

Novel Materials Generated Via Co-Continuous Morphology Control

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In this paper it will be demonstrated that a wide range of novel materials can be obtained through the phase size control of co-continuous morphological structures derived from immiscible polymer blends. A variety of morphology control strategies will be discussed and it will be shown that the phase size can be controlled from 50 nanometres to hundreds of microns. This high level of control of the phase size has important implications in a variety of applications such as membrane technologies, biomedical applications and also as a route towards the development of sustainable alternatives to conventional plastics.