1. Title:	UV resist tuning for EUV application
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3. Abstract body:

EUV resist ranked top issue at the EUVL symposium in 2005. Though resist researchers make efforts to develop the EUV resist, the performance of EUV resist can not satisfy user's needs yet. Therefore, ASET concentrates all efforts on developing EUV resist as well as EUV mask. In this paper, we report the evaluation results of resists in respect of resolution, photo-speed, LWR, and out-gassing. We also mention the pattern lifting we did not expect to occur and interaction between resist and bufferlayer such as BARC. And we investigate the influence of bufferlayer on the profiles and lifting of resist. We used Solid-EUV (Sigma-C) simulation software to predict the behavior of resist for various illumination conditions of exposure tools and compared its result with real resist profiles. The optical systems we used to evaluate resists were HiNA at Japan and MET at Lawrence Berkeley National laboratory in Berkeley which are of 0.3 Numerical apertures (NA) and two-mirror system. And we used EUV masks which were fabricated by Dai Nippon Printing (DNP). Resist AE021 (ShinEtsu) shows good resolution about 28nm in half pitch. And AE021 tuned by PAG and quencher shows a good improvement in the photo-speed and some degradation in the resolution. This work was supported by NEDO.