

Accepted Manuscript

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PII: S0266-3538(18)30217-3

DOI: [10.1016/j.compscitech.2018.04.011](https://doi.org/10.1016/j.compscitech.2018.04.011)

Reference: CSTE 7173

To appear in: *Composites Science and Technology*

Received Date: 26 January 2018

Revised Date: 26 March 2018

Accepted Date: 9 April 2018

Please cite this article as: Moon SY, Kim WS, High mechanical properties of super aligned carbon nanocomposite by polyurethane based crosslinking molecules, *Composites Science and Technology* (2018), doi: 10.1016/j.compscitech.2018.04.011.

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**High mechanical properties of super aligned carbon nanocomposite by
Polyurethane based crosslinking molecules**

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Abstract

The interfacial bonding strongly influences the mechanical properties of composite materials. In this study, a polyurethane (PU)-based adhesive material reacted as an interfacial material between carbon nanotubes (CNTs) and an epoxy matrix while simultaneously functioning as a jointing material between CNTs. This synergistic strengthening effect enhanced the mechanical properties of the CNT–epoxy composite. The PU molecules enveloped and bonded well with the CNT surface, as revealed by

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