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Spectroscopic Ellipsometry of Gadolinium Gallium Oxide thin films KALEB GILBERT, KUNAL BHATNAGAR, STEVE JACKSON, Angelo State University, RAVINDRANATH DROOPAD, WILHELMUS GEERTS, Texas State University, TONI SAUNCY, Angelo State University — The dielectric parameters of Gadolinium Gallium Oxide (GGO) multilayer structures have been investigated with spectroscopic ellipsometry and modeled with a simplified modeling technique. The GGO thin films are of varying thickness and the simple four parameter model was effective in determining consistent values for the dielectric constants of this important high k dielectric material. Ellipsometric data was collected in a specific acquisition configuration related to the tilt of the elliptically polarized light upon reflection from the GGO sample. The model is further confirmed by the determination of film thickness values within an acceptable range when compared with those reported by the sample grower.

Toni Sauncy
Angelo State University

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