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**The influence of chain length polydispersity of of ABA triblock copolymers on bicontinuous network structures**[1] ZHONG-YUAN LU, YUE LI, HU-JUN QIAN, Jilin University, AN-CHANG SHI, McMaster University, JILIN UNIVERSITY TEAM, MCMASTER UNIVERSITY TEAM — We study the polydispersity effect on microphase separation of ABA triblock copolymers using dissipative particle dynamics simulations, focusing on the formation of bicontinuous structures. The composition window for observing the bicontinuous network structures can be controled by designing polydispersity distributions of ABA triblock copolymers. We find that increasing polydispersity in both A and B blocks can significantly enhance the composition window for observing bicontinuous network structures. The network structures possess good continuity throughout the material, implying possible applications in photovoltaic devices.

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