John A Gamon

List of Publications by Year
in descending order

117 papers	19,748 citations	19608 61 h-index	26548 107 g-index
124 all docs	124 docs citations	124 times ranked	13137 citing authors

#	Article	IF	Citations
1	Relationships between leaf pigment content and spectral reflectance across a wide range of species, leaf structures and developmental stages. Remote Sensing of Environment, 2002, 81, 337-354.	4.6	2,462
2	A narrow-waveband spectral index that tracks diurnal changes in photosynthetic efficiency. Remote Sensing of Environment, 1992, 41, 35-44.	4.6	1,700
3	The photochemical reflectance index: an optical indicator of photosynthetic radiation use efficiency across species, functional types, and nutrient levels. Oecologia, 1997, 112, 492-501.	0.9	1,008
4	Relationships Between NDVI, Canopy Structure, and Photosynthesis in Three Californian Vegetation Types. , 1995, 5, 28-41.		816
5	Reflectance indices associated with physiological changes in nitrogen- and water-limited sunflower leaves. Remote Sensing of Environment, 1994, 48, 135-146.	4.6	812
6	Assessing leaf pigment content and activity with a reflectometer. New Phytologist, 1999, 143, 105-117.	3.5	773
7	Retrieval of foliar information about plant pigment systems from high resolution spectroscopy. Remote Sensing of Environment, 2009, 113, S67-S77.	4.6	576
8	Assessment of photosynthetic radiation-use efficiency with spectral reflectance. New Phytologist, 1995, 131, 291-296.	3.5	568
9	Remote sensing of vegetation and land-cover change in Arctic Tundra Ecosystems. Remote Sensing of Environment, 2004, 89, 281-308.	4.6	522
10	Remote sensing of plant functional types. New Phytologist, 2010, 186, 795-816.	3.5	513
11	The photochemical reflectance index (PRI) and the remote sensing of leaf, canopy and ecosystem radiation use efficienciesA review and meta-analysis. Remote Sensing of Environment, 2011, 115, 281-297.	4.6	509
12	Estimation of vegetation water content and photosynthetic tissue area from spectral reflectance: a comparison of indices based on liquid water and chlorophyll absorption features. Remote Sensing of Environment, 2003, 84, 526-537.	4.6	449
13	Using Imaging Spectroscopy to Study Ecosystem Processes and Properties. BioScience, 2004, 54, 523.	2.2	441
14	Remote sensing of the xanthophyll cycle and chlorophyll fluorescence in sunflower leaves and canopies. Oecologia, 1990, 85, 1-7.	0.9	332
15	Site-level evaluation of satellite-based global terrestrial gross primary production and net primary production monitoring. Global Change Biology, 2005, 11, 666-684.	4.2	286
16	Seasonal patterns of reflectance indices, carotenoid pigments and photosynthesis of evergreen chaparral species. Oecologia, 2002, 131, 366-374.	0.9	261
17	Succession and management of tropical dry forests in the Americas: Review and new perspectives. Forest Ecology and Management, 2009, 258, 1014-1024.	1.4	260
18	Research Priorities for Neotropical Dry Forests¹. Biotropica, 2005, 37, 477-485.	0.8	248

#	Article	IF	Citations
19	Deriving Water Content of Chaparral Vegetation from AVIRIS Data. Remote Sensing of Environment, 2000, 74, 570-581.	4.6	244
20	A remotely sensed pigment index reveals photosynthetic phenology in evergreen conifers. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 13087-13092.	3.3	242
21	Assessing community type, plant biomass, pigment composition, and photosynthetic efficiency of aquatic vegetation from spectral reflectance. Remote Sensing of Environment, 1993, 46, 110-118.	4.6	228
22	Remote sensing of terrestrial plant biodiversity. Remote Sensing of Environment, 2019, 231, 111218.	4.6	209
23	Parallel adjustments in vegetation greenness and ecosystem CO2 exchange in response to drought in a Southern California chaparral ecosystem. Remote Sensing of Environment, 2006, 103, 289-303.	4.6	202
24	Response of NDVI, biomass, and ecosystem gas exchange to long-term warming and fertilization in wet sedge tundra. Oecologia, 2003, 135, 414-421.	0.9	190
25	Research Priorities for Neotropical Dry Forests1. Biotropica, 2005, 37, 477-485.	0.8	188
26	Plant spectral diversity integrates functional and phylogenetic components of biodiversity and predicts ecosystem function. Nature Ecology and Evolution, 2018, 2, 976-982.	3.4	185
27	Three causes of variation in the photochemical reflectance index (<scp>PRI</scp>) in evergreen conifers. New Phytologist, 2015, 206, 187-195.	3.5	169
28	A unified vegetation index for quantifying the terrestrial biosphere. Science Advances, 2021, 7, .	4.7	160
29	Leaf movement, stress avoidance and photosynthesis in Vitis californica. Oecologia, 1989, 79, 475-481.	0.9	140
30	Modeling spatially distributed ecosystem flux of boreal forest using hyperspectral indices from AVIRIS imagery. Journal of Geophysical Research, 2001, 106, 33579-33591.	3.3	134
31	Facultative and constitutive pigment effects on the Photochemical Reflectance Index (PRI) in sun and shade conifer needles. Israel Journal of Plant Sciences, 2012, 60, 85-95.	0.3	134
32	Spatial and temporal variation in primary productivity (NDVI) of coastal Alaskan tundra: Decreased vegetation growth following earlier snowmelt. Remote Sensing of Environment, 2013, 129, 144-153.	4.6	134
33	Spectral Network (SpecNet)â€"What is it and why do we need it?. Remote Sensing of Environment, 2006, 103, 227-235.	4.6	127
34	The need for a common basis for defining light-use efficiency: Implications for productivity estimation. Remote Sensing of Environment, 2015, 156, 196-201.	4.6	127
35	Representativeness of Eddy-Covariance flux footprints for areas surrounding AmeriFlux sites. Agricultural and Forest Meteorology, 2021, 301-302, 108350.	1.9	125
36	ASSESSING THE CARBON BALANCE OF CIRCUMPOLAR ARCTIC TUNDRA USING REMOTE SENSING AND PROCESS MODELING. , 2007, 17, 213-234.		123

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37	Assessing photosynthetic downregulation in sunflower stands with an optically-based model. Photosynthesis Research, 2001, 67, 113-125.	1.6	121
38	The photochemical reflectance index provides an optical indicator of spring photosynthetic activation in evergreen conifers. New Phytologist, 2015, 206, 196-208.	3.5	120
39	Responses of photosynthesis and carbohydrate-partitioning to limitations in nitrogen and water availability in field-grown sunflower*. Plant, Cell and Environment, 1991, 14, 963-970.	2.8	115
40	Differences in leaf traits, leaf internal structure, and spectral reflectance between two communities of lianas and trees: Implications for remote sensing in tropical environments. Remote Sensing of Environment, 2009, 113, 2076-2088.	4.6	110
41	The spatial sensitivity of the spectral diversityâ€"biodiversity relationship: an experimental test in a prairie grassland. Ecological Applications, 2018, 28, 541-556.	1.8	105
42	Monitoring seasonal and diurnal changes in photosynthetic pigments with automated PRI and NDVI sensors. Biogeosciences, 2015, 12, 4149-4159.	1.3	104
43	Monitoring drought effects on vegetation water content and fluxes in chaparral with the 970Ânm water band index. Remote Sensing of Environment, 2006, 103, 304-311.	4.6	103
44	Assessing Vegetation Function with Imaging Spectroscopy. Surveys in Geophysics, 2019, 40, 489-513.	2.1	102
45	Photoinhibition in Vitis californica: interactive effects of sunlight, temperature and water status. Plant, Cell and Environment, 1990, 13, 267-275.	2.8	100
46	A mobile tram system for systematic sampling of ecosystem optical properties. Remote Sensing of Environment, 2006, 103, 246-254.	4.6	94
47	Potential of MODIS ocean bands for estimating CO2flux from terrestrial vegetation: A novel approach. Geophysical Research Letters, 2004, 31, n/a-n/a.	1.5	93
48	Optimum pixel size for hyperspectral studies of ecosystem function in southern California chaparral and grassland. Remote Sensing of Environment, 2003, 84, 192-207.	4.6	92
49	Harnessing plant spectra to integrate the biodiversity sciences across biological and spatial scales. American Journal of Botany, 2017, 104, 966-969.	0.8	92
50	Ecosystem Gas Exchange in a California Grassland: Seasonal Patterns and Implications for Scaling. Ecology, 1995, 76, 1940-1952.	1.5	89
51	Multiple drivers of seasonal change in PRI: Implications for photosynthesis 1. Leaf level. Remote Sensing of Environment, 2017, 191, 110-116.	4.6	87
52	Multiple drivers of seasonal change in PRI: Implications for photosynthesis 2. Stand level. Remote Sensing of Environment, 2017, 190, 198-206.	4.6	84
53	Remote sensing of biodiversity: Soil correction and data dimension reduction methods improve assessment of Î±-diversity (species richness) in prairie ecosystems. Remote Sensing of Environment, 2018, 206, 240-253.	4.6	84
54	Functional regeneration and spectral reflectance of trees during succession in a highly diverse tropical dry forest ecosystem. American Journal of Botany, 2012, 99, 816-826.	0.8	83

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55	Functional patterns in an annual grassland during an AVIRIS overflight. Remote Sensing of Environment, 1993, 44, 239-253.	4.6	81
56	Relationships between endophyte diversity and leaf optical properties. Trees - Structure and Function, 2012, 26, 291-299.	0.9	81
57	Reviews and Syntheses: optical sampling of the flux tower footprint. Biogeosciences, 2015, 12, 4509-4523.	1.3	81
58	Remote sensing of tundra gross ecosystem productivity and light use efficiency under varying temperature and moisture conditions. Remote Sensing of Environment, 2010, 114, 481-489.	4.6	78
59	Remote sensing in BOREAS: Lessons learned. Remote Sensing of Environment, 2004, 89, 139-162.	4.6	76
60	Effects of lifelong [CO2] enrichment on carboxylation and light utilization of Quercus pubescens Willd. examined with gas exchange, biochemistry and optical techniques. Plant, Cell and Environment, 2000, 23, 1353-1362.	2.8	75
61	Sunfleck dynamics in relation to canopy structure in a soybean (Glycine max (L.) Merr.) canopy. Agricultural and Forest Meteorology, 1990, 52, 359-372.	1.9	73
62	Estimating Temperature Fields from MODIS Land Surface Temperature and Air Temperature Observations in a Sub-Arctic Alpine Environment. Remote Sensing, 2014, 6, 946-963.	1.8	72
63	Detecting prairie biodiversity with airborne remote sensing. Remote Sensing of Environment, 2019, 221, 38-49.	4.6	72
64	Leaf reflectance spectra capture the evolutionary history of seed plants. New Phytologist, 2020, 228, 485-493.	3.5	72
65	Seasonal Variation in the NDVIâ€"Species Richness Relationship in a Prairie Grassland Experiment (Cedar) Tj ETQq1 1 0.784314 rgBT /Ov	1.8	65
66	Photoinhibition in <i>Vitis californica</i>. Plant Physiology, 1990, 92, 487-494.	2.3	62
67	Mapping Canadian boreal forest vegetation using pigment and water absorption features derived from the AVIRIS sensor. Journal of Geophysical Research, 2001, 106, 33565-33577.	3.3	60
68	Restoration of Native Perennials in a California Annual Grassland after Prescribed Spring Burning and Solarization. Restoration Ecology, 2005, 13, 659-666.	1.4	59
69	Evaluating Cloud Contamination in Clear-Sky MODIS Terra Daytime Land Surface Temperatures Using Ground-Based Meteorology Station Observations. Journal of Climate, 2013, 26, 1551-1560.	1.2	59
70	Mapping carbon and water vapor fluxes in a chaparral ecosystem using vegetation indices derived from AVIRIS. Remote Sensing of Environment, 2006, 103, 312-323.	4.6	56
71	Parallel Seasonal Patterns of Photosynthesis, Fluorescence, and Reflectance Indices in Boreal Trees. Remote Sensing, 2017, 9, 691.	1.8	56
72	A multi-scale analysis of dynamic optical signals in a Southern California chaparral ecosystem: A comparison of field, AVIRIS and MODIS data. Remote Sensing of Environment, 2006, 103, 369-378.	4.6	53

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73	Tundra carbon balance under varying temperature and moisture regimes. Journal of Geophysical Research, 2010, 115, .	3.3	53
74	SpecNet revisited: bridging flux and remote sensing communities. Canadian Journal of Remote Sensing, 2010, 36, S376-S390.	1.1	53
75	Disentangling the contribution of biological and physical properties of leaves and canopies in imaging spectroscopy data. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, E1074.	3.3	53
76	Influence of species richness, evenness, and composition on optical diversity: A simulation study. Remote Sensing of Environment, 2018, 211, 218-228.	4.6	53
77	Effects of irradiance and photosynthetic downregulation on the photochemical reflectance index in Douglas-fir and ponderosa pine. Remote Sensing of Environment, 2013, 135, 141-149.	4.6	46
78	ESTIMATION OF CANOPY PHOTOSYNTHETIC AND NONPHOTOSYNTHETIC COMPONENTS FROM SPECTRAL TRANSMITTANCE. Ecology, 2000, 81, 3149-3162.	1.5	45
79	Arctic Tundra Vegetation Functional Types Based on Photosynthetic Physiology and Optical Properties. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2013, 6, 265-275.	2.3	43
80	Production efficiency in sunflower: The role of water and nitrogen stress. Remote Sensing of Environment, 1997, 62, 176-188.	4.6	40
81	Productivity and Carbon Dioxide Exchange of Leguminous Crops: Estimates from Flux Tower Measurements. Agronomy Journal, 2014, 106, 545-559.	0.9	40
82	Microtopographic patterns in an arctic baydjarakh field: do fine-grain patterns enforce landscape stability?. Environmental Research Letters, 2012, 7, 015502.	2.2	38
83	Assessing photosynthetic radiation-use efficiency of emergent aquatic vegetation from spectral reflectance. Aquatic Botany, 1997, 58, 307-315.	0.8	37
84	Diverse Optical and Photosynthetic Properties in a Neotropical Dry Forest during the Dry Season: Implications for Remote Estimation of Photosynthesis1. Biotropica, 2005, 37, 547-560.	0.8	36
85	Surface hydrology of an arctic ecosystem: Multiscale analysis of a flooding and draining experiment using spectral reflectance. Journal of Geophysical Research, 2011, 116, .	3.3	35
86	Integrated Analysis of Productivity and Biodiversity in a Southern Alberta Prairie. Remote Sensing, 2016, 8, 214.	1.8	35
87	Detecting intra- and inter-annual variability in gross primary productivity of a North American grassland using MODIS MAIAC data. Agricultural and Forest Meteorology, 2020, 281, 107859.	1.9	35
88	Net ecosystem exchange of <scp>CO</scp>₂ with rapidly changing high Arctic landscapes. Global Change Biology, 2016, 22, 1185-1200.	4.2	33
89	Multiâ€temporal assessment of grassland Î±â€• and Î²â€diversity using hyperspectral imaging. Ecological Applications, 2020, 30, e02145.	1.8	33
90	Spring and summer monthly MODIS LST is inherently biased compared to air temperature in snow covered sub-Arctic mountains. Remote Sensing of Environment, 2017, 189, 14-24.	4.6	31

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91	Retrieval of the photochemical reflectance index for assessing xanthophyll cycle activity: a comparison of near-surface optical sensors. Biogeosciences, 2014, 11, 6277-6292.	1.3	30
92	Phenology and species determine growingâ€season albedo increase at the altitudinal limit of shrub growth in the subâ€Arctic. Global Change Biology, 2016, 22, 3621-3631.	4.2	30
93	Monitoring Grassland Seasonal Carbon Dynamics, by Integrating MODIS NDVI, Proximal Optical Sampling, and Eddy Covariance Measurements. Remote Sensing, 2016, 8, 260.	1.8	28
94	Title is missing!. Plant and Soil, 2001, 233, 203-211.	1.8	27
95	Canopy spectral reflectance detects oak wilt at the landscape scale using phylogenetic discrimination. Remote Sensing of Environment, 2022, 273, 112961.	4.6	24
96	Application of the photosynthetic light-use efficiency model in a northern Great Plains grassland. Remote Sensing of Environment, 2015, 168, 239-251.	4.6	23
97	Detecting biophysical properties of a semi-arid grassland and distinguishing burned from unburned areas with hyperspectral reflectance. Journal of Arid Environments, 2004, 58, 597-610.	1.2	22
98	Community-wide consequences of variation in photoprotective physiology among prairie plants. Photosynthetica, 2018, 56, 455-467.	0.9	21
99	Remote Sensing of Terrestrial Photosynthesis1. , 1995, , 511-527.		21
100	Remotely detected aboveground plant function predicts belowground processes in two prairie diversity experiments. Ecological Monographs, 2022, 92, e1488.	2.4	19
101	Interannual Variability in Dry Mixed-Grass Prairie Yield: A Comparison of MODIS, SPOT, and Field Measurements. Remote Sensing, 2016, 8, 872.	1.8	18
102	Consideration of Scale in Remote Sensing of Biodiversity. , 2020, , 425-447.		18
103	Varying Contributions of Drivers to the Relationship Between Canopy Photosynthesis and Farâ€Red Sunâ€Induced Fluorescence for Two Maize Sites at Different Temporal Scales. Journal of Geophysical Research G: Biogeosciences, 2020, 125, e2019JG005051.	1.3	15
104	Ecological Applications of Remote Sensing at Multiple Scales. Books in Soils, Plants, and the Environment, 2007, , .	0.1	15
105	Integrating proximal broad-band vegetation indices and carbon fluxes to model gross primary productivity in a tropical dry forest. Environmental Research Letters, 2018, 13, 065017.	2.2	11
106	A MODIS Photochemical Reflectance Index (PRI) as an Estimator of Isoprene Emissions in a Temperate Deciduous Forest. Remote Sensing, 2018, 10, 557.	1.8	10
107	Coupling spectral and resource-use complementarity in experimental grassland and forest communities. Proceedings of the Royal Society B: Biological Sciences, 2021, 288, 20211290.	1.2	9
108	Monitoring Spatial and Temporal Variabilities of Gross Primary Production Using MAIAC MODIS Data. Remote Sensing, 2019, 11, 874.	1.8	8

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109	Errors associated with atmospheric correction methods for airborne imaging spectroscopy: Implications for vegetation indices and plant traits. Remote Sensing of Environment, 2021, 265, 112663.	4.6	8
110	The Use of Remote Sensing to Enhance Biodiversity Monitoring and Detection: A Critical Challenge for the Twenty-First Century. , 2020, , 1-12.		8
111	Tropical Remote Sensingâ€šÃ„Ã®Opportunities and Challenges. , 2008, , 297-304.		7
112	Seasonal patterns of spectral diversity at leaf and canopy scales in the Cedar Creek prairie biodiversity experiment. Remote Sensing of Environment, 2022, 280, 113169.	4.6	6
113	Spring warming in Yukon mountains is not amplified by the snow albedo feedback. Scientific Reports, 2018, 8, 9000.	1.6	5
114	Integrating and scaling carbon, water, and energy fluxes with optical measurements. Eos, 2011, 92, 377-377.	0.1	0
115	Towards near-real time data property specification and verification for Arctic hyperspectral sensor data. , 2011, , .		0
116	Approaches to establishing a metadata standard for field spectroscopy datasets. , 2013, , .		0
117	Imaging Spectrometry and Fluorometry in Support of Flex: What Can We Learn from Multi-Scale Experiments?. , 2018, , .		0