AbstractID: 1532 Title: A new high efficiency anti-scatter grid system for mammography

We have developed a high-ratio, air interspace grid for mammography. This is a linear grid with a ratio of 12:1 and a primary transmission of approximately 90%. The grid assembly housing is comparable in size to those of existing commercial grid assemblies. Because of the low line density (10 lines/cm) and limited range of grid motion (1 cm), a novel technique of tube current modulation is used to suppress grid line artifacts.

Presented are an overview of the grid design and the artifact suppression technique, and measurements of the Bucky factor and contrast improvement factor of the new grid. These are compared to measurements of the Smit-Roentgen linear grid and Lorad HTC cellular grid. Also presented are phantom images and associated exposure factors acquired with the new grid.