

Formation of gallium phosphide nanostructures by using metal-assisted chemical etching

Metal-assisted chemical etching (MacEtch) is a novel nanofabrication method which can be used to produce high aspect ratio semiconductor nanostructures. In the MacEtch process, semiconductors patterned with noble metals (e.g., Ag, Au and Pt) which act as a catalyst are dipped into etching solution mixed with oxidant (e.g., H₂O₂) and acidic (e.g., HF). In this work, we investigate the formation of GaP nanostructures etched in the solution of KMnO₄ and HF by using the method of MacEtch.

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