**Duncan T. Moore**

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**Gradient-Index (GRIN) Research Group**

**List of Recent Publications**

**2014**

Corsetti, James A., Greg R. Schmidt, and Duncan T. Moore. "Axial and Lateral Color Correction in Zoom Lenses Utilizing Gradient-Index Copolymer Elements." *International Optical Design Conference*. Optical Society of America, 2014.

McCarthy, Peter, et al. "Optical Design Study in the 1-5μm Spectral Band with Gradient-Index Materials." *International Optical Design Conference*. Optical Society of America, 2014.

P. McCarthy, N. Nag, and D. T. Moore, "Modeling Mid-Spatial Frequency Wavefront Error in
Gradient-Index ALON Fabricated by Layered Diffusion," *International Optical Design Conference*. Optical Society of America, 2014.

Visconti, Anthony, et al. "All-Plastic High-Performance Eyepiece Design Utilizing a Spherical Gradient-Index Lens." *International Optical Design Conference*. Optical Society of America, 2014.

Visconti, Anthony, and Julie Bentley. "Broadband High-Resolution Gradient-Index Micro-Objectives for Optical Biopsy Systems." *International Optical Design Conference*. Optical Society of America, 2014.

**2013**

Corsetti, James A., and Duncan T. Moore. "Design of a ZnS/ZnSe Radial Gradient-Index Objective Lens in the Mid-Wave Infrared." *Imaging Systems and Applications*. Optical Society of America, 2013.

Corsetti, James A., Peter McCarthy, and Duncan T. Moore. "Color correction in the infrared using gradient-index materials." *Optical Engineering* 52.11 (2013): 112109-112109.

Corsetti, James A., et al. "Athermalization of polymer radial gradient-index singlets." *Optical Engineering* 52.11 (2013): 112104-112104.

Corsetti, James A., et al. "Design, fabrication, and metrology of polymer gradient-index lenses for high-performance eyepieces." *SPIE Optical Engineering+ Applications*. International Society for Optics and Photonics, 2013.

McCarthy, Peter, and Duncan T. Moore. "Design and tolerance analysis of an axial gradient-index singlet broadband laser collimator." *Optical Engineering* 52.11 (2013): 112110-112110.

Lin, Di, et al. "One-dimensional gradient-index metrology based on ray slope measurements using a bootstrap algorithm." *Optical Engineering* 52.11 (2013): 112108-112108.

Visconti, Anthony J., et al. "Design and fabrication of a polymer gradient-index optical element for a high-performance eyepiece." *Optical Engineering* 52.11 (2013): 112107-112107.

Visconti, Anthony J., and Julie L. Bentley. "Fabrication of large-diameter radial gradient-index lenses by ion exchange of Na+ for Li+ in titania silicate glass." *Optical Engineering* 52.11 (2013): 112103-112103.

Visconti, Anthony J., et al. "Eyepiece designs with radial and spherical polymer gradient-index optical elements." *Optical Engineering* 52.11 (2013): 112102-112102.

Visconti, Anthony J., and Julie L. Bentley. "Design of radial gradient-index lenses for dual-band visible to short-wave infrared imaging systems." *Optical Engineering* 52.11 (2013): 112106-112106.

**2012**

McCarthy, Peter, and Duncan T. Moore. "Optical design with gradient-index elements constrained to real material properties." *Optical Fabrication and Testing*. Optical Society of America, 2012.

McCarthy, Peter, et al. "Application of a Multiple Cavity Fabry-Perot Interferometer for Measuring the Thermal Expansion and Temperature Dependence of Refractive Index in New Gradient-Index Materials." *Optical Fabrication and Testing*. Optical Society of America, 2012.

Visconti, Anthony, Duncan T. Moore, and Julie L. Bentley. "Large diameter radial gradient-index lenses fabricated by ion exchange." *Imaging Systems and Applications*. Optical Society of America, 2012.