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Effect of rf power on the electrical properties of glow-discharge a-Si:H

Hüseyin TOLUNAY

Hacettepe University, Department of Physics Engineering,
06532 Beytepe, Ankara-TURKEY

Abstract: Hydrogenated amorphous silicon films were prepared in an rf glow-discharge system by decomposing undiluted silane at various rf power densities. Dark conductivity and photoconductivity of the films have been measured in the temperature range 420K-100K at four different photon fluxes. It was observed that both dark conductivity and photoconductivity increase with increasing rf power density.

 [Keywords](#)
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Key Words: A. Dark conductivity; B. Photoconductivity; Rf power density; D. Activation energy; E. Hydrogenated amorphous silicon.



phys@tubitak.gov.tr

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