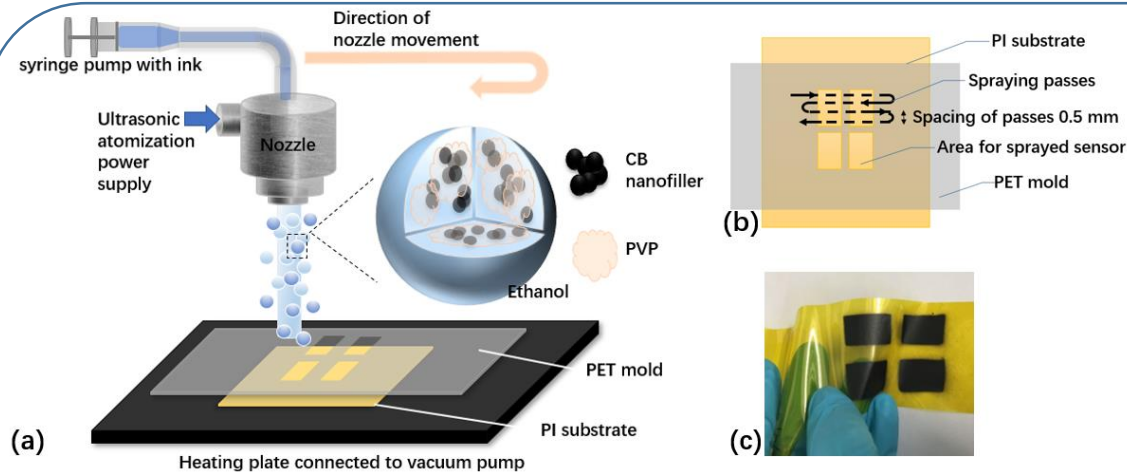
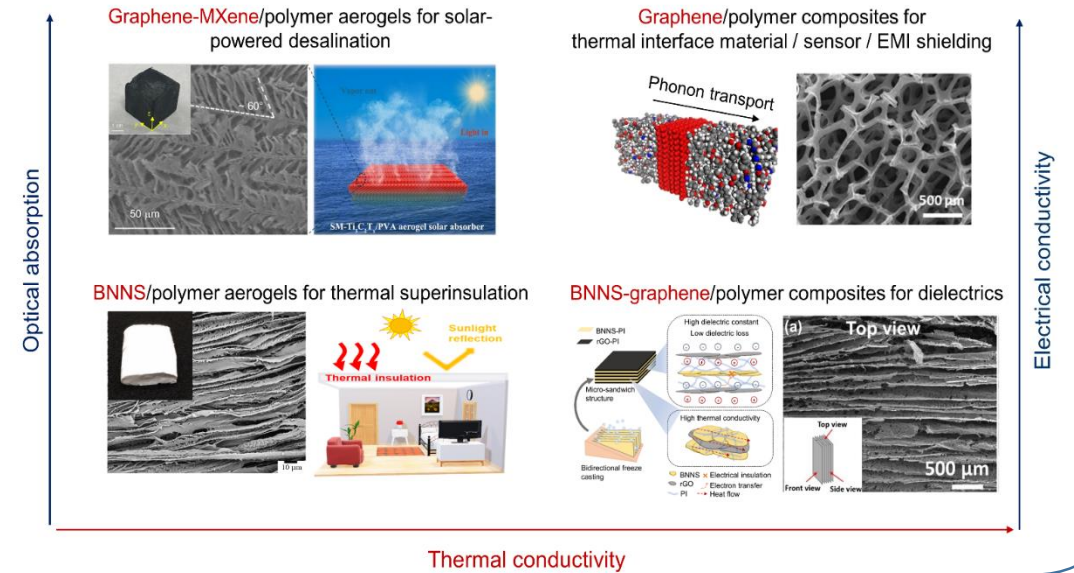


Aerospace Structures and Materials

Rational design of multifunctional nanocomposites

- Use a combined multiscale modelling and experimental approach to facilitate translating the excellent properties of low-dimensional nanofillers into the composites
- Ultimately lead to multifunctional composites exhibiting desired thermal, electrical and optical properties for practical electrical and thermal management applications



Fabrication of a carbon black/PVP nanocomposite ultrasonic sensor by ultrasonic atomization-assisted spray coating.

Nanocomposite ultrasonic sensors

- Develop a number of **nanocomposite ultrasonic sensor technologies**, using 0D, 1D, 2D and 3D carbon nanofillers
- The sensor technologies exhibit high sensitivities, responsiveness, and reproducibility