Saikat Gantait

List of Publications by Year in descending order

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121 papers	2,476 citations	201674 27 h-index	265206 42 g-index
124 all docs	124 docs citations	124 times ranked	2182 citing authors

#	Article	IF	Citations
1	Applications of carbon nanomaterials in the plant system: A perspective view on the pros and cons. Science of the Total Environment, 2019, 667, 485-499.	8.0	210
2	Engineered nanomaterials for plant growth and development: A perspective analysis. Science of the Total Environment, 2018, 630, 1413-1435.	8.0	196
3	Synthetic seed production of medicinal plants: a review on influence of explants, encapsulation agent and matrix. Acta Physiologiae Plantarum, 2015, 37, 1.	2.1	96
4	Induction and identification of tetraploids using in vitro colchicine treatment of Gerbera jamesonii Bolus cv. Sciella. Plant Cell, Tissue and Organ Culture, 2011, 106, 485-493.	2.3	79
5	Screening of rice landraces for salinity tolerance at seedling stage through morphological and molecular markers. Physiology and Molecular Biology of Plants, 2014, 20, 411-423.	3.1	78
6	Bamboo: an overview on its genetic diversity and characterization. 3 Biotech, 2015, 5, 1-11.	2.2	75
7	Stevia: A Comprehensive Review on Ethnopharmacological Properties and In Vitro Regeneration. Sugar Tech, 2015, 17, 95-106.	1.8	56
8	Micropropagation of an Elite Medicinal Plant: Stevia rebaudiana Bert.. International Journal of Agricultural Research, 2010, 6, 40-48.	0.1	49
9	Geographical Distribution, Botanical Description and Self-Incompatibility Mechanism of Genus Stevia. Sugar Tech, 2018, 20, 1-10.	1.8	46
10	In-silico study of biotic and abiotic stress-related transcription factor binding sites in the promoter regions of rice germin-like protein genes. PLoS ONE, 2019, 14, e0211887.	2.5	44
11	Advances in biotechnology of Emblica officinalis Gaertn. syn. Phyllanthus emblica L.: a nutraceuticals-rich fruit tree with multifaceted ethnomedicinal uses. 3 Biotech, 2021, 11, 62.	2.2	41
12	Extension of postharvest shelf-life in green bell pepper (Capsicum annuum L.) using exogenous application of polyamines (spermidine and putrescine). Food Chemistry, 2019, 275, 681-687.	8.2	40
13	Role of ethylene crosstalk in seed germination and early seedling development: A review. Plant Physiology and Biochemistry, 2020, 151, 124-131.	5.8	40
14	Biotechnological advancements in Catharanthus roseus (L.) G. Don. Applied Microbiology and Biotechnology, 2020, 104, 4811-4835.	3.6	37
15	Enhanced growth and cardenolides production in Digitalis purpurea under the influence of different LED exposures in the plant factory. Scientific Reports, 2018, 8, 18009.	3.3	36
16	Biotechnological interventions on the genus Rauvolfia: recent trends and imminent prospects. Applied Microbiology and Biotechnology, 2019, 103, 7325-7354.	3.6	35
17	Hairy root culture technology: applications, constraints and prospect. Applied Microbiology and Biotechnology, 2021, 105, 35-53.	3.6	35
18	Induced autopolyploidyâ€"a promising approach for enhanced biosynthesis of plant secondary metabolites: an insight. Journal of Genetic Engineering and Biotechnology, 2021, 19, 4.	3.3	35

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19	Physiological role of rice germin-like protein 1 (OsGLP1) at early stages of growth and development in indica rice cultivar under salt stress condition. Plant Cell, Tissue and Organ Culture, 2017, 131, 127-137.	2.3	34
20	Alginate-encapsulation, short-term storage and plant regeneration from protocorm-like bodies of Aranda Wan Chark Kuan â€˜Blueâ€™ÂÃ—ÂVanda coerulea Grifft. ex. Lindl. (Orchidaceae). Plant Growth Regulation, 2012, 68, 303-311.	3.4	33
21	Gibberellic acid coating: A novel approach to expand the shelf-life in green chilli (Capsicum annuum) Tj ETQq1 1 0.784314 rgBT /Overl	3.6	33
22	The retrospect and prospect of the applications of biotechnology in Phoenix dactylifera L.. Applied Microbiology and Biotechnology, 2018, 102, 8229-8259.	3.6	33
23	Abscisic acid signal crosstalk during abiotic stress response. Plant Gene, 2017, 11, 61-69.	2.3	32
24	Artificial Seed Production of Tylophora indica for Interim Storing and Swapping of Germplasm. Horticultural Plant Journal, 2017, 3, 41-46.	5.0	31
25	Gibberellins - A Multifaceted Hormone in Plant Growth Regulatory Network. Current Protein and Peptide Science, 2015, 16, 406-412.	1.4	30
26	Rapid micropropagation of monopodial orchid hybrid (Aranda Wan Chark Kuan â€˜Blueâ€™ÂÃ—ÂVanda coerulea) Tj ETQq0 0 0 rgBT /Ov Growth Regulation, 2012, 68, 129-140.	3.4	29
27	Storability, post-storage conversion and genetic stability assessment of alginate-encapsulated shoot tips of monopodial orchid hybrid Aranda Wan Chark Kuan â€˜Blueâ€™ÂÃ—ÂVanda coerulea Grifft. ex. Lindl.. Plant Biotechnology Reports, 2013, 7, 257-266.	1.5	29
28	Genomic profile of the plants with pharmaceutical value. 3 Biotech, 2014, 4, 563-578.	2.2	29
29	Direct induction of protocorm-like bodies from shoot tips, plantlet formation, and clonal fidelity analysis in Anthurium andreanum cv. CanCan. Plant Growth Regulation, 2012, 67, 257-270.	3.4	28
30	Biotechnological Interventions for Ginsenosides Production. Biomolecules, 2020, 10, 538.	4.0	28
31	Effect of loading and vitrification solutions on survival of cryopreserved oil palm polyembryoids. Plant Growth Regulation, 2012, 66, 101-109.	3.4	27
32	In vitro biotechnological approaches on Vanilla planifolia Andrews: advancements and opportunities. Acta Physiologiae Plantarum, 2017, 39, 1.	2.1	27
33	Tissue Culture of Anthurium andreanum: A Significant Review and Future Prospective. International Journal of Botany, 2010, 6, 207-219.	0.2	27
34	Improved cryopreservation of oil palm (Elaeis guineensis Jacq.) polyembryoids using droplet vitrification approach and assessment of genetic fidelity. Protoplasma, 2015, 252, 89-101.	2.1	24
35	Impact of differential levels of sodium alginate, calcium chloride and basal media on germination frequency of genetically true artificial seeds of Rauvolfia serpentina (L.) Benth. ex Kurz.. Journal of Applied Research on Medicinal and Aromatic Plants, 2017, 4, 75-81.	1.5	24
36	Silver nitrate-induced in vitro shoot multiplication and precocious flowering in Catharanthus roseus (L.) G. Don, a rich source of terpenoid indole alkaloids. Plant Cell, Tissue and Organ Culture, 2018, 132, 579-584.	2.3	24

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37	In vitro Mass Multiplication with Pure Genetic Identity in Anthurium andreanum Lind.. Plant Tissue Culture and Biotechnology, 2009, 18, 113-122.	0.2	23
38	InÂvitroaccelerated mass propagation andex vitroevaluation ofAloe veraL. with aloin content and superoxide dismutase activity. Natural Product Research, 2011, 25, 1370-1378.	1.8	23
39	A two step method for accelerated mass propagation of Dendrocalamus asper and their evaluation in field. Physiology and Molecular Biology of Plants, 2011, 17, 387-393.	3.1	21
40	A potential retardant for lodging resistance in direct seeded rice (Oryza sativa L.). Canadian Journal of Plant Science, 2012, 92, 13-18.	0.9	21
41	Determination of Genetic Integrity in Long-term Micropropagated Plantlets of Allium ampeloprasum L. Using ISSR Markers. Biotechnology, 2010, 9, 218-223.	0.1	21
42	An elite protocol for accelerated quality-cloning in Gerbera jamesonii Bolus cv. Sciella. In Vitro Cellular and Developmental Biology - Plant, 2010, 46, 537-548.	2.1	20
43	Transgenic approaches for genetic improvement in groundnut (Arachis hypogaea L.) against major biotic and abiotic stress factors. Journal of Genetic Engineering and Biotechnology, 2018, 16, 537-544.	3.3	19
44	Coleus forskohlii: advancements and prospects of in vitro biotechnology. Applied Microbiology and Biotechnology, 2020, 104, 2359-2371.	3.6	19
45	Secondary metabolites in orchids: Biosynthesis, medicinal uses, and biotechnology. South African Journal of Botany, 2021, 139, 338-351.	2.5	19
46	Morphology, flow cytometry and molecular assessment of ex-vitro grown micropropagated anthurium in comparison with seed germinated plants. African Journal of Biotechnology, 2011, 10, 13991-13998.	0.6	18
47	Influence of auxin and its polar transport inhibitor on the development of somatic embryos in Digitalis trojana. 3 Biotech, 2018, 8, 99.	2.2	18
48	A Novel Strategy for in vitro Conservation of Aloe vera L. through Long Term Shoot Culture. Biotechnology, 2010, 9, 326-331.	0.1	18
49	Acacia: An exclusive survey on in vitro propagation. Journal of the Saudi Society of Agricultural Sciences, 2018, 17, 163-177.	1.9	17
50	meta-Topolin-induced enhanced biomass production via direct and indirect regeneration, synthetic seed production, and genetic fidelity assessment of Bacopa monnieri (L.) Pennell, a memory-booster plant. Acta Physiologiae Plantarum, 2021, 43, 1.	2.1	17
51	Accelerated mono-phasic in vitro mass production of banana propagules and their morpho-cyto-genetic stability assessment. South African Journal of Botany, 2022, 146, 794-806.	2.5	17
52	Effect of rootstocks on growth, yield, quality, and leaf mineral composition of Nagpur mandarin (Citrus reticulata Blanco.), grown in red lateritic soil of West Bengal, India. Scientia Horticulturae, 2018, 237, 142-147.	3.6	15
53	Green synthesis of carbon-based nanomaterials and their applications in various sectors: a topical review. Carbon Letters, 2022, 32, 365-393.	5.9	15
54	In vitro regeneration of high value spice Crocus sativus L.: A concise appraisal. Journal of Applied Research on Medicinal and Aromatic Plants, 2015, 2, 124-133.	1.5	14

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55	Sex-oriented research on dioecious crops of Indian subcontinent: an updated review. 3 Biotech, 2017, 7, 93.	2.2	14
56	Does synthetic seed storage at higher temperature reduce reserpine content of Rauvolfia serpentina (L.) Benth. ex Kurz.?. Rendiconti Lincei, 2017, 28, 679-686.	2.2	14
57	Neoteric trends in tissue culture-mediated biotechnology of Indian ipecac [Tylophora indica (Burm. f.) Merrill]. 3 Biotech, 2017, 7, 231.	2.2	14
58	Storage of encapsulated oil palm polyembryoids: influence of temperature and duration. In Vitro Cellular and Developmental Biology - Plant, 2015, 51, 118-124.	2.1	13
59	UVC-priming mediated modulation of forskolin biosynthesis key genes against Macrophomina root rot of Coleus forskohlii â¿¿A tissue culture based sustainable approach. Phytochemistry Letters, 2016, 17, 36-44.	1.2	13
60	Concurrent production and relative quantification of vasicinone from in vivo and in vitro plant parts of Malabar nut (Adhatoda vasica Nees). 3 Biotech, 2017, 7, 280.	2.2	13
61	Optimization of planting materials for large scale plantation of Bambusa balcooa Roxb.: Influence of propagation methods. Journal of the Saudi Society of Agricultural Sciences, 2018, 17, 79-87.	1.9	13
62	In vitro developmental study of oil palm (Elaeis guineensis Jacq.) polyembryoids from cell suspension using scanning electron microscopy. Acta Physiologiae Plantarum, 2013, 35, 1727-1733.	2.1	11
63	Aloe vera: a review update on advancement ofin vitroculture. Acta Agriculturae Scandinavica - Section B Soil and Plant Science, 2014, 64, 1-12.	0.6	11
64	Capsule formation and asymbiotic seed germination in some hybrids of Phalaenopsis, influenced by pollination season and capsule maturity. Physiology and Molecular Biology of Plants, 2015, 21, 341-347.	3.1	11
65	In vitro biotechnological advancements in Malabar nut (Adhatoda vasica Nees): Achievements, status and prospects. Journal of Genetic Engineering and Biotechnology, 2018, 16, 545-552.	3.3	11
66	Changes in antioxidant and biochemical activities in castor oil-coated Capsicum annuum L. during postharvest storage. 3 Biotech, 2018, 8, 280.	2.2	11
67	An Overview on in vitro Culture of Genus Allium. American Journal of Plant Physiology, 2010, 5, 325-337.	0.2	11
68	Drought tolerance improvement in Solanum lycopersicum: an insight into â€œOMICSâ€•approaches and genome editing. 3 Biotech, 2022, 12, 63.	2.2	11
69	Selection of Rice Genotypes for Salinity Tolerance Through Morpho-Biochemical Assessment. Rice Science, 2014, 21, 288-298.	3.9	10
70	Thidiazuron-Induced Protocorm-Like Bodies in Orchid: Progress and Prospects. , 2018, , 273-287.		10
71	An Efficient In Vitro Approach for Direct Regeneration and Callogenesis of Adhatoda vasica Nees, a Potential Source of Quinazoline Alkaloids. The National Academy of Sciences, India, 2017, 40, 319-324.	1.3	9
72	Ameliorated reserpine production via in vitro direct and indirect regeneration system in Rauvolfia serpentina (L.) Benth. ex Kurz.. 3 Biotech, 2020, 10, 294.	2.2	9

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73	M-brigde- and elicitor-assisted enhanced post-storage germination of Rauvolfia serpentina synthetic seeds, their genetic fidelity assessment and reserpine estimation. Industrial Crops and Products, 2022, 180, 114732.	5.2	9
74	Influence of gibberellin A3 application, pH of the medium, photoperiod and temperature on the enhancement of in vitro flowering in Vitex negundo L.. Plant Growth Regulation, 2012, 66, 203-209.	3.4	8
75	Cryopreservation of oil palm (Elaeis guineensis Jacq.) polyembryoids via encapsulationâ€“desiccation. 3 Biotech, 2020, 10, 9.	2.2	8
76	Hyperhydricity-induced changes among in vitro regenerants of gerbera. South African Journal of Botany, 2022, 149, 496-501.	2.5	8
77	Cryopreservation of Medicinal Herbs: Major Breakthroughs, Hurdles and Future. , 2018, , 353-381.		7
78	Role of Meta-topolin on in Vitro Shoot Regeneration: An Insight. , 2021, , 143-168.		7
79	Advances in Micropropagation of Selected Aromatic Plants: A Review on Vanilla and Strawberry. American Journal of Biochemistry and Molecular Biology, 2010, 1, 1-19.	0.6	7
80	Cryopreservation of Forest Tree Seeds: A Mini-Review. Journal of Forest and Environmental Science, 2016, 32, 311-322.	0.2	7
81	Picloram-induced enhanced callus-mediated regeneration, acclimatization, and genetic clonality assessment of gerbera. Journal of Genetic Engineering and Biotechnology, 2021, 19, 175.	3.3	7
82	Effects of some gelling agents and their concentrations on conversion of oil palm polyembryoids into plantlets. Journal of Genetic Engineering and Biotechnology, 2020, 18, 5.	3.3	6
83	Recent trends in agro-technology, post-harvest management and molecular characterisation of pomegranate. Journal of Horticultural Science and Biotechnology, 2021, 96, 409-427.	1.9	6
84	Influence of encapsulating agent and matr ix levels on synseed production ofBacopa monnieri(L.) Pennell. Medicinal Plants - International Journal of Phytomedicines and Related Industries, 2015, 7, 182.	0.2	6
85	One-step in vitro protocol for clonal propagation of Dendrobium Yuki White, a high value ornamental orchid hybrid. South African Journal of Botany, 2022, 146, 883-888.	2.5	6
86	Cryopreservation of immature Parkia speciosa Hassk. zygotic embryonic axes following desiccation or exposure to vitrification solution. Acta Physiologiae Plantarum, 2013, 35, 2629-2634.	2.1	5
87	Light Intensity-Induced Morphogenetic Response and Enhanced Î²-Sitosterol Accumulation in Date Palm (Phoenix dactylifera L. cv. Hayani) Callus Culture. Sugar Tech, 2020, 22, 1122-1129.	1.8	5
88	Applications of Synthetic Seed Technology for Propagation, Storage, and Conservation of Orchid Germplasms. , 2019, , 301-321.		5
89	Agri-biotechnology of coriander (Coriandrum sativum L.): an inclusive appraisal. Applied Microbiology and Biotechnology, 2022, 106, 951-969.	3.6	5
90	Enhanced somatic embryogenesis, plant regeneration and total phenolicÂcontent estimation in Lycium barbarum L.: a highly nutritive and medicinal plant. Journal of Crop Science and Biotechnology, 2022, 25, 547-555.	1.5	5

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91	Alginate Encapsulation of Shoot Tips and Their Regeneration for Enhanced Mass Propagation and Germplasm Exchange of Genetically Stable Stevia rebaudiana Bert.. Sugar Tech, 2023, 25, 542-551.	1.8	5
92	In vitro direct rhizogenesis from Gerbera jamesonii Bolus leaf. Acta Physiologiae Plantarum, 2014, 36, 3081-3087.	2.1	4
93	Genetic Transformation in Sugar Beet (Beta vulgaris L.): Technologies and Applications. Sugar Tech, 2023, 25, 269-281.	1.8	4
94	Tissue culture-based genetic improvement of fava bean (Vicia faba L.): analysis on previous achievements and future perspectives. Applied Microbiology and Biotechnology, 2021, 105, 6531-6546.	3.6	3
95	Evaluation of rapeseed-mustard cultivars under late sown condition in coastal ecosystem of West Bengal. Journal of Applied and Natural Science, 2017, 9, 940-949.	0.4	3
96	Evaluation of Genetic Divergence in Spanish Bunch Groundnut (Arachis hypogaea Linn.) Genotypes. Plant Breeding and Biotechnology, 2017, 5, 163-171.	0.9	3
97	Quantitative description of upper storey vegetation at a foothill forest in Indian Eastern Himalayas.. , 2017, , 309-316.		3
98	Artificial Seed Development of Selected Anti-Diabetic Plants, Their Storage and Regeneration: Progress and Prospect. , 2021, , 409-436.		3
99	Biotechnology of banana (Musa spp.): multi-dimensional progress and prospect of in vitroâ€“mediated system. Applied Microbiology and Biotechnology, 0, , .	3.6	3
100	Cytological analysis for meiotic patterns in wild rice (Oryza rufipogon Griff.). Biotechnology Reports (Amsterdam, Netherlands), 2017, 13, 26-29.	4.4	2
101	An effective validated method for HPTLC-fingerprinting of alkaloids and glycosides from multiple plant parts of three Terminalia spp.. Israel Journal of Plant Sciences, 2018, 65, 109-117.	0.5	2
102	Fundamental Facets of Somatic Embryogenesis and Its Applications for Advancement of Peanut Biotechnology. , 2018, , 267-298.		2
103	Transgenic Ornamentals for Phytoremediation of Metals and Metalloids. , 2019, , 477-497.		2
104	Justicia beddomei, a source of comprehensive vasicinone production. Israel Journal of Plant Sciences, 2019, 66, 213-219.	0.5	2
105	High Performance thin layer chromatographic quantification of key cholesterol reducing compound (â^sitosterol) from leaf, bark, fruit and root of Terminalia arjuna, T. bellerica and T. chebula. Medicinal Plants - International Journal of Phytomedicines and Related Industries, 2017, 9, 272.	0.2	2
106	Cryoconservation methods for extended storage of plant genetic resources.. , 2017, , 458-464.		2
107	Advances in Functional Genomics in Investigating Salinity Tolerance in Plants. , 2019, , 171-188.		2
108	Tissue Culture-Mediated Biotechnological Advancements in Genus Brassica. , 2020, , 85-107.		2

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109	Improving crops through transgenic breedingâ€"Technological advances and prospects. , 2022, , 295-324.		2
110	Conserving Biodiversity of a Potent Anticancer Plant, Catharanthus roseus Through In Vitro Biotechnological Intercessions: Substantial Progress and Imminent Prospects. , 2018, , 83-107.		1
111	Transgenic Research on Tomato: Problems, Strategies, and Achievements. , 2018, , 287-334.		1
112	Optimization of growing conditions, substrate-types and their concentrations for acclimatization and post-acclimatization growth of in vitro-raised flame lily (Gloriosa superba L.) plantlets. Vegetos, 0, , 1.	1.5	1
113	Peanut (Arachis hypogaea L.) Breeding. , 2019, , 253-299.		1
114	Cryo-conservation of Musa germplasms: progress and prospect. Conservation Genetics Resources, 0, , 1.	0.8	1
115	Asymbiotic Germination of Phalaenopsis cv. â€˜Dublinâ€™ Seeds in Relation to Pollination Months and Nutrient Media. Notulae Scientia Biologicae, 2015, 7, 330-333.	0.4	0
116	Asymbiotic Germination of Phalaenopsis cv. â€˜Dublinâ€™ Seeds in Relation to Pollination Months and Nutrient Media. Notulae Scientia Biologicae, 2015, 7, .	0.4	0
117	In vitro regeneration of Chlorophytum borivilianum Santapau & R.R. Fern.. Medicinal Plants - International Journal of Phytomedicines and Related Industries, 2017, 9, 76.	0.2	0
118	Natural production and quantification of ellagic acid in multiple plant parts of three Terminalia spp.. Medicinal Plants - International Journal of Phytomedicines and Related Industries, 2019, 11, 321.	0.2	0
119	Salient Biotechnological Interventions in Saffron (Crocus sativus L.): A Major Source of Bio-active Apocarotenoids. , 2019, , 205-223.		0
120	Genetic variability, character association and genetic divergence in groundnut (Arachis hypogaea L.) accessions. Legume Research, 2019, , .	0.1	0
121	How Do Extraction Methods and Biotechnology Influence Our Understanding and Usages of Ginsenosides?: A Critical View and Perspectives. , 0, , .		0