

The size reduction of Complementary Metal Oxide Semiconductor (CMOS) transistors requires replacement of conventional SiO₂ layer with higher dielectric constant (k) material for gate dielectric, in order to reduce the gate leakage current and also to maximize gate capacitance. Among the many possible transition- metal oxide materials, titanium dioxide (TiO₂) is a potential candidate because of its high energy band gap, refractive index and dielectric constant.

Titanium based Oxide Thin Films

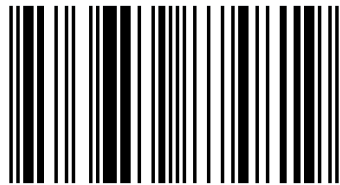


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Investigations on Magnetron Sputtered Titanium based Oxide Films

For Microelectronic Devices

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978-3-659-87481-9

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Academic Publishing