PLASMA ASSISTED DEPOSITION OF SiO_2 FILMS

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The deposition of dielectric films at low temperatures with good electrical characteristics has been achieved by plasma assisted chemical vapor deposition techniques using silicon halides and N_2O or O_2 as reactant gases. The optical (IR%T, and ellipsometry) and electrical (C-V and I-V) characteristics will be presented as a function of the deposition parameters. The low temperatures (200 to 250°C) used for the deposition of the SiO_2 allowed to fabricate ac-electroluminescence devices in which a layer of SiO_2 is deposited on a layer of ZnS:Mn. Preliminary characterization of this devices will be presented.