

A Photonic Device and Method of Making the Same

5

Abstract

The present invention relates to a photonic device comprising a plurality of nanostructures that extend from a substrate, each nanostructure comprising a generally longitudinal nanostructure body formed of a semiconductor material. Each nanostructure has a proximal end portion of a first crystal lattice structure and a distal end portion of a second crystal lattice structure that is expanded relative to the proximal end portion. Each nanostructure further comprises an optically active material optically associated with the distal end portion to form a heterojunction therebetween. The present invention further relates to a method of making the disclosed nanostructures.

20 Fig. 1