# Phillip E Savage

## List of Publications by Citations



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|---|---|---|---|
| 239 papers | 14,455 citations | 61 h-index | 112 g-index |
| 409 ext. papers | 15,897 ext. citations | 6.8 avg, IF | 7.24 L-index |

| # | Paper | IF | Citations |
|---|---|---|---|
| 239 | Roles of water for chemical reactions in high-temperature water. *Chemical Reviews*, **2002**, 102, 2725-50 | 68.1 | 1170 |
| 238 | Organic Chemical Reactions in Supercritical Water. *Chemical Reviews*, **1999**, 99, 603-622 | 68.1 | 1104 |
| 237 | Reactions at supercritical conditions: Applications and fundamentals. *AICHE Journal*, **1995**, 41, 1723-1778 | 3.6 | 759 |
| 236 | Hydrothermal Liquefaction and Gasification of Nannochloropsis sp.. *Energy & Fuels*, **2010**, 24, 3639-3646 | 4.1 | 567 |
| 235 | Hydrothermal Liquefaction of a Microalga with Heterogeneous Catalysts. *Industrial & Engineering Chemistry Research*, **2011**, 50, 52-61 | 3.9 | 421 |
| 234 | Hydrothermal liquefaction of Nannochloropsis sp.: Systematic study of process variables and analysis of the product fractions. *Biomass and Bioenergy*, **2012**, 46, 317-331 | 5.3 | 262 |
| 233 | Decomposition of Formic Acid under Hydrothermal Conditions. *Industrial & Engineering Chemistry Research*, **1998**, 37, 2-10 | 3.9 | 256 |
| 232 | A perspective on catalysis in sub- and supercritical water. *Journal of Supercritical Fluids*, **2009**, 47, 407-414 | 4.2 | 248 |
| 231 | Upgrading of crude algal bio-oil in supercritical water. *Bioresource Technology*, **2011**, 102, 1899-906 | 11 | 227 |
| 230 | Biodiesel Production from Wet Algal Biomass through in Situ Lipid Hydrolysis and Supercritical Transesterification. *Energy & Fuels*, **2010**, 24, 5235-5243 | 4.1 | 226 |
| 229 | Role of water in formic acid decomposition. *AICHE Journal*, **1998**, 44, 405-415 | 3.6 | 191 |
| 228 | Catalytic hydrothermal deoxygenation of palmitic acid. *Energy and Environmental Science*, **2010**, 3, 311 | 35.4 | 186 |
| 227 | Hydrothermal decarboxylation and hydrogenation of fatty acids over Pt/C. *ChemSusChem*, **2011**, 4, 481-6 | 8.3 | 179 |
| 226 | Characterization of Product Fractions from Hydrothermal Liquefaction of Nannochloropsis sp. and the Influence of Solvents. *Energy & Fuels*, **2011**, 25, 3235-3243 | 4.1 | 166 |
| 225 | Fast Hydrothermal Liquefaction of Nannochloropsis sp. To Produce Biocrude. *Energy & Fuels*, **2013**, 27, 1391-1398 | 4.1 | 160 |
| 224 | Hydrothermal Treatment of Protein, Polysaccharide, and Lipids Alone and in Mixtures. *Energy & Fuels*, **2014**, 28, 7501-7509 | 4.1 | 144 |
| 223 | Hydrothermal catalytic production of fuels and chemicals from aquatic biomass. *Journal of Chemical Technology and Biotechnology*, **2013**, 88, 13-24 | 3.5 | 139 |

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| 222 | Catalytic treatment of crude algal bio-oil in supercritical water: optimization studies. *Energy and Environmental Science*, **2011**, 4, 1447 | 35.4 | 136 |
| 221 | A general kinetic model for the hydrothermal liquefaction of microalgae. *Bioresource Technology*, **2014**, 163, 123-7 | 11 | 133 |
| 220 | Catalytic hydrotreatment of crude algal bio-oil in supercritical water. *Applied Catalysis B: Environmental*, **2011**, 104, 136-143 | 21.8 | 131 |
| 219 | Mechanisms and kinetics models for hydrocarbon pyrolysis. *Journal of Analytical and Applied Pyrolysis*, **2000**, 54, 109-126 | 6 | 130 |
| 218 | Temperature Dependence of Hydrogen Bonding in Supercritical Water. *The Journal of Physical Chemistry*, **1996**, 100, 403-408 | | 129 |
| 217 | Gasification of alga Nannochloropsis sp. in supercritical water. *Journal of Supercritical Fluids*, **2012**, 61, 139-145 | 4.2 | 125 |
| 216 | Hydrothermal catalytic processing of pretreated algal oil: A catalyst screening study. *Fuel*, **2014**, 120, 141-149 | 7.1 | 113 |
| 215 | Assessment of Noncatalytic Biodiesel Synthesis Using Supercritical Reaction Conditions. *Industrial & Engineering Chemistry Research*, **2008**, 47, 6801-6808 | 3.9 | 112 |
| 214 | Kinetics of phenol oxidation in supercritical water. *AICHE Journal*, **1992**, 38, 321-327 | 3.6 | 101 |
| 213 | Reaction Mechanism for Phenol Oxidation in Supercritical Water. *The Journal of Physical Chemistry*, **1994**, 98, 12646-12652 | | 100 |
| 212 | Hydrothermal liquefaction of sewage sludge under isothermal and fast conditions. *Bioresource Technology*, **2017**, 232, 27-34 | 11 | 99 |
| 211 | Kinetics and Mechanism of Methanol Oxidation in Supercritical Water. *The Journal of Physical Chemistry*, **1996**, 100, 15834-15842 | | 99 |
| 210 | Hydrothermal Reactions of Biomolecules Relevant for Microalgae Liquefaction. *Industrial & Engineering Chemistry Research*, **2015**, 54, 11733-11758 | 3.9 | 98 |
| 209 | Activated Carbons for Hydrothermal Decarboxylation of Fatty Acids. *ACS Catalysis*, **2011**, 1, 227-231 | 13.1 | 98 |
| 208 | Kinetics and mechanism of tetrahydrofuran synthesis via 1,4-butanediol dehydration in high-temperature water. *Journal of Organic Chemistry*, **2006**, 71, 6229-39 | 4.2 | 97 |
| 207 | Feedstocks for fuels and chemicals from algae: Treatment of crude bio-oil over HZSM-5. *Algal Research*, **2013**, 2, 154-163 | 5 | 96 |
| 206 | Recent advances in acid- and base-catalyzed organic synthesis in high-temperature liquid water. *Chemical Engineering Science*, **2004**, 59, 4903-4909 | 4.4 | 93 |
| 205 | Phenol oxidation in supercritical water. *Journal of Supercritical Fluids*, **1990**, 3, 240-248 | 4.2 | 93 |

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| 204 | Noncatalytic Gasification of Lignin in Supercritical Water. *Energy & Fuels*, **2008**, 22, 1328-1334 | 4.1 | 92 |
| 203 | Kinetic model for supercritical water gasification of algae. *Physical Chemistry Chemical Physics*, **2012**, 14, 3140-7 | 3.6 | 86 |
| 202 | Detailed chemical kinetics model for supercritical water oxidation of C1 compounds and H2. *AICHE Journal*, **1995**, 41, 1874-1888 | 3.6 | 86 |
| 201 | Chemistry. Algae under pressure and in hot water. *Science*, **2012**, 338, 1039-40 | 33.3 | 85 |
| 200 | Effect of Metals on Supercritical Water Gasification of Cellulose and Lignin. *Industrial & Engineering Chemistry Research*, **2010**, 49, 2694-2700 | 3.9 | 85 |
| 199 | Phenol oxidation pathways in supercritical water. *Industrial & Engineering Chemistry Research*, **1992**, 31, 2451-2456 | 3.9 | 85 |
| 198 | 2-Chlorophenol oxidation in supercritical water: Global kinetics and reaction products. *AICHE Journal*, **1993**, 39, 178-187 | 3.6 | 85 |
| 197 | Gasification of Guaiacol and Phenol in Supercritical Water. *Energy & Fuels*, **2007**, 21, 2340-2345 | 4.1 | 84 |
| 196 | Molecular Dynamics of Supercritical Water Using a Flexible SPC Model. *The Journal of Physical Chemistry*, **1994**, 98, 13067-13076 | | 84 |
| 195 | A reaction network for the hydrothermal liquefaction of Nannochloropsis sp.. *Algal Research*, **2013**, 2, 416-425 | 5 | 82 |
| 194 | Asphaltene reaction pathways. 1. Thermolysis. *Industrial & Engineering Chemistry Process Design and Development*, **1985**, 24, 1169-1174 | | 80 |
| 193 | Acid-Catalyzed Reactions in Carbon Dioxide-Enriched High-Temperature Liquid Water. *Industrial & Engineering Chemistry Research*, **2003**, 42, 290-294 | 3.9 | 76 |
| 192 | Asphaltene reaction pathways. 2. Pyrolysis of n-pentadecylbenzene. *Industrial & Engineering Chemistry Research*, **1987**, 26, 488-494 | 3.9 | 75 |
| 191 | Asphaltene reaction pathways. 3. Effect of reaction environment. *Energy & Fuels*, **1988**, 2, 619-628 | 4.1 | 73 |
| 190 | Trash to Treasure: From Harmful Algal Blooms to High-Performance Electrodes for Sodium-Ion Batteries. *Environmental Science & Technology*, **2015**, 49, 12543-50 | 10.3 | 72 |
| 189 | Characterization of biocrudes recovered with and without solvent after hydrothermal liquefaction of algae. *Algal Research*, **2014**, 6, 1-7 | 5 | 68 |
| 188 | Kinetics and mechanism of methane oxidation in supercritical water. *Journal of Supercritical Fluids*, **1998**, 12, 141-153 | 4.2 | 68 |
| 187 | Kinetics and Mechanism of Cyclohexanol Dehydration in High-Temperature Water. *Industrial & Engineering Chemistry Research*, **2001**, 40, 1822-1831 | 3.9 | 68 |

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| 186 | Heterogeneous catalysis in supercritical water. *Catalysis Today*, **2000**, 62, 167-173 | 5.3 | 67 |
| 185 | Catalytic hydrothermal hydrodenitrogenation of pyridine. *Applied Catalysis B: Environmental*, **2011**, 108-109, 54-60 | 21.8 | 66 |
| 184 | Supercritical Water Oxidation Kinetics, Products, and Pathways for CH3- and CHO-Substituted Phenols. *Industrial & Engineering Chemistry Research*, **1997**, 36, 1391-1400 | 3.9 | 66 |
| 183 | Thermal Decomposition of Substituted Phenols in Supercritical Water. *Industrial & Engineering Chemistry Research*, **1997**, 36, 1385-1390 | 3.9 | 63 |
| 182 | Supercritical Water Gasification of Phenol and Glycine as Models for Plant and Protein Biomass. *Energy & Fuels*, **2008**, 22, 871-877 | 4.1 | 63 |
| 181 | A quantitative kinetic model for the fast and isothermal hydrothermal liquefaction of Nannochloropsis sp. *Bioresource Technology*, **2016**, 214, 102-111 | 11 | 63 |
| 180 | Reaction pathways and kinetic modeling for phenol gasification in supercritical water. *Journal of Supercritical Fluids*, **2013**, 81, 200-209 | 4.2 | 61 |
| 179 | Noncatalytic Gasification of Cellulose in Supercritical Water. *Energy & Fuels*, **2007**, 21, 3637-3643 | 4.1 | 61 |
| 178 | Hydrolytic Cleavage of C□O Linkages in Lignin Model Compounds Catalyzed by Water-Tolerant Lewis Acids. *Industrial & Engineering Chemistry Research*, **2014**, 53, 2633-2639 | 3.9 | 60 |
| 177 | Phenol oxidation over CuO/Al2O3 in supercritical water. *Applied Catalysis B: Environmental*, **2000**, 28, 275-288 | 21.8 | 60 |
| 176 | Phenol oxidation in supercritical water: formation of dibenzofuran, dibenzo-p-dioxin, and related compounds. *Environmental Science & Technology*, **1991**, 25, 1507-1510 | 10.3 | 60 |
| 175 | Catalysis during methanol gasification in supercritical water. *Journal of Supercritical Fluids*, **2006**, 39, 228-232 | 4.2 | 57 |
| 174 | Intermediates and kinetics for phenol gasification in supercritical water. *Physical Chemistry Chemical Physics*, **2012**, 14, 2900-10 | 3.6 | 56 |
| 173 | Synergistic and Antagonistic Interactions during Hydrothermal Liquefaction of Soybean Oil, Soy Protein, Cellulose, Xylose, and Lignin. *ACS Sustainable Chemistry and Engineering*, **2018**, 6, 14501-14509 | 8.3 | 56 |
| 172 | The use of hydrothermal carbonization to recycle nutrients in algal biofuel production. *Environmental Progress and Sustainable Energy*, **2013**, 32, 962-975 | 2.5 | 54 |
| 171 | Expanded and Updated Results for Supercritical Water Gasification of Cellulose and Lignin in Metal-Free Reactors. *Energy & Fuels*, **2009**, 23, 6213-6221 | 4.1 | 54 |
| 170 | A reduced mechanism for methanol oxidation in supercritical water. *Chemical Engineering Science*, **1998**, 53, 857-867 | 4.4 | 54 |
| 169 | Fast catalytic oxidation of phenol in supercritical water. *Catalysis Today*, **1998**, 40, 333-342 | 5.3 | 53 |

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| 168 | Oxidation kinetics for methane/methanol mixtures in supercritical water. *Journal of Supercritical Fluids*, **2000**, 17, 155-170 | 4.2 | 53 |
| 167 | Modeling the effects of microalga biochemical content on the kinetics and biocrude yields from hydrothermal liquefaction. *Bioresource Technology*, **2017**, 239, 144-150 | 11 | 51 |
| 166 | Hydrothermal reaction kinetics and pathways of phenylalanine alone and in binary mixtures. *ChemSusChem*, **2012**, 5, 1743-57 | 8.3 | 51 |
| 165 | Noncatalytic esterification of oleic acid in ethanol. *Journal of Supercritical Fluids*, **2010**, 53, 53-59 | 4.2 | 51 |
| 164 | Quantifying rate enhancements for acid catalysis in CO2-enriched high-temperature water. *AICHE Journal*, **2008**, 54, 516-528 | 3.6 | 51 |
| 163 | Comparison of rigid and flexible simple point charge water models at supercritical conditions. *Journal of Computational Chemistry*, **1996**, 17, 1757-1770 | 3.5 | 50 |
| 162 | Kinetics of acetic Acid oxidation in supercritical water. *Environmental Science & Technology*, **1995**, 29, 216-21 | 10.3 | 49 |
| 161 | Methane to methanol in supercritical water. *Journal of Supercritical Fluids*, **1994**, 7, 135-144 | 4.2 | 49 |
| 160 | Supercritical Water Oxidation of Methylamine. *Industrial & Engineering Chemistry Research*, **2005**, 44, 5318-5324 | 3.9 | 48 |
| 159 | Hydrothermal stability of aromatic carboxylic acids. *Journal of Supercritical Fluids*, **2003**, 27, 263-274 | 4.2 | 48 |
| 158 | Development of NiCu Catalysts for Aqueous-Phase Hydrodeoxygenation. *ACS Catalysis*, **2014**, 4, 2605-2615 | 11.1 | 47 |
| 157 | Kinetics of Catalytic Supercritical Water Oxidation of Phenol over TiO2. *Environmental Science & Technology*, **2000**, 34, 3191-3198 | 10.3 | 46 |
| 156 | Hydrothermal decarboxylation of unsaturated fatty acids over PtSnx/C catalysts. *Fuel*, **2015**, 156, 219-224 | 7.1 | 45 |
| 155 | Hydrothermal Catalytic Cracking of Fatty Acids with HZSM-5. *ACS Sustainable Chemistry and Engineering*, **2014**, 2, 88-94 | 8.3 | 45 |
| 154 | Asphaltene reaction pathways. Chemical and mathematical modeling. *Chemical Engineering Science*, **1989**, 44, 393-404 | 4.4 | 45 |
| 153 | Asphaltene reaction pathways. 4. Pyrolysis of tridecylcyclohexane and 2-ethyltetralin. *Industrial & Engineering Chemistry Research*, **1988**, 27, 1348-1356 | 3.9 | 45 |
| 152 | Catalytic Oxidation of Phenol over MnO2in Supercritical Water. *Industrial & Engineering Chemistry Research*, **1999**, 38, 3793-3801 | 3.9 | 44 |
| 151 | Reactions of polycyclic alkylaromatics: Structure and reactivity. *AICHE Journal*, **1991**, 37, 1613-1624 | 3.6 | 44 |

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| 150 | Effect of reaction time and algae loading on water-soluble and insoluble biocrude fractions from hydrothermal liquefaction of algae. *Algal Research*, **2015**, 12, 60-67 | 5 | 43 |
| 149 | Fatty Acids for Nutraceuticals and Biofuels from Hydrothermal Carbonization of Microalgae. *Industrial & Engineering Chemistry Research*, **2015**, 54, 4066-4071 | 3.9 | 43 |
| 148 | Hydrothermal Gasification of Nannochloropsis sp. with Ru/C. *Energy & Fuels*, **2012**, 26, 4575-4582 | 4.1 | 41 |
| 147 | Effect of pH on Ether, Ester, and Carbonate Hydrolysis in High-Temperature Water. *Industrial & Engineering Chemistry Research*, **2008**, 47, 577-584 | 3.9 | 41 |
| 146 | Hydrothermal Synthesis of CdSe Nanoparticles. *Industrial & Engineering Chemistry Research*, **2007**, 46, 4358-4362 | 3.9 | 40 |
| 145 | Effect of temperature, water loading, and Ru/C catalyst on water-insoluble and water-soluble biocrude fractions from hydrothermal liquefaction of algae. *Bioresource Technology*, **2017**, 239, 1-6 | 11 | 39 |
| 144 | Algal polycultures enhance coproduct recycling from hydrothermal liquefaction. *Bioresource Technology*, **2017**, 224, 630-638 | 11 | 39 |
| 143 | RECENT ADVANCES IN CATALYTIC OXIDATION IN SUPERCRITICAL WATER. *Combustion Science and Technology*, **2006**, 178, 443-465 | 1.5 | 39 |
| 142 | Fast and isothermal hydrothermal liquefaction of sludge at different severities: Reaction products, pathways, and kinetics. *Applied Energy*, **2020**, 260, 114312 | 10.7 | 39 |
| 141 | Process improvements for the supercritical in situ transesterification of carbonized algal biomass. *Bioresource Technology*, **2013**, 136, 556-64 | 11 | 38 |
| 140 | Products, pathways, and kinetics for reactions of indole under supercritical water gasification conditions. *Journal of Supercritical Fluids*, **2013**, 73, 161-170 | 4.2 | 38 |
| 139 | Kinetics and mechanism of p-isopropenylphenol synthesis via hydrothermal cleavage of bisphenol A. *Journal of Organic Chemistry*, **2004**, 69, 4724-31 | 4.2 | 38 |
| 138 | Kinetics of carbon dioxide formation from the oxidation of phenols in supercritical water. *Environmental Science & Technology*, **1992**, 26, 2388-2395 | 10.3 | 38 |
| 137 | Characterization of products from fast and isothermal hydrothermal liquefaction of microalgae. *AICHE Journal*, **2016**, 62, 815-828 | 3.6 | 38 |
| 136 | Life Cycle Design of an Algal Biorefinery Featuring Hydrothermal Liquefaction: Effect of Reaction Conditions and an Alternative Pathway Including Microbial Regrowth. *ACS Sustainable Chemistry and Engineering*, **2014**, 2, 867-874 | 8.3 | 36 |
| 135 | Kinetics of crossed aldol condensations in high-temperature water. *Green Chemistry*, **2004**, 6, 227 | 10 | 36 |
| 134 | Total Organic Carbon Disappearance Kinetics for the Supercritical Water Oxidation of Monosubstituted Phenols. *Environmental Science & Technology*, **1999**, 33, 1911-1915 | 10.3 | 35 |
| 133 | Products and Kinetics for Isothermal Hydrothermal Liquefaction of Soy Protein Concentrate. *ACS Sustainable Chemistry and Engineering*, **2016**, 4, 2725-2733 | 8.3 | 35 |

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| 132 | Reaction kinetics and pathways for phytol in high-temperature water. *Chemical Engineering Journal*, **2012**, 189-190, 336-345 | 14.7 | 34 |
| 131 | Effects of processing conditions on biocrude yields from fast hydrothermal liquefaction of microalgae. *Bioresource Technology*, **2016**, 206, 290-293 | 11 | 33 |
| 130 | Biorefinery sustainability assessment. *Environmental Progress and Sustainable Energy*, **2011**, 30, 743-753 | 2.5 | 33 |
| 129 | Effect of Water Density on Hydrogen Peroxide Dissociation in Supercritical Water. 2. Reaction Kinetics. *Journal of Physical Chemistry A*, **2000**, 104, 4441-4448 | 2.8 | 33 |
| 128 | Supercritical water upgrading of water-insoluble and water-soluble biocrudes from hydrothermal liquefaction of Nannochloropsis microalgae. *Journal of Supercritical Fluids*, **2018**, 133, 683-689 | 4.2 | 32 |
| 127 | Hydrothermal Liquefaction of Bacteria and Yeast Monocultures. *Energy & Fuels*, **2014**, 28, 67-75 | 4.1 | 32 |
| 126 | High-temperature liquid water: a viable medium for terephthalic acid synthesis. *Environmental Science & Technology*, **2005**, 39, 5427-35 | 10.3 | 32 |
| 125 | Kinetics and Products from o-Cresol Oxidation in Supercritical Water. *Industrial & Engineering Chemistry Research*, **1995**, 34, 1941-1951 | 3.9 | 32 |
| 124 | Catalytic gasification of indole in supercritical water. *Applied Catalysis B: Environmental*, **2015**, 166-167, 202-210 | 21.8 | 31 |
| 123 | Detailed Chemical Kinetic Modeling of Methylamine in Supercritical Water. *Industrial & Engineering Chemistry Research*, **2005**, 44, 9785-9793 | 3.9 | 31 |
| 122 | Economic and environmental assessment of high-temperature water as a medium for terephthalic acid synthesis. *Green Chemistry*, **2003**, 5, 649 | 10 | 31 |
| 121 | Kinetic model for reactions of indole under supercritical water gasification conditions. *Chemical Engineering Journal*, **2014**, 241, 327-335 | 14.7 | 30 |
| 120 | Hydrothermal reactions of methylamine. *Journal of Supercritical Fluids*, **2004**, 31, 301-311 | 4.2 | 30 |
| 119 | Synthesis of p-isopropenylphenol in high-temperature water. *Green Chemistry*, **2004**, 6, 222 | 10 | 30 |
| 118 | Oxidation and Thermolysis of Methoxy-, Nitro-, and Hydroxy-Substituted Phenols in Supercritical Water. *Industrial & Engineering Chemistry Research*, **1999**, 38, 1784-1791 | 3.9 | 29 |
| 117 | Metals and Other Elements in Biocrude from Fast and Isothermal Hydrothermal Liquefaction of Microalgae. *Energy & Fuels*, **2018**, 32, 4118-4126 | 4.1 | 28 |
| 116 | Kinetics and pathways for an algal phospholipid (1,2-dioleoyl-sn-glycero-3-phosphocholine) in high-temperature (175–350 °C) water. *Green Chemistry*, **2012**, 14, 2856 | 10 | 28 |
| 115 | Kinetics and mechanism of N-substituted amide hydrolysis in high-temperature water. *Journal of Supercritical Fluids*, **2010**, 51, 362-368 | 4.2 | 28 |

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| 114 | Inhibition and Acceleration of Phenol Oxidation by Supercritical Water. *Industrial & Engineering Chemistry Research*, **2003**, 42, 6303-6309 | 3.9 | 28 |
| 113 | Triflate-catalyzed (trans)esterification of lipids within carbonized algal biomass. *Bioresource Technology*, **2012**, 111, 222-9 | 11 | 27 |
| 112 | Modeling Hydrolysis and Esterification Kinetics for Biofuel Processes. *Industrial & Engineering Chemistry Research*, **2011**, 50, 3206-3211 | 3.9 | 27 |
| 111 | Effect of Water Density on Hydrogen Peroxide Dissociation in Supercritical Water. 1. Reaction Equilibrium. *Journal of Physical Chemistry A*, **2000**, 104, 4433-4440 | 2.8 | 27 |
| 110 | The independent and coupled effects of feedstock characteristics and reaction conditions on biocrude production by hydrothermal liquefaction. *Applied Energy*, **2019**, 235, 714-728 | 10.7 | 27 |
| 109 | Hydrothermal Liquefaction of Model Food Waste Biomolecules and Ternary Mixtures under Isothermal and Fast Conditions. *ACS Sustainable Chemistry and Engineering*, **2018**, 6, 9018-9027 | 8.3 | 27 |
| 108 | Influence of process conditions and interventions on metals content in biocrude from hydrothermal liquefaction of microalgae. *Algal Research*, **2017**, 26, 131-134 | 5 | 26 |
| 107 | Growing Algae for Biodiesel on Direct Sunlight or Sugars: A Comparative Life Cycle Assessment. *ACS Sustainable Chemistry and Engineering*, **2015**, 3, 386-395 | 8.3 | 26 |
| 106 | The benzil□benzilic acid rearrangement in high-temperature water. *Green Chemistry*, **2005**, 7, 800 | 10 | 26 |
| 105 | Oil from plastic via hydrothermal liquefaction: Production and characterization. *Applied Energy*, **2020**, 278, 115673 | 10.7 | 26 |
| 104 | Deoxygenation of benzofuran in supercritical water over a platinum catalyst. *Applied Catalysis B: Environmental*, **2012**, 123-124, 357-366 | 21.8 | 25 |
| 103 | A perspective on algae, the environment, and energy. *Environmental Progress and Sustainable Energy*, **2013**, 32, 877-883 | 2.5 | 25 |
| 102 | A Rapid Hot-Injection Method for the Improved Hydrothermal Synthesis of CdSe Nanoparticles. *Industrial & Engineering Chemistry Research*, **2009**, 48, 4316-4321 | 3.9 | 25 |
| 101 | Supercritical Water Oxidation Kinetics and Pathways for Ethylphenols, Hydroxyacetophenones, and Other Monosubstituted Phenols. *Industrial & Engineering Chemistry Research*, **1999**, 38, 1775-1783 | 3.9 | 25 |
| 100 | Hydrogen-Transfer Mechanisms in 1-Dodecylpyrene Pyrolysis. *Energy & Fuels*, **1995**, 9, 590-598 | 4.1 | 25 |
| 99 | Influence of biodiversity, biochemical composition, and species identity on the quality of biomass and biocrude oil produced via hydrothermal□liquefaction. *Algal Research*, **2017**, 26, 203-214 | 5 | 24 |
| 98 | Effect of water density on methanol oxidation kinetics in supercritical water. *Journal of Physical Chemistry A*, **2006**, 110, 3627-32 | 2.8 | 24 |
| 97 | Kinetics of MnO2-Catalyzed Acetic Acid Oxidation in Supercritical Water. *Industrial & Engineering Chemistry Research*, **2000**, 39, 4014-4019 | 3.9 | 24 |

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| 96 | Catalytic Hydrothermal Liquefaction of Soy Protein Concentrate. *Energy & Fuels*, **2015**, 29, 3208-3214 | 4.1 | 23 |
| 95 | Power of Plankton: Effects of Algal Biodiversity on Biocrude Production and Stability. *Environmental Science & Technology*, **2016**, 50, 13142-13150 | 10.3 | 23 |
| 94 | Deactivation of Pt Catalysts during Hydrothermal Decarboxylation of Butyric Acid. *ACS Sustainable Chemistry and Engineering*, **2014**, 2, 2399-2406 | 8.3 | 23 |
| 93 | Pyrolysis kinetics for long-chain n-alkylbenzenes: experimental and mechanistic modeling results. *Industrial & Engineering Chemistry Research*, **1990**, 29, 499-502 | 3.9 | 22 |
| 92 | Biodiversity improves the ecological design of sustainable biofuel systems. *GCB Bioenergy*, **2018**, 10, 752-765 | 5.6 | 21 |
| 91 | Catalytic Hydrothermal Liquefaction of a Microalga in a Two-Chamber Reactor. *Industrial & Engineering Chemistry Research*, **2014**, 53, 11939-11944 | 3.9 | 21 |
| 90 | Discrimination between molecular and free-radical models of 1-phenyldodecane pyrolysis. *Industrial & Engineering Chemistry Research*, **1987**, 26, 374-376 | 3.9 | 21 |
| 89 | Aromatics from saturated and unsaturated fatty acids via zeolite catalysis in supercritical water. *Journal of Supercritical Fluids*, **2015**, 102, 73-79 | 4.2 | 20 |
| 88 | Products, Pathways, and Kinetics for the Fast Hydrothermal Liquefaction of Soy Protein Isolate. *ACS Sustainable Chemistry and Engineering*, **2016**, 4, 6931-6939 | 8.3 | 20 |
| 87 | Supercritical water gasification of lipid-extracted hydrochar to recover energy and nutrients. *Journal of Supercritical Fluids*, **2015**, 99, 88-94 | 4.2 | 20 |
| 86 | Supercritical water gasification of phenol over Ni-Ru bimetallic catalysts. *Water Research*, **2019**, 152, 12-20 | 12.5 | 20 |
| 85 | Stability and activity maintenance of Al2O3- and carbon nanotube-supported Ni catalysts during continuous gasification of glycerol in supercritical water. *Journal of Supercritical Fluids*, **2018**, 135, 188-197 | 4.2 | 19 |
| 84 | Phenol Oxidation in Supercritical Water. *ACS Symposium Series*, **1995**, 217-231 | 0.4 | 19 |
| 83 | 110th Anniversary: Influence of Solvents on Biocrude from Hydrothermal Liquefaction of Soybean Oil, Soy Protein, Cellulose, Xylose, and Lignin, and Their Quinary Mixture. *Industrial & Engineering Chemistry Research*, **2019**, 58, 13971-13976 | 3.9 | 18 |
| 82 | Hydration of 1-Phenyl-1-Propyne in High-Temperature Water with Catalysis by Water-Tolerant Lewis Acids. *Industrial & Engineering Chemistry Research*, **2010**, 49, 535-540 | 3.9 | 18 |
| 81 | Kinetics of coupled reactions: Lumping pentadecylbenzene pyrolysis into three parallel chains. *Chemical Engineering Science*, **1989**, 44, 985-991 | 4.4 | 18 |
| 80 | Pyrolysis of a binary mixture of complex hydrocarbons: Reaction modeling. *Chemical Engineering Science*, **1990**, 45, 859-873 | 4.4 | 18 |
| 79 | Fast and Isothermal Hydrothermal Liquefaction of Polysaccharide Feedstocks. *ACS Sustainable Chemistry and Engineering*, **2020**, 8, 3762-3772 | 8.3 | 17 |

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| 78 | Catalyst Oxidation and Dissolution in Supercritical Water. *Chemistry of Materials*, **2018**, 30, 1218-1229 | 9.6 | 17 |
| 77 | Stability and activity of Pt and Ni catalysts for hydrodeoxygenation in supercritical water. *Journal of Molecular Catalysis A*, **2014**, 388-389, 56-65 | | 17 |
| 76 | Mechanistic Modeling of Hydrolysis and Esterification for Biofuel Processes. *Industrial & Engineering Chemistry Research*, **2011**, 50, 12471-12478 | 3.9 | 17 |
| 75 | Ecological Stoichiometry Meets Ecological Engineering: Using Polycultures to Enhance the Multifunctionality of Algal Biocrude Systems. *Environmental Science & Technology*, **2017**, 51, 11450-11458 | 10.3 | 16 |
| 74 | Molecular and Lumped Products from Hydrothermal Liquefaction of Bovine Serum Albumin. *ACS Sustainable Chemistry and Engineering*, **2017**, 5, 10967-10975 | 8.3 | 16 |
| 73 | Terephthalic acid synthesis at higher concentrations in high-temperature liquid water. 1. Effect of oxygen feed method. *AICHE Journal*, **2009**, 55, 710-716 | 3.6 | 16 |
| 72 | Fugacity coefficients for free radicals in dense fluids: HO2 in supercritical water. *AICHE Journal*, **1997**, 43, 1287-1299 | 3.6 | 16 |
| 71 | Thermodynamic Analysis of Catalyst Stability in Hydrothermal Reaction Media. *Industrial & Engineering Chemistry Research*, **2018**, 57, 8655-8663 | 3.9 | 15 |
| 70 | Potential Explanations for the Inhibition and Acceleration of Phenol SCWO by Water. *Industrial & Engineering Chemistry Research*, **2004**, 43, 4841-4847 | 3.9 | 15 |
| 69 | Reactions of polycyclic alkylaromatics: 5. pyrolysis of methylanthracenes. *AICHE Journal*, **1993**, 39, 1355-1362 | 3.6 | 15 |
| 68 | Stability and activity maintenance of sol-gel Ni-MxOy (M=Ti, Zr, Ta) catalysts during continuous gasification of glycerol in supercritical water. *Journal of Supercritical Fluids*, **2019**, 148, 137-147 | 4.2 | 15 |
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