Abstract Submitted
for the GEC10 Meeting of
The American Physical Society

**The effect of substrate temperature on microstructure of nano-crystalline Si thin films deposited by ICP assisted magnetron sputtering at low temperature** KYUNG S. SHIN, YOON S. CHOI, IN S. CHOI, JEON G. HAN, Center for Advanced Plasma Surface Technology, Sungkyunkwan University, 300 Chunchun-dong, Jangan-gu, Suwon, 440-746, Republic of Korea — The hydrogenated nano-crystalline silicon thin films were synthesized on glass substrate at low temperature using inductively coupled plasma (ICP) assisted magnetron sputtering. One-turn ICP coil was installed to dissociate the hydrogen molecules by the induced electrical field inside the chamber. According to the change of the substrate temperature, the microstructure characteristics of deposited films were investigated.

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Date submitted: 12 Jun 2010 Electronic form version 1.4