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Authors: Shuping Deng, Dongqing Wang, Xin Wang, Yongteng Wei, Geoffrey I.N. Waterhouse, Xiao Zheng Lan



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Effect of Nanopore Confinement on the Thermal and Structural Properties of Heneicosan

Shuping Deng^a, Dongqing Wang^a, Xin Wang^a, Yongteng Wei^a, Geoffrey I.N. Waterhouse^{a,b}, Xiao Zheng Lan^{a*}

^aCollege of Chemistry and Materials Science, Shandong Agricultural University, Tai'an 271018, Shandong, China

^bSchool of Chemical Sciences, The University of Auckland, Auckland 1142, New Zealand

*Corresponding author. E-mail address: lanxzh@sdaa.edu.cn; Tel.: +86 538 8247753.

Highlights

- Phase transition temperature and enthalpy change of C₂₁ in nanopores are depressed.
- Influence of the pore morphology on melting point depression is quantified.
- Influence of the interface interactions on melting point depression is not obvious.
- Degree of supercooling of C₂₁ in the pores increases with decreasing pore size.
- A new R_{II} phase and mixed O₂₁ and R_I phases are found in smaller nanopores.

ABSTRACT: The effect of nano-confinement on the phase transitions of heneicosane (*n*-C₂₁H₄₄, C₂₁) were investigated using differential scanning calorimetry (DSC) and

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