

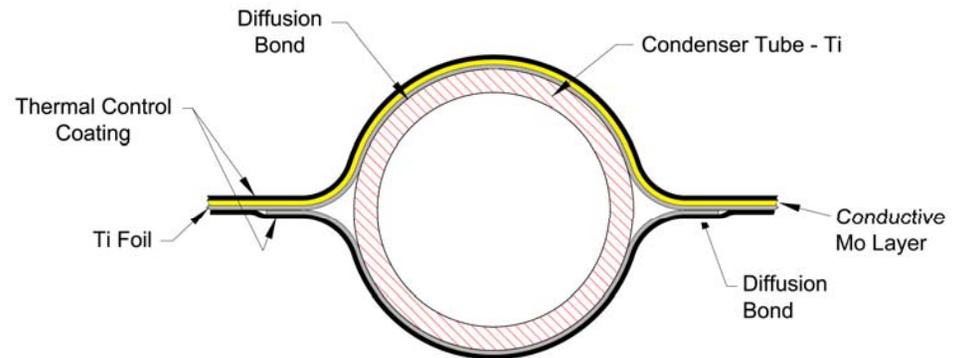
BRIEFING CHART

NASA SBIR/STTR Technologies
Lightweight, High-Temperature Radiator Panels
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 Proposal No.: 03-I F3.09-9262

Identification and Significance of Innovation

Radiator panel technology that is:

- Lightweight (~1 kg/m²)
- High-temperature (550 K)
- High-efficiency (>80%)



Technical Objectives and Work Plan

- Select materials and develop a process that will successfully bond tube and sheet materials in the configuration of radiator panels.
- Prove that strong bonds are maintained during cycling over prototypical temperature range.
- Achieve the optimum specific power of about 1500 W/kg for the radiator panel.
- Approach about 1 kg/m² weight for the radiator panel at high fin efficiency (>80%)?

NASA Applications

- Heat Rejection Systems (HRS) for high-power Nuclear Electric Propulsion (NEP).

Non-NASA Applications

- Light weight radiator panels for commercial satellites

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