이산화티타늄 박막의 열처리에 따른 결정구조 분석

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Annealing Effect on the Crystal Structure of TiO2 Thin Film

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Abstract: Titanium dioxide (TiO_2) thin films were prepared on glass substrates by ion-assisted electron-beam evaporation with 200nm thickness and subsequently crystallized by rapid thermal annealing at the rage of 200~700°C in flowing N_2 gas. The crystal structure of the films were examined by X-ray diffractometer. As-deposited TiO_2 films were amorphous. After annealing, anatase and rutile phase of TiO_2 films were observed together.

Key Words: TiO2, IAD, Crystal structure, RTA