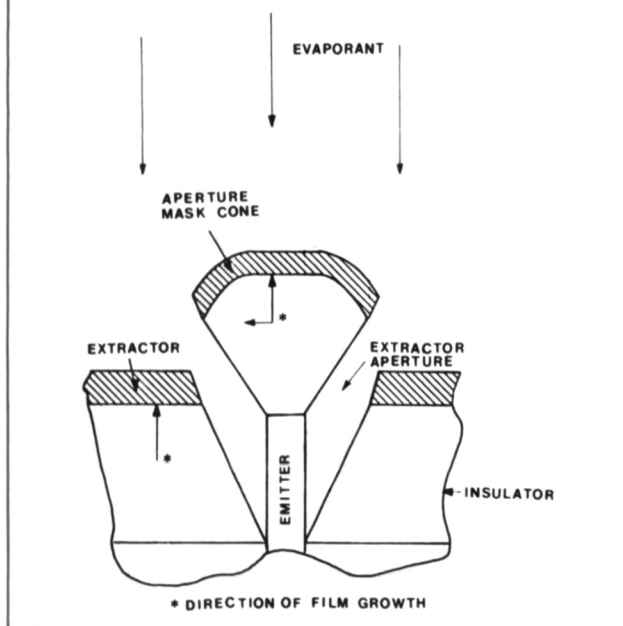
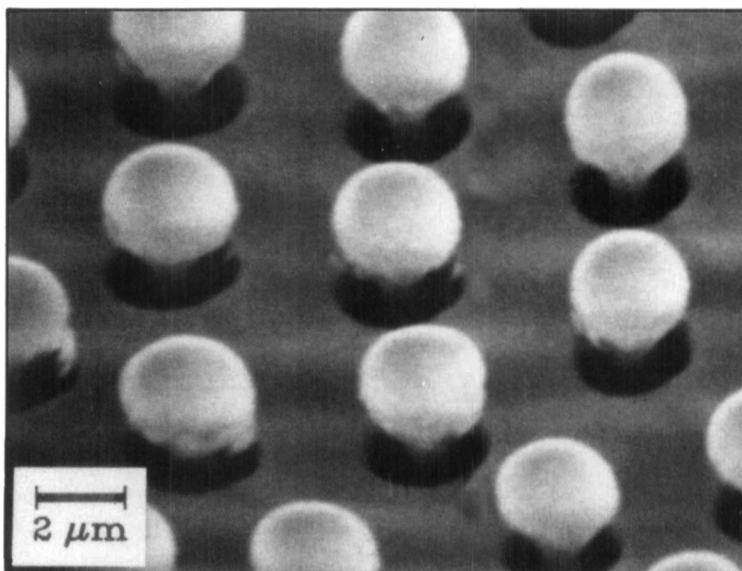


Figures appearing in the EDITOR'S CHOICE are those arising from materials research which strike the editor's fancy as being aesthetically appealing and eye-catching. No further criteria are applied and none should be assumed. When taken out of context, such figures often evoke images beyond and unrelated to the original meaning. Submissions of candidate figures are welcome and should include a complete source citation, a photocopy of the report in which it appears (or will appear), and a reproduction-quality original drawing or photograph of the figure in question.

Is EDITOR'S CHOICE stretching the definition of materials into the realm of biomass with this month's selection? Hardly! Notwithstanding the fungiform appearance of this array, it is decidedly inorganic. The micrograph documents the morphology of the surface of an yttrium-stabilized zirconia (YSZ)/tungsten eutectic composite at an intermediate stage of a multistep process which fabricates low-voltage field emitters. Aligned tungsten fibers, formed by directional solidification of the eutectic mixture, are first exposed by etching away the YSZ matrix. Then, sequential layers of alumina and molybdenum are deposited, mushrooming on the tungsten protuberances and partially shadowing the underlying matrix. (See schematic cross section) After etching away the cap (or pileus), a tungsten tip remains. There are about five million such field emission tips per square centimeter in the sample shown here. This work was reported by J.K. Cochran, A.T. Chapman, D.N. Hill, and K.J. Lee in *J. Mater. Res.* 2 (1987) p. 322-328.



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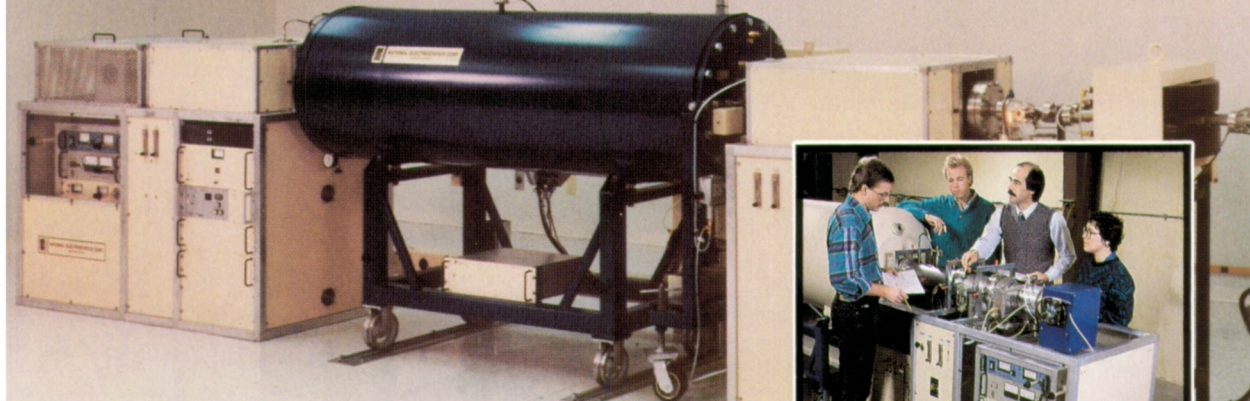
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