Vijaya Gopal Kakani

List of Publications by Year
in descending order

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106	5,608	76326	82547
papers	citations	40 h-index	72 g-index

108	108	108	5873
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Field crop responses to ultraviolet-B radiation: a review. Agricultural and Forest Meteorology, 2003, 120, 191-218.	4.8	408
2	Nitrogen deficiency effects on plant growth, leaf photosynthesis, and hyperspectral reflectance properties of sorghum. European Journal of Agronomy, 2005, 22, 391-403.	4.1	384
3	Tracking the dynamics of paddy rice planting area in 1986â€“2010 through time series Landsat images and phenology-based algorithms. Remote Sensing of Environment, 2015, 160, 99-113.	11.0	257
4	Differences in in vitro Pollen Germination and Pollen Tube Growth of Cotton Cultivars in Response to High Temperature. Annals of Botany, 2005, 96, 59-67.	2.9	214
5	Mapping paddy rice planting areas through time series analysis of MODIS land surface temperature and vegetation index data. ISPRS Journal of Photogrammetry and Remote Sensing, 2015, 106, 157-171.	11.1	207
6	Interactive effects of carbon dioxide, temperature, and ultraviolet-B radiation on soybean (Glycine) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 Experimental Botany, 2005, 56, 725-736.	4.8	203
7	Response of in vitro pollen germination and pollen tube growth of groundnut (Arachis hypogaea L.) genotypes to temperature. Plant, Cell and Environment, 2002, 25, 1651-1661.	5.7	169
8	Corn (Zea mays L.) growth, leaf pigment concentration, photosynthesis and leaf hyperspectral reflectance properties as affected by nitrogen supply. Plant and Soil, 2003, 257, 205-218.	3.7	169
9	Effects of Ultraviolet-B Radiation on Cotton (Gossypium hirsutum L.) Morphology and Anatomy. Annals of Botany, 2003, 91, 817-826.	2.9	165
10	Statistical Estimation of Daily Maximum and Minimum Air Temperatures from MODIS LST Data over the State of Mississippi. GIScience and Remote Sensing, 2006, 43, 78-110.	5.9	160
11	Pollenâ€Based Screening of Soybean Genotypes for High Temperatures. Crop Science, 2007, 47, 219-231.	1.8	157
12	Elevated CO2 increases water use efficiency by sustaining photosynthesis of water-limited maize and sorghum. Journal of Plant Physiology, 2011, 168, 1909-1918.	3.5	118
13	Growth and physiological responses of cotton (Gossypium hirsutum L.) to elevated carbon dioxide and ultraviolet-B radiation under controlled environmental conditions. Plant, Cell and Environment, 2003, 26, 771-782.	5.7	113
14	Senescence and hyperspectral reflectance of cotton leaves exposed to ultraviolet-B radiation and carbon dioxide. Physiologia Plantarum, 2004, 121, 250-257.	5.2	103
15	Mapping paddy rice planting area in rice-wetland coexistent areas through analysis of Landsat 8 OLI and MODIS images. International Journal of Applied Earth Observation and Geoinformation, 2016, 46, 1-12.	2.8	103
16	Performance of five surface energy balance models for estimating daily evapotranspiration in high biomass sorghum. ISPRS Journal of Photogrammetry and Remote Sensing, 2017, 128, 192-203.	11.1	99
17	Comparison of four EVI-based models for estimating gross primary production of maize and soybean croplands and tallgrass prairie under severe drought. Remote Sensing of Environment, 2015, 162, 154-168.	11.0	93
18	Transcriptome analysis of heat stress response in switchgrass (Panicum virgatumL.). BMC Plant Biology, 2013, 13, 153.	3.6	91

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19	Selection of Optimum Reflectance Ratios for Estimating Leaf Nitrogen and Chlorophyll Concentrations of Field-Grown Cotton. Agronomy Journal, 2005, 97, 89-98.	1.8	88
20	Canopy reflectance in cotton for growth assessment and lint yield prediction. European Journal of Agronomy, 2007, 26, 335-344.	4.1	88
21	Effects of carbon dioxide, temperature and ultraviolet-B radiation and their interactions on soybean (Glycine max L.) growth and development. Environmental and Experimental Botany, 2007, 60, 1-10.	4.2	85
22	Characterization of drought- and heat-responsive microRNAs in switchgrass. Plant Science, 2016, 242, 214-223.	3.6	81
23	Simulating the impacts of climate change on cotton production in the Mississippi Delta. Climate Research, 2002, 22, 271-281.	1.1	75
24	Interactive Effects of Ultraviolet-B Radiation and Temperature on Cotton Physiology, Growth, Development and Hyperspectral ReflectanceÂ¶. Photochemistry and Photobiology, 2004, 79, 416.	2.5	72
25	Screening Capsicum species of different origins for high temperature tolerance by in vitro pollen germination and pollen tube length. Scientia Horticulturae, 2007, 112, 130-135.	3.6	70
26	Sensitivity analysis of vegetation indices to drought over two tallgrass prairie sites. ISPRS Journal of Photogrammetry and Remote Sensing, 2015, 108, 151-160.	11.1	68
27	Heat tolerance in groundnut. Field Crops Research, 2003, 80, 63-77.	5.1	66
28	Soybean (Glycine max) Pollen Germination Characteristics, Flower and Pollen Morphology in Response to Enhanced Ultraviolet-B Radiation. Annals of Botany, 2004, 94, 855-864.	2.9	64
29	Physiological causes of cotton fruit abscission under conditions of high temperature and enhanced ultraviolet-B radiation. Physiologia Plantarum, 2005, 124, 189-199.	5.2	62
30	Application of the water-related spectral reflectance indices: A review. Ecological Indicators, 2019, 98, 68-79.	6.3	62
31	Leaf and canopy photosynthetic characteristics of cotton (Gossypium hirsutum) under elevated CO2 concentration and UV-B radiation. Journal of Plant Physiology, 2004, 161, 581-590.	3.5	57
32	Growing season variability in evapotranspiration, ecosystem water use efficiency, and energy partitioning in switchgrass. Ecohydrology, 2014, 7, 64-72.	2.4	56
33	Assessment of Cold and Heat Tolerance of Winter-grown Canola (Brassica napus L.) Cultivars by Pollen-based Parameters. Journal of Agronomy and Crop Science, 2008, 194, 225-236.	3.5	55
34	The effects of temperature on in vitro pollen germination and pollen tube growth of Pistacia spp.. Scientia Horticulturae, 2010, 125, 569-572.	3.6	53
35	Biomass production of herbaceous energy crops in the United States: field trial results and yield potential maps from the multiyear regional feedstock partnership. GCB Bioenergy, 2018, 10, 698-716.	5.6	51
36	Cowpea (Vigna unguiculata [L.] Walp.) genotypes response to multiple abiotic stresses. Journal of Photochemistry and Photobiology B: Biology, 2010, 100, 135-146.	3.8	48

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37	Influence of high temperature during pre- and post-anthesis stages of floral development on fruit-set and pollen germination in peanut. Functional Plant Biology, 2001, 28, 233.	2.1	47
38	Seasonal variability in net ecosystem carbon dioxide exchange over a young Switchgrass stand. GCB Bioenergy, 2014, 6, 339-350.	5.6	46
39	Cotton responses to ultraviolet-B radiation: experimentation and algorithm development. Agricultural and Forest Meteorology, 2003, 120, 249-265.	4.8	44
40	Evapotranspiration partitioning and water use efficiency of switchgrass and biomass sorghum managed for biofuel. Agricultural Water Management, 2015, 155, 40-47.	5.6	43
41	Examining the short-term impacts of diverse management practices on plant phenology and carbon fluxes of Old World bluestems pasture. Agricultural and Forest Meteorology, 2017, 237-238, 60-70.	4.8	41
42	Crop Responses to Elevated Carbon Dioxide and Interactions with Temperature. Journal of Crop Improvement, 2005, 13, 157-191.	1.7	40
43	Discrimination of Switchgrass Cultivars and Nitrogen Treatments Using Pigment Profiles and Hyperspectral Leaf Reflectance Data. Remote Sensing, 2012, 4, 2576-2594.	4.0	40
44	Evapotranspiration and Ecosystem Water Use Efficiency of Switchgrass and High Biomass Sorghum. Agronomy Journal, 2016, 108, 1007-1019.	1.8	40
45	Quantifying agricultural drought in tallgrass prairie region in the U.S. Southern Great Plains through analysis of a water-related vegetation index from MODIS images. Agricultural and Forest Meteorology, 2017, 246, 111-122.	4.8	40
46	Deriving a Simple Spectral Reflectance Ratio to Determine Cotton Leaf Water Potential. Journal of New Seeds, 2007, 8, 11-27.	0.3	38
47	Responses of gross primary production of grasslands and croplands under drought, pluvial, and irrigation conditions during 2010â€“2016, Oklahoma, USA. Agricultural Water Management, 2018, 204, 47-59.	5.6	38
48	Utility of remote sensing-based surface energy balance models to track water stress in rain-fed switchgrass under dry and wet conditions. ISPRS Journal of Photogrammetry and Remote Sensing, 2017, 133, 128-141.	11.1	37
49	Estimation of bioenergy crop yield and N status by hyperspectral canopy reflectance and partial least square regression. Precision Agriculture, 2017, 18, 192-209.	6.0	36
50	Leaf photosynthesis and carbohydrates of CO2-enriched maize and grain sorghum exposed to a short period of soil water deficit during vegetative development. Journal of Plant Physiology, 2011, 168, 2169-2176.	3.5	34
51	Quantifying Corn Growth and Physiological Responses to Ultravioletâ€B Radiation for Modeling. Agronomy Journal, 2013, 105, 1367-1377.	1.8	34
52	Photosynthesis and fluorescence responses of C₄ plant Andropogon gerardii acclimated to temperature and carbon dioxide. Photosynthetica, 2008, 46, 420-430.	1.7	32
53	Net ecosystem carbon dioxide exchange of dedicated bioenergy feedstocks: Switchgrass and high biomass sorghum. Agricultural and Forest Meteorology, 2015, 207, 107-116.	4.8	29
54	Carbon dioxide and water vapor fluxes in winter wheat and tallgrass prairie in central Oklahoma. Science of the Total Environment, 2018, 644, 1511-1524.	8.0	29

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55	Confounding Effects of Soil Moisture on the Relationship Between Ecosystem Respiration and Soil Temperature in Switchgrass. Bioenergy Research, 2014, 7, 789-798.	3.9	28
56	Soil Water Dynamics and Evapotranspiration under Annual and Perennial Bioenergy Crops. Soil Science Society of America Journal, 2014, 78, 1584-1593.	2.2	25
57	Nitrogen and harvest management of Conservation Reserve Program (<scp>CRP</scp>) grassland for sustainable biomass feedstock production. GCB Bioenergy, 2013, 5, 6-15.	5.6	23
58	Industrial sugar beets to biofuel: Field to fuel production system and cost estimates. Biomass and Bioenergy, 2015, 80, 267-277.	5.7	23
59	Environmental control of daytime net ecosystem exchange of carbon dioxide in switchgrass. Agriculture, Ecosystems and Environment, 2014, 186, 170-177.	5.3	22
60	Variability in carbon dioxide fluxes among six winter wheat paddocks managed under different tillage and grazing practices. Atmospheric Environment, 2018, 185, 100-108.	4.1	22
61	Switchgrass Winter Yield, Year-Round Elemental Concentrations, and Associated Soil Nutrients in a Zero Input Environment. Agronomy Journal, 2013, 105, 463-470.	1.8	18
62	Climate Effects on Tallgrass Prairie Responses to Continuous and Rotational Grazing. Agronomy, 2019, 9, 219.	3.0	18
63	Growth and Yield Responses of Switchgrass Ecotypes to Temperature. American Journal of Plant Sciences, 2013, 04, 1173-1180.	0.8	18
64	Growth and physiological responses of three warm-season legumes to water stress. Scientific Reports, 2020, 10, 12233.	3.3	17
65	Temperature response of C4 species big bluestem (Andropogon gerardii) is modified by growing carbon dioxide concentration. Environmental and Experimental Botany, 2007, 61, 281-290.	4.2	16
66	Nutrient sources and harvesting frequency on quality biomass production of switchgrass (Panicum) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	5.7	16
67	Guar responses to temperature: Estimation of cardinal temperatures and photosynthetic parameters. Industrial Crops and Products, 2020, 145, 111940.	5.2	15
68	Effect of Greenhouse CO2 Supplementation on Yield and Mineral Element Concentrations of Leafy Greens Grown Using Nutrient Film Technique. Agronomy, 2020, 10, 323.	3.0	14
69	Forage Sorghum Response to Nitrogen Fertilization and Estimation of Production Cost. Agronomy Journal, 2014, 106, 1659-1666.	1.8	13
70	Genotypic variation and trait relationships for morphological and physiological traits among new switchgrass populations. Euphytica, 2013, 191, 437-453.	1.2	12
71	Impacts of management practices on bioenergy feedstock yield and economic feasibility on Conservation Reserve Program grasslands. GCB Bioenergy, 2016, 8, 1178-1190.	5.6	12
72	Discriminant analysis of nitrogen treatments in switchgrass and high biomass sorghum using leaf and canopy-scale reflectance spectroscopy. International Journal of Remote Sensing, 2016, 37, 2252-2279.	2.9	11

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73	Greenhouse mitigation strategies for agronomic and grazing lands of the US Southern Great Plains. Mitigation and Adaptation Strategies for Global Change, 2020, 25, 819-853.	2.1	11
74	Response of bahiagrass carbon assimilation and photosystem activity to below optimum temperatures. Functional Plant Biology, 2008, 35, 1243.	2.1	10
75	Evaluating the Impacts of Continuous and Rotational Grazing on Tallgrass Prairie Landscape Using High-Spatial-Resolution Imagery. Agronomy, 2019, 9, 238.	3.0	10
76	Using MODIS LST data for high-resolution estimates of daily air temperature over Mississippi. , 0, , .		9
77	Conversion of encroached juniper woodland back to native prairie and to switchgrass increases root zone soil moisture and watershed runoff. Journal of Hydrology, 2020, 584, 124640.	5.4	9
78	Exploring the Use of the Environmental Productivity Index Concept for Crop Production and Modeling. Advances in Agricultural Systems Modeling, 0, , 387-410.	0.3	9
79	MINERAL DEFICIENCY STRESS: Reflectance Properties, Leaf Photosynthesis and Growth of Nitrogen Deficient Big Bluestem (Andropogon gerardii). Journal of Agronomy and Crop Science, 2010, 196, 379-390.	3.5	8
80	Parental Environmental Effects on Seed Quality and Germination Response to Temperature of Andropogon gerardii. Agronomy, 2019, 9, 304.	3.0	8
81	Detecting Biophysical Characteristics and Nitrogen Status of Finger Millet at Hyperspectral and Multispectral Resolutions. Frontiers in Agronomy, 2021, 2, .	3.3	8
82	Climate Change Impact on Wheat Production in the Southern Great Plains of the US Using Downscaled Climate Data. Atmospheric and Climate Sciences, 2018, 08, 143-162.	0.3	8
83	Rapid Assessment of Bioenergy Feedstock Quality by Near Infrared Reflectance Spectroscopy. Agronomy Journal, 2013, 105, 1487-1497.	1.8	7
84	Predicted harvest time effects on switchgrass moisture content, nutrient concentration, yield, and profitability. Biomass and Bioenergy, 2018, 108, 74-89.	5.7	7
85	Influence of Contrasting Soil Moisture Conditions on Carbon Dioxide and Nitrous Oxide Emissions from Terminated Green Manures. , 2019, 2, 1-8.		6
86	Improved productivity, water yield, and water use efficiency by incorporating switchgrass cultivation and native ecosystems in an integrated biofuel feedstock system. GCB Bioenergy, 2021, 13, 369-381.	5.6	6
87	Productivity and water use in intensified forage soybean-wheat cropping systems of the US southern Great Plains. Field Crops Research, 2021, 265, 108086.	5.1	6
88	Soil N₂O emissions following termination of grass pea and oat cover crop residues with different maturity levels. Journal of Plant Nutrition and Soil Science, 2020, 183, 734-744.	1.9	6
89	Effect of Enhanced UV-B Radiation on Reniform Nematode (Rotylenchus reniformis Linford and) Tj ETQq1 1 0.784314 rgBT /Overlock	0.2	6
90	Applications of a Cotton Simulation Model, GOSSYM, for Crop Management, Economic, and Policy Decisions. , 2002, , .		5

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91	Constructing retrospective gridded daily weather data for agroâ€hydrological applications inÂOklahoma. , 2020, 3, e20072.		4
92	The potential of active and passive remote sensing to detect frequent harvesting of alfalfa. International Journal of Applied Earth Observation and Geoinformation, 2021, 104, 102539.	2.8	4
93	Yield-height correlation and QTL localization for plant height in two lowland switchgrass populations. Frontiers of Agricultural Science and Engineering, 2018, 5, 118.	1.4	4
94	MicroRNA profiles in Sorghum exposed to individual drought or heat or their combination. Journal of Plant Biochemistry and Biotechnology, 2021, 30, 848-861.	1.7	4
95	Effect of High Temperature and Water Stress on Groundnuts Under Field Conditions. , 2015, , 159-180.		3
96	Evaluating the sensitivity of vegetation and water indices to monitor drought for three Mediterranean crops. Agronomy Journal, 2021, 113, 123-134.	1.8	3
97	Greenhouse Carbon Dioxide Supplementation with Irrigation and Fertilization Management of Geranium and Fountain Grass. Hortscience: A Publication of the American Society for Hortcultural Science, 2020, 55, 1772-1780.	1.0	3
98	Dormant Season Vegetation Phenology and Eddy Fluxes in Native Tallgrass Prairies of the U.S. Southern Plains. Remote Sensing, 2022, 14, 2620.	4.0	3
99	Estimating cotton growth and developmental parameters through remote sensing. , 2004, 5153, 277.		2
100	Remote-sensing algorithms for estimating nitrogen uptake and nitrogen-use efficiency in cotton. Acta Agriculturae Scandinavica - Section B Soil and Plant Science, 2010, 60, 500-509.	0.6	2
101	Ozone Depletion. , 2017, , 318-326.		2
102	Burning and Climate Interactions Determine Impacts of Grazing on Tallgrass Prairie Systems. Rangeland Ecology and Management, 2020, 73, 104-118.	2.3	2
103	Quantifying and Modeling the Influence of Temperature on Growth and Reproductive Development of Sesame. Journal of Plant Growth Regulation, 0, , 1.	5.1	2
104	Interactive effects of atmospheric carbon dioxide and ultraviolet-B radiation on cotton growth and physiology. , 2003, 5156, 262.		1
105	Modeling to Evaluate and Manage Water and Environmental Sustainability of Bioenergy Crops in the United States. Advances in Agricultural Systems Modeling, 2015, , 139-160.	0.3	1
106	Know Your Community: Bioenergy Systems. CSA News, 2014, 59, 36-36.	0.0	0