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Study on maleimide functionalized graphene oxide for self-healable polymethacrylate based on Diels-Alder reaction

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Recently, there have been various studies on self-healing. Among them, there is a lot of research on reversible self-healing. In this study, we prepared the material having the self-healing ability and mechanical strength. First, the GO is modified using the Hummer's method. Thereafter, the maleimide group is then included in the GO using the urethane reaction. The GO containing maleimide group was analyzed using Fourier Transform Infrared Spectroscopy (FT-IR) and Thermo-Gravimetric Analysis (TGA). The GO containing the prepared maleimide group forms a film using Diels-Alder reaction. Then, the mechanical properties were measured using a Universal Testing Machine (UTM).

Biography

Won-Ji Lee has completed her graduation from Kyonggi University, South Korea.

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