

Abstract Submitted
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Patterned Carbon Nanotube X-Ray Windows¹ JONATHAN ABBOTT, RICHARD VANFLEET, ROBERT DAVIS, Brigham Young University —
By lithographically patterning catalyst particles carbon nanotube forests can be grown with nearly arbitrary geometries. The patterned nanotube forest can then be infiltrated via chemical vapor deposition with a variety of materials to form self-supporting structures with the same shape as the nanotube forest. As an application of this process, x-ray window support frames were made using carbon as the infiltrating material. Window supports made with this process could give a lower background signal, higher collection angles, and lower cost processing than current window frames. Characterization of the infiltration and strength of the structure is presented.

¹Moxtek, Inc.

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