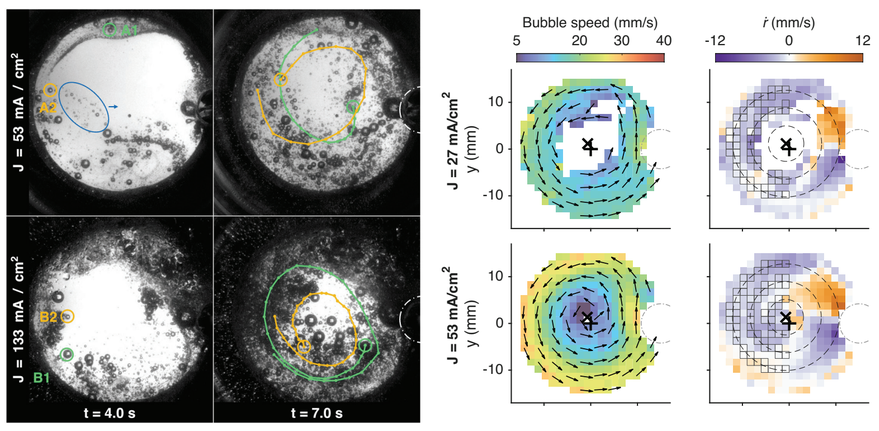
Magnet & Electrode Assembly



MGT: Magnetohydrodynamic Ground Test



Characterizing Microgravity Magnetohydrodynamic Swirling



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