The Photopolymer Science and Technology Award

The Photopolymer Science and Technology Award No. 072100, the Best Paper Award 2007, was presented to Makiko Irie, Kotaro Endo, and Takeshi Iwai, all from Tokyo Ohka Kogyo Co., Ltd., for their outstanding contribution published in *Journal of Photopolymer Science and Technology* 19(4), 565-568 (2006), entitled "Surface Property Control for 193nm Immersion Resist".

Makiko Irie

Makiko Irie received her B.S. degree in Industrial Organic Chemistry from Chiba University. She joined Tokyo Ohka Kogyo Co., Ltd. in 2003 and has been involved in the development of ArF positive type photo resist. Starting in 2005, her works have been concentrated around the development of photoresist with topcoat application for immersion lithography technology.

Kotaro Endo

Kotaro Endo received his B.S. degree in 1996 and his M.S. degree in 1998 from Hokkaido University. From 1998 till present, he has worked for the development of advanced photoresist at Tokyo Ohka Kogyo Co., Ltd.

Takeshi Iwai

Takeshi Iwai received his M.S. degree in 1991 from Yokohama National University. His research for M.S. was photochemistry, specializing in the quantum yield of photo chromic compounds. After joining Tokyo Ohka Kogyo Co., Ltd., his work has been concentrated on the development of photosensitive-polymer for printing materials, circuit board, and other semiconductor devices. Starting in 1997, he has work for the development of ArF positivetone photoresist. He is currently the Manager for Positive Photoresists Material Group, Advanced Material Development Division 1.

193nm immersion lithography is a promising candidate for 65nm half-pitch and beyond. However, it requires solutions, in relation to water fluid, from the viewpoints of material development. It has been

previously reported that there are some correlations between dynamic contact angles (sliding and receding angles) of water with watermark defects and scan speed of immersion exposure tool [1,2].