

Applications of nanostructured, deposited column-void Si"

By

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We have developed a unique deposited, nanostructured column-void silicon material. The deposition is done at low temperatures ($T < 150\text{C}$) allowing this material to be coated onto practically any substrate including plastics. The nanoscale morphology of the material gives it many applications from sensor medium to sacrificial layer uses in fabrication. In the former application, use of nanostructured column-void silicon has made possible devices such as extremely sensitive infant breathing monitors. In the latter application, use of nanostructured column-void silicon has lead to CMOS performance devices on plastic. These applications, and others, for this unique low deposition temperature material will be discussed.