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Thin film optical filter fabrication and characterization

Adam G. Hammouda
Kalamazoo College

David P. Shelton
University of Nevada, Las Vegas

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Experimental Details

For all of the films made a vacuum deposition system was used. The base pressure of the system was 1.0 x 10⁻⁶ torr. Every deposition was performed in an Ar environment at pressures of 7-8.5 mtorr flowing RG, N₂, and O₂ at varied ratios. The rf power applied to the target was always maintained at 150 W. All depositions were done on glass microscope slides, and were started and stopped using the manual shutter (Figure 1). Transmission Spectra were taken by a UV-Visible Spectrophotometer over wavelengths (λ) from 200 – 900 nm (see Acknowledgements).