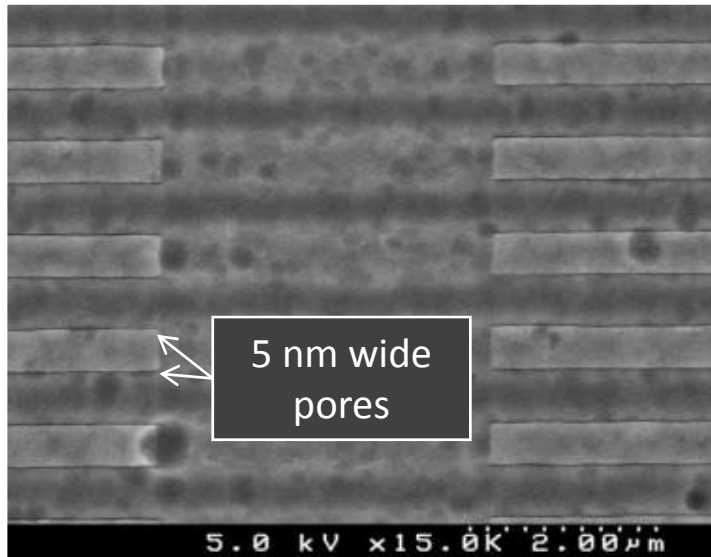
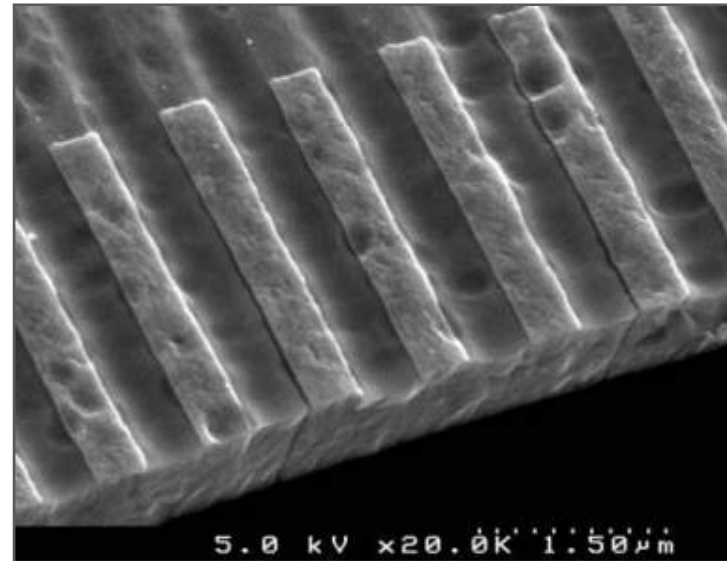


Nanoporous Silicon Membranes

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FESEM of membrane top view



FESEM of membrane cross section

Dense, slit-shaped nanopore arrangements have been produced on ultra-thin polysilicon membranes with high mechanical strength. The nanopores are 5-6 nm in size and spaced at intervals down to 250 nm. The membranes are being developed for blood filtration for artificial kidney applications.

Penn State Site

NNIN has enabled fabrication of dense nanopore arrangements that reduce testing times from several weeks to several hours.