1. Title:	Results from Our Recently Delivered Automated Reflectometer for Measurement of Reflectivity of EUV Lithography Masks
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3. Abstract body:
Based on a laser plasma source, EUV Technology has delivered a recipe driven automated Reflectometer for the measurement of reflectivity and uniformity of multilayer coatings for EUV lithography mask blanks, without removal from the clean environment. An in-vacuum transfer system allows the mask blank to be transferred from a RSP 200 to the measurement chamber with minimum added particles. By translating the mask blank using a high precision, clean x-y stage, measurements can be made at any point on its surface. A multilayer reflectivity curve is obtained in about 20 seconds and about 8,000 reflectivity measurements can be obtained without changing the target. The instrument achieves a peak reflectivity precision (1sigma of 0.1%, and a centroid wavelength precision of (1sigma of 0.0005 nm, figures which compare very favorably with results obtained at synchrotron radiation facilities. This instrument is commercially available and has been delivered to several customers.

In this paper we present data from numerous mask samples and reflectivity standards. Detail description of the tool and the performance will also be discussed.