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Fabrication of Focused Two-Dimensional Grids

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Abstract

A method to fabricating two-dimensional antiscatter grids with septa walls oriented toward the focal point using deep x-ray lithography and copper electroforming is described. These focused grids can be used in mammography to eliminate scattered x-rays, and result in contrast improvement and significantly better image quality in comparison with the conventional one-dimensional antiscatter grids. Freestanding copper antiscatter grids, up to 2 mm thick, 60 mm x 60 mm in size, and focused to one point have been fabricated. This method can be used for fabrication of various other structures with gradually inclined walls.