Available online at www.sciencedirect.com
ScienceDirect
Cement & Concrete Composites 30 (2008) 152
Cement & Concrete Composites
www.elsevier.com/locate/cemconcomp

Letter to the Editor

Comment on "Cement based electromagnetic shielding and absorbing building materials" by Guan et al.

D.D.L. Chung

Composite Materials Research Laboratory, University at Buffalo, State University of New York, Buffalo, NY 14260-4400, United States

Received 5 July 2007; accepted 1 August 2007
Available online 9 August 2007

This Letter comments on the review paper "Cement based electromagnetic shielding and absorbing building materials" by Guan et al., published in Cement and Concrete Composites 2006;28(5):468-474.

The subject paper neglected the paper by Wen and Chung [1] that reported a shielding effectiveness of 70 dB (1.5 GHz) for cement containing 0.72 vol.% stainless steel fiber of diameter 8 μm. This value of the shielding effectiveness is the highest that has been reported for cement-based materials. By using 0.51–1.02 vol.% coke powder in place of the steel fiber, the shielding effectiveness is only 45–49 dB at the same frequency [2]. Ref. [2] is cited by the subject paper, but Ref. [1] is not.

References

[1] Wen S, Chung DDL. Electromagnetic interference shielding reaching 70 dB in steel fiber cement. Cem Concr Res 2004;34:329–32.
[2] Cao J, Chung DDL. Coke powder as an admixture in cement for electromagnetic interference shielding. Carbon 2003;41:2427–51.

0958-9465/$ - see front matter
doi:10.1016/j.cemconcomp.2007.08.001