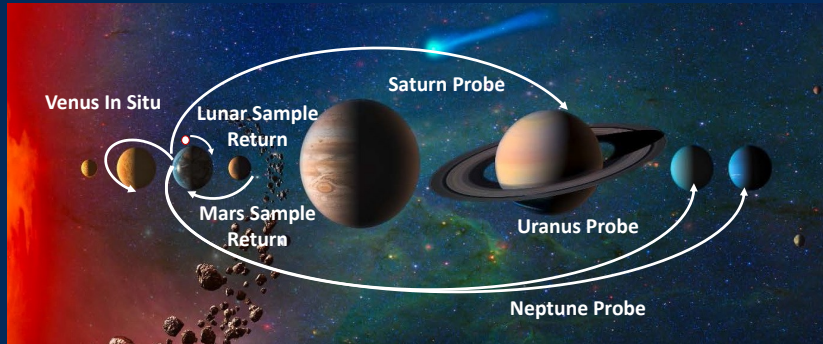
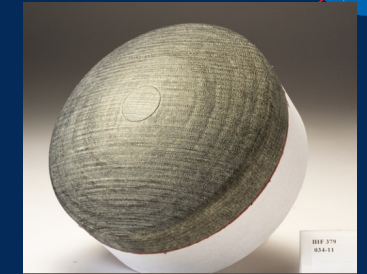
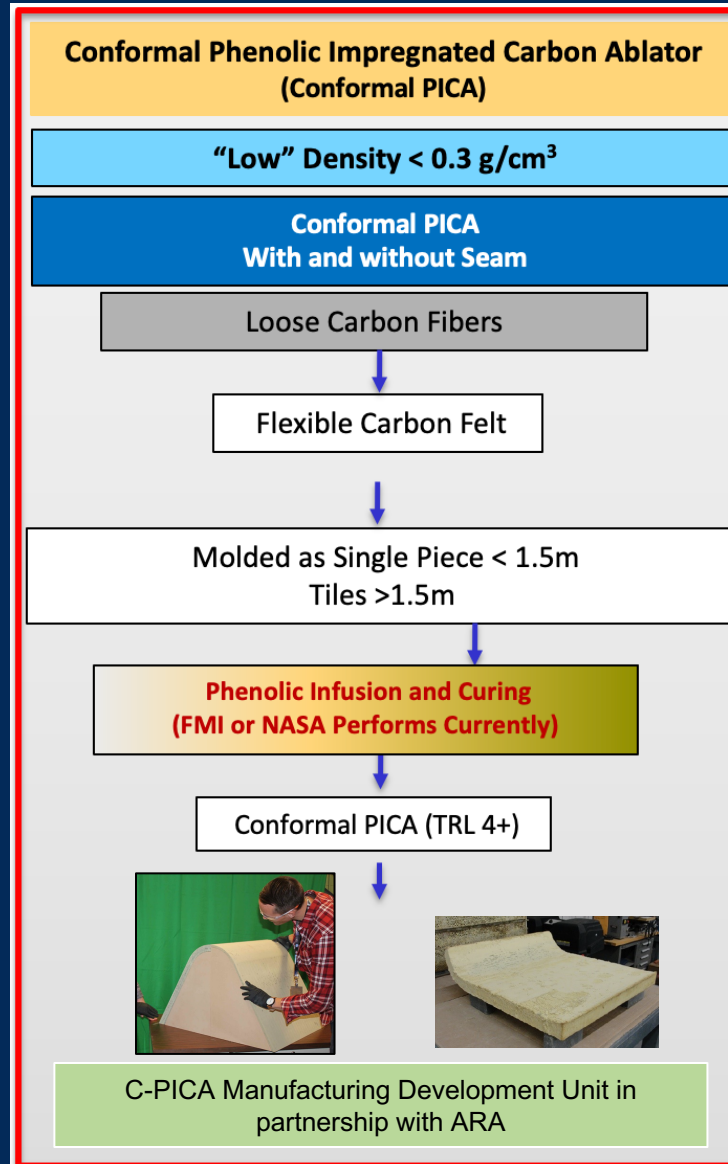
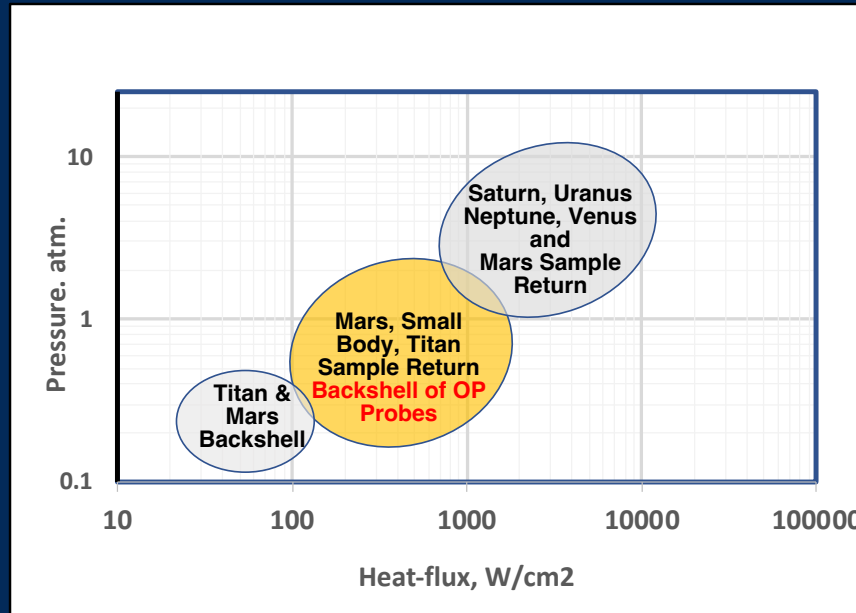


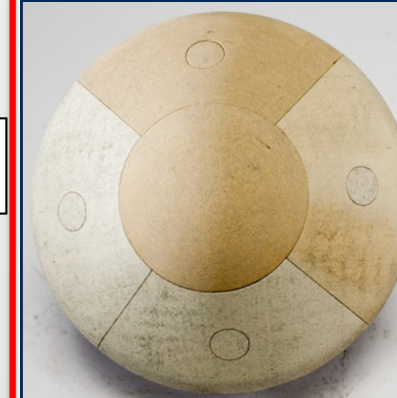
Conformal PICA TPS Enabling Future NASA Planetary Science Missions



Destinations and Entry Environment



2021 era instrumented thermal response models used to develop material model for TPS sizing



SPRITE model geometry allows assessment of a range of conditions and rapid evaluation of material capability including material compositions and seam designs (Flank heating ~400 W/cm², shear ~ 200Pa on flank and ~500Pa on shoulder)

C-PICA is a sustainable TPS option for single piece heatshields at ~ 1.5m scale and tiled at larger scales. Multiple missions listed on the SMD Technology Showcase need a thermal protection system capable of withstanding entry environments where C-PICA is suited either as a forebody or backshell TPS.

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