Abstract Submitted
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A study of 3-dimensionally periodic carbon nanostructures MING YIN, Benedict College Columbia, SC 29204, MICHAEL BLEIWEISS, JAFAR AMIRZADEH, TIMIR DATTA, University of South Carolina Columbia, SC 29208, FOUZI ARAMMASH, Benedict College, Columbia, SC 29204 — Electronic structures with intricate periodic 3-dimensional arrangements at the submicron scale were investigated. These may be fabricated using artificial porous opal substrates as the templates in which the targeted conducting medium is introduced. In the past these materials were reported to show interesting electronic behaviors. [Michael Bleiweiss, et al "Localization and Related Phenomena in Multiply Connected Nanostructured," BAPS, Z30.011, Nanostructured Materials Session, March 2001, Seattle]. Several materials were studied in particular disordered carbon which has been reported to show quantum transport including fractional hall steps. The results of these measurements, including the observation of localization phenomena, will be discussed. Comparisons will be made with literature data.

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