

# Charles T Garten

## List of Publications by Year in descending order

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109  
papers

7,129  
citations

101543

36  
h-index

58581

82  
g-index

110  
all docs

110  
docs citations

110  
times ranked

7587  
citing authors

#	ARTICLE	IF	CITATIONS
1	Stable nitrogen isotope ratios in wet and dry nitrate deposition collected with an artificial tree. <i>Tellus, Series B: Chemical and Physical Meteorology</i> , 2022, 48, 60.	1.6	10
2	Timing and magnitude of C partitioning through a young loblolly pine ( <i>Pinus taeda</i> L.) stand using <sup>13</sup> C labeling and shade treatments. <i>Tree Physiology</i> , 2012, 32, 799-813.	3.1	38
3	Soil carbon and nitrogen cycling and storage throughout the soil profile in a sweetgum plantation after 11 years of CO <sub>2</sub> enrichment. <i>Global Change Biology</i> , 2012, 18, 1684-1697.	9.5	74
4	Review and Model-Based Analysis of Factors Influencing Soil Carbon Sequestration Beneath Switchgrass ( <i>Panicum virgatum</i> ). <i>Bioenergy Research</i> , 2012, 5, 124-138.	3.9	13
5	Comparison of forest soil carbon dynamics at five sites along a latitudinal gradient. <i>Geoderma</i> , 2011, 167-168, 30-40.	5.1	34
6	Indicators to support environmental sustainability of bioenergy systems. <i>Ecological Indicators</i> , 2011, 11, 1277-1289.	6.3	186
7	Response of Alamo switchgrass tissue chemistry and biomass to nitrogen fertilization in West Tennessee, USA. <i>Agriculture, Ecosystems and Environment</i> , 2011, 140, 289-297.	5.3	42
8	Review and model-based analysis of factors influencing soil carbon sequestration under hybrid poplar. <i>Biomass and Bioenergy</i> , 2011, 35, 214-226.	5.7	48
9	Litterfall <sup>15</sup> N abundance indicates declining soil nitrogen availability in a free-air CO <sub>2</sub> enrichment experiment. <i>Ecology</i> , 2011, 92, 133-139.	3.2	55
10	Intra-annual changes in biomass, carbon, and nitrogen dynamics at 4-year old switchgrass field trials in west Tennessee, USA†. <i>Agriculture, Ecosystems and Environment</i> , 2010, 136, 177-184.	5.3	72
11	Characterization of Biochars Produced from Cornstovers for Soil Amendment. <i>Environmental Science &amp; Technology</i> , 2010, 44, 7970-7974.	10.0	380
12	Soil moisture surpasses elevated CO <sub>2</sub> and temperature as a control on soil carbon dynamics in a multi-factor climate change experiment. <i>Plant and Soil</i> , 2009, 319, 85-94.	3.7	86
13	Belowground fate of <sup>15</sup> N injected into sweetgum trees ( <i>Liquidambar styraciflua</i> ) at the ORNL FACE Experiment. <i>Rapid Communications in Mass Spectrometry</i> , 2009, 23, 3094-3100.	1.5	9
14	A disconnect between O horizon and mineral soil carbon – Implications for soil C sequestration. <i>Acta Oecologica</i> , 2009, 35, 218-226.	1.1	20
15	Terrestrial biological carbon sequestration: Science for enhancement and implementation. <i>Geophysical Monograph Series</i> , 2009, , 73-88.	0.1	15
16	Role of N <sub>2</sub> -fixation in Constructed Old-field Communities Under Different Regimes of [CO <sub>2</sub> ], Temperature, and Water Availability. <i>Ecosystems</i> , 2008, 11, 125-137.	3.4	37
17	Changes in Soil Properties Following 55 Years of Secondary Forest Succession at Fort Benning, Georgia, U.S.A.. <i>Restoration Ecology</i> , 2008, 16, 503-510.	2.9	24
18	Selecting indicators of soil, microbial, and plant conditions to understand ecological changes in Georgia pine forests. <i>Ecological Indicators</i> , 2008, 8, 818-827.	6.3	25

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19	Changes in Carbon following Forest Soil Transplants along an Altitudinal Gradient. <i>Communications in Soil Science and Plant Analysis</i> , 2008, 39, 2883-2893.	1.4	3
20	Spatial scaling of functional gene diversity across various microbial taxa. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008, 105, 7768-7773.	7.1	285
21	TEMPORAL CHANGES IN C AND N STOCKS OF RESTORED PRAIRIE: IMPLICATIONS FOR C SEQUESTRATION STRATEGIES. <i>Ecological Applications</i> , 2008, 18, 1470-1488.	3.8	136
22	Modeling the Effects of Land Use on the Quality of Water, Air, Noise, and Habitat for a Five-County Region in Georgia. <i>Ecology and Society</i> , 2008, 13, .	2.3	3
23	Short-term Recovery of Ammonium-Nitrogen Applied to a Temperate Forest Inceptisol and Ultisol in East Tennessee, USA. <i>Communications in Soil Science and Plant Analysis</i> , 2007, 38, 2693-2704.	1.4	1
24	Low Dissolved Organic Carbon Input from Fresh Litter to Deep Mineral Soils. <i>Soil Science Society of America Journal</i> , 2007, 71, 347-354.	2.2	74
25	Measurement of Carbon for Carbon Sequestration and Site Monitoring. , 2007, , 341-351.		1
26	Soil carbon, after 3 years, under short-rotation woody crops grown under varying nutrient and water availability. <i>Biomass and Bioenergy</i> , 2007, 31, 793-801.	5.7	21
27	Variability in soil properties at different spatial scales (1m <sup>2</sup> -1km) in a deciduous forest ecosystem. <i>Soil Biology and Biochemistry</i> , 2007, 39, 2621-2627.	8.8	78
28	Relationships among forest soil C isotopic composition, partitioning, and turnover times. <i>Canadian Journal of Forest Research</i> , 2006, 36, 2157-2167.	1.7	45
29	Bioregional planning in central Georgia, USA. <i>Futures</i> , 2006, 38, 471-489.	2.5	8
30	Measured forest soil C stocks and estimated turnover times along an elevation gradient. <i>Geoderma</i> , 2006, 136, 342-352.	5.1	134
31	Predicted effects of prescribed burning and harvesting on forest recovery and sustainability in southwest Georgia, USA. <i>Journal of Environmental Management</i> , 2006, 81, 323-332.	7.8	9
32	Reconciling Change in O <sub>2</sub> -Horizon Carbon <sub>2</sub> with Mass Loss for an Oak Forest. <i>Soil Science Society of America Journal</i> , 2005, 69, 1492-1502.	2.2	25
33	Vehicle impacts on the environment at different spatial scales: observations in west central Georgia, USA. <i>Journal of Terramechanics</i> , 2005, 42, 383-402.	3.1	17
34	Initial characterization of processes of soil carbon stabilization using forest stand-level radiocarbon enrichment. <i>Geoderma</i> , 2005, 128, 52-62.	5.1	167
35	Elemental Analysis of Environmental and Biological Samples Using Laser-Induced Breakdown Spectroscopy and Pulsed Raman Spectroscopy. <i>Journal of Dispersion Science and Technology</i> , 2005, 25, 687-694.	2.4	23
36	Potential net soil N mineralization and decomposition of glycine- <sup>13</sup> C in forest soils along an elevation gradient. <i>Soil Biology and Biochemistry</i> , 2004, 36, 1491-1496.	8.8	24

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37	Studies on enhancing carbon sequestration in soils. <i>Energy</i> , 2004, 29, 1643-1650.	8.8	34
38	Modeling soil quality thresholds to ecosystem recovery at Fort Benning, GA, USA. <i>Ecological Engineering</i> , 2004, 23, 351-369.	3.6	20
39	A Landscape Level Analysis of Potential Excess Nitrogen in East-Central North Carolina, USA. <i>Water, Air, and Soil Pollution</i> , 2003, 146, 3-21.	2.4	13
40	Laser-induced breakdown spectroscopy for the environmental determination of total carbon and nitrogen in soils. <i>Applied Optics</i> , 2003, 42, 2072.	2.1	91
41	Effect of military training on indicators of soil quality at Fort Benning, Georgia. <i>Ecological Indicators</i> , 2003, 3, 171-179.	6.3	42
42	CSiTE Studies on Carbon Sequestration in Soils. , 2003, , 1465-1470.		0
43	<title>Laser-induced breakdown spectroscopy for environmental monitoring of soil carbon and nitrogen</title>. , 2002, 4576, 188.		9
44	Landscape level differences in soil carbon and nitrogen: Implications for soil carbon sequestration. <i>Global Biogeochemical Cycles</i> , 2002, 16, 61-1-61-14.	4.9	57
45	High-Value Renewable Energy from Prairie Grasses. <i>Environmental Science &amp; Technology</i> , 2002, 36, 2122-2129.	10.0	261
46	Soil carbon storage beneath recently established tree plantations in Tennessee and South Carolina, USA. <i>Biomass and Bioenergy</i> , 2002, 23, 93-102.	5.7	83
47	Nitrogen Saturation and Soil N Availability in a High-Elevation Spruce and Fir Forest. <i>Water, Air, and Soil Pollution</i> , 2000, 120, 295-313.	2.4	12
48	Title is missing!. <i>Biogeochemistry</i> , 2000, 48, 115-146.	3.5	1,684
49	Soil Carbon Dynamics beneath Switchgrass as Indicated by Stable Isotope Analysis. <i>Journal of Environmental Quality</i> , 2000, 29, 645-653.	2.0	126
50	CLIMATE CONTROLS ON FOREST SOIL C ISOTOPE RATIOS IN THE SOUTHERN APPALACHIAN MOUNTAINS. <i>Ecology</i> , 2000, 81, 1108-1119.	3.2	150
51	Radiocesium discharges and subsequent environmental transport at the major US weapons production facilities. <i>Science of the Total Environment</i> , 2000, 255, 55-73.	8.0	21
52	Ecological half-life of <sup>137</sup> Cs in fish from a stream contaminated by nuclear reactor effluents. <i>Science of the Total Environment</i> , 2000, 263, 255-262.	8.0	10
53	Soil Carbon Inventories under a Bioenergy Crop (Switchgrass): Measurement Limitations. <i>Journal of Environmental Quality</i> , 1999, 28, 1359-1365.	2.0	159
54	Modeling the potential role of a forest ecosystem in phytostabilization and phytoextraction of <sup>90</sup> Sr at a contaminated watershed. <i>Journal of Environmental Radioactivity</i> , 1999, 43, 305-323.	1.7	18

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55	Forest soil carbon inventories and dynamics along an elevation gradient in the southern Appalachian Mountains. <i>Biogeochemistry</i> , 1999, 45, 115-145.	3.5	135
56	Foliar retention of <sup>15</sup> N tracers: implications for net canopy exchange in low- and high-elevation forest ecosystems. <i>Forest Ecology and Management</i> , 1998, 103, 211-216.	3.2	35
57	Effects of Soil Warming on Organic Matter Decomposition and Soil-Nitrogen Cycling in a High Elevation Red Spruce Stand. <i>Ecological Studies</i> , 1998, , 557-569.	1.2	0
58	Stable nitrogen isotope ratios in wet and dry nitrate deposition collected with an artificial tree. <i>Tellus, Series B: Chemical and Physical Meteorology</i> , 1996, 48, 60-64.	1.6	10
59	Integrated Ground-Based and Remotely Sensed Data to Support Global Studies of Environmental Change. <i>Data and Knowledge in A Changing World</i> , 1996, , 107-112.	0.1	0
60	Elevational trends in the fluxes of sulphur and nitrogen in throughfall in the Southern Appalachian Mountains: Some surprising results. <i>Water, Air, and Soil Pollution</i> , 1995, 85, 2265-2270.	2.4	34
61	Dispersal of radioactivity by wildlife from contaminated sites in a forested landscape. <i>Journal of Environmental Radioactivity</i> , 1995, 29, 137-156.	1.7	5
62	Relationships between soil nitrogen dynamics and natural <sup>15</sup> N abundance in plant foliage from Great Smoky Mountains National Park. <i>Canadian Journal of Forest Research</i> , 1994, 24, 1636-1645.	1.7	175
63	Variation in Foliar <sup>15</sup> N Abundance and the Availability of Soil Nitrogen on Walker Branch Watershed. <i>Ecology</i> , 1993, 74, 2098-2113.	3.2	251
64	Nitrogen Isotope Composition of Ammonium and Nitrate in Bulk Precipitation and Forest Throughfall. <i>International Journal of Environmental Analytical Chemistry</i> , 1992, 47, 33-45.	3.3	99
65	Seasonal Trends in Environmental Tritium Concentrations in a Small Forest Adjacent to a Radioactive Waste Storage Area. <i>Fusion Science and Technology</i> , 1992, 21, 700-705.	0.6	4
66	Foliar <sup>13</sup> C within a temperate deciduous forest: spatial, temporal, and species sources of variation. <i>Oecologia</i> , 1992, 90, 1-7.	2.0	204
67	Deposition of H <sup>15</sup> NO <sub>3</sub> vapour to white oak, red maple and loblolly pine foliage: experimental observations and a generalized model. <i>New Phytologist</i> , 1992, 122, 329-337.	7.3	39
68	Uptake of tritium by plants from atmosphere and soil. <i>Environment International</i> , 1991, 17, 23-29.	10.0	18
69	Foliar Leaching, Translocation, and Biogenic Emission of <sup>35</sup> S in Radio-Labeled Loblolly Pines. <i>Ecology</i> , 1991, 72, 1419-1419.	3.2	0
70	Foliar Leaching, Translocation, and Biogenic Emission of <sup>35</sup> S in Radiolabelled Loblolly Pines. <i>Ecology</i> , 1990, 71, 239-251.	3.2	25
71	Foliar retention of <sup>15</sup> N-nitrate and <sup>15</sup> N-ammonium by red maple ( <i>Acer rubrum</i> ) and white oak ( <i>Quercus</i> )	4.2	75
72	Multispecies Methods of Testing for Toxicity: Use of the <i>Rhizobium</i> -Legume Symbiosis in Nitrogen Fixation and Correlations Between Responses by Algae and Terrestrial Plants. , 1990, , 69-84.		2

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73	Technetium-99 Cycling in Maple Trees. Health Physics, 1989, 57, 299-307.	0.5	16
74	Technetium Absorption and Turnover in Monogastric and Polygastric Animals. Health Physics, 1989, 57, 315-319.	0.5	14
75	Fate and distribution of sulfur-35 in yellow poplar and red maple trees. Oecologia, 1988, 76, 43-50.	2.0	23
76	Sources of sulphur in forest canopy throughfall. Nature, 1988, 336, 148-151.	27.8	149
77	Contribution of foliar leaching and dry deposition to sulfate in net throughfall below deciduous trees. Atmospheric Environment, 1988, 22, 1425-1432.	1.0	73
78	Technetium-99 cycling in deciduous forests: Review and ecosystem model development. Environment International, 1987, 13, 311-321.	10.0	15
79	Long-term environmental problems of radioactively contaminated land. Environment International, 1986, 12, 545-553.	10.0	6
80	Environmental fate and distribution of technetium-99 in a deciduous forest ecosystem. Journal of Environmental Radioactivity, 1986, 3, 163-188.	1.7	16
81	Plant uptake of neptunium-237 and technetium-99 under field conditions. Journal of Environmental Radioactivity, 1986, 4, 91-99.	1.7	7
82	Chemical Form of Technetium in Corn (Zea mays) and the Gastrointestinal Absorption of Plant-incorporated Tc by Laboratory Rats. , 1986, , 319-332.		4
83	Absorption and Retention in Sheep of Technetium Administered into the Rumen as Per technetate or Bound to Food. , 1986, , 333-338.		4
84	Transfer of <sup>131</sup> I and <sup>95m</sup> Tc from Pasture to Goat Milk. , 1986, , 339-347.		2
85	Field and Greenhouse Experiments on the Fate of Technetium in Plants and Soil. Health Physics, 1984, 46, 647-656.	0.5	12
86	Evaluation of models for predicting terrestrial food chain behavior of xenobiotics. Environmental Science & Technology, 1983, 17, 590-595.	10.0	63
87	Behavior of the Long-Lived Synthetic Elements and Their Natural Analogs in Food Chains. Advances in Radiation Biology, 1983, 10, 39-104.	0.4	18
88	Environmental behavior of technetium in soil and vegetation. Implications for radiological assessments. Environmental Science & Technology, 1982, 16, 214-217.	10.0	25
89	Interception and Retention of Technetium by Vegetation and Soil. Journal of Environmental Quality, 1982, 11, 134-141.	2.0	24
90	Comparative Uptake of Actinides by Plants and Rats from the Shoreline of a Radioactive Pond. Journal of Environmental Quality, 1981, 10, 487-491.	2.0	9

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91	Comparative Uptake of Uranium, Thorium, and Plutonium by Biota Inhabiting a Contaminated Tennessee Floodplain. <i>Journal of Environmental Quality</i> , 1981, 10, 207-210.	2.0	17
92	FIELD EXPERIMENTS ON THE BEHAVIOR OF TECHNETIUM IN SOILS AND VEGETATION.. <i>Health Physics</i> , 1980, 39, 1041-1042.	0.5	0
93	Ingestion of Soil by Hispid Cotton Rats, White-Footed Mice, and Eastern Chipmunks. <i>Journal of Mammalogy</i> , 1980, 61, 136-137.	1.3	20
94	Radiocesium Uptake by a Population of Cotton Rats ( <i>Sigmodon Hispidus</i> ) Inhabiting The Banks of a Radioactive Liquid Waste Pond. <i>Health Physics</i> , 1979, 36, 39-45.	0.5	6
95	A review of parameter values used to assess the transport of plutonium, uranium, and thorium in terrestrial food chains. <i>Environmental Research</i> , 1978, 17, 437-452.	7.5	20
96	Multivariate Perspectives on the Ecology of Plant Mineral Element Composition. <i>American Naturalist</i> , 1978, 112, 533-544.	2.1	103
97	A Compartment Model of Plutonium Dynamics in a Deciduous Forest Ecosystem. <i>Health Physics</i> , 1978, 34, 611-619.	0.5	16
98	Plutonium in Biota from an East Tennessee Floodplain Forest. <i>Health Physics</i> , 1978, 34, 705-712.	0.5	6
99	An Analysis of Elemental Concentrations in Vegetation Bordering a Southeastern United States Coastal Plain Stream. <i>Ecology</i> , 1977, 58, 979-992.	3.2	25
100	Relationships between exploratory behaviour and genic heterozygosity in the oldfield mouse. <i>Animal Behaviour</i> , 1977, 25, 328-332.	1.9	19
101	A Multivariate Analysis of Factors Affecting Radiocesium Uptake by <i>Sagittaria latifolia</i> in Coastal Plain Environments. <i>Journal of Environmental Quality</i> , 1977, 6, 78-82.	2.0	14
102	Species, part and seasonal differences in sulfur concentrations in woody plants. <i>Bulletin of Environmental Contamination and Toxicology</i> , 1977, 17, 127-131.	2.7	1
103	Relationships Between Aggressive Behavior and Genic Heterozygosity in the Oldfield Mouse, <i>Peromyscus polionotus</i> . <i>Evolution; International Journal of Organic Evolution</i> , 1976, 30, 59.	2.3	27
104	Thermal Tolerance of Dragonfly Nymphs. II. Comparison of Nymphs from Control and Thermally Altered Environments. <i>Physiological Zoology</i> , 1976, 49, 206-213.	1.5	20
105	Temperature Tolerance and Preference of Immature Channel Catfish ( <i>Ictalurus punctatus</i> ). <i>Copeia</i> , 1976, 1976, 609.	1.3	26
106	Thermal Tolerances of Dragonfly Nymphs. I. Sources of Variation in Estimating Critical Thermal Maximum. <i>Physiological Zoology</i> , 1976, 49, 200-205.	1.5	12
107	Correlations between concentrations of elements in plants. <i>Nature</i> , 1976, 261, 686-688.	27.8	145
108	Relationships between Nest Building and General Activity in the Oldfield Mouse, <i>Peromyscus polionotus</i> . <i>Journal of Mammalogy</i> , 1976, 57, 412-415.	1.3	1

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109	GENIC HETEROZYGOSITY AND POPULATION DYNAMICS IN SMALL MAMMALS. , 1975, , 85-102.		23