

## **Track-etched nanopores in spin-coated polycarbonate films applied as sputtering mask**

Nix AK, Gehrke HG, Krauser J, Trautmann C, Weidinger A, Hofsäss H  
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Thin polycarbonate films were spin-coated on silicon substrates and subsequently irradiated with 1-GeV U ions. The ion tracks in the polymer layer were chemically etched yielding nanopores of about 40 nm diameter. In a second process, the nanoporous polymer film acted as mask for structuring the Si substrate underneath. Sputtering with 5-keV Xe ions produced surface craters of depth  $\sim 150$  nm and diameter  $\sim 80$  nm. This arrangement can be used for the fabrication of track-based nanostructures with self-aligned apertures.