

Speaker Profile

 <p>Contact Details</p> <p>Organization Name: POSTECH</p> <p>Address: San 31 Hyoja-dong, Pohang, 790-784, Korea</p> <p>Phone: +82 54 279 2119</p> <p>Fax: +82 54 279 0653</p> <p>Email: jwpark@postech.ac.kr</p> <p>Website: http://www.postech.ac.kr/chem/jlab</p>	<p>Name : Joon Won Park</p> <p>Title : Professor, Director</p> <p>Institute : POSTECH</p> <p>Prof. Park received his B. S degree in Chemistry, Magna Cum Laude from Sogang University, Korea in 1979, M. S. degree in Chemistry, from Korea Advanced Institute of Science and Technology Korea in 1981, and Ph. D. degree in Chemistry from California Institute of Technology, USA in 1988</p> <p>As a research scientist, he worked for LG Chemical Research Institute between Mar. 1981 and Jun. 1984.</p> <p>He was a teaching/research assistant at Caltech between 1984 and 1988 (Advisor: Nobel Laureate Professor Robert H. Grubbs), and got postdoctoral training at Northwestern University between 1988 and 1990 (Advisor: Morrison Professor Tobin J. Marks). He had a chance to be a visiting scholar at Massachusetts Institute of Technology between 1998 and 1999 (Host: Professor Timothy M. Swager).</p> <p>He has been a Professor of Chemistry at Pohang University of Science and Technology since 1990, and he is now a Director of Bionanotechnology Center of the school. Very recently, he became a CEO of the first school owned venture company named NanoSurface Biosciences POSTECH.</p> <p>Prof. Park is an organometallic/materials chemist by training. During the last ten years, he and his group has been keen on application of self-assembled molecular layer including characterization, nanopatterning using soft X-ray and low energy electron beam. More recently, his group has focused on self-assembly of a dendron on solid substrates such as glass slides, gold-coated slides, controlled pore beads, and AFM tips. Coating with the dendron generates solid surface with a controlled spacing. Ample lateral spacing allows molecules to behave as closely as they were in solution phase. In particular, the dendron-coated slides guarantee unusual binding efficacy, accuracy, and reproducibility of DNA microarrays and protein microarrays. It is interesting to note the coating AFM tip with the dendron unleashes the outstanding inherent capability of the instrument. For example, the coated AFM tips were applied to study DNA-DNA interaction, protein-protein interaction, mapping of mRNA on frozen cut tissue surface, mapping microarrays, etc. Benefits of the nanoscale-controlled surface seem be unlimited.</p>
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