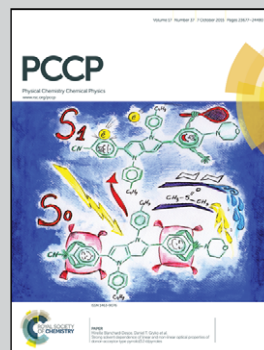


Showcasing research from the Laboratory of Dr Yanan Yue at the School of Power and Mechanical Engineering, Wuhan University, China.

Title: Molecular dynamics study of interfacial thermal transport between silicene and substrates

This paper reports a study of energy coupling between silicene and different substrate materials by using a transient heating molecular dynamics method. Important findings include the interfacial heat conductance can be greatly improved with increasing temperature from 100 K to 400 K and with increasing interfacial coupling strength. It is also found amorphous structure of substrate could facilitate the interfacial thermal transport between this atomic layer material and substrate. The work is performed by collaborators from University of Nebraska-Lincoln in USA, Shanghai Jiao Tong University and Wuhan University in China.

As featured in:



See Zhihuai Xiao, Yanan Yue et al.,
Phys. Chem. Chem. Phys.,
2015, 17, 23704.



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