

### [III~30]

Photoemission spectroscopy of Ta<sub>2</sub>O<sub>5</sub>/Si(001) and Ta<sub>2</sub>O<sub>5</sub>/SiO<sub>2</sub>/Si(001) along its depth.

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The demand for high dielectric insulators derives a great interest in Ta<sub>2</sub>O<sub>5</sub> which has a high dielectric constant. These Ta<sub>2</sub>O<sub>5</sub> film were deposited on Si(001) substrate by the metalorganic chemical vapor deposition(MOCVD) and we used the photoemission spectroscopy with synchrotron radiation to characterize the chemical composition of the surface, the bulk and the interface in Ta<sub>2</sub>O<sub>5</sub>/Si(001) and Ta<sub>2</sub>O<sub>5</sub>/SiO<sub>2</sub>/Si(001) along its depth.