# Analyzing Frequency-Dependent UV Light Responses in ZnO Films with Impedance Spectroscopy

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**ABSTRACT**: The UV sensitivity of ZnO is of significant interest for several applications, including imaging techniques and optoelectronics. Impedance spectroscopy shows that the sign of the UV response reverses for higher frequencies of applied AC voltage. In this study, we prepare the ZnO films with a solid state synthesis method, perform impedance measurements and apply fits to analyze the data. The factors which influence the specific crossover frequency are investigated, and equivalent circuit models are applied to explain the experimentally observed changes in the conductivity of ZnO films.

**ALL ARE WELCOME!!!**