

Abstract Submitted
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Optical Properties of Silver Nanoparticulate Glasses RACHEL N. EVANS, SARAH A. CANNAVINO, CHRISTY A. KING, JOSEPH A. LAMARTINA, ROBERT H. MAGRUDER, DAVON W. FERRARA, Belmont University — The ion exchange method of embedding metal nanoparticles (NPs) into float glass is an often used technique of fabricating colored glasses and graded-index waveguides. The depth and size of NP formation in the glass depends on the concentration and temperature of metal ions in the molten bath. In this study we explore the dichroic properties of silver metal ion exchange restricted to only one side of a glass microscope slide using reflection and transmission spectroscopy and its dependence on temperature, concentration of silver ions, and length of time in the molten bath.

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