

Abstract

METROLOGY TARGET DESIGN FOR TILTED DEVICE DESIGNS

Metrology methods, modules and targets are provided, for measuring tilted device designs. The methods analyze and optimize target design with respect to the relation of the Zernike sensitivity of pattern placement errors (PPEs) between target candidates and device designs. Monte Carlo methods may be applied to enhance the robustness of the selected target candidates to variation in lens aberration and/or in device designs. Moreover, considerations are provided for modifying target parameters judiciously with respect to the Zernike sensitivities to improve metrology measurement quality and reduce inaccuracies.

Figure 4