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(54) Title: DEPOSITION OF VANADIUM-CONTAINING FILMS

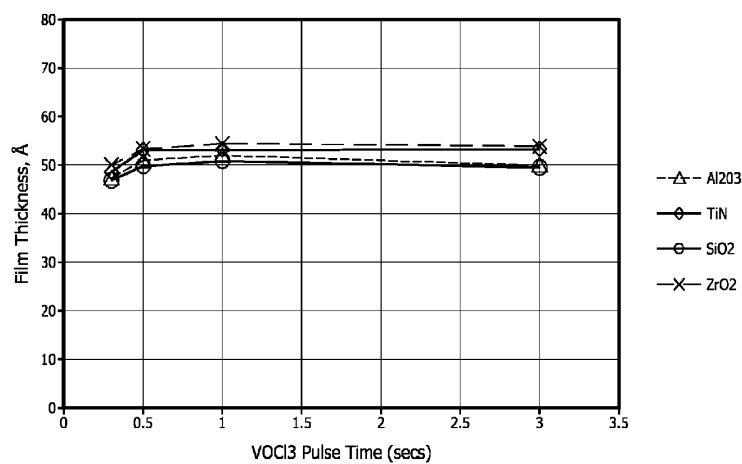


FIG. 1

(57) **Abstract:** The disclosed and claimed subject matter relates to a method for depositing vanadium-containing films including vanadium nitride and vanadium oxynitride. The method generally includes (i) contacting a substrate with vanadium oxytrichloride vapor in a deposition reactor, (ii) purging any unreacted vanadium oxytrichloride with inert gas, (iii) contacting the substrate with a nitrogen containing reactant in a deposition reactor and (iv) purging any unreacted nitrogen containing reactant with inert gas. Additional steps can be included, for example substrate (v) treatment with plasma to remove residual oxygen from oxynitride film

