EUV Materials Solution

Akimasa Soyano, JSR Corporation

Extreme ultra-violet (EUV) lithography, using a wavelength of 13.5 nm, is considered to be the most potential candidate to high volume manufacturing (HVM) in semiconductor industry. The main challenge for EUV resists is to enough resolution, LWR (line width roughness) and sensitivity requirements in less than 20nm half pitch with single exposure application. Polymer-based CAR (chemically amplified resist) is the current standard photoresist as of today. Advanced materials development such as non-CAR type resist (metal resists), advanced under layer are required to achieve targets of next generation. In this presentation, our recent development activities with EUV materials solution will be discussed.