

# Benny Chefetz

## List of Publications by Year in descending order

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118  
papers

7,859  
citations

44042

48  
h-index

53190

85  
g-index

120  
all docs

120  
docs citations

120  
times ranked

6411  
citing authors

#	ARTICLE	IF	CITATIONS
1	Pharmaceutical pollution of the world's rivers. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	3.3	495
2	Irrigation of Root Vegetables with Treated Wastewater: Evaluating Uptake of Pharmaceuticals and the Associated Human Health Risks. Environmental Science & Technology, 2014, 48, 9325-9333.	4.6	352
3	Chemical and Biological Characterization of Organic Matter during Composting of Municipal Solid Waste. Journal of Environmental Quality, 1996, 25, 776-785.	1.0	314
4	Pyrene Sorption by Natural Organic Matter. Environmental Science & Technology, 2000, 34, 2925-2930.	4.6	297
5	Insights into the Uptake Processes of Wastewater-Borne Pharmaceuticals by Vegetables. Environmental Science & Technology, 2014, 48, 5593-5600.	4.6	272
6	Sorption and mobility of pharmaceutical compounds in soil irrigated with reclaimed wastewater. Chemosphere, 2008, 73, 1335-1343.	4.2	269
7	Phenanthrene Sorption by Aliphatic-Rich Natural Organic Matter. Environmental Science & Technology, 2002, 36, 1953-1958.	4.6	262
8	Uptake of carbamazepine by cucumber plants – A case study related to irrigation with reclaimed wastewater. Chemosphere, 2011, 82, 905-910.	4.2	229
9	Purification and Characterization of Laccase from <i>Chaetomium thermophilum</i> and Its Role in Humification. Applied and Environmental Microbiology, 1998, 64, 3175-3179.	1.4	228
10	Sorption of Polar and Nonpolar Aromatic Organic Contaminants by Plant Cuticular Materials: Role of Polarity and Accessibility. Environmental Science & Technology, 2005, 39, 6138-6146.	4.6	222
11	Relative Role of Aliphatic and Aromatic Moieties as Sorption Domains for Organic Compounds: A Review. Environmental Science & Technology, 2009, 43, 1680-1688.	4.6	216
12	Biodegradability of pharmaceutical compounds in agricultural soils irrigated with treated wastewater. Environmental Pollution, 2014, 185, 168-177.	3.7	174
13	Human Exposure to Wastewater-Derived Pharmaceuticals in Fresh Produce: A Randomized Controlled Trial Focusing on Carbamazepine. Environmental Science & Technology, 2016, 50, 4476-4482.	4.6	138
14	Characterization of Dissolved Organic Matter Extracted from Composted Municipal Solid Waste. Soil Science Society of America Journal, 1998, 62, 326-332.	1.2	129
15	Adsorption and Desorption of Phenanthrene on Carbon Nanotubes in Simulated Gastrointestinal Fluids. Environmental Science & Technology, 2011, 45, 6018-6024.	4.6	125
16	Pharmaceutical and Personal Care Products: From Wastewater Treatment into Agro-Food Systems. Environmental Science & Technology, 2019, 53, 14083-14090.	4.6	120
17	Transformation of the Recalcitrant Pharmaceutical Compound Carbamazepine by <i>Pleurotus ostreatus</i> : Role of Cytochrome P450 Monooxygenase and Manganese Peroxidase. Environmental Science & Technology, 2011, 45, 6800-6805.	4.6	112
18	Composted biosolids and treated wastewater as sources of pharmaceuticals and personal care products for plant uptake: A case study with carbamazepine. Environmental Pollution, 2018, 232, 164-172.	3.7	111

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19	Sorption-desorption behavior of triazine and phenylurea herbicides in Kishon river sediments. <i>Water Research</i> , 2004, 38, 4383-4394.	5.3	105
20	Adsorptive fractionation of dissolved organic matter (DOM) by mineral soil: Macroscale approach and molecular insight. <i>Organic Geochemistry</i> , 2017, 103, 113-124.	0.9	102
21	Sorption of the pharmaceuticals carbamazepine and naproxen to dissolved organic matter: Role of structural fractions. <i>Water Research</i> , 2010, 44, 981-989.	5.3	97
22	Characterization of Organic Matter in Soils by Thermochemolysis Using Tetramethylammonium Hydroxide (TMAH). <i>Soil Science Society of America Journal</i> , 2000, 64, 583-589.	1.2	96
23	Fate of carbamazepine, its metabolites, and lamotrigine in soils irrigated with reclaimed wastewater: Sorption, leaching and plant uptake. <i>Chemosphere</i> , 2016, 160, 22-29.	4.2	95
24	Structural Components of Humic Acids as Determined by Chemical Modifications and Carbon-13 NMR, Pyrolysis, and Thermochemolysis-Gas Chromatography/Mass Spectrometry. <i>Soil Science Society of America Journal</i> , 2002, 66, 1159-1171.	1.2	88
25	Adsorption of carbamazepine by carbon nanotubes: Effects of DOM introduction and competition with phenanthrene and bisphenol A. <i>Environmental Pollution</i> , 2013, 182, 169-176.	3.7	87
26	Interactions of Organic Compounds with Wastewater Dissolved Organic Matter: Role of Hydrophobic Fractions. <i>Journal of Environmental Quality</i> , 2005, 34, 552-562.	1.0	86
27	Structural Characterization of Soil Organic Matter and Humic Acids in Particle-Size Fractions of an Agricultural Soil. <i>Soil Science Society of America Journal</i> , 2002, 66, 129-141.	1.2	85
28	Quantifying PPCP interaction with dissolved organic matter in aqueous solution: Combined use of fluorescence quenching and tandem mass spectrometry. <i>Water Research</i> , 2012, 46, 943-954.	5.3	83
29	Insight into the Role of Dissolved Organic Matter in Sorption of Sulfapyridine by Semiarid Soils. <i>Environmental Science &amp; Technology</i> , 2012, 46, 11870-11877.	4.6	80
30	Humic Acid Transformation during Composting of Municipal Solid Waste. <i>Journal of Environmental Quality</i> , 1998, 27, 794-800.	1.0	78
31	Phenanthrene Sorption to Structurally Modified Humic Acids. <i>Journal of Environmental Quality</i> , 2003, 32, 1750-1758.	1.0	78
32	Sorptive and Desorptive Fractionation of Dissolved Organic Matter by Mineral Soil Matrices. <i>Journal of Environmental Quality</i> , 2012, 41, 526-533.	1.0	78
33	Interactions of Carbamazepine in Soil: Effects of Dissolved Organic Matter. <i>Journal of Environmental Quality</i> , 2011, 40, 942-948.	1.0	75
34	DOM-Affected Transformation of Contaminants on Mineral Surfaces: A Review. <i>Critical Reviews in Environmental Science and Technology</i> , 2014, 44, 223-254.	6.6	74
35	Transformation Pathways of the Recalcitrant Pharmaceutical Compound Carbamazepine by the White-Rot Fungus <i>Pleurotus ostreatus</i> : Effects of Growth Conditions. <i>Environmental Science &amp; Technology</i> , 2015, 49, 12351-12362.	4.6	71
36	SORPTION OF PHENANTHRENE AND ATRAZINE BY PLANT CUTICULAR FRACTIONS. <i>Environmental Toxicology and Chemistry</i> , 2003, 22, 2492.	2.2	67

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37	Maize ( <i>Zea mays</i> L.) root exudates modify the surface chemistry of CuO nanoparticles: Altered aggregation, dissolution and toxicity. <i>Science of the Total Environment</i> , 2019, 690, 502-510.	3.9	67
38	Combined effects of biosolids application and irrigation with reclaimed wastewater on transport of pharmaceutical compounds in arable soils. <i>Water Research</i> , 2013, 47, 3431-3443.	5.3	65
39	Structural Characterization of Soil Organic Matter and Humic Acids in Particle-Size Fractions of an Agricultural Soil. <i>Soil Science Society of America Journal</i> , 2002, 66, 129.	1.2	64
40	Binding of Pyrene to Hydrophobic Fractions of Dissolved Organic Matter: Effect of Polyvalent Metal Complexation. <i>Environmental Science &amp; Technology</i> , 2007, 41, 5389-5394.	4.6	61
41	Sorption-Desorption Behavior of Atrazine in Soils Irrigated with Reclaimed Wastewater. <i>Soil Science Society of America Journal</i> , 2005, 69, 1703-1710.	1.2	58
42	Sorption-desorption behavior of polycyclic aromatic hydrocarbons in upstream and downstream river sediments. <i>Chemosphere</i> , 2005, 61, 19-29.	4.2	58
43	Pulmonary Surfactant Suppressed Phenanthrene Adsorption on Carbon Nanotubes through Solubilization and Competition As Examined by Passive Dosing Technique. <i>Environmental Science &amp; Technology</i> , 2012, 46, 5369-5377.	4.6	56
44	Adsorption And Oxidative Transformation Of Phenolic Acids By Fe(III)-Montmorillonite. <i>Environmental Science &amp; Technology</i> , 2010, 44, 4203-4209.	4.6	55
45	Emerging investigator series: towards a framework for establishing the impacts of pharmaceuticals in wastewater irrigation systems on agro-ecosystems and human health. <i>Environmental Sciences: Processes and Impacts</i> , 2019, 21, 605-622.	1.7	55
46	Transformation of oxytetracycline by redox-active Fe(III)- and Mn(IV)-containing minerals: Processes and mechanisms. <i>Water Research</i> , 2018, 145, 136-145.	5.3	54
47	Pharmaceuticals in edible crops irrigated with reclaimed wastewater: Evidence from a large survey in Israel. <i>Journal of Hazardous Materials</i> , 2021, 416, 126184.	6.5	54
48	Interactions of Hydrophobic Fractions of Dissolved Organic Matter with Fe <sup>3+</sup> and Cu <sup>2+</sup> -Montmorillonite. <i>Environmental Science &amp; Technology</i> , 2008, 42, 4797-4803.	4.6	53
49	Adsorption and desorption of dissolved organic matter by carbon nanotubes: Effects of solution chemistry. <i>Environmental Pollution</i> , 2016, 213, 90-98.	3.7	52
50	Adsorption of Soil-Derived Humic Acid by Seven Clay Minerals: A Systematic Study. <i>Clays and Clay Minerals</i> , 2016, 64, 628-638.	0.6	49
51	Removal of triazine-based pollutants from water by carbon nanotubes: Impact of dissolved organic matter (DOM) and solution chemistry. <i>Water Research</i> , 2016, 106, 146-154.	5.3	43
52	Copper sulfide nanoparticles suppress <i>Gibberella fujikuroi</i> infection in rice ( <i>Oryza sativa</i> ) Tj ETQq0 0 0 rgBT /Overlock 10 T <i>Environmental Science: Nano</i> , 2020, 7, 2632-2643.	2.2	43
53	Persistent organic pollutants and sedimentary organic matter properties: A case study in the Kishon River, Israel. <i>Environmental Pollution</i> , 2006, 141, 265-274.	3.7	41
54	Spectroscopic Characterization of Aliphatic Moieties in Four Plant Cuticles. <i>Communications in Soil Science and Plant Analysis</i> , 2007, 38, 2461-2478.	0.6	41

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55	Transformation and Speciation Analysis of Silver Nanoparticles of Dietary Supplement in Simulated Human Gastrointestinal Tract. <i>Environmental Science &amp; Technology</i> , 2018, 52, 8792-8800.	4.6	41
56	Sorption and Mobility of Charged Organic Compounds: How to Confront and Overcome Limitations in Their Assessment. <i>Environmental Science &amp; Technology</i> , 2022, 56, 4702-4710.	4.6	41
57	Formation and properties of humic substance originating from composts. , 1996, , 382-393.		38
58	Solid-State NMR Characterization of Pyreneâ€™Cuticular Matter Interactions. <i>Environmental Science &amp; Technology</i> , 2004, 38, 4369-4376.	4.6	35
59	An LC-MS/MS method for the determination of 28 polar environmental contaminants and metabolites in vegetables irrigated with treated municipal wastewater. <i>Analytical Methods</i> , 2017, 9, 1273-1281.	1.3	35
60	Interactions of sodium azide with triazine herbicides: Effect on sorption to soils. <i>Chemosphere</i> , 2006, 65, 352-357.	4.2	34
61	Dual functionality of an Ag-Fe <sub>3</sub> O <sub>4</sub> -carbon nanotube composite material: Catalytic reduction and antibacterial activity. <i>Journal of Environmental Chemical Engineering</i> , 2018, 6, 4103-4113.	3.3	34
62	A Novel Method For Determining Phytotoxicity In Composts. <i>Compost Science and Utilization</i> , 1998, 6, 6-13.	1.2	33
63	Pharmacokinetics in Plants: Carbamazepine and Its Interactions with Lamotrigine. <i>Environmental Science &amp; Technology</i> , 2018, 52, 6957-6964.	4.6	33
64	The pH and concentration dependent interfacial interaction and heteroaggregation between nanoparticulate zero-valent iron and clay mineral particles. <i>Environmental Science: Nano</i> , 2019, 6, 2129-2140.	2.2	33
65	Characterization of organic matter in pristine and contaminated coastal marine sediments using solid-state <sup>13</sup> C NMR, pyrolytic and thermochemolytic methods: a case study in the San Diego harbor area. <i>Chemosphere</i> , 2001, 45, 1007-1022.	4.2	32
66	Solution-state NMR investigation of the sorptive fractionation of dissolved organic matter by alkaline mineral soils. <i>Environmental Chemistry</i> , 2013, 10, 333.	0.7	32
67	Electrochemistry Combined with LCâ€™HRMS: Elucidating Transformation Products of the Recalcitrant Pharmaceutical Compound Carbamazepine Generated by the White-Rot Fungus <i>Pleurotus ostreatus</i> . <i>Environmental Science &amp; Technology</i> , 2015, 49, 12342-12350.	4.6	32
68	Competitive Sorptionâ€™Desorption Behavior of Triazine Herbicides with Plant Cuticular Fractions. <i>Journal of Agricultural and Food Chemistry</i> , 2006, 54, 7761-7768.	2.4	30
69	Complexation of trace organic contaminants with fractionated dissolved organic matter: Implications for mass spectrometric quantification. <i>Chemosphere</i> , 2013, 91, 344-350.	4.2	30
70	Ecological Risk Dynamics of Pharmaceuticals in Micro-Estuary Environments. <i>Environmental Science &amp; Technology</i> , 2020, 54, 11182-11190.	4.6	30
71	Comparison of polycyclic aromatic hydrocarbon distributions and sedimentary organic matter characteristics in contaminated, coastal sediments from Pensacola Bay, Florida. <i>Marine Environmental Research</i> , 2005, 59, 139-163.	1.1	28
72	Adsorptive fractionation of dissolved organic matter (DOM) by carbon nanotubes. <i>Environmental Pollution</i> , 2015, 197, 287-294.	3.7	28

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73	Modeling nitrate from land surface to wells' perforations under agricultural land: success, failure, and future scenarios in a Mediterranean case study. <i>Hydrology and Earth System Sciences</i> , 2017, 21, 3811-3825.	1.9	28
74	Involuntary human exposure to carbamazepine: A cross-sectional study of correlates across the lifespan and dietary spectrum. <i>Environment International</i> , 2020, 143, 105951.	4.8	28
75	Fate of contaminants of emerging concern in the reclaimed wastewater-soil-plant continuum. <i>Science of the Total Environment</i> , 2022, 822, 153574.	3.9	27
76	Isolation and partial characterization of laccase from a thermophilic composted municipal solid waste. <i>Soil Biology and Biochemistry</i> , 1998, 30, 1091-1098.	4.2	26
77	Insights into the Sorption Properties of Cutin and Cutan Biopolymers. <i>Environmental Science &amp; Technology</i> , 2008, 42, 1165-1171.	4.6	26
78	Sorption-desorption behavior of polybrominated diphenyl ethers in soils. <i>Environmental Pollution</i> , 2011, 159, 2375-2379.	3.7	26
79	Dispersant selection for nanomaterials: Insight into dispersing functionalized carbon nanotubes by small polar aromatic organic molecules. <i>Carbon</i> , 2015, 91, 494-505.	5.4	26
80	Transformation of Plant Cuticles in Soil. <i>Soil Science Society of America Journal</i> , 2006, 70, 1101-1109.	1.2	25
81	Pesticide load dynamics during stormwater flow events in Mediterranean coastal streams: Alexander stream case study. <i>Science of the Total Environment</i> , 2018, 625, 168-177.	3.9	25
82	Composition-Dependent Sorptive Fractionation of Anthropogenic Dissolved Organic Matter by Fe(III)-Montmorillonite. <i>Soil Systems</i> , 2018, 2, 14.	1.0	25
83	Successive sorption-desorption cycles of dissolved organic matter in mineral soil matrices. <i>Geoderma</i> , 2012, 189-190, 108-115.	2.3	24
84	Organic Matter Transformations During the Weathering Process of Spent Mushroom Substrate. <i>Journal of Environmental Quality</i> , 2000, 29, 592-602.	1.0	22
85	The Role of Lipids on Sorption Characteristics of Freshwater- and Wastewater-Irrigated Soils. <i>Journal of Environmental Quality</i> , 2006, 35, 2154-2161.	1.0	22
86	Interactions of aromatic acids with montmorillonite: Ca <sup>2+</sup> - and Fe <sup>3+</sup> -saturated clays versus Fe <sup>3+</sup> -Ca <sup>2+</sup> -clay system. <i>Geoderma</i> , 2011, 160, 608-613.	2.3	22
87	Bacterial inactivation by a carbon nanotube-iron oxide nanocomposite: a mechanistic study using E. colimutants. <i>Environmental Science: Nano</i> , 2018, 5, 372-380.	2.2	22
88	Enhancement effect of water associated with natural organic matter (NOM) on organic compound-NOM interactions: A case study with carbamazepine. <i>Chemosphere</i> , 2011, 82, 1454-1460.	4.2	21
89	A proof of concept study demonstrating that environmental levels of carbamazepine impair early stages of chick embryonic development. <i>Environment International</i> , 2019, 129, 583-594.	4.8	20
90	Direct photodegradation of lamotrigine (an antiepileptic) in simulated sunlight - pH influenced rates and products. <i>Environmental Sciences: Processes and Impacts</i> , 2014, 16, 848-857.	1.7	19

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91	Comments on "Human health risk assessment of pharmaceuticals and personal care products in plant tissue due to biosolids and manure amendments, and wastewater irrigation" Environment International, 2015, 82, 110-112.	4.8	19
92	Transformation of lamotrigine by white-rot fungus <i>Pleurotus ostreatus</i> . Environmental Pollution, 2019, 250, 546-553.	3.7	18
93	Environmental risk dynamics of pesticides toxicity in a Mediterranean micro-estuary. Environmental Pollution, 2020, 265, 114941.	3.7	18
94	Pharmaceuticals in treated wastewater induce a stress response in tomato plants. Scientific Reports, 2020, 10, 1856.	1.6	17
95	Sorption of organic compounds to humin from soils irrigated with reclaimed wastewater. Geoderma, 2008, 145, 98-106.	2.3	15
96	Transformation of Ag ions into Ag nanoparticle-loaded AgCl microcubes in the plant root zone. Environmental Science: Nano, 2019, 6, 1099-1110.	2.2	15
97	Decomposition and sorption characterization of plant cuticles in soil. Plant and Soil, 2007, 298, 21-30.	1.8	13
98	The importance of aromaticity to describe the interactions of organic matter with carbonaceous materials depends on molecular weight and sorbent geometry. Environmental Sciences: Processes and Impacts, 2020, 22, 1888-1897.	1.7	13
99	Removal of Silver and Lead Ions from Water Wastes Using <i>Azolla filiculoides</i> , an Aquatic Plant, Which Adsorbs and Reduces the Ions into the Corresponding Metallic Nanoparticles Under Microwave Radiation in 5 min. Water, Air, and Soil Pollution, 2011, 218, 365-370.	1.1	12
100	Reconstitution of cutin monomers on smectite surfaces: adsorption and esterification. Geoderma, 2014, 232-234, 406-413.	2.3	12
101	Cutin and Cutan Biopolymers: Their Role as Natural Sorbents. Soil Science Society of America Journal, 2010, 74, 1139-1146.	1.2	11
102	Environmental exposure to pharmaceuticals: A new technique for trace analysis of carbamazepine and its metabolites in human urine. Environmental Pollution, 2016, 213, 308-313.	3.7	11
103	The missing link between carbon nanotubes, dissolved organic matter and organic pollutants. Advances in Colloid and Interface Science, 2019, 271, 101993.	7.0	11
104	Plant pharmacology: Insights into <i>in-planta</i> kinetic and dynamic processes of xenobiotics. Critical Reviews in Environmental Science and Technology, 2022, 52, 3525-3546.	6.6	11
105	Interactions of organic dye with Ag- and Ce-nano-assemblies: Influence of dissolved organic matter. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2019, 577, 683-694.	2.3	9
106	CHARACTERIZATION AND PROPERTIES OF HUMIC SUBSTANCES ORIGINATING FROM AN ACTIVATED SLUDGE WASTEWATER TREATMENT PLANT. , 1998, , 69-78.		8
107	Sorption of polyaromatic compounds by organic matter-coated Ca <sup>2+</sup> and Fe <sup>3+</sup> -montmorillonite. Geoderma, 2009, 154, 36-41.	2.3	7
108	Determination of hydroxylated fatty acids from the biopolymer of tomato cutin and their fate during incubation in soil. Phytochemical Analysis, 2010, 21, 582-589.	1.2	7

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109	Composting and recycling of organic wastes. , 1997, , 341-362.		7
110	Physicochemical Behavior of Tetracycline and 17 $\beta$ -Ethinylestradiol with Wastewater Sludge-Derived Humic Substances. <i>Water, Air, and Soil Pollution</i> , 2014, 225, 1.	1.1	6
111	Comparison of adsorption behaviors of selected endocrine-disrupting compounds in soil. <i>Journal of Environmental Quality</i> , 2021, 50, 756-767.	1.0	6
112	Abiotic Transformation of Lamotrigine by Redox-Active Mineral and Phenolic Compounds. <i>Environmental Science &amp; Technology</i> , 2021, 55, 1535-1544.	4.6	5
113	Differential Adsorption of Silver Nanoparticles to the Inner and Outer Surfaces of the Agave americana Cuticle. <i>Journal of Physical Chemistry C</i> , 2008, 112, 18082-18086.	1.5	4
114	Interplay of stress responses to carbamazepine treatment, whitefly infestation and virus infection in tomato plants. <i>Plant Stress</i> , 2021, 1, 100009.	2.7	3
115	ECORISK2050: An Innovative Training Network for predicting the effects of global change on the emission, fate, effects, and risks of chemicals in aquatic ecosystems. <i>Open Research Europe</i> , 0, 1, 154.	2.0	3
116	Modeling Concentration-Dependent Sorption-Desorption Hysteresis of Atrazine in a Sandy Loam Soil. <i>Journal of Environmental Quality</i> , 2011, 40, 538-547.	1.0	2
117	Degradation of Plant Cuticles in Soils: Impact on Formation and Sorptive Ability of Humin-Mineral Matrices. <i>Journal of Environmental Quality</i> , 2015, 44, 849-858.	1.0	1
118	ECORISK2050: An Innovative Training Network for predicting the effects of global change on the emission, fate, effects, and risks of chemicals in aquatic ecosystems. <i>Open Research Europe</i> , 0, 1, 154.	2.0	0