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J L Selden* (jeffrey.selden@uni.edu), Dept. of Mathematics, University of Northern Iowa,
Cedar Falls, IA 50614-0506. *Some Results Concerning Periodic Operators in High Contrast Media.*

Photonic crystals have led to increased interest in the structure of the spectrum of operators associated with the propagation of classical waves in high contrast, periodic media with special emphasis on the possible formation of bands and gaps. Hempel and Lienau showed that such gaps exist for sufficiently high contrast. This talk will include results that extend those of Friedlander concerning the structure of the spectrum inside the spectral bands. (Received August 30, 2005)