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ABSTRACT

The invention relates to thin film single layers, electronic components such as multilayer capacitors which utilize thin film layers, and to their methods of manufacture. Chemical solution deposition and microcontact printing of dielectric and electrode layers are disclosed. High permittivity BaTiO_3 multilayer thin film capacitors are prepared on Ni foil substrates by microcontact printing and by chemical solution deposition. Multilayer capacitors with BaTiO_3 dielectric layers and LaNiO_3 internal electrodes are prepared, enabling dielectric layer thicknesses of 1 μm or less. Microcontact printing of precursor solutions of the dielectric and electrode layers is used.