



Article

Enhanced Mechanical Properties of Multiscale Carbon Fiber/Epoxy Unidirectional Composites with Different Dimensional Carbon Nanofillers

Yu Liu ¹, Dong-Dong Zhang ², Guang-Yuan Cui ¹, Rui-Ying Luo ^{1,*} and Dong-Lin Zhao ^{2,*}

¹ Research Institute for Frontier Science, Beihang University, Beijing 100029, China; liuyu9175@buaa.edu.cn (Y.L.); m15300178689_3@163.com (G.-Y.C.)

² State Key Laboratory of Chemical Resource Engineering, Key Laboratory of Carbon Fiber and Functional Polymers, Ministry of Education, Beijing University of Chemical Technology, Beijing 100029, China; zhangdd8888@126.com

* Correspondence: ryluo@buaa.edu.cn (R.-Y.L.); dlzhao@mail.buct.edu.cn (D.-L.Z.)

Relevant spots for the 3% sample are as follows.

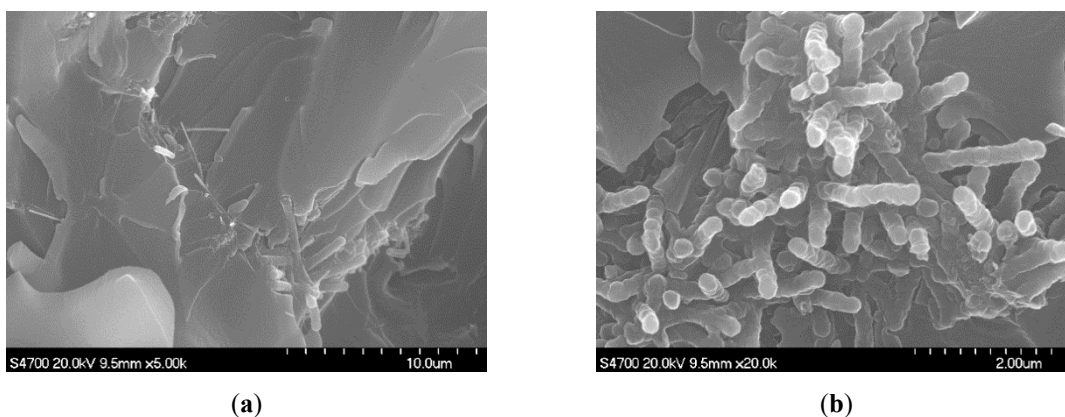


Figure S1. SEM micrographs of the epoxy composites with AMGNS-MWCNT mixture contents of 3.0 wt%. (a) the fractured surface of the composites; (b) the agglomeration CNTs in matrix of the composites.

More SEM images of the fractured surface of the epoxy composites with AMGNS-MWCNT mixture contents of 1.0 wt% and 2.0 wt% are as follows.

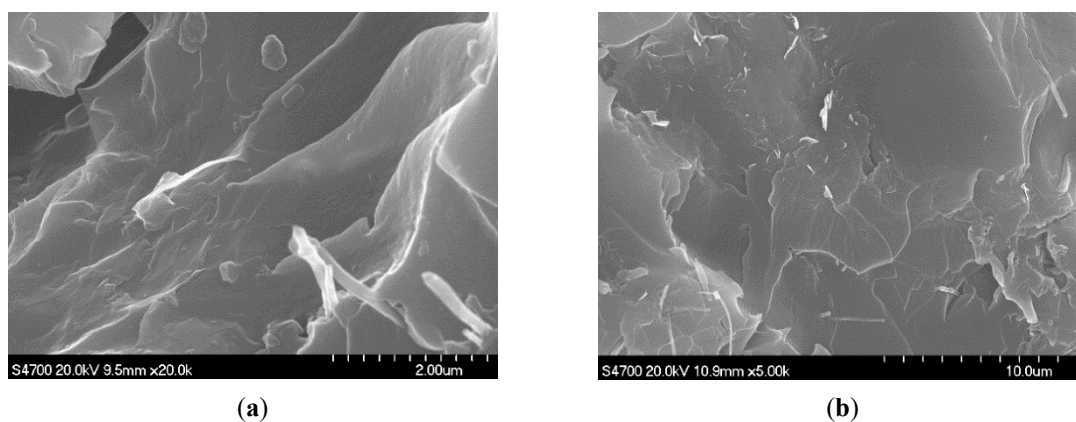


Figure S2. SEM micrographs of the fractured surface of the epoxy composites with AMGNS-MWCNT mixture contents of (a) 1.0 wt%, (b) 2.0 wt%.

GNS can be seen in AMGNS-MWCNT/epoxy composites in Figure 4(a) and (b).



© 2020 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<http://creativecommons.org/licenses/by/4.0/>).