

**Curriculum Vitae**  
**Dr. Sugeng Triwahyono**

<b>A. Personal Data</b>	
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<b>B. Educational Qualifications</b>	
<b>1. Academic Qualification</b>	
Degree (Year)	: Ph.D. (2003)
Field	: Molecular Chemistry (Solid Super Acid Catalyst)
Name and Place of Institution	: Hokkaido University, Japan University of Hokkaido, Sapporo, 060 Japan
Degree (Year)	: M. Eng. (1996)
Field	: Chemical Environmental Engineering (Membrane Catalyst)
Name and Place of Institution	: Kitami Institute of Technology, Japan 165 Koencho, Kitami, 090 Japan
Degree (Year)	: B. Eng. (1994)
Field	: Industrial Chemistry
Name and Place of Institution	: Kitami Institute of Technology, Japan 165 Koencho, Kitami, 090 Japan
2. Major Publications	: 1. <b>T. Sugeng</b> , Aishah A.J., H. Hattori, "Study of hydrogen adsorption on Pt/WO <sub>3</sub> -ZrO <sub>2</sub> through Pt sites", Journal of Natural Gas Chemistry. (submitted 2006). 2. <b>T. Sugeng</b> , Aishah A.J., H. Hattori, "The effect of WO <sub>3</sub> on the zirconia based Solid Super Acid Catalysts", Applied Catalysis A: (submitted 2006) 3. <b>Sugeng Triwahyono</b> , Zalizawati Abdullah, Aishah Abdul Jalil, "The effect of sulfate ion on the isomerization of n-butane to iso-butane", Journal of Natural Gas Chemistry. Vol. 15, No. 4, 2006 4. <b>T. Sugeng</b> , Aishah A.J., Halimaton H., "Isomerization of cyclohexane to methylcyclopentane over Pt/SO <sub>4</sub> <sup>2-</sup> -ZrO <sub>2</sub> catalyst", Journal of IEM: Vol. 67 No.1 March 2006. 5. <b>T. Sugeng</b> , Aishah A.J., Hadi N., Halimaton H., M. Kobayashi, "Development of membrane reactor for Epoxidation of propylene to propylene oxide in a single step process", Journal of IEM: Vol. 67 No.3 September 2006. 6. M. Iwamoto, Y. Tanaka, J. Hirosumi, N. Kita, <b>T. Sugeng</b> , "Enantioselective oxidation of Sulfide to sulfoxide on Ti-Containing mesoporous silica prepared by a template-ion exchange method", Microporous and Mesoporous Materials, 48 (2001) 271. 7. <b>T. Sugeng</b> , T. Yamada, H. Hattori, "Effects of Na Addition, Pyridine, and Water on Hydrogen Adsorption Property of Pt/SO <sub>4</sub> <sup>2-</sup> -ZrO <sub>2</sub> ", Catalysis Letter 85 (2003) 109. 8. <b>T. Sugeng</b> , T. Yamada, H. Hattori, "IR Study of Structure of Acid Sites on WO <sub>3</sub> -ZrO <sub>2</sub> ", Applied Catalysis A: General 250 (2003) 65. 9. <b>T. Sugeng</b> , T. Yamada, H. Hattori, "Kinetic Study of hydrogen adsorption on Pt/WO <sub>3</sub> -ZrO <sub>2</sub> and WO <sub>3</sub> -ZrO <sub>2</sub> ", Applied Catalysis A: General 250 (2003) 75.

10. **T. Sugeng**, T. Yamada, H. Hattori, "IR Study of Acid Sites on WO<sub>3</sub>-ZrO<sub>2</sub> and Pt/WO<sub>3</sub>-ZrO<sub>2</sub>", Applied Catalysis A: General 242 (2003) 101.
11. **T. Sugeng**, T. Yamada, H. Hattori, "Formation of Protonic acid site from hydrogen molecule over Pt/WO<sub>3</sub>-ZrO<sub>2</sub> and WO<sub>3</sub>-ZrO<sub>2</sub> evidenced by IR study of adsorbed pyridine", Journal of Institute for Science and Technology Studies Vol. III (2002) 30.
12. M. Kobayashi, T. Kanno, J. Horiuchi, **T. Sugeng**, and J. Togawa, "Propene Partial Oxidation to propylene oxide enhanced by a convection flow in the Cs-Ag Immobilized Ceramic-Membrane Pores", Engineering with Membranes, Vol.I, p.I-140, 2001.
13. **T. Sugeng**, M. Iwamoto, Y. Tanaka, J. Hirosumi, N. Kita, "Enantioselective oxidation of Sulfide on Ti-Containing mesoporous silica prepared by a template-ion exchange method", Technical Paper in Proceeding of International Symposium on Catalysis and Fine Chemical 2001, Tokyo – Japan, August 2001.
14. M. Iwamoto, Y. Tanaka, J. Hirosumi, N. Kita, **T. Sugeng**, "Asymmetric oxidation of sulfide to sulfoxide on Ti-Containing MCM-41 prepared by template-ion exchange method", Technical Paper in Proceeding of ZMPC 200 International Symposium on Zeolites and Microporous Crystal, Sendai – Japan, August 2000.
15. **T. Sugeng**, Y. Tanaka, M. Iwamoto, "Stereoselectivity of sulfide to sulfoxide over solid catalysts investigated by HPLC", HISAS 2<sup>nd</sup> Indonesian Student Association Meetings, Sapporo – Japan, January 2003.
16. **T. Sugeng**, N. Kita, J. Hirosumi, Y. Tanaka, M. Iwamoto, "Asymmetric oxidation of sulfide to sulfoxide on Ti-Containing MCM-41 prepared by template-ion exchange method", HISAS 1<sup>st</sup> Indonesian Student Association Meetings, Sapporo – Japan, November 2001.
17. H. Hattori, **T. Sugeng**, T. Yamada, "Participation of the Protonic Acid Sites Originating from Molecular Hydrogen in Alkane Skeletal Isomerization Catalyzed by Pt/WO<sub>3</sub>-ZrO<sub>2</sub>", Technical Paper in Proceedings of 13<sup>th</sup> Saudi-Japanese Catalyst Symposium Dhahran, Saudi Arabia, Dec 2003.
18. H. Hattori, **T. Sugeng**, T. Yamada, "Molecular Hydrogen-Originated Protonic Acid Sites on Pt/WO<sub>3</sub>-ZrO<sub>2</sub>", Technical Paper in Proceedings of International Conference on Material Science Research, NUS - Singapore, Dec 2003.
19. **T. Sugeng**, T. Yamada, H. Hattori, "Influence of WO<sub>3</sub> on the acidity and activity of WO<sub>3</sub>-ZrO<sub>2</sub> catalysts", Proceedings of 2003 Center for Advanced Research of Energy Technology Symposium, Sapporo – Japan, February 2003.
20. **T. Sugeng**, T. Yamada, H. Hattori, "Behavior of hydrogen adsorption over Pt/WO<sub>3</sub>-ZrO<sub>2</sub> catalyst", Annual Meeting Catalysis Society of Japan, Tokyo – Japan, March 2003.
21. **T. Sugeng**, T. Yamada, H. Hattori, "The mechanism and nature of protonic acid sites generated from molecular hydrogen on WO<sub>3</sub>-ZrO<sub>2</sub>", Annual Meeting Chemical Society of Japan, Tokyo – Japan, March 2003.
22. **T. Sugeng**, "Molecular Hydrogen-Originated Protonic Acid Sites on Zirconia-Based Catalyst", Memorial Graduation Meetings Division of Molecular Chemistry – Graduate School of Engineering, Hokkaido University, January 2003
23. **T. Sugeng**, T. Yamada, H. Hattori, "Generations of protonic acid sites from molecular hydrogen over Pt/WO<sub>3</sub>-ZrO<sub>2</sub> or WO<sub>3</sub>-ZrO<sub>2</sub> catalysts", Annual Meeting Catalysis Society of Japan, Hamamatsu – Japan, September 2002.
24. **T. Sugeng**, H. Hattori, "The factors affected on the hydrogen adsorption over Pt/SO<sub>4</sub><sup>2-</sup>-ZrO<sub>2</sub>", Annual Meeting Petroleum Society of Japan, Tokyo – Japan, May 2001.

25. Aishah Abdul Jalil, Ani Idris, **Sugeng Triwahyono** and Tokuda Masao, "Decontamination Of Chlorobenzene By Electrochemical Method", 17<sup>th</sup> SKAM Conference UiTM Malaysia, August 2004.
26. **T. Sugeng**, Hadi N., Aishah A.J., M. Nazlan M.M., Mustaffa S., Halimatun H., "Study of Hydrogen Adsorption on  $WO_3-ZrO_2$  Hybrid Catalyst", 17<sup>th</sup> SKAM Conference UiTM Malaysia, August 2004.
27. **T. Sugeng**, M. Faizal R., Zalizawati A., Hadi N., Aishah. A.J., M. Nazlan M.M., Mustaffa S., Halimatun H., "Influence of the sulfate ion on the textural properties of  $Pt/SO_4^{2-}-ZrO_2$ ", 17<sup>th</sup> SKAM Conference UiTM Malaysia, August 2004.
28. **T. Sugeng**, Zalizawati A., M. Faizal R., Hadi N., Aishah. A.J., M. Nazlan M.M., Mustaffa S., Halimatun H., "FTIR and TPD Studies of  $Pt/SO_4^{2-}-ZrO_2$  Catalyst", 17<sup>th</sup> SKAM Conference UiTM Malaysia, August 2004.
29. Aishah A.J., **Sugeng T.**, Ani I., M. Tokuda, "Electroreduction of Chlorobenzene", Ibnu Sina Institute for Fundamental Science Studies UTM, Malaysia, June 2004.
30. **T. Sugeng**, Hadi N., Aishah A.J., Mohd Nazlan M.M., Mustaffa S., Halimatun H., H. Hattori, "Molecular Hydrogen-Originated Protonic Acid Sites on  $Pt/WO_3-ZrO_2$ ", Ibnu Sina Institute for Fundamental Science Studies UTM, Malaysia, June 2004.
31. **T. Sugeng**, Hadi N., Aishah A.J., Mohd Nazlan M.M., Mustaffa S., Halimatun H., H. Hattori, "Hydrogen Adsorption on  $Pt/SO_4^{2-}-ZrO_2$  Solid Super Acid Catalyst", Ibnu Sina Institute for Fundamental Science Studies UTM, Malaysia, June 2004.
32. **T. Sugeng**, M. Roji Sarmidi, Ramlan Abdul Aziz, T. Kanno, M. Kobayashi, "Partial oxidation of propylene by using cesium-silver immobilized ceramic-membrane reactor", The Regional Symposium on Membrane Science & Technology 2004, Johor Bahru - Malaysia, April 2004.
33. **T. Sugeng**, M. Roji Sarmidi, Ramlan Abdul Aziz, H. Hattori, T. Yamada "The Factors Effected on the Generation of Active Sites on  $Pt/SO_4^{2-}-ZrO_2$ ", 3rd Annual Seminar on Sustainability and Management – Role of Environmental Science and Technology in Sustainable Development of Resources, Kustem, Trengganu – Malaysia, May 2004.
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35. **T. Sugeng**, T. Yamada, H. Hattori, "Generation of protonic acid sites on  $WO_3-ZrO_2$  and  $Pt/WO_3-ZrO_2$  catalysts", Proceedings of International Conference on Chemical and Bioprocess Engineering 2003, Sabah - Malaysia, August 2003.
36. **T. Sugeng**, T. Yamada, H. Hattori, "Kinetic study of hydrogen adsorption on  $WO_3-ZrO_2$  type of catalysts", Proceedings of International Conference on Chemical and Bioprocess Engineering 2003, Sabah - Malaysia, August 2003.
37. **T. Sugeng**, T. Yamada, H. Hattori, "Kinetic study of hydrogen adsorption on  $Pt/WO_3-ZrO_2$  and  $WO_3-ZrO_2$ ", HISAS 2<sup>nd</sup> Indonesian Student Association Meetings, Sapporo – Japan, January 2003.
38. **T. Sugeng**, H. Hayashi, T. Yamada, H. Hattori, "Influence of  $WO_3$  on the structure, acidity and activity of  $WO_3-ZrO_2$  Catalysts", HISAS 2<sup>nd</sup> Indonesian Student Association Meetings, Sapporo – Japan, January 2003.
39. **T. Sugeng**, T. Yamada, H. Hattori, "Generation of protonic acid sites over  $WO_3-ZrO_2$  catalysts", HISAS 2<sup>nd</sup> Indonesian Student Association Meetings, Sapporo – Japan, January 2003.

40. **T. Sugeng**, T. Kanno, M. Kobayashi, "Study of reaction mechanism for oxidation of propylene on Ag-Cs supported membrane catalysts", HISAS 2<sup>nd</sup> Indonesian Student Association Meetings, Sapporo – Japan, January 2003.
41. **T. Sugeng**, T. Kanno, M. Kobayashi, "Epoxidation of lower olefin over Cesium-Silver membrane catalyst", Annual Meeting Chemical Society of Japan, Sapporo – Japan, February 1996.
42. K. Matsumori, **T. Sugeng**, B. Golman, K. Shinohara, T. Kanno, M. Kobayashi, "Diffusion Factor and Selectivity of Complex Reaction over Porosity Membrane Reactor", Annual Meeting Chemical Society of Japan, Sapporo – Japan, February 1996.
43. **T. Sugeng**, "Epoxidation of lower olefin over Cesium-Silver membrane catalyst", Memorial Graduation Meetings Division of Chemical Environmental Eng. – Graduate School of Eng., Kitami Institute of Technology, February 1996.
44. **T. Sugeng**, T. Kanno, M. Kobayashi, "Epoxidation of propylene by new type of membrane reactor", Annual Meeting of Catalysis Society of Japan, Muroran – Japan, October 1995.
45. **T. Sugeng**, T. Kanno, M. Kobayashi, "Oxidation of propylene by Cs-Ag/MPG catalyst", Annual Meeting Chemical Society of Japan, Sapporo – Japan, February 1995.
46. **T. Sugeng**, "Development of a new type membrane reactor", Memorial Graduation Meetings Dept. of Industrial Chemistry – Faculty of Engineering, Kitami Institute of Technology, February 1994.
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48. **T. Sugeng**, "What did I learn in Japan", The Health of Heart Magazine 109 (2002) 24-27.
49. **T. Sugeng**, "Molecular Hydrogen-Originated Protonic Acid Sites on Zirconia-Based Catalysts", Dissertation – PhD in Graduate School of Eng., 2003, Hokkaido University, Japan.
50. **T. Sugeng**, "Propylene Partial Oxidation by using a Cs-Ag Immobilized Membrane Reactor", Thesis – Master of Engineering in Chemical and Environmental Eng., 1996, Kitami Institute of Technology, Japan.
51. **T. Sugeng**, "Development of a New Type Membrane Reactor", Thesis – Bachelor of Engineering in Industrial Chemistry, 1994, Kitami Institute of Technology, Japan.