



THE PROBLEM

Carbon fibre reinforced polymers (CFRPs) are valued for their strength, low weight, and resistance to heat and corrosion.

However, these materials degrade rapidly in the harsh space conditions, impacting the long-term durability and preventing use on spacecraft.



THE SOLUTION

This project aims to develop advanced carbon composite structures for satellites and other space vehicles. This includes:

- Developing protective coatings designed for deployment in space environments.
- Creating carbon-fiber/PEEK thermoplastic composite structures with enhanced radiation shielding capabilities and resistance to atomic oxygen degradation.



RESEARCH CAPABILITY

ANU - Advanced Materials Group (AMG)

Development of advanced materials including new nanomaterials for sensing applications, synthesis of novel high pressure phases using diamond anvil cells and the modification of materials using swift heavy ions.



PROJECT PARTNERS



Australian
National
University



New Frontier
Technologies

CONTACT DETAILS - PROJECT LEAD

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