

Nanowire by Ac Electrodeposition Into Nanoporous Alumina Fabrication of High Aspect Ratio Metallic

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Abstract : High aspect ratio metallic (silver, cobalt) nanowire arrays were fabricated using ac electrodeposition techniques into the nanoporous alumina template. The template with long pore depth fabricated by hard anodization (HA) and thinned for ac electrodeposition. Template preparation was done in short time by using HA technique and high speed thinning process. The TEM and XRD investigation confirm the three dimensional nucleation growth mechanism of metallic nanowire inside the nanoporous alumina that fabricated by HA process.

Keywords : metallic, nanowire, nanoporous alumina, ac electrodeposition

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