

Abstract Submitted  
for the MAR05 Meeting of  
The American Physical Society

**Growth of Yttria-Stabilized Zirconia (YSZ) Thin Films Deposited under Various Substrate Temperatures by Pulse Laser Ablation** ENGANG FU, The University of Hong Kong, JU GAO — Yttria-stabilized zirconia thin films were deposited on Si (001) by pulse laser ablation with YSZ target. The crystallinity and structural features of thin films were characterized by using X-ray diffraction (XRD) and rocking curve measurements, and the thickness of thin films was determined by a Dektak3ST surface step profiler. The results showed the substrate temperature is one of the most important factors during deposition process and the thin films grown under different substrate temperatures behaved diverse properties. Thin films with very good crystalline deposited at the substrate temperature of 800° and oxygen gas pressure of  $5 \times 10^{-4}$  mbar were obtained.

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Date submitted: 06 Dec 2004

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