



Click metamaterials

Fast acquisition of thermal conductivity and functionality diversities

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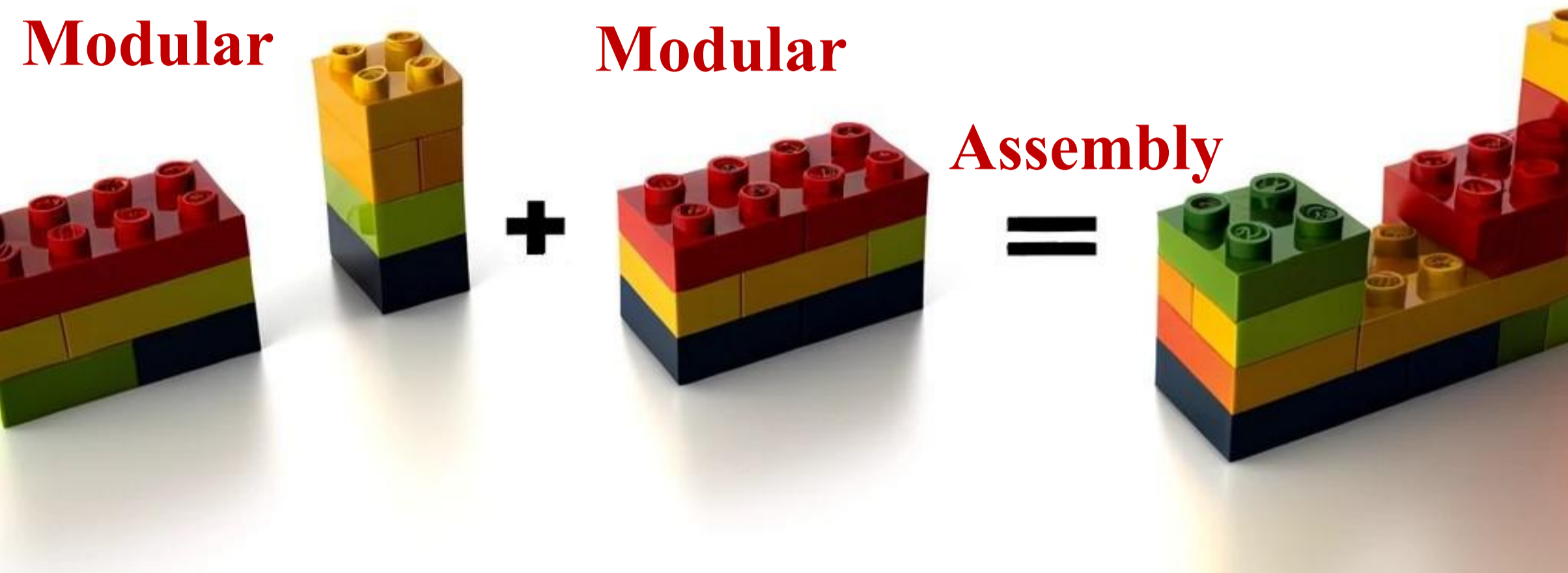
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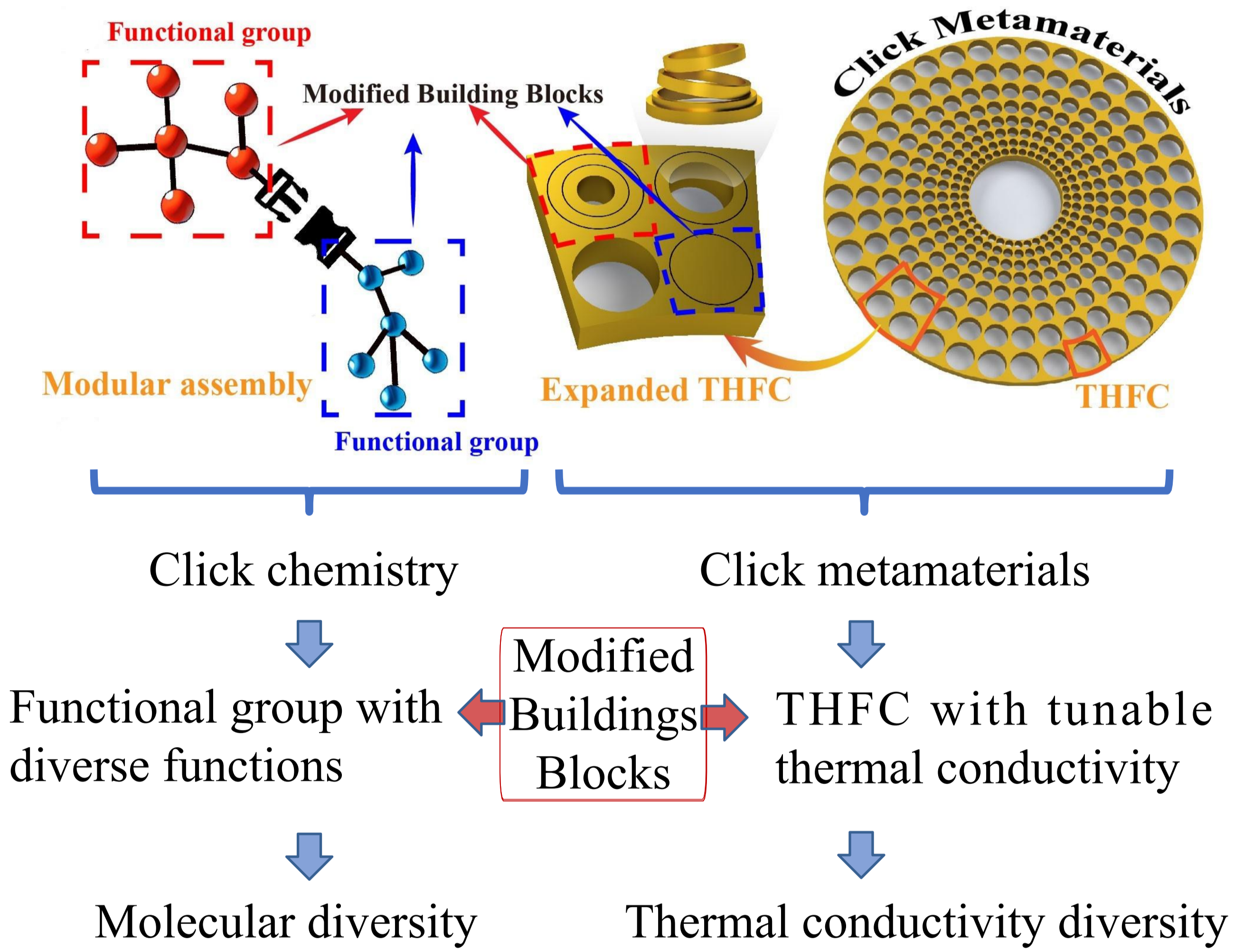


MOTIVATION



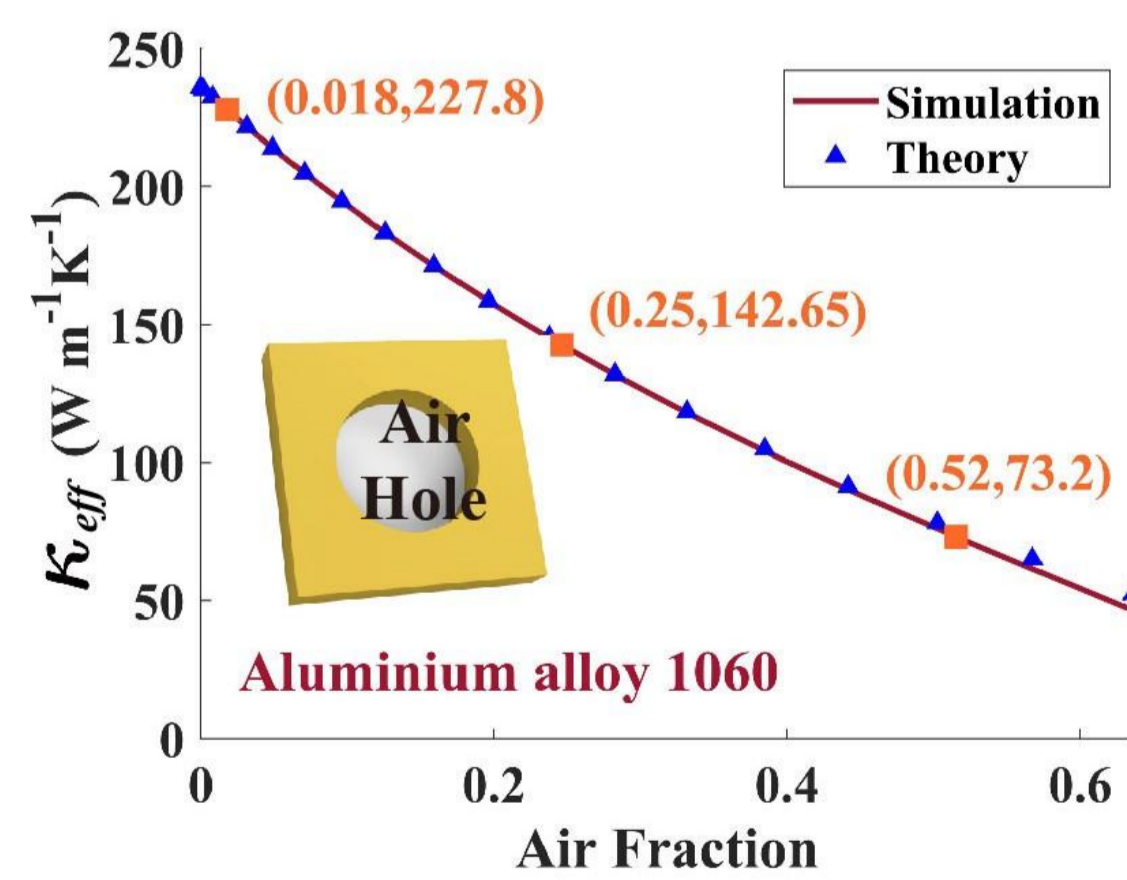
Q: Can we create various thermal metamaterials with different material characteristics through modular assembly, similar to building with LEGO bricks?

PRIOR WORK & OUR DESIGN

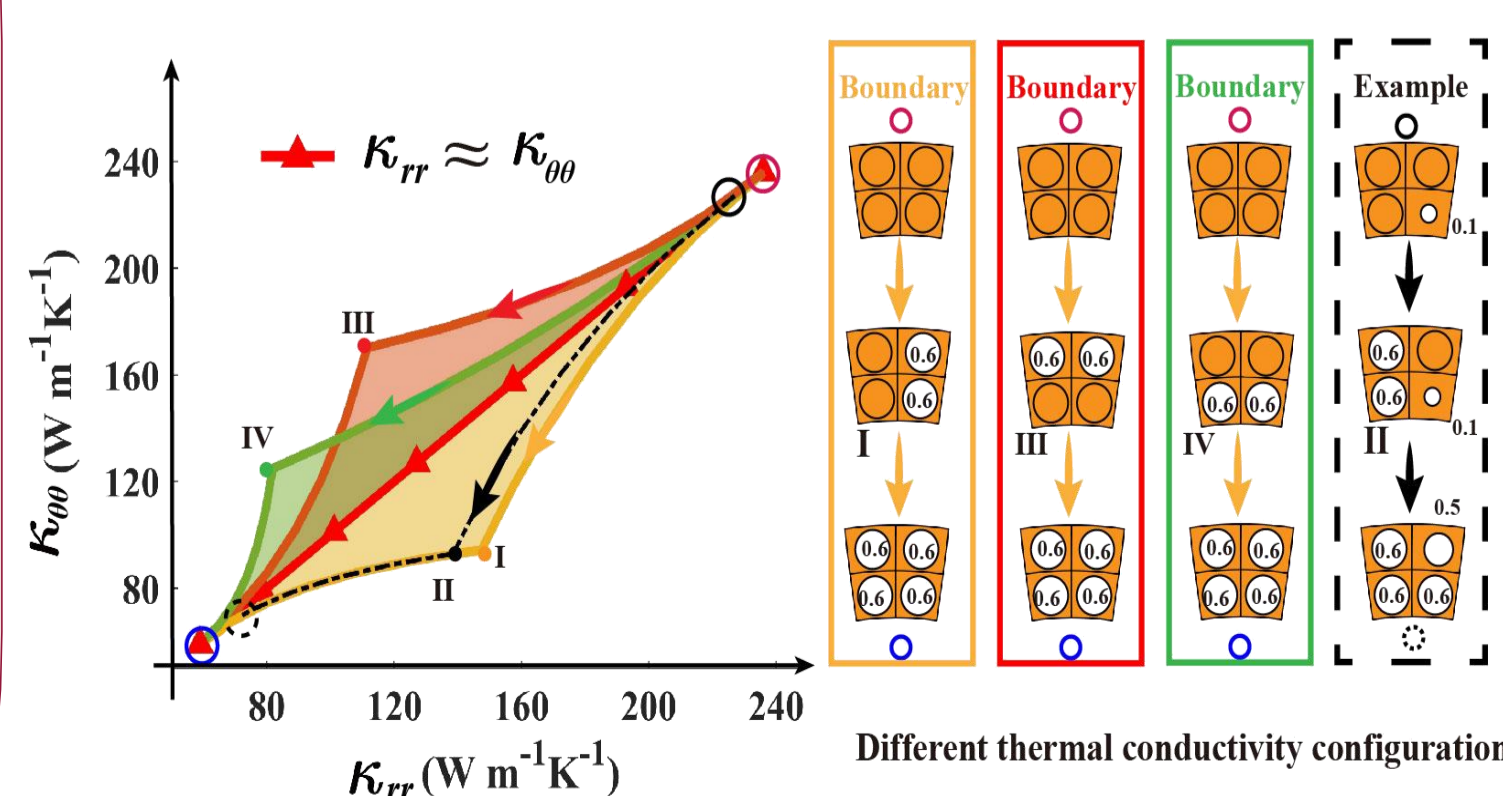


CONCLUSION

A1: We can realize convertible thermal isotropy by adjusting the porosity of the unit cell (THFC).

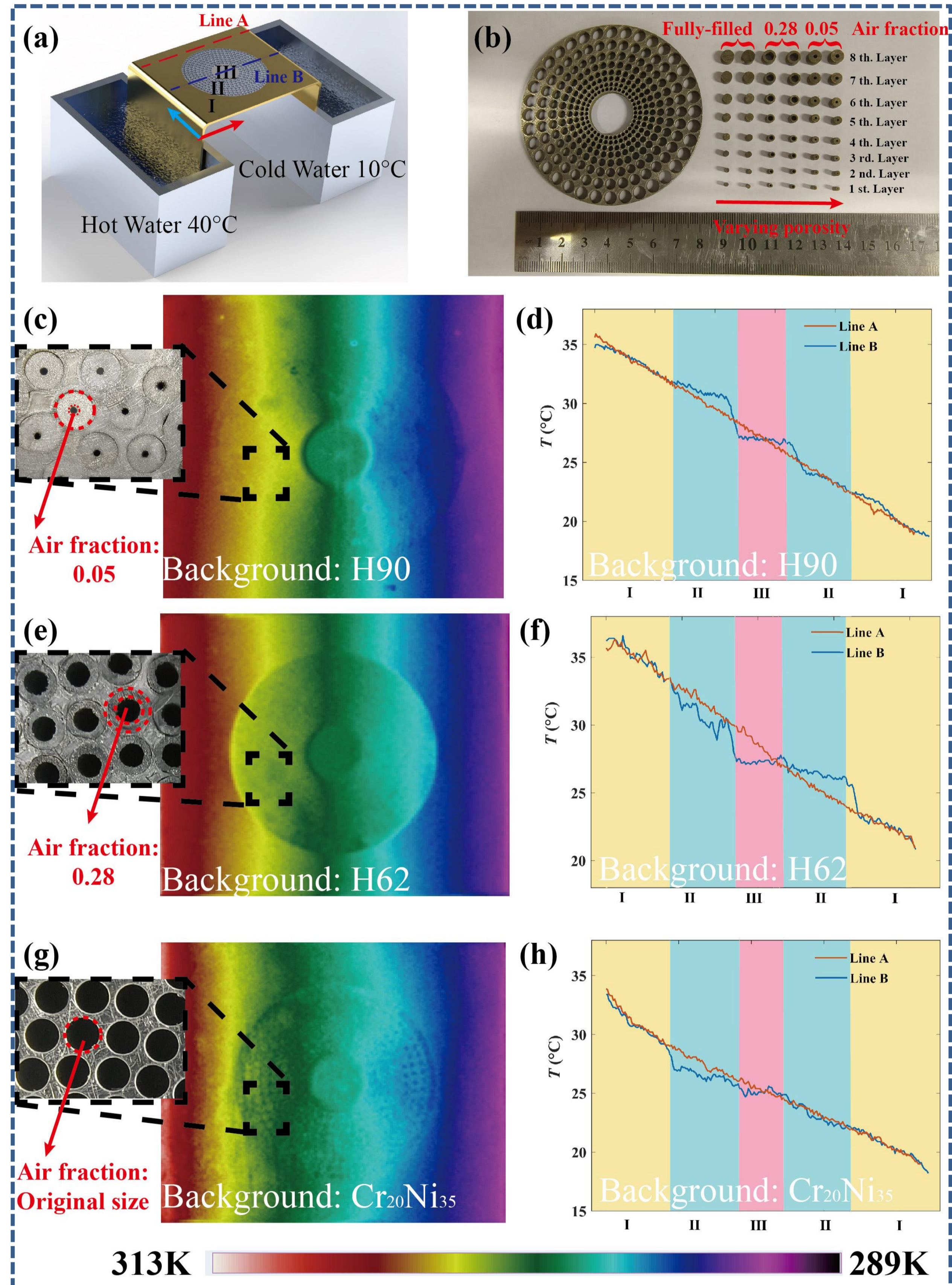


A2: We also realize convertible thermal anisotropy by arranging arrays of unit cells with different thermal conductivities (The expanded THFC).



RESULTS

Convertible Isotropic Metashell With Functional Stability



Convertible Anisotropic Metashell With Functionality Diversities

