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عنوان مقاله:

Silicon nano-grass and nanowires on silicon substrates using high precision reactive ion etching

محل انتشار:

سومین کنفرانس نانوساختارها (سال: 1388)

تعداد صفحات اصل مقاله: 3

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خلاصه مقاله:

We report the evolution of nano-grass and nano-wires on silicon substrates using a novel high precision hydrogenation-assisted reactive ion etching (RIE). The formation of Si nano-grass and nano-wires in desired locations and features is possible using photolithography combined with a sequential chromium deposition and RIE removal of the silicon surface. The wetting angle of the processed silicon has been measured and compared with a bare silicon surface. It has been observed that the inclusion of the nano-grass at the surface of silicon converts it into a hydrophilic material which could be used for liquid-based acceleration and inclination sensors. Also the treated surface has been .examined with oil contamination further evidencing its wetting ability

کلمات کلیدی:

”silicon nano grass”; “Black silicon”; “Hyrogen assisted Reactive Ion Etching”; “Wetting angle“

لینک ثابت مقاله در پایگاه سیویلیکا:

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