

REFERENCES

- Aksoylu,A.e., Onsan,Z.I. (1997) Hydrogenation of carbon oxides using coprecipitated and impregnated Ni/Al₂O₃ catalysts. Applied Catalyst A:General. 164, 1-11.
- Amini,M.M., Torkian,L. (2002) Preparation of nickel aluminate spinel by microwave heating. Material Letters, 57, 639-642.
- Arean,C.O., Mentruiit,M.P., Lopez Lopez,A.J., Parra.J.B. (2001) High surface area nickel aluminate spinels prepared by a sol-gel method. Colloids and surfaces A:Physicochem.Eng.Aspects. 180, 253-258.
- Cesteros,Y., Salagre,P., Medina,F., Sueiras,J.E. (2000) Synthesis and characterization of several Ni/NiAl₂O₄ catalysts active for the 1,2,4-trichlorobenzene hydrodechlorination. Applied catalysis B:Environmental, 25, 213-227.
- Chokkaram,S., Srinivasan,R., Milburn,D.R., Davis,B.H. (1997) Conversion of 2-octanol over nickel-alumina, cobalt-alumina, and alumina catalysts. Molecular Catalysis A: Chemical, 121, 157-169.
- Ertl,G., Knozinger,H., Weitkamp,J. (1997) Handbook of Heterogeneous Catalysis volume 1. Wiley-VCH : Weinheim.
- Han,Y.S., Li,J.B., Ning,X.S., Yang,X.Z., Chi,B. (2004) Study on NiO excess in preparing NiAl₂O₄. Material Science and Engineering, A369, 241-244.
- Jeevanandam,P. Koltypin,Y., Gedanken,A. (2002) Preparation of nanosized nickel aluminate spinel by a sonochemical method. Material Science and Engineering, B90, 125-132.
- Jitianu,M., Jitianu,A., Zahaarescu, M., Crisan,D., Marchidan,R. (2000) IR structural evidence of hydrotalcites derived oxidic forms. Vibrational Spectroscopy, 22, 75-86.
- Ksapabutr,B., Gulari,E., Wongkasemjit.S. (2004) Sol-gel transition study and pyrolysis of alumina-based gels prepared from alumatrane precursor. Colloids and surfaces A:Physicochem.Eng.Aspects, 233, 145-153.

- Li,C., Chen,Y.W. (1995) Temperature-programmed-reduction studied of nickel oxide/alumina catalysts: effect of the preparation method. Thermochemica Acta, 256, 457-465.
- Molina,R., Poncelet,G. (1998) α -Alumina-Supported Nickel Catalysts Prepared from Nickel Acetylacetonate:A TPR Study. Journal of catalysis, 173, 257-267.
- Narayanan,S., Unnikrishnan,R., Vishwanathan,V. (1995) Nickel-alumina prepared by constant and varying pH method:Evolution by hydrogen-oxygen chemisorption and aniline hydrogenation. Applied catalysis A:General, 129, 9-19.
- Opomsawad,Y., Ksapabutr,B., Wongkasemjit,S., Laine,R.M. (2001) Formation and structure of tris(alumatranyloxy-*i*-propyl)amine directly from $\text{Al}(\text{OH})_3$ and triisopropanolamine. European Polymer, 37, 1877-1885.
- Pascual,E.R., Larrea,A., Monzon,A., Gonzalez,R.D. (2002) Thermal Stability of $\text{Pt}/\text{Al}_2\text{O}_3$ Catalysts Prepared by Sol-Gel. Journal of Solid State Chemistry, 168, 343-353.
- Peelamedu,R.D., Roy,R., Agrawal,D.K. (2002) Microwave-induced reaction sintering of NiAl_2O_4 . Material Letters, 55, 234-240.
- Pena,J.A., Herguido,J., Guimon,C., Monzon,A., santamaria,J. (1996) Hydrogenation of Acetylene over $\text{Ni}/\text{NiAl}_2\text{O}_4$ Catalyst: Characterization, coking, reaction Studies. Journal of catalysis, 159, 313-322.
- Piao,L., Li,Y., Chen,J., Lin,J.Y. (2002) Methane decomposition to carbon nanotubes and hydrogen on an alumina supported nickel aerogel catalyst. Catalyst today, 74, 145-155.
- Pierre,A.C. (1997) Porous Sol-Gel Ceramics. Ceramic International, 23, 229-238.
- Rodeghiero,E.D., Moore,B.C., Wolkenberg,B.S., Wulthenow,M., Tse,O.K., Giannelis,E.P. (1998) Sol-gel synthesis of ceramic matrix composites. Material Science and Engineering, A244, 11-21.
- Rodeghiero,ED., Tse,O.K., Chisaki,J., Giannelis,E.P. (1995) Synthesis and properties of $\text{Ni}-\alpha\text{Al}_2\text{O}_3$ composites via sol-gel. Material Science and Engineering, A195, 151-161.

- Spivey, J.J., Agarwal, S.K. (1993) Catalysis Volume 10 : Applied of Raman Spectroscopy to Heterogeneous Catalysis. Royal Society of chemistry : London.
- Suh, D.J., Park, T.J., Kim, J.H., Kim, K.L. (1998) Nickel-alumina aerogel catalysts prepared by fast sol-gel synthesis. Journal of Non-Crystalline Solids, 225, 168-172.
- Suh, D.J., Park, T.J., Lee, S.H., Kim, K.L. (2001) Nickel-alumina composite aerogels as liquid-phase hydrogenation catalysts. Journal of Non-Crystalline Solids, 285, 309-316.
- Xu, Z., Li, Y., Zhang, J., Chang, L., Zhou, R., Duan, Z. (2001) Bound-state Ni species-a superior form in Ni-based catalyst for CH₄/CO₂ reforming. Applied Catalysis A: General, 210, 45-53.

CURRICULUM VITAE

Name: Ms. Kanchana Utchariyajit

Date of Birth: January 19, 1981

Nationality: Thai

University Education:

1999-2003 Bachelor Degree of Science in Chemistry, Faculty of Science, Silpakorn University, Bangkok, Thailand.

Publication:

1. Utchariyajit, K., Gulari, E. and Wongkasemjit, S. (2005) Effect of Conditions on Nickel Loaded Alumina via Sol-gel Process. Chiang Mai Journal of Science, in press.

Presentation:

1. Utchariyajit, K., Gulari, E. and Wongkasemjit, S. (2004) Effect of Conditions on Nickel Loaded Alumina via Sol-gel Process. Paper presented at The International Conference on Smart/Intelligent Materials and Nanotechnology, Chiang Mai, Thailand