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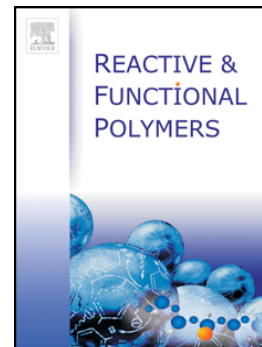
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Honeycomb-patterned Porous Films**

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Abstract

Two types of star polystyrene (SPS) were synthesized via reversible addition-fragmentation chain transfer (RAFT) polymerization: three-arm star polystyrene (TSPS) and five-arm star polystyrene (FSPS). Honeycomb-structured porous films were fabricated by drop-casting of the SPS solutions on glass substrates. The regular honeycomb-patterned porous films were successfully constructed from the SPS solution casting process, and the pore diameter increased with the molecular weight of the SPS enhanced at appropriate molecular weight range. Furthermore, rhodamine B (RhB) was loaded into SPS to endow the microporous film with fluorescence. The RhB-loaded SPS film exhibits a strong and uniform red emission image.

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