

*Katia Varblianska, Plamen Gardev.* GROWTH KINETICS AND OPTICAL PROPERTIES OF  $Ta_2O_5$  LAYERS PRODUCED BY LOW TEMPERATURE OXIDIZATION OF TA

Low temperature partial oxidation at 300-400°C of RF-magnetron sputtered Ta in an ambient of dry and saturated with water vapors oxygen is conducted. The low temperature process is consistent with the Ta-GaSb interface instability during the Schottky photodiode structures preparation. The thickness of the Ta+ $Ta_2O_5$  structure and its optical characteristics as function of the oxidation temperature, oxidation time and oxidation ambient are investigated.

**Keywords:** thin films, oxides, optical transmission

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