

Abstract Book

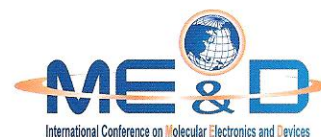
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Fabrication and optical properties of pentacene nanowires

S. G. Jo¹, J. W. Lee¹, H. S. Lee², J. Kim², J. Joo^{1*}

¹Department of Physics and Hybrid Nanostructure Research Lab,
Korea University, Seoul 136-713, Korea

²Department of Physics, University of Incheon, Incheon 402-749, Korea

*E-mail :jjoo@korea.ac.kr

We report on a fabrication method of pentacene nanowires with diameters of 200 ~ 250 nm by using organic physical vapor transport through Al₂O₃ nanoporous templates.^[1] To discern the optical characteristics of pentacene nanowires, photoluminescence (PL) spectra were measured and analyzed by using laser confocal microscope (LCM) in a nano-meter scale.^[2] We compare the characteristics of pentacene nanowires with those of pentacene crystals. A single pentacene nanowire had a wider LCM PL band width than that of the pentacene crystal.

References

- [1] Jin Woo Lee, Kihyun Kim, Dong Hyuk Park, Mi Yeon Cho, Yong Baek Lee, Jin Sun Jung, Dae-Chul Kim, Jeongyong Kim and Jinsoo Joo, *Adv. Funct. Mater.*, **19**, 704-710 (2009).
- [2] Dong Hyuk Park, Mi Suk Kim and Jinsoo Joo, *Chem. Soc. Rev.*, **39**, 2439-2452 (2010)

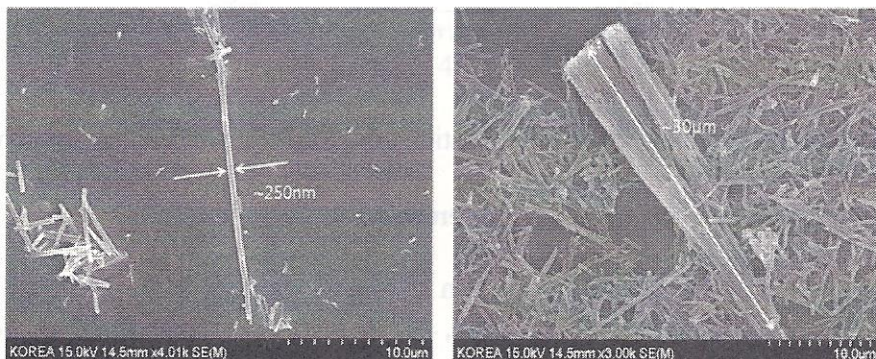


Figure 1. SEM images of pentacene nanowires.