## Accepted Manuscript

Thermally conductive polymer composites and nanocomposites: Processingstructure-property relationships

Siu N. Leung

PII: S1359-8368(18)31122-3

DOI: 10.1016/j.compositesb.2018.05.056

Reference: JCOMB 5726

To appear in: Composites Part B

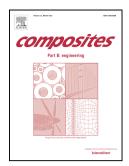
Received Date: 10 April 2018

Revised Date: 15 May 2018

Accepted Date: 30 May 2018

Please cite this article as: Leung SN, Thermally conductive polymer composites and nanocomposites: Processing-structure-property relationships, *Composites Part B* (2018), doi: 10.1016/j.compositesb.2018.05.056.

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.



## Thermally Conductive Polymer Composites and Nanocomposites: Processing-Structure-Property Relationships

Siu N. Leung\*

Department of Mechanical Engineering, Lassonde School of Engineering, York University, 4700 Keele St., Toronto, ON, Canada, M3J 1P3

\*E-mail: sunny.leung@lassonde.yorku.ca

**Abstract:** Rapid fabricating technology advancement in the computing and electronic industries has led to new challenges in thermal management of electronics. As significantly more components are being packed in a smaller footprint in micro-and-nano-electronics, the amount of heat being generated in them has dramatically increased. In this context, efficient thermal management is critical to maintain the performance and reliability of electronic devices. Furthermore, other emerging technologies, such as light emitting diodes, flexible and wearable electronics, as well as electric vehicles, demand novel thermally conductive materials with new attributes (e.g., light-weight and flexible). This review reports key research advancements in elucidating the processing-structure-property relationships of thermally conductive polymer composites and nanocomposites. The recent progresses in processing technologies to tailor the phase morphologies and microstructures of polymer composites and nanocomposites and thereby enhance their effective thermal

Download English Version:

## https://daneshyari.com/en/article/7211870

Download Persian Version:

https://daneshyari.com/article/7211870

Daneshyari.com