Spectral Calculations for columnar Thin Films Deposited on Periodically Decorated Substrates JON MEASE, student, TARIQ GILANI, AKHLESH LAKHTAKIA, Penn State University — Using a morphological model of a class of nano-engineered materials called columnar thin films (CTFs) deposited on periodically decorated substrates, we compute their optical reflection and transmission spectra. The calculation procedure involves the use of the MIT Electromagnetic Equation Propagation (Meep) software libraries. The deposition geometry and the spatial periodicity affect the spectra in technologically significant ways. Our current efforts are focused on a narrowband, linear-polarization rejection filter.

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