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## Nanocluster Carbon thin film as a Semiconducting layer

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Abstract : Literature review revealed that Nanocluster carbon thin films have been as an alternative semiconducting layer to a - Si : H . Amorphous and polycrystalline hydrogenated silicon are used as an active channel layer for the Thin Film Transistors (TFTs ) for long time . But these materials are fabricated at high temperatures . In this paper we describe Nanocluster carbon thin film as alternative materials for the TFT device application . WE present numerical simulations of type TFT , using the semiconductor device simulator ATLAS from silvaco . We study the ON / OFF ratio of the Nanocluster Carbon Thin film based TFT . Index terms - TFT , Nanocluster carbon thin films based TFT .