Nanoimprint systems for high volume semiconductor manufacturing

Kazunori Iwamoto¹, Keita Sakai¹, Takehiko Iwanaga¹, Yukio Takabayashi¹,
(¹Canon INC.)

E-mail:iwamoto.kazunori@canon.co.jp

Jet and Flash Imprint Lithography (J-FIL) has been in development for the past decade to meet the several requirements for semiconductor manufacturing. The technology is now ready for pilot production for semiconductor memory devices at 20nm and below, and offers very significant advantages over 193nm SAQP in terms of cost of ownership and design flexibility (lack of design rule restrictions). This presentation will describe the progress Canon has made on overlay, throughput and defectivity and on the development of manufacturing ready lithography equipment for sub 20nm lithography.