



EUV Resist Materials Development for Overcoming Stochastic Limitation

Su Min Kim, Samsung Electronics

Extreme ultraviolet (EUV) lithography with 13.5 nm wavelength is the main option for sub-10nm patterning in the semiconductor industry. However, the stochastic effect is a significant concern in lithography using high-energy (92.5 eV) photons and highly sensitive resists. It makes serious problems such as worse LWR and increasing defects. Overcoming stochastic effects in high sensitivity is main key to success EUV high volume manufacturing. We report improvements in resist performance to meet not only lithography ability but also defects.