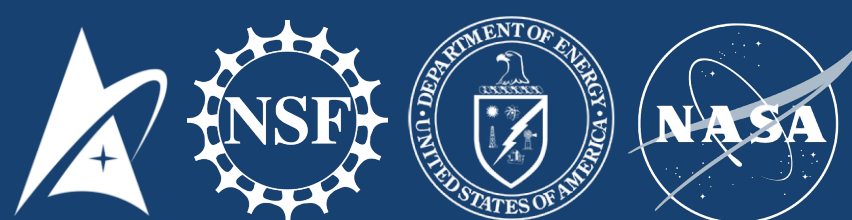


SWIFT COAT

nanoparticle coatings
for Silicon to Satellites



LEO-Ready Anti-Reflective Coatings 3.2% Increased Power Output for Your Space PV System

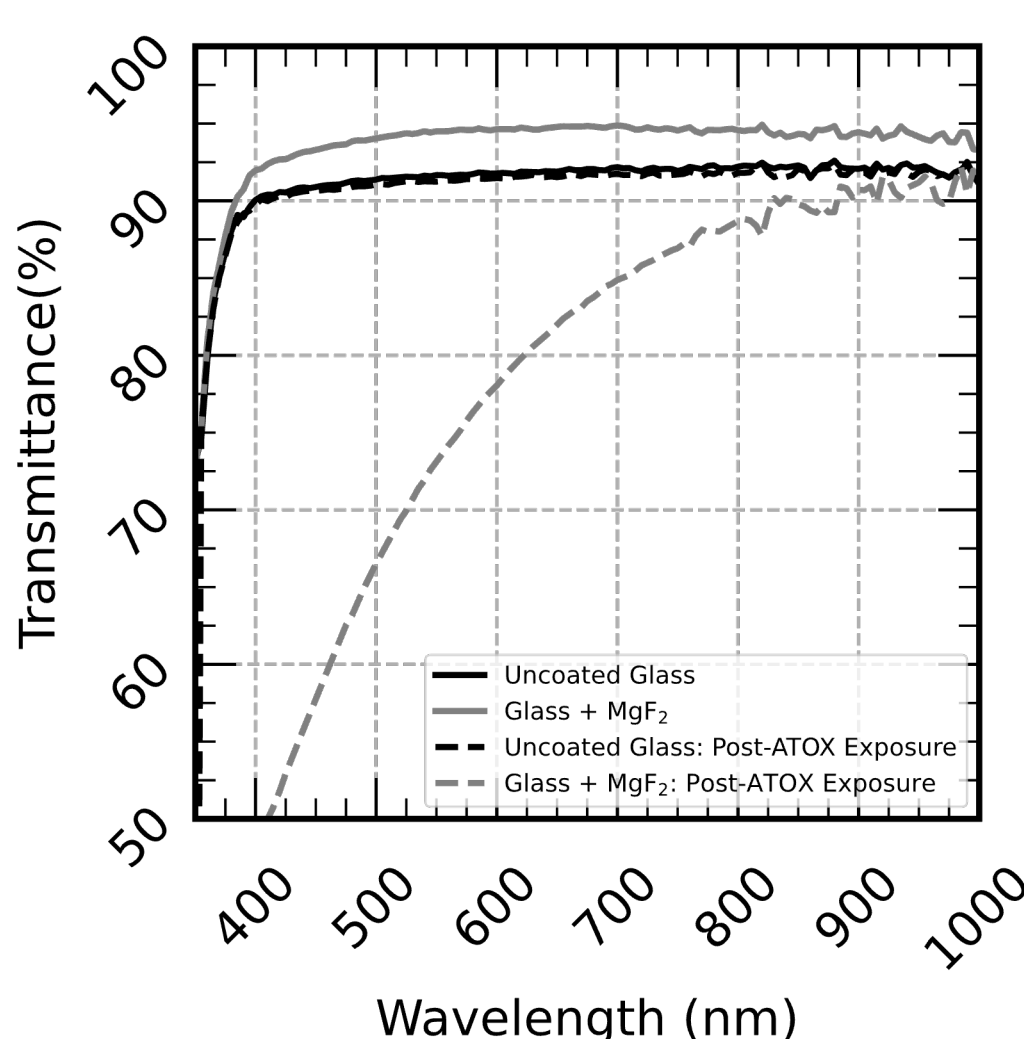
The Problem:

Light reflected at the cover glass interface results in a **4% decrease in module power output**. The legacy solution – MgF₂ anti-reflective coatings – darken and erode in low-Earth orbit environments.

MgF₂ ARCs darken upon atomic oxygen exposure



MgF₂ after atomic oxygen exposure

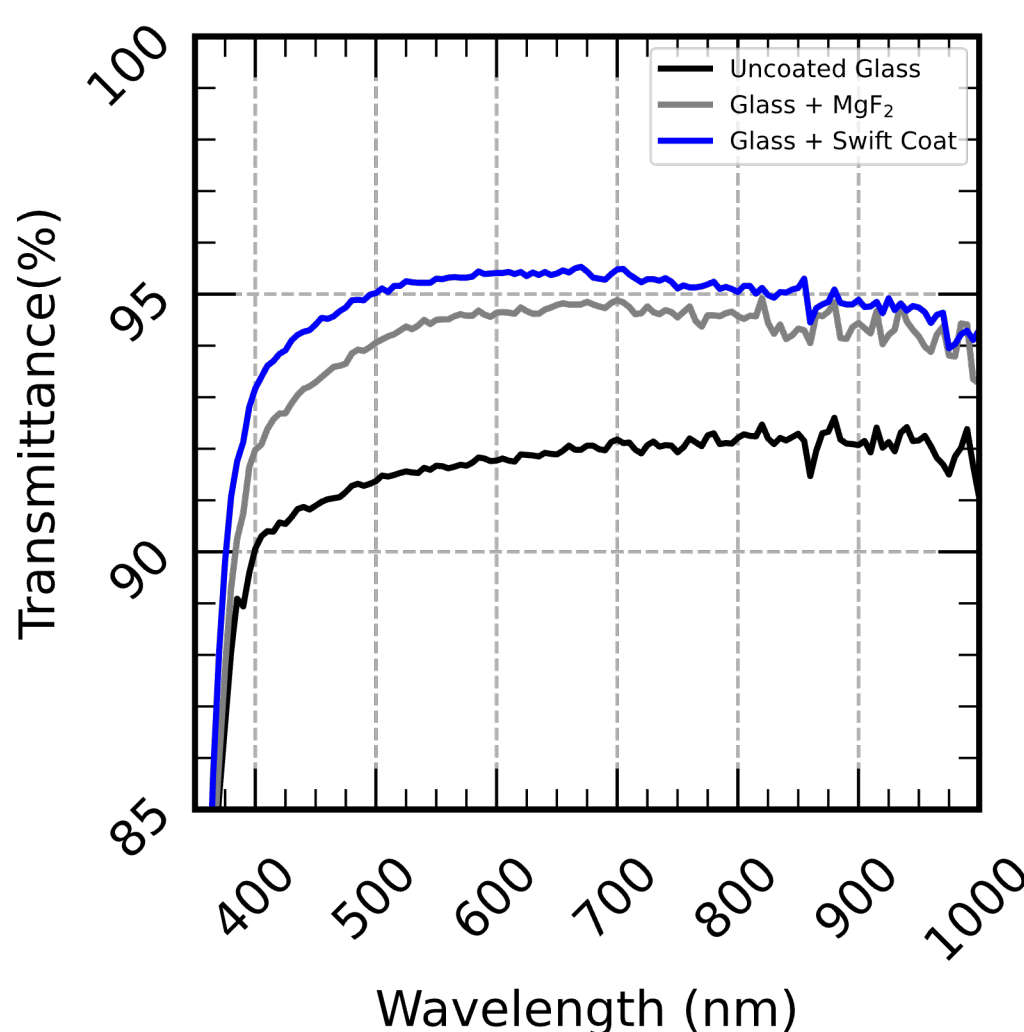


The Solution:

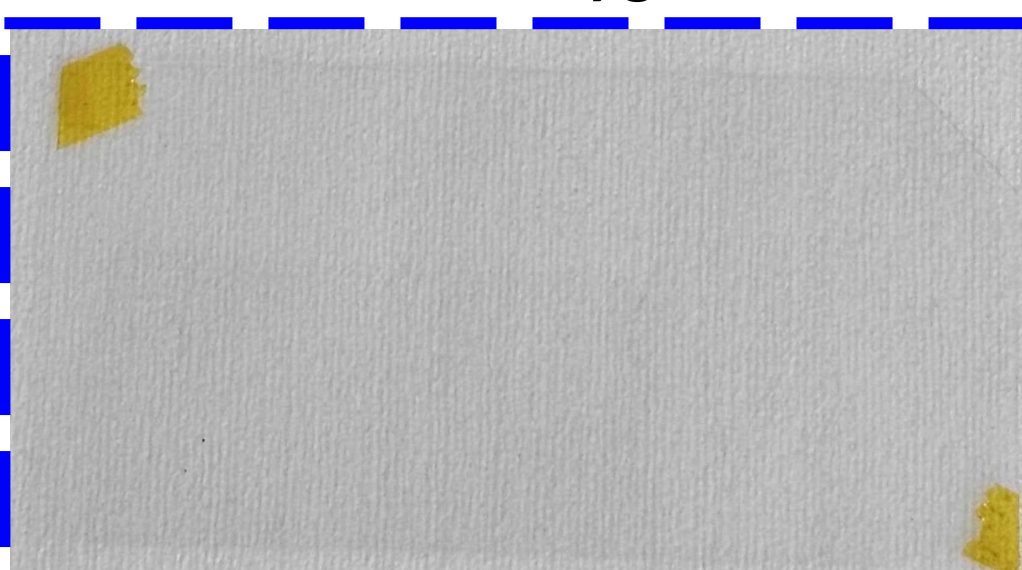
Porous SiO₂ Anti-Reflective Coatings Deposited via Aerosol Impact Driven assembly provide a >3% increase in transmittance and maintain performance in relevant space-environments.

	Transmittance (%)
Uncoated Glass	91.21%
Glass + MgF ₂	93.66%
Glass + Swift Coat	94.45%

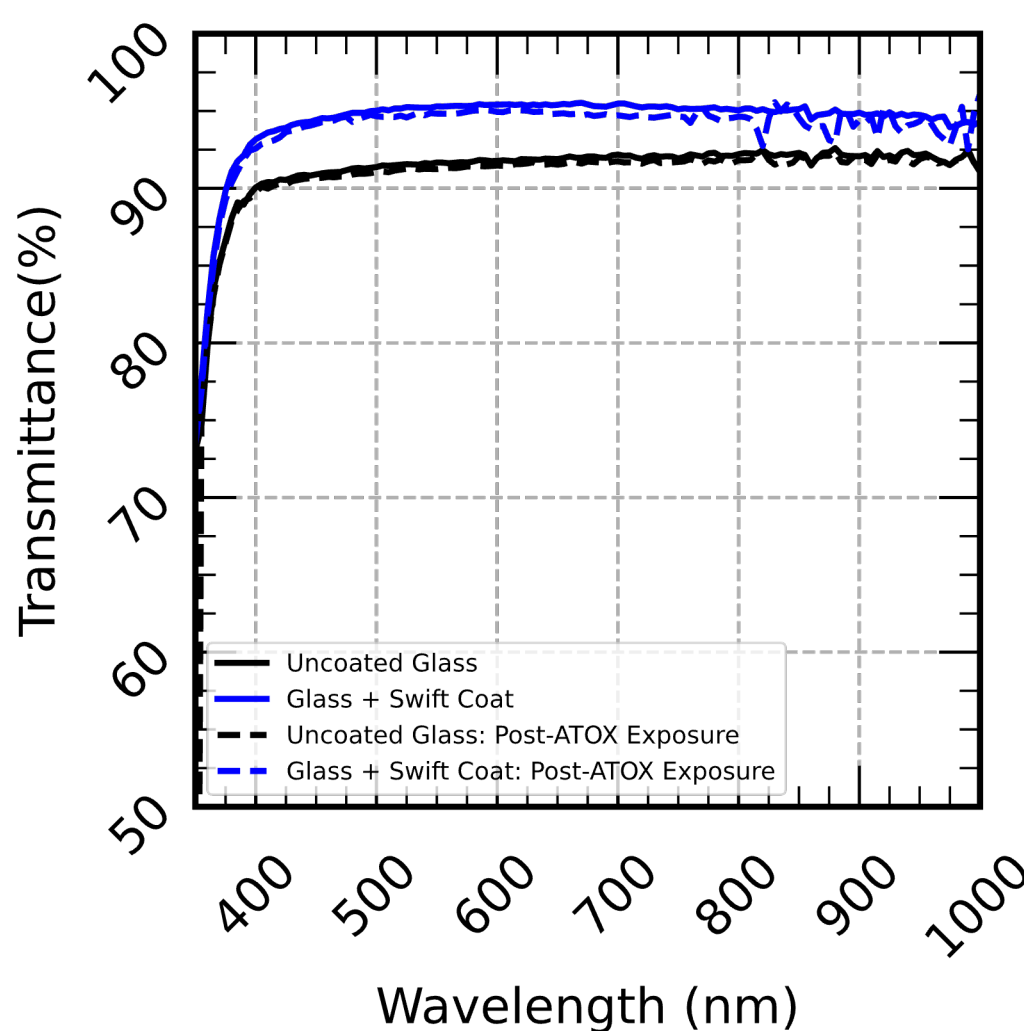
0.8% higher transmittance than MgF₂ ARCs



AIDA-ARCs are unaffected by atomic oxygen



AIDA-ARC after atomic oxygen exposure



Manufacturing Ready

- 2.0 x 0.5m maximum part size
- 50,000 m²/year
- <\$10/W in additional power output

