

Nanoporous Alumina and Macroporous Si Templates for Nanotube Capacitors

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Abstract : Fabrication of highly ordered nanoporous anodic aluminum oxide (AAO) and macroporous Si templates have been discussed. Nanoporous AAO templates have been fabricated using two-step anodization process. Nanopores have been obtained using either bulk Al or Al film on Si wafer. Besides, in this work photoelectrochemical etching of n-type Si wafers in HF containing electrolyte have been studied. Prepared nanoporous AAO templates have been applied to fabricate ferroelectric BLT nanotubes.