REFERENCE

Aghaie, H., Ilkhani, A., Choobeh, S.S. 2012. Utilization Soya Bean Fatty Acid for Synthesis of Alkyd Resin and Comparation of Properties with Other Vegetable Oils. *Journal of Nano Chemical Agriculture (JNCA), Islamic Azad University, Saveh Branch*, 69-73.

Agrawal, R., Charpe, S., Raghuwanshi, F., Lamdhade, G. 2015. Synthesis and Characterization of Magnesium oxide Nanoparticles with 1: 1 molar ratio via Liquid-Phase Method.

Aigbodion, A., Okieimen, F. 2001. An investigation of the utilisation of African locustbean seed oil in the preparation of alkyd resins. *Industrial Crops and products*, **13**(1), 29-34.

Aigbodion, A., Okieimen, F. 1996. Kinetics of the preparation of rubber seed oil alkyds. *European polymer journal*, **32**(9), 1105-1108.

Aigbodion, A., Okieimen, F., Obazee, E., Bakare, I. 2003. Utilisation of maleinized rubber seed oil and its alkyd resin as binders in water-borne coatings. *Progress in organic coatings*, **46**(1), 28-31.

Aigbodion, A.I., Pillai, C.K.S. 2001. Synthesis and molecular weight characterization of rubber seed oil‐modified alkyd resins. *Journal of applied polymer science*, **79**(13), 2431-2438.

Alam, M., Akram, D., Sharmin, E., Zafar, F., Ahmad, S. 2014. Vegetable oil based eco-friendly coating materials: A review article. *Arabian Journal of Chemistry*, **7**(4), 469-479.

Allahverdiyev, A.M., Abamor, E.S., Bagirova, M., Rafailovich, M. 2011. Antimicrobial effects of TiO2 and Ag2O nanoparticles against drug-resistant bacteria and leishmania parasites. *Future microbiology*, **6**(8), 933-940.

Assanvo, E.F., Gogoi, P., Dolui, S.K., Baruah, S.D. 2015. Synthesis, characterization, and performance characteristics of alkyd resins based on Ricinodendron heudelotii oil and their blending with epoxy resins. *Industrial Crops and Products*, **65**, 293-302.

Atimuttigul, V., Damrongsakkul, S., Tanthapanichakoon, W. 2006. Effects of oil type on the properties of short oil alkyd coating materials. *Korean Journal of Chemical Engineering*, **23**(4), 672-677.

Aydin, S., Akçay, H., Özkan, E., Güner, F.S., Erciyes, A.T. 2004. The effects of anhydride type and amount on viscosity and film properties of alkyd resin. *Progress in organic coatings*, **51**(4), 273-279.

Blaise, V., Ogunniya, D., Ongoka, P., Moussounga, J., Ouamba, J. 2012. Physio-Chemical properties of alkyd resin and palm oil. *Malaysian Polymer Journal*, **7**(2).

Boaventura, M.F.d.S. 2012. High solids alkyd resins.

Bobalek, E., Chiang, M. 1964. Synthesis and properties of some alkyds of more complex carboxyl functionality. *Journal of Applied Polymer Science*, **8**(3), 1147-1168.

Bora, M.M., Deka, R., Ahmed, N., Kakati, D.K. 2014a. Karanja (Millettia pinnata (L.) Panigrahi) seed oil as a renewable raw material for the synthesis of alkyd resin. *Industrial Crops and Products*, **61**, 106-114.

Bora, M.M., Gogoi, P., Deka, D.C., Kakati, D.K. 2014b. Synthesis and characterization of yellow oleander (Thevetia peruviana) seed oil-based alkyd resin. *Industrial Crops and Products*, **52**, 721-728.

Bornscheuer, U.T. 1995. Lipase-catalyzed syntheses of monoacylglycerols. *Enzyme and Microbial Technology*, **17**(7), 578-586.

Boruah, M., Gogoi, P., Adhikari, B., Dolui, S.K. 2012. Preparation and characterization of Jatropha Curcas oil based alkyd resin suitable for surface coating. *Progress in Organic Coatings*, **74**(3), 596-602.

Cheun, C. 2009. A study of the effect of palm oil on the properties of a new alkyd resin. *Malaysian Polymer Journal*, **4**(1), 42-49.

Chiplunkar, P.P., Pratap, A.P. 2016. Utilization of sunflower acid oil for synthesis of alkyd resin. *Progress in Organic Coatings*, **93**, 61-67.

Core, M., Gündüz, G. 2011. SYNTHESIS AND CHARACTERIZATION OF SOLVENT FREE ALKYD RESIN.

Corma, A., Hamid, S.B.A., Iborra, S., Velty, A. 2005. Lewis and Brönsted basic active sites on solid catalysts and their role in the synthesis of monoglycerides. *Journal of Catalysis*, **234**(2), 340-347.

De Silva, S.H.U.I., Amarasinghe, A.D.U.S., Premachandra, B.A.J.K., Prashantha, M.A.B. 2012. Effect of karawila (Momordica charantia) seed oil on synthesizing the alkyd resins based on soya bean (Glycine max) oil. *Progress in Organic Coatings*, **74**(1), 228-232.

Dutta, N., Karak, N., Dolui, S. 2004a. Synthesis and characterization of polyester resins based on Nahar seed oil. *Progress in organic coatings*, **49**(2), 146-152.

Dutta, N., Karak, N., Dolui, S.K. 2004b. Synthesis and characterization of polyester resins based on Nahar seed oil. *Progress in organic coatings*, **49**(2), 146-152.

Ecco, L., Fedel, M., Ahniyaz, A., Deflorian, F. 2014. Influence of polyaniline and cerium oxide nanoparticles on the corrosion protection properties of alkyd coating. *Progress in Organic Coatings*, **77**(12), 2031-2038.

Engineers, N.B.C. 2007. *The Complete Book on Adhesives, Glues & Resins Technology*. NIIR Project Consultancy Services.

Espitia, P.J.P., Soares, N.d.F.F., dos Reis Coimbra, J.S., de Andrade, N.J., Cruz, R.S., Medeiros, E.A.A. 2012. Zinc oxide nanoparticles: synthesis, antimicrobial activity and food packaging applications. *Food and Bioprocess Technology*, **5**(5), 1447-1464.

Ezeh, I., Umoren, S., Essien, E., Udoh, A. 2012. Studies on the utilization of Hura crepitans L. seed oil in the preparation of alkyd resins. *Industrial Crops and Products*, **36**(1), 94-99.

Ferretti, C., Fuente, S., Ferullo, R., Castellani, N., Apesteguía, C., Di Cosimo, J. 2012. Monoglyceride synthesis by glycerolysis of methyl oleate on MgO: Catalytic and DFT study of the active site. *Applied Catalysis A: General*, **413**, 322-331.

Ferretti, C.A., Soldano, A., Apesteguía, C.R., Di Cosimo, J.I. 2010. Monoglyceride synthesis by glycerolysis of methyl oleate on solid acid–base catalysts. *Chemical Engineering Journal*, **161**(3), 346-354.

Filippou, D., Katiforis, N., Papassiopi, N., Adam, K. 1999. On the kinetics of magnesia hydration in magnesium acetate solutions. *Journal of Chemical Technology and Biotechnology*, **74**(4), 322-328.

Goldsmith, H.A. 1948. Alpha-and, Beta-Hydroxyls of Glycerol in Preparation of Alkyd Resins. *Industrial & Engineering Chemistry*, **40**(7), 1205-1211.
Hachani, R., Lowdell, M., Birchall, M., Hervault, A., Mertz, D., Begin-Colin, S., Thanh, N.T.K. 2016. Polyol synthesis, functionalisation, and biocompatibility studies of superparamagnetic iron oxide nanoparticles as potential MRI contrast agents. *Nanoscale*.
Haghighi, F., Roudbar Mohammadi, S., Mohammadi, P., Hosseinkhani, S., Shipour, R. 2013. Antifungal Activity of TiO2 nanoparticles and EDTA on Candida albicans Biofilms. *Infection, Epidemiology and Medicine*, **1**(1), 33-38.
Hlaing, N.N., Oo, M.M. 2008a. Manufacture of alkyd resin from castor oil. *World Academy of Science, Engineering and Technology*, **48**, 155-161.
Hlaing, N.N., Oo, M.M. 2008b. Manufacture of alkyd resin from castor oil. *Proceedings of world academy of science, engineering and technology*. Citeseer. pp. 928-934.
Hofland, A. 2012. Alkyd resins: From down and out to alive and kicking. *Progress in organic coatings*, **73**(4), 274-282.
Holmberg, K. 1987. *High solids alkyd resins*. CRC Press.
Ikhuoria, E.U., Aigbodion, A.I. 2006. Determination of solution viscosity characteristics of rubber seed oil based alkyds resins. *Journal of applied polymer science*, **101**(5), 3073-3075.
Ikhuoria, E.U., Okieimen, F.E., Obazee, E.O., Erhabor, T. 2011. Synthesis and characterization of styrenated rubber seed oil alkyd. *African Journal of Biotechnology*, **10**(10), 1913-1918.
Islam, M.R., Beg, M.D.H., Jamari, S.S. 2014. Alkyd Based Resin from Non-drying Oil. *Procedia Engineering*, **90**, 78-88.
Jeong, M.S., Park, J.S., Song, S.H., Jang, S.B. 2007. Characterization of antibacterial nanoparticles from the scallop, Ptinopecten yessoensis. *Bioscience, biotechnology, and biochemistry*, **71**(9), 2242-2247.
Jin, T., He, Y. 2011. Antibacterial activities of magnesium oxide (MgO) nanoparticles against foodborne pathogens. *Journal of Nanoparticle Research*, **13**(12), 6877-6885.
Karak, N. 2012. *Vegetable oil-based polymers: properties, processing and applications*. Elsevier.
Kienle, R., Ferguson, C. 1929a. Alkyd resins as film-forming materials. *Industrial & Engineering Chemistry*, **21**(4), 349-352.
Kienle, R.H., Ferguson, C.S. 1929b. Alkyd resins as film-forming materials. *Industrial & Engineering Chemistry*, **21**(4), 349-352.
Koleske, J.V. 1995. Paint and coating testing manual: of the Gardner-Sward handbook; Paint testing manual. ASTM.
Kumar, M.N.S., Yaakob, Z., Maimunah, S., Abdullah, S.R.S. 2010. Synthesis of alkyd resin from non-edible jatropha seed oil. *Journal of Polymers and the Environment*, **18**(4), 539-544.
Kuzma, E.J. 1980. Alkyd resins with use of multifunctional monomers, Google Patents.
Lanson, H. 1985. Chemistry and technology of alkyd and saturated reactive polyester resins. *ACS symposium series*. Oxford University Press. pp. 1181-1204.
Liu, Y.Y., Tian, J.W., Zhang, W.L. 2011. High-Efficiency Modified Alkyd Resin Application Research. *Advanced Materials Research*, **284-286**, 2077-2081.

Lueken, H.-G., Tanger, U., Droste, W., Ludwig, G., Gubisch, D. 1990. Process for the preparation of 2-ethylhexanol by liquid-phase catalytic hydrogenation of 2-ethylhexenal, and catalyst, Google Patents.

Menkiti, M., Onukwuli, O. 2011. Utilization potentials of rubber seed oil for the production of alkyd resin using variable base oil lengths. *New York Science Journal*, **4**(2), 51-58.

Nanvaee, A.A., Yahya, R., Gan, S.-N. 2013. Cleaner production through using by-product palm stearin to synthesis alkyd resin for coating applications. *Journal of Cleaner Production*, **54**, 307-314.

Negi, D.S., Sobotka, F., Kimmel, T., Wozny, G., Schomäcker, R. 2007. Glycerolysis of fatty acid methyl esters: 1. Investigations in a batch reactor. *Journal of the American Oil Chemists' Society*, **84**(1), 83-90.

Noureddini, H., Harkey, D., Gutsman, M. 2004. A continuous process for the glycerolysis of soybean oil. *Journal of the American Oil Chemists' Society*, **81**(2), 203-207.

O.FOsagie , O.A.B. 2015. Polyesters From Chemically Modified Oil of Renewable Source. *Journal of Biotechnology and Biochemistry (IOSR-JBB)* **volume I**(issue 6), 16-23.

Odetoye, T.E., Ogunniyi, D.S., Olatunji, G.A. 2012. Improving Jatropha curcas Linnaeus oil alkyd drying properties. *Progress in Organic Coatings*, **73**(4), 374-381.

Ogunniyi, D., Njikang, G. 1998. Industrial utilization of castor oil: Alkyd resin synthesis and evaluation. *J. Nig. Soc. Of Chem. Engineers*, 44-51.

Ogunniyi, D.S., Odetoye, T.E. 2008. Preparation and evaluation of tobacco seed oil-modified alkyd resins. *Bioresource technology*, **99**(5), 1300-1304.

Oladipo, G.O., Eromosele, I.C., Folarin, O.M. 2013. Formation and characterization of paint based on alkyd resin derivative of Ximenia americana (wild olive) seed oil. *Environment and Natural Resources Research*, **3**(3), 52.

Ong, H.R., Khan, M.M.R., Ramli, R., Rahman, M.W., Yunus, R.M. 2015. Tailoring base catalyzed synthesis of palm oil based alkyd resin through CuO nanoparticles. *RSC Advances*, **5**(116), 95894-95902.

Ong, H.R., Ramli, R., Khan, M.M.R., Yunus, R.M. 2016. The influence of CuO nanoparticle on non-edible rubber seed oil based alkyd resin preparation and its antimicrobial activity. *Progress in Organic Coatings*, **101**, 245-252.

Pal, S., Tak, Y.K., Song, J.M. 2007. Does the antibacterial activity of silver nanoparticles depend on the shape of the nanoparticle? A study of the gram-negative bacterium Escherichia coli. *Applied and environmental microbiology*, **73**(6), 1712-1720.

Panda, H. 2010. *Alkyd Resins Technology Handbook*. ASIA PACIFIC BUSINESS PRESS Inc.

Patton, T.C. 1962. *Alkyd Resin Technology: Formulating Techniques and Allied Calculations*. Interscience Publishers.

Pinyaphong, P., Sriburi, P., Phutrakul, S. 2012. Synthesis of Monoacylglycerol from Glycerolysis of Crude Glycerol with Coconut Oil Catalyzed by Carica Papaya Lipase.

RSoniya, S., Nair, V.M. 2003. Synthesis and Characterization of Nanostructured Mg (OH) 2 and MgO.

Sailer, R.A., Wegner, J.R., Hurtt, G.J., Janson, J.E., Soucek, M.D. 1998. Linseed and sunflower oil alkyd ceramers. *Progress in organic coatings*, **33**(2), 117-125.
Sandler, S. 2012. *Polymer syntheses*. Elsevier.
Smith, W. 1901. A new glyceride: Glycerine phthalate. *Journal of the Society of Chemical Industry*, **20**, 1075-1076.
Tahvildari, K., Anaraki, Y.N., Fazaeli, R., Mirpanji, S., Delrish, E. 2015. The study of CaO and MgO heterogenic nano-catalyst coupling on transesterification reaction efficacy in the production of biodiesel from recycled cooking oil. *Journal of Environmental Health Science and Engineering*, **13**(1), 1.
Tang, Z.-X., Lv, B.-F. 2014. MgO nanoparticles as antibacterial agent: preparation and activity. *Brazilian Journal of Chemical Engineering*, **31**(3), 591-601.
Thanh, L.T., Okitsu, K., Boi, L.V., Maeda, Y. 2012. Catalytic technologies for biodiesel fuel production and utilization of glycerol: a review. *Catalysts*, **2**(1), 191-222.
Udayakumara S.V., G.O. 2015. Development of Suitable Methodology to Synthesize Terephthalic Acid Based Alkyd Resin. *International Journal of Engineering Research and Reviews*, **Vol. 3**(Issue 1), 87-91.
Uzoh, C., Onukwuli, O., Odera, R., Okey-Onyesolu, C. 2013. SYNTHESIS AND CHARACTERIZATION OF PALM OIL BASED AIR DRYING ALKYD RESIN FOR SURFACE COATING.
Uzoh, C.F., Nwabanne, J.T. 2016. Investigating the Effect of Catalyst Type and Concentration on the functional Group Conversion in Castor Seed Oil Alkyd Resin Production. *Advances in Chemical Engineering and Science*, **6**(02), 190.
Valério, A., Rovani, S., Treichel, H., de Oliveira, D., Oliveira, J.V. 2010. Optimization of mono and diacylglycerols production from enzymatic glycerolysis in solvent-free systems. *Bioprocess and biosystems engineering*, **33**(7), 805-812.
van der Merwe, E., Strydom, C., Botha, A. 2004. Hydration of medium reactive industrial magnesium oxide with magnesium acetate. *Journal of thermal analysis and calorimetry*, **77**(1), 49-56.
Wang, Q. 2013. Investigation of Acrylated Alkyds, The University of Akron.
Wicks Jr, Z.W., Jones, F.N., Pappas, S.P., Wicks, D.A. 2007. *Organic coatings: science and technology*. John Wiley & Sons.
Zinjarde, S.S. 2012. Bio-inspired nanomaterials and their applications as antimicrobial agents. *Chronicles of Young Scientists*, **3**(1), 74.