NO gas 후속 열처리를 통한 Hf-silicate 에 대한 연구

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The Study of Hafnium Silicate by NO Gas Annealing Treatment

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Abstract : The physical and electrical properties of nitrided Hf-silicate films, incorporated by NO gas annealing, were investigated by XPS, NEXAFS, TEM and C-V measurement. We confirmed the nitrogen incorporation during NO gas annealing treatment effectively enhances the thermal stability of Hf-silicate. The suppression of phase separation was observed in Hf-silicate films with high nitrogen contents. The negative shift of threshold voltage is caused by the incorporation of nitrogen in the hafnium silicate films.

Key Words : Hf-silicate, NO gas annealing, Atomic Layer Deposition(ALD)