



2005, Volume 31, Number 1, p. 010301

## **Special issue on electrochemical processing of semiconductor materials**

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<https://doi.org/10.1088/0268-1242/31/1/010301>

### **Abstract**

This special issue of *Semiconductor Science and Technology* on 'Electrochemical Processing of Semiconductor Materials' is devoted to basic and applied research in the multidisciplinary field of porous semiconductor materials. It presents 13 selected and peer-reviewed research articles covering the following three main areas: (i) formation of porous semiconductor structures, (ii) the galvanic filling of pores, and (iii) applications for these porous semiconductor structures.

The first part of this special issue focuses on the formation of porous semiconductor structures by diverse processing techniques: electrochemical etching, metal-assisted etching, and stain etching. The second part covers the galvanic filling of pores with a special emphasis on magnetic materials and includes a review of the current status of this field. The fabrication of ZnO nanowires is also discussed. The application section deals mainly with emerging energy applications—Li-ion batteries and solar cells—but also covers optics and catalytic activities of porous semiconductor structures.