

ELECTRIC FIELD PROGRAMMABLE FILMS AND MEMORY DEVICES BASED THEREON**Abstract of the Disclosure**

An electric field programmable film composition is disclosed containing a binder and (a) an electron donor and an electron acceptor, wherein at least one of: (i) the concentration of the electron donor is <0.05 wt% and (ii) the concentration of the electron acceptor is <0.05 wt% or (b) an electron donor and an electron acceptor, wherein the electron donor and/or the electron acceptor is chemically bound to the binder. Also disclosed are methods for manufacturing an electric field programmable film on a substrate. Also disclosed are memory devices, wherein the memory device comprises an electric field programmable film.