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Functionalization of honeycomb-patterned porous polymer films using a reactive vapor in breath figure method**Do Sung Huh and Young Woo Kim**
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A new strategy is proposed to obtain pore functionalized honeycomb-patterned porous films by *in situ* polymerization during breath figure process. The polystyrene or hydrophobic polymers with a reactant materials such as benzoyl peroxide, SnCl₂ mixture in chloroform are casted under humid conditions generated by pumping air containing a reactive vapor such as aniline hydrochloride, Na₂S, etc., in water. The resulting films showed honeycomb-patterned porous morphology with functionalized pores. The formation of functionalized film is confirmed by color, conductivity, SEM and UV-visible studies, etc. The strategy can be extended to obtain various pore functionalized films by choosing one reactant in polymer solution and other in humid vapors with a facile method of one-step breath figure process.

Biography

Do Sung Huh has completed his PhD from Korea Advanced Institute of Science and Technology and Post-doctoral studies from West Virginia University of Chemistry Department. He is the Director of Inje University at Department of Chemistry and Nano Science and Engineering. He has published more than 50 papers in reputed journals and has been serving as an Editorial Board Member of repute. His research area is functional polymer films.

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