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The Dynamic Compaction of Sand and Related Porous Systems

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Porous and granular materials are widely found in a number of environments. One of the most important groups both geographically and in the construction industry are the sands. A review of the response of sand (42% porous) and a very low-density silica dust (95% porous) will be presented as well as recent data. Strain rates will be from quasi-static to the shock regime, effects such as grain size, humidity, will be discussed.

In collaboration with David Chapman and Kostas Tsebelis, Cavendish Laboratory, University of Cambridge; Philip Church and Ian Cullis, QinetiQ, Fort Halstead, UK; David Porter, Fanborough, UK; Peter Gould, QinetiQ, Bristol; Anatoly Bragov and Andrey Lomunov, University of Nizhny Novogorod, Russia; John Borg, Marquette University, Wisconsin, USA; and John Cogar, Corvid Technology, USA.