Gerhard Knothe

List of Publications by Year
in descending order

88 papers	12,130 citations	94433 37 h-index	64796 79 g-index
90 all docs	90 docs citations	90 times ranked	9317 citing authors

#	Article	IF	Citations
1	Improvement of Diesel Lubricity by Chemically Modified Tung-Oil-Based Fatty Acid Esters as Additives. Energy & Fuels, 2019, 33, 5110-5115.	5.1	15
2	Composition of Some Apiaceae Seed Oils Includes Phytochemicals, and Mass Spectrometry of Fatty Acid 2â€Methoxyethyl Esters. European Journal of Lipid Science and Technology, 2019, 121, 1800386.	1.5	13
3	Fatty acids, triterpenes and cycloalkanes in ficus seed oils. Plant Physiology and Biochemistry, 2019, 135, 127-131.	5.8	8
4	Methyl esters (biodiesel) from Melanolepis multiglandulosa (alim) seed oil and their properties. Biofuels, 2019, 10, 239-243.	2.4	1
5	The effect of metals and metal oxides on biodiesel oxidative stability from promotion to inhibition. Fuel Processing Technology, 2018, 177, 75-80.	7.2	51
6	Methyl esters (biodiesel) from <i>Pachyrhizus erosus</i> seed oil. Biofuels, 2018, 9, 449-454.	2.4	10
7	Fatty Acid Profiles of <i>Garuga floribunda</i>, <i>Ipomoea pes</i>â€<i>caprae</i>, <i>Melanolepis multiglandulosa</i> and <i>Premna odorata</i> Seed Oils. JAOCS, Journal of the American Oil Chemists' Society, 2017, 94, 333-338.	1.9	0
8	Direct transesterification of spent coffee grounds for biodiesel production. Fuel, 2017, 199, 157-161.	6.4	103
9	Glycerolysis with crude glycerin as an alternative pretreatment for biodiesel production from grease trap waste: Parametric study and energy analysis. Journal of Cleaner Production, 2017, 162, 504-511.	9.3	35
10	Decarboxylation of Fatty Acids with Triruthenium Dodecacarbonyl: Influence of the Compound Structure and Analysis of the Product Mixtures. ACS Omega, 2017, 2, 6473-6480.	3.5	18
11	Fatty Acid Methyl Esters with Two Vicinal Alkylthio Side Chains and Their NMR Characterization. JAOCS, Journal of the American Oil Chemists' Society, 2017, 94, 537-549.	1.9	1
12	Biodiesel fuels. Progress in Energy and Combustion Science, 2017, 58, 36-59.	31.2	537
13	Biodiesel and Its Properties. , 2016, , 15-42.		11
14	Decolorization improves the fuel properties of algal biodiesel from Isochrysis sp.. Fuel, 2016, 179, 229-234.	6.4	11
15	Analysis and Properties of the Decarboxylation Products of Oleic Acid by Catalytic Triruthenium Dodecacarbonyl. Energy & Fuels, 2016, 30, 7443-7451.	5.1	13
16	Biodiesel. , 2016, , 391-405.		0
17	Experimental Protocol for Biodiesel Production with Isolation of Alkenones as Coproducts from Commercial Isochrysis Algal Biomass. Journal of Visualized Experiments, 2016, , .	0.3	3
18	Fatty Acid Profiles of Some Fabaceae Seed Oils. JAOCS, Journal of the American Oil Chemists' Society, 2016, 93, 1007-1011.	1.9	8

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19	Synthesis of Epoxidized Cardanol and Its Antioxidative Properties for Vegetable Oils and Biodiesel. ACS Sustainable Chemistry and Engineering, 2016, 4, 901-906.	6.7	64
20	Biodiesel exhaust: The need for a systematic approach to health effects research. Respirology, 2015, 20, 1034-1045.	2.3	25
21	Fatty acid profile ofAlbizia lebbeckandAlbizia samanseed oils: Presence of coronaric acid. European Journal of Lipid Science and Technology, 2015, 117, 567-574.	1.5	7
22	Fatty acid profile of seashore mallow (<i>Kosteletzkya pentacarpos</i>) seed oil and properties of the methyl esters. European Journal of Lipid Science and Technology, 2015, 117, 1287-1294.	1.5	10
23	Methyl Esters (Biodiesel) from and Fatty Acid Profile of <i>Gliricidia sepium</i> Seed Oil. JAOCS, Journal of the American Oil Chemists' Society, 2015, 92, 769-775.	1.9	18
24	Cuphea Oil as a Potential Biodiesel Feedstock to Improve Fuel Properties. Journal of Energy Engineering - ASCE, 2014, 140, .	1.9	10
25	A Comprehensive Evaluation of the Density of Neat Fatty Acids and Esters. JAOCS, Journal of the American Oil Chemists' Society, 2014, 91, 1711-1722.	1.9	20
26	Evaluation of Indian milkweed (Calotropis gigantea) seed oil as alternative feedstock for biodiesel. Industrial Crops and Products, 2014, 54, 226-232.	5.2	43
27	Synthesis and Analysis of an Alkenone-Free Biodiesel from <i>Isochrysis</i> sp.. Energy & Fuels, 2014, 28, 2677-2683.	5.1	14
28	Kapok oil methyl esters. Biomass and Bioenergy, 2014, 66, 419-425.	5.7	22
29	A comprehensive evaluation of the cetane numbers of fatty acid methyl esters. Fuel, 2014, 119, 6-13.	6.4	120
30	Biobased Lubricants and Functional Products from Cuphea Oil. , 2014, , 443-482.		0
31	Fatty Acid Profile of Kenaf Seed Oil. JAOCS, Journal of the American Oil Chemists' Society, 2013, 90, 835-840.	1.9	15
32	Avocado and olive oil methyl esters. Biomass and Bioenergy, 2013, 58, 143-148.	5.7	37
33	Kenaf oil methyl esters. Industrial Crops and Products, 2013, 49, 568-572.	5.2	20
34	Production and Properties of Biodiesel from Algal Oils. , 2013, , 207-221.		31
35	Biodiesel from Citrus reticulata (mandarin orange) seed oil, a potential non-food feedstock. Industrial Crops and Products, 2013, 45, 355-359.	5.2	97
36	Exhaust emissions and mutagenic effects of diesel fuel, biodiesel and biodiesel blends. Fuel, 2013, 103, 414-420.	6.4	29

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37	Response to the Letter to the Editor regarding â€œDetermination of the fatty acid profile by1HNMR spectroscopyâ€• European Journal of Lipid Science and Technology, 2013, 115, 1201-1202.	1.5	0
38	Fuel properties of methyl esters of borage and black currant oils containing methyl Î³-linolenate. European Journal of Lipid Science and Technology, 2013, 115, 901-908.	1.5	8
39	Fuel Properties of Highly Polyunsaturated Fatty Acid Methyl Esters. Prediction of Fuel Properties of Algal Biodiesel. Energy & Fuels, 2012, 26, 5265-5273.	5.1	129
40	Beyond Fatty Acid Methyl Esters: Expanding the Renewable Carbon Profile with Alkenones from Isochrysis sp.. Energy & Fuels, 2012, 26, 2434-2441.	5.1	17
41	Methyl esters from vegetable oils with hydroxy fatty acids: Comparison of lesquerella and castor methyl esters. Fuel, 2012, 96, 535-540.	6.4	49
42	A technical evaluation of biodiesel from vegetable oils vs. algae. Will algae-derived biodiesel perform?. Green Chemistry, 2011, 13, 3048.	9.0	146
43	Fatty Acid Alkyl Esters as Solvents: Evaluation of the Kauri-Butanol Value. Comparison to Hydrocarbons, Dimethyl Diesters, and Other Oxygenates. Industrial & Engineering Chemistry Research, 2011, 50, 4177-4182.	3.7	22
44	The Potential of Biodiesel with Improved Properties to an Alternative Energy Mix. Green Energy and Technology, 2011, , 75-82.	0.6	3
45	Kinematic viscosity of fatty acid methyl esters: Prediction, calculated viscosity contribution of esters with unavailable data, and carbonâ€“oxygen equivalents. Fuel, 2011, 90, 3217-3224.	6.4	74
46	Biodiesel from Milo (Thespesia populnea L.) seed oil. Biomass and Bioenergy, 2011, 35, 4034-4039.	5.7	79
47	Will biodiesel derived from algal oils live up to its promise? A fuel property assessment. Lipid Technology, 2011, 23, 247-249.	0.3	13
48	Fatty acids of Thespesia populnea: Mass spectrometry of picolinyl esters of cyclopropene fatty acids. European Journal of Lipid Science and Technology, 2011, 113, 980-984.	1.5	16
49	Biofuels: The Role of Biodiesel and Improving Its Performance. Materials Research Society Symposia Proceedings, 2011, 1326, 1.	0.1	0
50	Biodiesel: Current Trends and Properties. Topics in Catalysis, 2010, 53, 714-720.	2.8	81
51	Biodiesel and renewable diesel: A comparison. Progress in Energy and Combustion Science, 2010, 36, 364-373.	31.2	733
52	Other Uses of Biodiesel. , 2010, , 401-403.		26
53	Liquid-Phase Penetration under Unsteady In-Cylinder Conditions: Soy- and Cuphea-Derived Biodiesel Fuels Versus Conventional Diesel. Energy & Fuels, 2010, 24, 5163-5180.	5.1	41
54	Comment on â€œBiodiesel Production from Freshwater Algaeâ€• Energy & Fuels, 2010, 24, 3299-3300.	5.1	2

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55	Biodiesel Derived from a Model Oil Enriched in Palmitoleic Acid, Macadamia Nut Oil. Energy & Fuels, 2010, 24, 2098-2103.	5.1	58
56	Biodiesel from meadowfoam (Limnanthes alba L.) seed oil: oxidative stability and unusual fatty acid composition. Energy and Environmental Science, 2010, 3, 318.	30.8	40
57	A Comprehensive Evaluation of the Melting Points of Fatty Acids and Esters Determined by Differential Scanning Calorimetry. JAOCS, Journal of the American Oil Chemists' Society, 2009, 86, 843-856.	1.9	325
58	Comparison of exhaust emissions and their mutagenicity from the combustion of biodiesel, vegetable oil, gas-to-liquid and petrodiesel fuels. Fuel, 2009, 88, 1064-1069.	6.4	91
59	Evaluation of biodiesel obtained from cottonseed oil. Fuel Processing Technology, 2009, 90, 1157-1163.	7.2	238
60	A comparison of used cooking oils: A very heterogeneous feedstock for biodiesel. Bioresource Technology, 2009, 100, 5796-5801.	9.6	135
61	Cuphea Oil as Source of Biodiesel with Improved Fuel Properties Caused by High Content of Methyl Decanoate. Energy & Fuels, 2009, 23, 1743-1747.	5.1	107
62	Production and Evaluation of Biodiesel from Field Pennycress (<i>Thlaspi arvense</i>L.) Oil^{â€}. Energy & Fuels, 2009, 23, 4149-4155.	5.1	187
63	Improving biodiesel fuel properties by modifying fatty ester composition. Energy and Environmental Science, 2009, 2, 759.	30.8	549
64	1,2â€Isopropylidene Glycerol Carbonate: Preparation, Characterization, and Hydrolysis. JAOCS, Journal of the American Oil Chemists' Society, 2008, 85, 365-372.	1.9	5
65	Moringa oleifera oil: A possible source of biodiesel. Bioresource Technology, 2008, 99, 8175-8179.	9.6	424
66	â€œDesignerâ€•Biodiesel: Optimizing Fatty Ester Composition to Improve Fuel Properties. Energy & Fuels, 2008, 22, 1358-1364.	5.1	1,107
67	Evaluation of ball and disc wear scar data in the HFRR lubricity test. Lubrication Science, 2008, 20, 35-45.	2.1	18
68	Kinematic viscosity of biodiesel components (fatty acid alkyl esters) and related compounds at low temperatures. Fuel, 2007, 86, 2560-2567.	6.4	202
69	Some aspects of biodiesel oxidative stability. Fuel Processing Technology, 2007, 88, 669-677.	7.2	521
70	Exhaust Emissions of Biodiesel, Petrodiesel, Neat Methyl Esters, and Alkanes in a New Technology Engineâ€. Energy & Fuels, 2006, 20, 403-408.	5.1	414
71	NMR characterization of dihydrosterculic acid and its methyl ester. Lipids, 2006, 41, 393-396.	1.7	32
72	Comparative citation analysis of duplicate or highly related publications. Journal of the Association for Information Science and Technology, 2006, 57, 1830-1839.	2.6	13

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73	Analysis of oxidized biodiesel by1H-NMR and effect of contact area with air. European Journal of Lipid Science and Technology, 2006, 108, 493-500.	1.5	99
74	Kinematic viscosity of biodiesel fuel components and related compounds. Influence of compound structure and comparison to petrodiesel fuel components. Fuel, 2005, 84, 1059-1065.	6.4	710
75	Dependence of biodiesel fuel properties on the structure of fatty acid alkyl esters. Fuel Processing Technology, 2005, 86, 1059-1070.	7.2	1,842
76	Physical properties of oleochemical carbonates. JAOCS, Journal of the American Oil Chemists' Society, 2005, 82, 201-205.	1.9	37
77	Lubricity of Components of Biodiesel and Petrodiesel. The Origin of Biodiesel Lubricityâ€. Energy & Fuels, 2005, 19, 1192-1200.	5.1	354
78	Determination of the fatty acid profile by1H-NMR spectroscopy. European Journal of Lipid Science and Technology, 2004, 106, 88-96.	1.5	337
79	Production and properties of 7,10,12-trihydroxy-8(E)-octadecenoic acid from ricinoleic acid conversion byPseudomonas aeruginosa. European Journal of Lipid Science and Technology, 2004, 106, 405-411.	1.5	9
80	Dependence of oil stability index of fatty compounds on their structure and concentration and presence of metals. JAOCS, Journal of the American Oil Chemists' Society, 2003, 80, 1021-1026.	1.9	295
81	Cetane numbers of branched and straight-chain fatty esters determined in an ignition quality testerâ˜†. Fuel, 2003, 82, 971-975.	6.4	500
82	Structure indices in FA chemistry. How relevant is the iodine value?. JAOCS, Journal of the American Oil Chemists' Society, 2002, 79, 847-854.	1.9	333
83	Synthesis and characterization of long-chain 1,2-dioxo compounds. Chemistry and Physics of Lipids, 2002, 115, 85-91.	3.2	7
84	Synthesis and characterization of some long-chain diesters with branched or bulky moieties. JAOCS, Journal of the American Oil Chemists' Society, 2000, 77, 865-871.	1.9	32
85	Biodiesel: The Use of Vegetable Oils and Their Derivatives as Alternative Diesel Fuels. ACS Symposium Series, 1997, , 172-208.	0.5	183
86	13C NMR spectroscopy of unsaturated long-chain compounds: an evaluation of the unsaturated carbon signals as rational functions. Journal of the Chemical Society Perkin Transactions II, 1995, , 615.	0.9	9
87	Allylic mono- and di-hydroxylation of isolated double bonds with selenium dioxideâ€“tert-butyl hydroperoxide. NMR characterization of long-chain enols, allylic and saturated 1,4-diols, and enones. Journal of the Chemical Society Perkin Transactions II, 1994, , 1661-1669.	0.9	22
88	Cetane Numbers of Fatty Compounds:Influence of Compound Structure and of Various Potential Cetane Improvers. , 0, , .		35