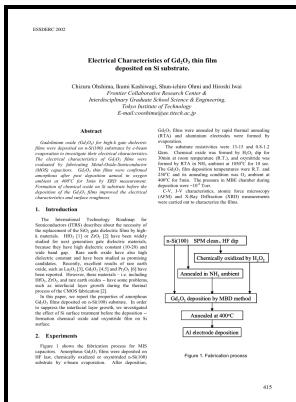


# Characterization of Gd<sub>2</sub>O<sub>3</sub> high-K dielectric films on Si(001)

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Description: -

-Characterization of Gd<sub>2</sub>O<sub>3</sub> high-K dielectric films on Si(001)

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## Delayed crystallization of ultrathin Gd<sub>2</sub>O<sub>3</sub> layers on Si(111) observed by in situ X

Fissel: Investigation of the electronic structure at interfaces of crystalline and amorphous Gd<sub>2</sub>O<sub>3</sub> thin layers with silicon substrates of different orientations. At lower annealing temperature of 500 °C, the 222 and 004 preferred orientation peaks of Gd<sub>2</sub>O<sub>3</sub> thin film are observed, which illustrates the thin film consists of many kinds of orientation domains. The obtained results indicated that the crystallinity of the films increased with increase in sputtering power and the films deposited at higher power showed the lower rms roughness value.

## Growth and characterization of sol

Comparison between measured and simulated CTRs.

## Improving dielectric properties of epitaxial Gd<sub>2</sub>O<sub>3</sub> thin films on silicon by nitrogen doping

Gd<sub>2</sub>O<sub>3</sub> in its bixbyite structure exhibits a lattice parameter  $a$  of 10. Among the four different types of one-dimension 1D MnO<sub>2</sub>, the  $\alpha$ -MnO<sub>2</sub> nanowires exhibited significantly larger electrocatalytic property than the others, which may contribute to the special crystalline structure and larger specific surface area.

## A comprehensive study on usage of Gd<sub>2</sub>O<sub>3</sub> dielectric in MOS based radiation sensors considering frequency dependent radiation response

We are grateful to all PhD students and scientist working with us on particular aspects of that challenging project. X-ray diffraction XRD is used as experimental technique to characterize the structural and crystal properties of the films. A proper amount of polymeric agent, polyvinylpyrrolidone PVP, is very important to access uniform film growth, a smooth surface morphology, and a low....

## Phase control of magnetron sputtering deposited Gd<sub>2</sub>O<sub>3</sub> thin films as high

The depicted scan range in L covers two silicon peaks, namely Si 1 1  $^{-}$  1 cub and Si 022 cub at the CTR 10 L hex, as well as Si 2  $^{-}$  22 cub and

Si 1  $\bar{1}$  33 cub at the CTR 20 L hex. Due to the A-B twinning relation to the substrate, the layer peaks do not coincide with those of the substrate. For the film thickness larger than 4 ML, a crystalline film grows, and the thickness determined from the fringes on the CTRs agrees with the nominally deposited film thickness.

### **Epitaxial growth and characterization of Gd<sub>2</sub>O<sub>3</sub>**

To investigate the morphology and crystalline structure effect on the oxygen reduction reaction ORR electrocatalytic, in this work,  $\alpha$ -MnO<sub>2</sub> nanowires,  $\alpha$ -MnO<sub>2</sub> nanorods,  $\beta$ -MnO<sub>2</sub> nanowires and  $\beta$ -MnO<sub>2</sub> nanorods have been successfully synthesized via a hydrothermal process, and their microstructures and electrocatalytic activities were investigated for the ORR. The BL band intensity remains unchanged in the temperature range of 20 — 60 K.

### **Growth of Crystalline Gd<sub>2</sub>O<sub>3</sub> Thin Films with a High**

High epsilon gate dielectrics Gd-2 3 and Y- 23 for silicon. Crystallinity of inorganic films grown by atomic layer deposition: Overview and general trends. The cubic bixbyite structure of Gd<sub>2</sub>O<sub>3</sub> appears only after a few monolayers of deposition.

### **Epitaxial lanthanide oxide thin films on Si for high**

McKinstry: Oxygen vacancy motion in Er-doped barium strontium titanate thin films.

## Related Books

- [Gone whaling - a search for orcas in northwest waters](#)
- [Bricklaying system](#)
- [Yosef Markus - ish ha-hadarim mi-Petah Tikvah](#)
- [Choices and Decisions \(Magic Beans\)](#)
- [Lola Alvarez Bravo](#)