1. Title:	Study on Photo-chemical Analysis System for EUV Lithography
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3. Abstract body:

A system for photo-chemical analysis of EUV lithography processes has been developed. This system has consists of 3 units: (1) an exposure that uses the Z-Pinch (Energetiq) EUV Light source (DPP) to carry out a flood exposure, (2) a measurement unit for the development rate of photo-resists, and (3) a simulation unit that utilizes PROLITH (KLA-Tencor) to calculate the resist profiles and process latitude using the measured development rate data. With this system, preliminary evaluation of the performance of EUV lithography can be performed without any lithography tool that is capable of imaging and alignment.
Profiles for 20 nm lines are simulated for the KrF resist (TDUR manufactured by TOK) and the EB resist (ZEP-520 manufactured by Nippon Zeon), Both resist that has sensitivity at the 13.5nm wavelength.

The simulation successfully predicts the resist behavior. Thus it is confirmed that the system enables efficient evaluation of the performance of EUV lithography processes.