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Development and synthesis of polycarbonate-polyester copolymer with heat resistance**Jungup Park, Seung-Pil Jung, Jin-Sik Choi and Kyung-Moo Shin**
Samyang Corp., Republic of Korea

Owing to excellent heat resistance and physical properties (especially, impact strength), as well as transparency, Polycarbonates (PC) have been used widely in various applications such as electronics, construction materials and automotive components. Certain applications such as product exterior casings for electronics and headlamp reflectors require additional heat resistance due to their constant exposure to heat. We, at Samyang Corp., developed new oligomer structures consisting of polyester compounds along with its synthesizing technique. We synthesized the oligomers with varying molecular weights by altering the experimental conditions and investigated the mathematical relationships between the experimental conditions and the molecular weight of the oligomer. These novel oligomers exhibit high heat resistance due to its rigid structure; moreover, a block copolymer containing the polyester oligomer along with polycarbonate features a higher heat resistance capability compared to the regular PC.

Biography

Jungup Park has completed his PhD in chemical engineering from the University of Texas at Austin. Currently, he is a Senior Researcher at the Chemicals R&D Center at Samyang Corp.

jungup.park@samyang.com

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