

Abstract Submitted
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Electro-optic effective medium composite materials BRAD BIRCHFIELD, University of Dayton, ROBERT NELSON, Air Force AFRL, JOE HAUS, PERRY YANEY, University of Dayton, ELECTRO-OPTIC MATERIALS TEAM — Linear optical effective medium theory has long been applied to materials dating back to the work of Maxwell Garnett. Nonlinear optical effective medium theory however is not as well known and has been an active area of research for only the last 20 years. Application to electro-optics in particular is almost nonexistent and in this work we investigate the implications of applying effective medium theory to electro-optic materials. We present ongoing work in sample construction as well as types of samples to be attempted in the near future. The potential usefulness extends into many applications for electro-optic materials.

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