REFERENCES

- Abdalla HS, Patel S. The performance and oxidation stability of sustainable metalworking fluid derived from vegetable extracts. Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture, 2006, 220(12), 2027-2040.
- Adhvaryu A, Erhan SZ, Perez JM. Tribological studies of thermally and chemically modified vegetable oils for use as environmentally friendly lubricants. Wear, 2004, 257, (3-4), 359–367.
- Adhvaryu A, Erhan SZ. Epoxidized soyabean oil as a potential source of high temperature lubricants. Industrial Crops and Products, 2002, 15(3), 247-254.
- Akbulut M. Nanoparticle-Based Lubrication Systems. Journal of Powder Metallurgy and Mining, 2012, 1, 1-3.
- Ali MKA, Xianjun H. Improving the tribological behavior of internal combustion engines via the addition of nanoparticles to engine oils. Nanotechnology Reviews, 2015, 4(4), 347–358.
- Aluyor EO, Obahiagbon KP, Ori-Jesu M. Biodegradation of vegetable oils: a review. Scientific Research and Essays, 2009, 4(6), 543-548.
- Alves SM, Barros BS, Trajano MF, Ribeiro KSB, Moura E. Tribological behavior of vegetable oil-based lubricants with nanoparticles of oxides in boundary lubrication conditions. Tribology International, 2013, 65, 28–36.
- Anand A, Haq MI, Vohra K, Raina A, Wani MF. Role of Green Tribology in Sustainability of Mechanical Systems: A State of the Art Survey. Materials Today: Proceedings, 2017, 4, 3659–3665.

- Aranzabe E, Marcaide A, Marta H, Uranga N. Environment management in practice, 1994.Chapter 19: Lengthening biolubricants lifetime by using porous materials. 371-386.
- Arumuam S, Sriram G. Preliminary study of nano- and microscale TiO₂ additives on the tribological behavior of chemically modified rapeseed oil. Tribology Transactions, 2013, 56(5), 797-805.
- Asrul M, Zulkifli N, Masjuki H. Tribological properties and lubricant mechanism of nanoparticle in engine oil. Procedia Engineering, 2013, 68, 320–325.
- Bao YY, Sun JL, Kong LH. Tribological properties and lubricating mechanism of SiO₂ nanoparticles in water-based fluid. Materials Science and Engineering, 2017, 182, 012025/1-9.
- Barry PR, Chiu PY, Perry SS, Sawyer WG, Sinnott SB, Phillpot SR. Effect of temperature on the friction and wear of PTFE by atomic-level simulation. Tribology Letters, 2015, 58:50, 1-13.
- Bartz WJ. Lubricants and the environment. Tribology International, 1998, 31(1-3), 35-47.
- Baskar S, Sriram G, Arumugam S. Experimental analysis on tribological behavior of nano based bio-lubricants using four ball tribometer. Tribology in Industry, 2015, 37(4), 449-454.
- Battez AH, González R, Felgueroso D, Fernández JE, Fernández MR, García MA, Peñuelas
 I. Wear prevention behaviour of nanoparticle suspension under extreme pressure conditions. Wear, 2007, 263(7-12), 1568–1574.

- Battez AH, Rico JEF, Arias AN, Rodriguez JLV, Rodriguez RC, Fernandez JMD. The tribological behaviour of ZnO nanoparticles as an additive to PAO6. Wear, 2006, 261(3-4), 256–263.
- Bhushan B, Liu H. Nanoscale boundary lubrication studies. In: Bhusan B. (eds) Springer Handbook of Nanotechnology, 2004, Springer, Berlin, Heidelberg.
- Biresaw G, Bantchev G. Effect of chemical structure on film-forming properties of seed oils. Journal of Synthetic Lubrication, 2008, 25(4), 159–183.
- Bisht RPS, Sivasankaran GA, Bhatia VK. Additive properties of jojoba oil for lubricating oil formulations. Wear, 1993, 161(1), 193–197.
- Biswas SK, Kalyani V. Friction and wear of PTFE- A review. Wear, 1992, 158, 193-211.
- Born M, Hipeaux JC, Marchand P, Parc G. Relationship between chemical structure and effectiveness of some metallic dialkyl and diaryl dithiophosphates in different lubricated mechanisms. Lubrication Science, 1992, 4, 93–116.
- Cahoon EB, Kinney AJ. Production of vegetable oils with novel properties: using genomic tools to probe and manipulate fatty acid metabolism. European Journal of Lipid Science and Technology, 2005, 107(4), 239-243.
- Caixiang GU, Qingzhu LI, Zhuoming GU, Guangyao ZHU. Study on application of CeO₂ and CaCO₃ nanoparticles in lubricating oils. Journal of Rare Earths, 2008, 26(2), 163-167.
- Campanella A, Rustoy E, Baldessari A, Baltanás MA. Lubricants from chemically modified vegetable oils. Bioresource Technology, 2010, 101(1), 245–254.

- Castro W, Perez JM, Erhan SZ, Caputo F. A study of the oxidation and wear properties of vegetable oils: soybean oil without additives. Journal of the American Oil Chemists' Society, 2006, 83(1), 47–52.
- Castro W, Weller DE, Cheenkachorn K, Perez JM. The effect of chemical structure of base fluids on antiwear effectiveness of additives. Tribology International, 2005, 38(3), 321-326.
- Charoo MS, Wani MF. Tribological properties of h-BN nanoparticles as lubricant additive on cylinder liner and piston ring. Lubrication Science, 2017, 29, 241-254.
- Choi Y, Lee C, Hwang Y, Park M, Lee J, Choi C, Jung M. Tribological behavior of copper nanoparticles as additives in oil. Current Applied Physics, 2009, 9, 124-127.
- Chou C-C, Lee S-H. Tribological behavior of nanodiamond-dispersed lubricants on carbon steels and aluminum alloy. Wear, 2010, 269, 757–762.
- Chou R, Battez AH, Cabello JJ, Viesca JL, Osorio A, Sagastume A. Tribological behavior of polyalphaolefin with the addition of nickel nanoparticles. Tribology International, 2010, 43(12), 2327–2332.
- Choudhary RB, Pande PP. Lubrication potential of boron compounds: an overview. Lubrication Science, 2002, 14(2), 211-222.
- Cornelio JAC, Cuervo PA, Hoyos-Palacio LM, Lara-Romero J, Toro A. Tribological properties of carbon nanotubes as lubricant additive in oil and water for a wheel-rail system. Journal of Materials Research and Technology, 2016, 5(1), 68-76.
- Czichos H. Tribology: A system approach to the science and technology of friction, lubrication and wear. Tribology Series, 1, 2000, Elsevier Scientific Publishing Company, P.O. box 211, Amsterdam, Netherland.

- Dai W, Kheireddin B, Gao H, Liang H. Roles of nanoparticles in oil lubrication. Tribology International, 2016, 102, 88–98.
- Didziulis SV, Fleischauer PD. Chemistry of the extreme-pressure lubricant additive lead naphthenate on steel surfaces. Langmuir, 1991, 7(12), 2981–2990.
- Dmitrieva TV, Sirovatka LA, Bortnitskii VI. Composites based on rapeseed oil and functional additives. Trenie Iznos (Friction and Wear), 2001, 22(6), 693-698.
- Doig M, Warrens CP, Camp PJ. Structure and friction of stearic acid and oleic acid films adsorbed on iron oxide surfaces in squalane. Langmuir, 2014, 30, 186-195.
- Doll KM, Sharma BK. Physical properties study on partially bio-based lubricant blends: thermally modified soybean oil with popular commercial esters. International Journal of Sustainable Engineering, 2012, 5(1), 33–37.
- Dubey MK, Bijwe J, Ramakumar SSV. PTFE based nano-lubricants. Wear, 2013, 306(1-2), 80–88.
- Erhan SZ, Sharma BK, Perez JM. Oxidation and low temperature stability of vegetable oilbased lubricants. Industrial Crops and Products, 2006, 24, 292–299.
- Feng N, Yi X, Binshi X, Fei G, Yixiong W, Zhuguo L. Tribological behaviors and wear mechanisms of ultrafine magnesium aluminum silicate powders as lubricant additive. Tribology International, 2015, 81, 199–208.
- Fox NJ, Stachowiak GW. Vegetable oil-based lubricants- A review of oxidation, Tribology International, 2007, 40(7), 1035-1046.
- Fuchs M. The world lubricants market, current situation and outlook. Proceedings of the 12th international colloquim on tribology, 2000. TAE Esslingen, 1-9.

- Gao C, Wang Y, Hu D, Pan Z, Xiang L. Tribological properties of magnetite nanoparticles with various morphologies as lubricating additives. Journal of Nanoparticle Research, 2013, 15, 1502/1-10.
- Garg P, Kumar A, Thakre GD, Arya PK, Jain AK. Investigating efficacy of cu nano-particles as additive for bio-lubricants. Macromolecular Symposiam, 2017, 376, 1700010/1-6.
- Ghaednia H, Hossain MS, Jackson RL. Tribological performance of silver nanoparticle– Enhanced Polyethylene glycol lubricants. Tribology Transactions, 2016, 59(4), 585– 592.
- Ghaednia H, Jackson RL, Khodadadi JM. Experimental analysis of stable CuO nanoparticle enhanced lubricants. Journal of Experimental Nanoscience, 2015, 10(1), 1-18.
- Ghaednia H, Jackson RL. The effect of nanoparticles on the real area of contact, friction, and wear. ASME, Journal of Tribology, 2013, 135, 041603/1-10.
- Ghazali HM, Tan A, Abdulkarim SM, Dzulkifly MH. Oxidation stability of virgin coconut oil compared with RBD palm olein in depth fat frying of fish crackers. Journal of Food, Agriculture and Environment, 2009, 3-4, 23-27.
- Gnanasekaran D, Chavidi VP. Vegetable oil based bio-lubricants and transformer fluids: Applications in power plants. Springer: Materials Forming, Machining and Tribology, 2018. DOI 10.1007/978-981-10-4870-8.
- Gulzar M, Masjuki HH, Kalam MA, Varman M, Zulkifli NWM, Mufti RA, Zahid R, Yunus R. Dispersion stability and tribological characteristics of TiO₂/SiO₂ nanocompositeenriched biobased lubricant. Tribology Transactions, 2017, 60(4), 670–680.

- Gulzar M, Masjuki HH, Varman M, Kalam MA, Mufti RA, Zulkifli NWM, Yunus R, Zahid R. Improving the AW/EP ability of chemically modified palm oil by adding CuO and MoS₂ nanoparticles. Tribology International, 2015, 88, 271–279.
- Gupta RN, Harsha AP. Synthesis, characterization, and tribological studies of Calcium– Copper–Titanate nanoparticles as a biolubricant additive. ASME, Journal of Tribology, 2017, 139(2), 021801/1 -11.
- Hamrock BJ, Schmid SR, Jacobson BO. Fundamentals of Fluid Film Lubrication, 2nd ed., 2004, Marcel Dekker, New York.
- Harris KL, Pitenis AA, Sawyer WG, Krick BA, Blackman GS, Kasprzak DJ, Junk CP. PTFE Tribology and the Role of Mechanochemistry in the Development of Protective Surface Films. Macromolecules, 2015, 48(11), 3739-3745.
- Hedtke SF, Puglisi FA. Effects of Waste Oil on the Survival and Reproduction of the American Flagfish, Jordanella floridae. Canadian Journal of Fisheries and Aquatic Sciences, 1980, 37(5), 757-764.
- Honary LAT, Richter E. Biobased Lubricants and Greases: Technology and Products, First Edition 2011. John Wiley & Sons Ltd, The Atrium, Southern Gate, Chichester, West Sussex, PO19 8SQ, United Kingdom.
- Honary LAT. Biodegradable/Biobased lubricants and greases. Machinery lubrication magazine. Noria corporation. 2001.

(http://www.machinerylubrication.com/Read/240/biodegradable-biobased-lubricants)

Hosseinpour-Mashkani SM, Mohandes F, Salavati-Niasari M, Rao KV. Microwave-assisted synthesis and photovoltaic measurements of CuInS₂ nanoparticles prepared by

using metal-organic precursors. Materials Research Bulletin, 2012, 47(11), 3148-3159.

- Hsien WLY. Towards green lubrication in machining, Chapter 2: Utilization of vegetable oil as bio-lubricant and additive. Springer Briefs in Green Chemistry for Sustainability, 2015. DOI 10.1007/978-981-287-266-1_2.
- Hsu SM, Gates RS. Boundary lubricating films: formation and lubrication mechanism. Tribology International, 2005, 38(3), 305–312.
- Hu KH, Hu XG, Xu YF, Huang F, Liu JS. The Effect of Morphology on the Tribological Properties of MoS₂ in Liquid Paraffin. Tribology letters, 2010, 40, 155-165.
- Hu KH, Huang F, Hu XG, Xu YF, Zhou YQ. Synergistic effect of nano-MoS₂ and anatase nano-TiO₂ on the lubrication properties of MoS₂/TiO₂ nano-clusters. Tribology Letters, 2011, 43, 77–87.
- Hutchings I, Shipway P. Friction and wear of Engineering materials, 2016, Butterworth-Heinemann. Cambridge, MA 02139, United States
- Hwang Y, Lee C, Choi Y, Cheong S, Kim D, Lee K, Lee J, Kim SH. Effect of the size and morphology of particles dispersed in nano-oil on friction performance between rotating discs. Journal of Mechanical Science and Technology, 2011, 25(11): 2853-2857.
- Indriyani L, Rohman A, Riyanto S. Physico-Chemical Characterization of Avocado (Persea americana Mill.) Oil from Three Indonesian Avocado Cultivars. Research Journal of Medicinal Plant, 2016, 10 (1), 67-78.
- Ingole S, Charanpahari A, Kakade A, Umare SS, Bhatt DV, Menghani J. Tribological behavior of nano TiO₂ as an additive in base oil. Wear, 2013, 301(1-2), 776–785.
- Jahanmir S, Beltzer M. Effect of additive molecular structure on friction coefficient and adsorption. ASME, Journal of Tribology, 1986; 108, 109–116.

- Jain AK, Suhane A. Research approach & prospects of non edible vegetable oil as a potential resource for biolubricant-a review. Advanced Engineering and Applied Sciences: An International Journal, 2012; 1(1): 23–32.
- Jaiswal V, Kalyani, Rastogi RB, Kumar R. Tribological studies of some SAPS-free Schiff bases derived from 4-aminoantipyrine and aromatic aldehydes and their synergistic interaction with borate ester. Journal of Materials Chemistry A, 2014, 2(27), 10424-10434.
- Jaiswal V, Rastogi RB, Kumar R, Singh L, Mandal KD. Tribological studies of stearic acidmodified CaCu_{2.9}Zn_{0.1}Ti₄O₁₂ nanoparticles as effective zero SAPS antiwear lubricant additives in paraffin oil. Journal of Materials Chemistry A, 2014, 2, 375-386.
- Jang I, Burris DL, Dickrell PL, Barry PR, Santos C, Perry SS, Phillpot SR, Sinnott SB, Sawyer WG. Sliding orientation effects on the tribological properties of polytetrafluoroethylene. Journal of Applied Physics, 2007, 102, 123509/1-7.
- Jayadas NH, Nair KP, Ajithkumar G. Tribological evaluation of coconut oil as an environment-friendly lubricant. Tribology International, 2007; 40(2), 350-354.
- Jeng Y-R, Huang Y-H, Tsai P-C, Hwang G-L. Tribological properties of carbon nanocapsule particles as lubricant additive. ASME, Journal of Tribology, 2014, 136, 041801/1-9.
- Jiao D, Zheng S, Wang Y, Guan R, Cao B. The tribology properties of alumina/silica composite nanoparticles as lubricant additives. Applied Surface Science, 2011, 257(13), 5720–5725.
- Jintang G, Hongxin D. Molecule structure variations in friction of stainless steel/PTFE and its composite. Journal of Applied Polymer Science, 1988, 36(1), 73–85.

- Joly-Pottuz L, Dassenoy F, Belin M, Bacher B, Martin JM, Fleischer N. Ultralow-friction and wear properties of IF-WS₂ under boundary lubrication. Tribology Letters, 2005, 18(4), 477-485.
- Joly-Pottuz L, Dassenoy F, Martin JM, Vrbanic D, Mrzel A, Mihailovic D, Vogel W, Montagnac G. Tribological properties of Mo–S–I nanowires as additive in oil. Tribology Letters, 2005, 18(3), 385-393.
- Joly-Pottuz L, Vacher B, Mogne TL, Martin JM, Mieno T, He CN, Zhao NQ. The Role of Nickel in Ni-Containing Nanotubes and Onions as Lubricant Additives. Tribology Letters, 2008, 29, 213–219.
- Joseph PV, Saxena D, Sharma DK. Study of some non-edible vegetable oils of Indian origin for lubricant application. Journal of Synthetic Lubrication, 2007, 24, 181–197.
- Karmakar G, Ghosh P, Sharma BK. Chemically Modifying Vegetable Oils to Prepare Green Lubricants. Lubricants, 2017, 5, 44: 1-17.
- Kashyap A, Harsha AP. Tribological studies on chemically modified rapeseed oil with CuO and CeO₂ nanoparticles. Journal of Engineering Tribology, 2016, 230(12), 1562-1571.
- Khadem M, Penkov OV, Pukha VE, Maleyev MV, Kim D-E. Ultra-thin carbon-based nanocomposite coatings for superior wear resistance under lubrication with nanodiamond additives. RSC Advances, 2016, 6, 56918–56929.
- Kim S-T, Woo J-Y, Lee Y-Z. Friction, wear and scuffing characteristics of marine engine lubricants with nanodiamond particles. Tribology Transactions, 2016, 59(6), 1098-1103.

- Kolodziejczyk L, Martínez-Martínez D, Rojas TC, Fernández A, Sánchez-López JC. Surface-modified Pd nanoparticles as a superior additive for lubrication. Journal of Nanoparticle Research, 2007, 9(4), 639–645.
- Kong L, Sun J, Bao Y. Preparation, characterization and tribological mechanism of nanofluids. RSC Advances, 2017, 7, 12599-12609.
- Koshy CP, Rajendrakumar PK, Thottackkad MV. Evaluation of the tribological and thermophysical properties of coconut oil added with MoS₂ nanoparticles at elevated temperatures. Wear, 2015, 330-331, 288–308.
- Koshy CP, Rajendrakumar PK,Thottackkad MV. Analysis of tribological and thermophysical properties of surfactant modified vegetable oil based CuO nano-lubricants at elevated temperatures- an experimental study. Tribology Online, 2015, 10(5), 344-353.
- Krishna Reddy KSV, Kabra N, Kunchum U, Vijayakumar T. Experimental investigation on usage of palm oil as a lubricant to substitute mineral oil in CI engines. Chinese Journal of Engineering, 2014, 2014: Article ID 643521, 1-5.
- Kumar BS, Padmanabhan G, Krishna PV. Performance assessment of vegetable oil based cutting fluids with extreme pressure additive in machining. Journal of Advanced Research in Materials Science, 2016, 19(1), 1–13.
- Laura PP, Jaime TT, García A, Maldonado D, González JA, Molina D, Palacios E, Cantú P. Antiwear and Extreme Pressure properties of nanofluids for industrial applications. Tribology Transactions, 2014, 57, 1072-1076.
- Le VN, Lin J-W. Tribological properties of aluminum nanoparticles as additives in an aqueous glycerol solution. Applied Science, 2017, 7(1), 80, 1-15.

- Lee C-G, Hwang Y-J, Choi Y-M, Lee J-K, Choi C, Oh J-M. A study on the tribological characteristics of graphite nano lubricants. International Journal of Precision Engineering and Manufacturing, 2009, 10, 85-90.
- Lee K, Hwang Y, Cheong S, Choi Y, Kwon L, Lee J, Kim SH. Understanding the Role of Nanoparticles in Nano-oil Lubrication. Tribology Letters, 2009, 35, 127–131.
- Leslic RR, Sevim ZE. Synthetic Mineral oils and Biobased Lubricants. Taylor &Francis Group, 2006, 356.
- Li B, Wang X, Liu W, Xue Q. Tribochemistry and antiwear mechanism of organic-inorganic nanoparticles as lubricant additives. Tribology Letters, 2006, 22, 79-84.
- Li W, Zheng S, Cao B, Ma S. Friction and wear properties of ZrO₂/SiO₂ composite nanoparticles. Journal of Nanoparticle Research, 2011, 13, 2129–2137.
- Lingtong K, Hua H, Tianyou W, Dinghai H, Jianjian F. Synthesis and surface modification of the nanoscale cerium borate as lubricant additive. Journal of Rare Earths, 2011, 29(11), 1095-1099.
- Liu G, Li X, Qin B, Xing D, Guo Y, Fan R. Investigatoin of the mending effect and mechanism of copper nano-particles on a tribologically stressed surface. Tribology Letters, 2004, 17, 961–966.
- Liu W, Chen S. An investigation of the tribological behaviour of surface-modified ZnS nanoparticles in liquid paraffin. Wear, 2000, 238, 120–124.
- Liu W, Xue Q, Zhang X, Wang H. Effect of molecular structure of organic borates on their friction and wear properties. Lubrication Science, 1993, 6(1), 41–49.

- Lovell MR, Kabir MA, Menezes PL, Higgs CF. Influence of boric acid additive size on green lubricant performance. Philosophical Transactions of the Royal Society A, 2010, 368(1929), 4851–4868.
- Luo T, Wei X, Huang X, Huang L, Yang F. Tribological properties of Al₂O₃ nanoparticles as lubricating oil additives. Ceramics International, 2014, 40(5), 7143-7149.
- Ma S, Zheng S, Cao D, Guo H. Anti-wear and friction performance of ZrO₂ nanoparticles as lubricant additive. Particuology, 2010, 8, 468–472.
- Maliar T, Achanta S, Cesiulis H, Drees D. Tribological behaviour of mineral and rapeseed oils containing iron particles. Industrial Lubrication and Tribology, 2015, 67(4), 308 314.
- Mang T, Bobzin K, Bartels T. Industrial Tribology: Tribosystems, Friction, Wear and Surface Engineering, Lubrication. Chapter 4: Wear, 2010, 37-47. WILEY-VCH Verlag GmbH & Co. KGaA, Weinheim, Germany.
- Mannekote JK, Kailas SV. Experimental investigation of coconut and palm oils as lubricants in four-stroke engine. Tribology Online, 2011, 6, 76–82.
- Marko M, Kyle J, Branson B, Terrell E. Tribological improvements of dispersed nanodiamond additives in lubricating mineral oil. ASME, Journal of Tribology, 2015, 137, 011802/1-7.
- McKeon TA. Industrial uses of vegetable oils, Chapter 1: Genetic modification of seed oils for industrial applications. 2005. USDA, ARS, WRRC, Albany, CA 94710, USA. (https://doi.org/10.1201/9781439822388.ch1).

- Mobarak HM, Mohamad EN, Masjuki HH, Kalam MA, Al Mahmud KAH, Habibullah M, Ashraful AM. The prospects of bio-lubricants as alternatives in automotive applications. Renewable and Sustainable Energy Review, 2014, 33, 34–43.
- Mongkolwongrojn M, Arunmetta P. Theoretical characteristics of hydrodynamic journal bearings lubricated with soyabean-based oil. Journal of Synthetic Lubrication, 2002, 19(3), 213-228.
- Nagendramma P, Kaul S. Development of ecofriendly/biodegradable lubricants: An overview. Renewable and Sustainable Energy Reviews, 2012, 16, 764–774.
- Narayanunni V, Kheireddin BA, Akbulut M. Influence of surface topography on frictional properties of Cu surfaces under different lubrication conditions: Comparison of dry, base oil, and ZnS nanowire-based lubrication system. Tribology International, 2011, 44, 1720-1725.
- Nosonovsky M, Bhusan B. Green tribology: Principles, research areas and challenges. Philosophical Transaction of Royal Society A, 2010, 368, 4677–4694.
- Nwobi BE, Ofoegbu OO, Adesina OB. Extraction of qualitative assessment of African sweet orange seed oil. African Journal of Food Agriculture Nutrition and Development, 2006, 6(2), 1-11.
- OPEC report: Organization of the Petroleum Exporting Countries, World Oil Outlook 2014.
- Orsavova J, Misurcova L, Ambrozova JV, Vicha R, Mlcek J. Fatty acids composition of vegetable oils and its contribution to dietary energy intake and dependence of cardiovascular mortality on dietary intake of fatty acids. International Journal of Molecular Science, 2015, 16(6), 12871-12890.

- Padgurskas J, Rukuiza R, Prosyčevas I, Kreivaitis R. Tribological properties of lubricant additives of Fe, Cu and Co nanoparticles. Tribology International, 2013, 60, 224-232.
- Papay AG. Oil soluble friction reducers theory and application. ASLE, Lubrication Engineering, 1983, 39(7), 419-426.
- Peňa-parás L, Taha-Tijerina J, Garza L, Maldonado-Cortes D, Michalczewski R, Lapray C. Effect of CuO and Al₂O₃ nanoparticle additives on the tribological behavior of fully formulated oils. Wear, 2015, 332–333, 1256–1261.
- Peng DX, Kang Y, Hwang RM, Shyr SS, Chang YP. Tribological properties of diamond and SiO₂ nanoparticles added in paraffin. Tribology International,2009, 42(6), 911-917.
- Peng DX, Chen CH, Kang Y, Chang YP, Chang SY. Size effects of SiO₂ nanoparticles as oil additives on tribology of lubricant. Industrial Lubrication and Tribology, 2010, 62, 111-120.
- Pop L, Puşcaş C, Bandur G, Vlase G, Nuțiu R. Basestock oils for lubricants from mixtures of corn oil and synthetic diesters. Journal of the American Oil Chemists' Society, 2008, 85(1), 71-76.
- Popa V-M, Gruia A, Raba D-N, Dumbrava D, Moldovan C, Bordean D, Mateescu C. Fatty acids composition and oil characteristics of linseed (Linum Usitatissimum L.) from Romania. Journal of Agroalimentary Processes and Technologies, 2012, 18 (2), 136-140.
- Pramanik K. Properties and use of Jatropha curcas oil and diesel fuel blends in compression ignition engine. Renewable Energy, 2003, 28(2), 239–248.

- Qiu S, Zhou Z, Dong J, Chen G. Preparation of Ni nanoparticles and evaluation of their tribological performance as potential additives in oils. ASME, Journal of Tribology, 2001, 123, 441-443.
- Rani S. The tribological behavior of TiO₂, CeO₂ and ZrO₂ nanoparticles as a lubricant additive in rice bran oil. International Journal of Scientific & Engineering Research, 2016, 7(8), 708-712.
- Rapoport L, Leshchinsky V, Lapsker I, Volovik Y, Nepomnyashchy O, Lvovsky M, Popovitz-Biro R, Feldman Y, Tenne R. Tribological properties of WS₂ nanoparticles under mixed lubrication. Wear, 2003, 255, 785–793.
- Rashmi W, Khalid M, Xiao YL, Gupta T, Arwin GZ. Tribological studies on graphene/TMP based nanolubricant. Journal of Engineering Science and Technology, 2017, 12(2), 365 – 373.
- Rastogi RB, Maurya JL, Jaiswal V. Low sulfur, phosphorus and metal free antiwear additives: Synergistic action of salicylaldehyde *N*(4)-phenylthiosemicarbazones and its different derivatives with Vanlube 289 additive. Wear, 2013, 297 (1-2), 849-859.
- Reeves CJ, Menezes PL. Evaluation of boron nitride particles on the tribological performance of avocado and canola oil for energy conservation and sustainability. The International Journal of Advanced Manufacturing Technology, 2017, 89(9-12), 3475-3486.
- Reeves CJ. An experimental investigation characterizing the tribological performance of natural and synthetic biolubricants composed of carboxylic acids for energy conservation and sustainability. Theses and dissertation 2013, University of Wisconsin-Milwaukee, United States.

- Rico EF, Minondo I, Cuervo DG. The effectiveness of PTFE nanoparticle powder as an EP additive to mineral base oils. Wear, 2007, 262(11-12), 1399–1406.
- Rizvi SQA. A comprehensive review of lubricant chemistry, technology, selection, and design; Chapter 13: Lubricants and the environment, 2009, 579-600. MNL11473M, ASTM International, West Conshohocken, PA.
- Rudenko P, Bandyopadhyay A. Talc as friction reducing additive to lubricating oil. Applied Surface Science, 2013, 276, 383-389.
- Sahoo P. Engineering Tribology, Third edition, PHI learning pvt. ltd., Delhi-110001, India, 2011, Chapter 2, 5-20.
- Salimon J, Salih N, Yousif E. Synthetic biolubricant basestocks from epoxidized ricinoleic acid: Improved low temperature properties. Journal of Chemists and Chemical Engineers, 2011, 60(3), 127-134.
- Sang YX. Study on microstructure and properties of PTFE particles/Ni-based alloy composite coating. Material Science and Environmental Engineering (Editor- Chen P), CRC Press/Balkema, Taylor and Francis Group, Netherland, 2015, 219-223.
- Saurabh T, Patnaik M, Bhagt SL, Renge V.C. Epoxidation of vegetable oils: A review. International Journal of Advanced Engineering Technology, 2011, 2(4), 491-501.
- Schuchardt U, Sercheli R, Vargas R.M, Transesterification of Vegetable Oils: a Review. Journal of the Brazilian Chemical Society, 1998, 9, 199-210.
- Shaari MZ, Roselina NR, Kasolang S, Hyie KM, Murad MC, Bakar MAA. Investigation of tribological properties of palm oil biolubricant modified nanoparticles. Jurnal Teknologi, 2015, 76(9), 69-73.

- Shahnazar S, Bagheri S, Hamid SBA. Enhancing lubricant properties by nanoparticle additives. International Journal of Hydrogen Energy, 2016, 41(4), 3153-3170.
- Sharma BK, Adhvaryu A, Erhan SZ. Friction and wear behavior of thioether hydroxyl vegetable oil. Wear, 2009, 42, 353–358.
- Shashidhara YM, Jayaram SR. Vegetable oil as a potential cutting fluid- An evolution. Tribology International, 2010, 43(5-6), 1073-1081.
- Siniawski MT, Saniei N, Adhikari B, Doezema LA. Influence of fatty acid composition on the tribological performance of two vegetable-based lubricants. Journal of Synthetic Lubrication, 2007, 24, 101–110.
- Song H, Wang Z, Yang J. Tribological properties of graphene oxide and carbon spheres as lubrication additives. Applied Physics A, 2016, 122, 933/1-9.
- Soomro RA, Sherazi STH, Sirajuddin, Memon N, Shah MR, Kalwar NH, Hallam KR, Shah A. Synthesis of air stable copper nanoparticles and their use in catalysis. Advanced Materials Letters, 2014, 5(4), 191-198.
- Sophie L. Understanding of adsorption mechanisms and tribological behaviors of C18 fatty acids on iron-based surfaces: a molecular simulation approach. Theses, Tohaku University total Marketing and Services, 2014.
- Spikes H. Low- and zero-sulphated ash, phosphorus and sulphur anti-wear additives for engine oils. Lubrication Science, 2008, 20(2), 103-136.
- Srinivas V, Thakur RN, Jain AK. Antiwear, antifriction and extreme pressure properties of motor bike engine oil dispersed with molybdenum disulfide nanoparticles. Tribology Transactions, 2017, 60(1), 12-19.

- Stachowiak GW. Wear-Materials, Mechanism and Practice, John Wiley and sons, 2005, New York, United States.
- Su Y, Gong L, Chen D. An investigation on tribological properties and lubrication mechanism of graphite nanoparticles as vegetable based oil additive. Journal of Nanomaterials, 2015, 2015: Article ID 276753, 1-7.
- Suarez AN, Grahn M, Pasaribu R, Larsson R. The influence of base oil polarity on the tribological performance of zinc dialkyl dithiophosphate additives. Tribology International, 2010, 43, 2268–2278.
- Sui T, Song B, Zhang F, Yang Q. Effect of particle size and ligand on the tribological properties of amino functionalized hairy silica nanoparticles as an additive to polyalphaolefin. Journal of Nanomaterials, 2015, 2015, Article ID 492401, 1-9.
- Sui T, Song B, Zhang F, Yang Q. Effects of functional groups on the tribological properties of hairy silica nanoparticles as an additive to polyalphaolefin. RSC Advances, 2016, 6, 393-402.
- Talib N, Nasir RM, Rahim EA. Tribological behaviour of modified jatropha oil by mixing hexagonal boron nitride nanoparticles as a bio-based lubricant for machining processes. Journal of Cleaner Production, 2017, 147, 360-378.
- Tan Y, Huang W, Wang X. Molecular orbital indexes criteria for friction modifiers in boundary lubrication. Tribology International, 2002, 35, 381–384.
- Tao X, Jiazheng Z, Kang X. The ball-bearing effect of diamond nanoparticles as an oil additive. Journal of Physics D: Applied Physics, 1996, 29, 2932–2937.

- Tevet O, Von-Huth P, Popovitz-Biro R, Rosentsveig R, Wagner HD, Tenne R. Friction mechanism of individual multilayered nanoparticles. Proceedings of the National Academy of Sciences of the United States of America 2011, 108, 19901–19906.
- Thottackkad MV, Perikinalil RK, Kumarapillai PN. Experimental evaluation on the tribological properties of coconut oil by the addition of CuO nanoparticles. International Journal of Precision Engineering and Manufacturing, 2012, 13(1),111-116.
- Trajano MF, Moura EIF, Ribeiro KSB, Alves SM. Study of oxide nanoparticles as additives for vegetable lubricants. Materials Research, 2014, 17(5), 1124-1128.
- Unsworth A, Scholes SC, Blamey JM, Burgess IC, Jones E, Smith N. Design aspects of compliant, soft layer bearings for an experimental hip prosthesis. Proc. IMechE. Part H: J. Engineering in Medicine, 2005, 219, 79-87.
- Viesca JL, Battez AH, Gonzalez R, Chou R, Cabello JJ. Antiwear properties of carboncoated copper nanoparticles used as an additive to a polyalphaolefin. Tibology International, 2011, 44(7-8), 829-833.
- Vladimir A, Yuri I, Charles I. Study of tribological properties of nanolamellar WS₂ and MoS₂ as additives to lubricants. Journal of nanomaterials, 2014, Article 865839, 1-8.
- Wäsche R, Hartelt M, Hodoroaba V-D. Analysis of nanoscale wear particles from lubricated steel-steel contacts. Tribology Letters, 2015, 58(3): Article number 49, 1-10.
- Weertman JR. Hall-Petch strengthening in nanocrystalline metals. Material Science and Engineering A, 1993, 166(1-2), 161-167.
- Wei Y, Huaqing X. A review on nanofluids: Preparation, stability mechanism, and applications. Journal of nanomaterials, 2012, 2012, 1-17.

- Wong PK, Wang J. The accumulation of polycyclic aromatic hydrocarbons in lubricating oil over time – a comparison of supercritical fluid and liquid-liquid extraction method. Environmental Pollution, 2001, 112(3), 407-415.
- Wu X, Zhang X, Yang S, Chen H, Wang D. The study of epoxidized rapeseed oil used as a potential biodegradable lubricant. Journal of the American Oil Chemists' Society, 2000, 77(5), 561–563.
- Wu YY, Tsui WC, Liu TC. Experimental analysis of tribological properties of lubricating oils with nanoparticle additives. Wear, 2007, 262, 819–825.
- Xiang L, Gao C, Wang Y, Pan Z, Hu D. Tribological and tribochemical properties of magnetite nanoflakes as additives in oil lubricants. Particuology, 2014, 17, 136-144.
- Xiaodong Z, Xun F, Huaqiang S, Zhengshui H. Lubricating properties of Cyanex 302– modified MoS₂ microspheres in base oil 500SN. Lubrication Science, 2007, 19, 71–79.
- Xie H, Jiang B, He J, Xia X, Pan F. Lubrication performance of MoS₂ and SiO₂ nanoparticles as lubricant additives in magnesium alloy-steel contacts. Tribology International, 2016, 93, 63-70.
- Xu Y, Peng Y, Zheng X, Dearn KD, Xu H, Hu X. Synthesis and tribological studies of nanoparticle additives for pyrolysis bio-oil formulated as a diesel fuel. Energy, 2015, 83, 80-88.
- Yamakov V, Wolf D, Phillpot SR, Mukherjee AK, Gleiter H. Deformation mechanism map for nanocrystalline metals by molecular-dynamics simulation. Nature Materials, 2004, 3, 43-47.
- Yan J, Zeng X, Heide EV, Ren T. The tribological performance and tribochemical analysis of novel borate ester as lubricant additives in rapeseed oil. Tribology International, 2014, 71, 149-157.

- Yu HL, Xu Y, Shi PJ, Wang HM, Zhao Y, Xu BS, Bai ZM. Tribological behaviors of surface-coated serpentine ultrafine powders as lubricant additive. Tribology International, 2010, 43, 667–675.
- Yu H-L, Xu Y, Shi P-J, Xu B-S, Wang X-L, Liu Q. Tribological properties and lubricating mechanisms of Cu nanoparticles in lubricant. Transactions of Nonferrous Metals Society of China, 2008, 18(3), 636-641.
- Yu L, Zhang L, Ye F, Sun M, Cheng X, Diao G. Preparation and tribological properties of surface-modified nano-Y₂O₃ as additive in liquid paraffin. Applied Surface Science, 2012, 263, 655–659.
- Zhang Y, Xu Y, Yang Y, Zhang S, Zhang P, Zhang Z. Synthesis and tribological properties of oil-soluble copper nanoparticles as environmentally friendly lubricating oil additives. Industrial Lubrication and Tribology, 2015, 67(3), 227-232.
- Zhiwei L, Hou X, Yu L, Zhang Z, Zhang P. Preparation of lanthanum trifluoride nanoparticles surface-capped by tributyl phosphate and evaluation of their tribological properties as lubricant additive in liquid paraffin. Applied Surface Science, 2014, 292, 971– 977.
- Zhou F, Liang Y, Liu W. Ionic liquid lubricants: designed chemistry for engineering applications. Chemical Society Reviews, 2009, 38, 2590–2599.
- Zin V, Agresti F, Barison S, Colla L, Fabrizio M. Influence of Cu, TiO₂ Nanoparticles and Carbon Nano-Horns on Tribological Properties of Engine Oil. Journal of Nanoscience and Nanotechnology, 2015, 15(5), 3590-3597.
- Zulkifli NWM, Kalam MA, Masjuki HH, Yunus R. Experimental analysis of tribological properties of biolubricant with nanoparticle additive. Procedia Engineering, 2013, 68, 152–157.