



REFERENCES

- Alvarez, W. E., Kitiyanan, B., Borgna, A. and Resasco, D.E. (2001). Synergism of Co and Mo in the catalytic production of single-wall carbon nanotubes by methane decomposition. Carbon, 39 (2001) 547-558.
- Cassel, A.M., Raymakers, J.A., Kong, J. and Dai, H. (1999). Large scale CVD synthesis of single-walled carbon nanotubes. Journal of Physical Chemistry B, 103 (1999) 6484-6492.
- Cheng, H.M., Li, F., Su, G., Pan, H.Y., He, L.L., Sun, X. and Dresselhaus, M.S. (1998). Large-scale and low-cost synthesis of single-walled carbon nanotubes by the catalytic pyrolysis of hydrocarbons. Applied Physics Letters, 72 (25) 3282-3284.
- Colomer, J.-F., Stephan, F., Lefrant, S., Tendeloo, G.V., Willems, I., Konya, Z., Fonseca, A., Laurent, Ch. and Nagy, J.B. (2000). Large-scale synthesis of single-wall carbon nanotubes by catalytic chemical vapor deposition (CCVD) method. Chemical Physics Letters, 317 (2000) 83-89.
- Dai, H. (2001). Growth and characterization of carbon nanotubes. In M. Dresselhaus, G. Dresselhaus and P. Avouris (Eds.), Topics in Applied Physics, 80 (2001) 29-53.
- Guo, T., Nikolaev, P., Rinzler, A.G., Tomanek, D., Colbert, D.T., and Smalley, R.E. (1995). Catalytic growth of single-walled nanotubes by laser vaporization. Chemical Physics Letters, 243 (1995), 45.
- Hafner, J.H., Bronikowski, M.J., Nikolaev, P., Rinzler, A.G., Colbert, D.T., Smith, K.A. and Smalley, R.E. (1998). Catalytic growth of single-wall carbon nanotubes from metal particles. Chemical Physics Letters, 296 (1998), 195-202.
- Harris, P.J.R. (1999). Carbon Nanotubes and Related Structures. Cambridge University Press, Cambridge, United Kingdom.
- Hernadi, K., Fonseca, A., Siska, A. and Kiricsi, I. (2000). Production of nanotubes by the catalytic decomposition of different carbon-containing compounds. Applied Catalysis A, 199 (2000), 245-255.

- Kitiyanan, B. (2000). Single-wall carbon nanotubes production by heterogeneous catalytic reaction. Ph.D. Dissertation in The School of Chemical Engineering and Materials Science, University of Oklahoma.
- Kitiyana, B., Alvarez, W.E., Haerwll, J.H. and Resasco, D.E. (2000). Controlled production of single-wall carbon nanotubes by catalytic decomposition of CO on bimetallic Co-Mo catalysts. Chemical Physics Letters, 317 (2000), 497-503.
- Kong, J., Cassel, A.M. and Dai, H. (1998). Chemical vapor deposition of methane for single-walled carbon nanotubes. Chemical Physics Letters, 292(1998), 567-574.
- Nikolaev, P., Bronikowski, M.J., Bradley, R.K., Rohmund, F., Colbert, D.T., Smith, K.A. and Smalley, R.E. (1999). Gas-phase catalytic growth of single-walled carbon nanotubes from carbon monoxide. Chemical Physics Letters, 313 (1999), 91-97.
- Su, M., Zheng, B. and Liu, J. (2000). A scalable CVD method for the synthesis of single-walled carbon nanotubes with high catalyst productivity. Chemical Physics Letters, 322 (2000), 321-326.
- Tang, S., Zhong, Z., Xiong, Z., Sun, F., Liu, L., Lin, J., Shen, Z. and Tan, K.L. (2001). Controlled growth of single-walled carbon nanotubes by catalytic decomposition of CH₄ over Mo/Co/MgO catalysts. Chemical Physics Letters, 350 (2001), 19-26.

APPENDIX

Appendix: Surface Area of Supports and Catalysts

Table A.1 Surface area of catalyst supports

Support	Catalog Number	Size (mesh)	Surface Area (m ² /g)
Silica gel	Aldrich (28,862-4)	70-230	500
Magnesium oxide fused (99+%)	Aldrich (34,282-3)	40	4.057

Table A.2 Surface area of catalysts

Catalyst	Surface Area (m ² /g)
CoMo (1:1 by mole)/SiO ₂	459.5
CoMo (2:1 by mole)/MgO	14.43
CoMo (1:1 by mole)/MgO	6.450
CoMo (1:2 by mole)/MgO	8.118
FeMo (2:1 by mole)/MgO	14.32
FeMo (1:1 by mole)/MgO	18.75
FeMo (1:2 by mole)/MgO	24.75

CURRICULUM VITAE

Name: Ms. Supapak Xuto

Date of Birth: April 19, 1978

Nationality: Thai

University Education:

1996-2000 Bachelor Degree of Chemical Industry in Chemistry, Faculty of Science, King Mongkut's Institute of Technology Ladkrabang (KMITL), Bangkok, Thailand

