

## REFERENCES

- “About Petroleum and Oil” Bydesign 19 February 2004  
<<http://www.bydesign.com/fossilfuels/links/html/oil.html>>.
- Adebanjo, A. (2005). Production of Fuels and Chemicals from Biomass Derived Oil and Lard. Saskatchewan.
- “Advanced Petroleum Based Fuels” Science & Technology. National Renewable Energy Laboratory 23 September 2009  
<[http://www.nrel.gov/vehiclesandfuels/apbf/apbf\\_dec.html](http://www.nrel.gov/vehiclesandfuels/apbf/apbf_dec.html)>.
- Adenike, O.A., Ajay, K.D., and Narendra, N. B. (2005). Production of diesel-like fuel and other value-added chemicals from pyrolysis of animal fat. Energy and Fuels, 19, 1735-1741.
- Antonio, Z. “Fats, Oils, Fatty Acids, Triglycerides” Scientific Psychic 13 April 2011  
<<http://www.scientificpsychic.com/fitness/fattyacids1.html>>.
- Cavani, F., Girotti, G., and Terzoni, G. (1993). Effect of water in the performance of the “solid phosphoric acid” catalyst for alkylation of benzene to cumene and for oligomerization of propene. Applied Catalysis A: General, 97, 177-196.
- Daniela, G. L., Valerio, C.D.S., Eric, B.R., Daniel, A.C., Erika, C.V.C., Flavia, C.R., Kleber, C M., Joel, C.R., and Paulo, A.Z.S. (2004). Diesel-like fuel obtained by pyrolysis of vegetable oils. Journal of Analytical and Applied Pyrolysis, 71( 2), 987-996
- Da Rocha Filho, G. N., Brodzki, D., and Djega-Mariadassou, G. (1993). Formation of alkanes, alkylcycloalkanes and alkylbenzenes during the catalytic hydrocracking of vegetable oils. Fuel, 72 (4), 544-549.
- “Diesel Fuel” Globalsecurity.org 19 July 2006  
<<http://www.globalsecurity.org/military/systems/ship/systems/diesel-fuel.html>>.
- “Diesel fuel” Wikipedia 9 May 2011  
<[http://en.wikipedia.org/wiki/Diesel\\_fuel#Petroleum\\_diesel](http://en.wikipedia.org/wiki/Diesel_fuel#Petroleum_diesel)>.
- “Method for preparing catalysts” Patentstorm 9 May 2011  
<<http://www.patentstorm.us/patents/7097880/description.html>>

- De Jong, K.P. (2009). Synthesis of Solid Catalysts. Germany: Wiley-VCH.
- Delibes, A. (2007). Progress and recent trends in biofuels. Progress in Energy and Combustion Science, 33, 1–18.
- “Downside biodiesel” Power To Go 17 April 2010  
<[http://www.powertogo.ca/downside\\_biodiesel.htm](http://www.powertogo.ca/downside_biodiesel.htm)>.
- Fangrui, M. and Milford, A. (1999). Biodiesel production: a review. Bioresource Technology, 70, 1-15.
- Haber, J., Block, H., Delmon, B. (1995). Manual of methods and procedures for catalyst characterization. Pure & Appl. Chem, 67, 1257-1306.
- “History of the Oil Industry” Rigworker 1998 -2010  
<<http://www.rigworker.com/industry/history.shtml>>.
- Huber, G.W., O’Connor, P., and Corma, A. (2007). Processing biomass in conventional oil refineries: Production of high quality diesel by hydrotreating vegetable oils in heavy vacuum oil mixtures. Applied Catalysis A: General, 329, 120–129.
- “Incipient wetness impregnation” Wikipedia 9 May 2011  
<[http://en.wikipedia.org/wiki/Incipient\\_wetness\\_impregnation](http://en.wikipedia.org/wiki/Incipient_wetness_impregnation)>
- “Inductively Coupled Plasma-Atomic Emission Spectroscopy” Ningbo Institute of Material Technology & Engineering. Chinese Academy of Sciences 23 April 2011  
<[http://english.nimte.cas.cn/rs/fs/200907/t20090717\\_23910.html](http://english.nimte.cas.cn/rs/fs/200907/t20090717_23910.html)>
- Karmakar, A., Karmakar, S., Mukherjee, S. (2010). Properties of various plants and animals feedstocks for biodiesel production. Bioresource Technology, 101, 7201–7210.
- Klimmek, H. (1984). The effect of various impurities which reduce the activity of nickel catalysts during fatty acid hydrogenation. JAACS, 61(2), 200-204.
- Knothe, G., Dunn, R.O. and Bagby, M.O. (1997). Biodiesel: The Use of Vegetable Oils and Their Derivatives as Alternative Diesel Fuels.
- Knothe, G. (2010) Biodiesel and renewable diesel: A comparison. Progress in Energy and Combustion Science, 36, 364-373
- Kubicka, D., Horacek, J. (2011). Deactivation of HDS catalysts in deoxygenation of vegetable oils. Applied Catalysis A: General, 394, 9–17.

- Kubic kova, I., Snare, M., Eranen, K., Maki-Arvela, P., and Murzin, D.Y. (2005). Hydrocarbons for diesel fuel via decarboxylation of vegetable oils. Catalysis Today, 106, 197–200.
- Landau, M.V. (2002). Handbook of Porous Solids. Weinheim: Wiley-VCH Verlag GmbH
- Lekhal, A., Glasser, B.J., and Khinast, J.G. (2001). Impact of drying on the catalyst profile in supported impregnation catalysts. Chemical Engineering Science, 56, 4473-4487.
- Maher, K.D., and Bressler, D.C. (2007). Pyrolysis of triglyceride materials for the production of renewable fuels and chemicals. Bioresource Technology, 98, 2351–2368.
- Maki-Arvela, P., Kubic kova, I., Snare, M., Eranen, K., and Murzin, D.Y. (2007). Catalytic deoxygenation of fatty acids and their derivatives. Energy & Fuels, 21, 30-41.
- Marchetti, J.M., Miguel, V.U., and Errazu, A.F. (2007). Possible methods for biodiesel production. Renewable and Sustainable Energy Reviews, 11, 1300-1311.
- Marker, T., Petri, J. and Kalnes, T. (2005). Opportunities for Biorenewables in Oil Refineries. Illinois: UOP.
- Mikulec, J., Cvengros, J., Jorikova, L., Banic, M., and Kleinova, A. (2010). Second generation diesel fuel from renewable sources. Journal of Cleaner Production, 18(9), 917-926
- Murugesan, A., Umarani, C., Subramanian, R., Nedunchezian, N. (2009). Biodiesel as an alternative fuel for diesel engines—A review. Renewable and Sustainable Energy Reviews, 13, 653-662.
- Neimark, A.V., Kheifets, L.I. and Fenelonov, V.B. (1981). Theory of preparation of supported catalysts. Industrial and Engineering Chemistry Product Research and Development, 20(3), 439-450.
- “Renewable & Alternative Fuels” U.S. Energy Information Administrator  
<<http://www.eia.doe.gov/fuelrenewable.html>>.
- Schneider, M. and Baiker, A. (1995). Aero gels in catalysis. Catalysis Reviews, Science and Engineering, 37(4), 515-556.

- Sheehan, J., Camobreco, V., Duffield, J., Graboski, M., and Shapouri, H. (1998). An Overview of Biodiesel and Petroleum Diesel Life Cycles. Colorado.
- Smith, S., Gill, CA., Lunt, DK., Matthew, DK. (2009). Regulation of fat and fatty acid composition in beef cattle. Asian-Australasian Journal of Animal Sciences Article, 22(9), 1225-1233.
- Snare, M., and Murzin, D.Y. (2006). Reply to “comment on ‘heterogeneous catalytic deoxygenation of stearic acid for production of biodiesel’”. Industrial and Engineering Chemistry Research, 45(20), 6875-6875.
- Snare, M., Kubic kova, I., Maki-Arvela, P., Chichova, D., Eranen, K., and Murzin, D.Y. (2006). Heterogeneous catalytic deoxygenation of stearic acid for production of biodiesel. Industrial and Engineering Chemistry Research, 45(2), 5708-5715.
- Snare, M., Kubic kova, I., Maki-Arvela, P., Chichova, D., Eranen, K., and Murzin, D.Y. (2007). Catalytic deoxygenation of unsaturated renewable feedstocks for production of diesel fuel hydrocarbons. Fuels, 87(6), 933-945.
- Snare, M., Kubic kova, I., Maki-Arvela, P., Chichova, D., Eranen, K., and Murzin, D.Y. (2007). Production of diesel fuel from renewable feeds: kinetics of ethyl stearate decarboxylation. Chemical Engineering Journal, 134(1-3), 29-34.
- Srivastava, A., and Prasad, R. (2000). Triglycerides-based diesel fuels. Renewable and Sustainable Energy Reviews, 4, 111-133.
- Stumborg, M., Wongb, A., and Hogan, E. (1996). Hydroprocessed vegetable oils for diesel fuel improvement. Bioresource and technology, 56, 13-18.
- Tyson, K.S., and McCormick, R.L. (2006). Biodiesel Handling and Use Guide. Pennsylvania: DIANE Publishing Company.
- “What is biodiesel” Pacific biodiesel 13 April 2011  
<<http://www.biodiesel.com>>.
- Zhang, Y., Dube, M.A., McLean, D.D., and Kates M. (2003). Biodiesel production from waste cooking oil: 1. Process design and technological assessment. Bioresource Technology, 89, 1–16.

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