Altaf Ahmad

List of Publications by Year
in descending order

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132 papers	3,851 citations	126907 33 h-index	155660 55 g-index
138 all docs	138 docs citations	138 times ranked	4278 citing authors

#	Article	IF	Citations
1	Changes in growth, lipid peroxidation and some key antioxidant enzymes in chickpea genotypes under salt stress. Acta Physiologiae Plantarum, 2013, 35, 1039-1050.	2.1	269
2	Phytoremediation of Heavy Metals: Physiological and Molecular Mechanisms. Botanical Review, The, 2009, 75, 339-364.	3.9	235
3	Sulphur protects mustard (Brassica campestris L.) from cadmium toxicity by improving leaf ascorbate and glutathione. Plant Growth Regulation, 2008, 54, 271-279.	3.4	168
4	Modulation of antioxidant defence system for arsenic detoxification in Indian mustard. Ecotoxicology and Environmental Safety, 2009, 72, 626-634.	6.0	126
5	Induction of phytochelatins and antioxidant defence system in Brassica juncea and Vigna radiata in response to chromium treatments. Plant Growth Regulation, 2010, 61, 97-107.	3.4	102
6	Nitrogen-efficient rice cultivars can reduce nitrate pollution. Environmental Science and Pollution Research, 2011, 18, 1184-1193.	5.3	99
7	Drought-Enhanced Xylem Sap Sulfate Closes Stomata by Affecting ALMT12 and Guard Cell ABA Synthesis. Plant Physiology, 2017, 174, 798-814.	4.8	95
8	Metabolite Profiling of Low-P Tolerant and Low-P Sensitive Maize Genotypes under Phosphorus Starvation and Restoration Conditions. PLoS ONE, 2015, 10, e0129520.	2.5	86
9	Modulation of glutathione and its related enzymes in plantsâ€™ responses to toxic metals and metalloidsâ€”A review. Environmental and Experimental Botany, 2011, 75, 307-307.	4.2	84
10	Identification and Comparative Analysis of MicroRNAs Associated with Low-N Tolerance in Rice Genotypes. PLoS ONE, 2012, 7, e50261.	2.5	76
11	Genetically encoded FRET-based nanosensor for in vivo measurement of leucine. Biosensors and Bioelectronics, 2013, 50, 72-77.	10.1	67
12	Genotypic Variation in the Phytoremediation Potential of Indian Mustard for Chromium. Environmental Management, 2008, 41, 734-741.	2.7	65
13	Improving the phytoextraction capacity of plants to scavenge metal(loid)-contaminated sites. Environmental Reviews, 2015, 23, 44-65.	4.5	65
14	Cultivar specific variations in antioxidative defense system, genome and proteome of two tropical rice cultivars against ambient and elevated ozone. Ecotoxicology and Environmental Safety, 2015, 115, 101-111.	6.0	64
15	Analysis of Genetic Diversity and Population Structure of Rice Germplasm from North-Eastern Region of India and Development of a Core Germplasm Set. PLoS ONE, 2014, 9, e113094.	2.5	59
16	Genetically-encoded nanosensor for quantitative monitoring of methionine in bacterial and yeast cells. Biosensors and Bioelectronics, 2014, 59, 358-364.	10.1	58
17	Physiological and molecular alterations in plants exposed to high [CO2] under phosphorus stress. Biotechnology Advances, 2015, 33, 303-316.	11.7	53
18	Interactive Effect of Sulphur and Nitrogen on the Oil and Protein Contents and on the Fatty Acid Profiles of Oil in the Seeds of Rapeseed (Brassica campestris L.) and Mustard (Brassica juncea L. Czern.) Tj ETQq0 0 0 rgBT /Overlock 10	3.5	52

#	Article	IF	Citations
19	Root carboxylate exudation capacity under phosphorus stress does not improve grain yield in green gram. Plant Cell Reports, 2014, 33, 919-928.	5.6	52
20	Visualization of Glutamine Transporter Activities in Living Cells Using Genetically Encoded Glutamine Sensors. PLoS ONE, 2012, 7, e38591.	2.5	51
21	Designing, construction and characterization of genetically encoded FRET-based nanosensor for real time monitoring of lysine flux in living cells. Journal of Nanobiotechnology, 2016, 14, 49.	9.1	51
22	Ontogenic variation in response ofBrassica campestrisL. to cadmium toxicity. Journal of Plant Interactions, 2008, 3, 189-198.	2.1	50
23	Global Climate Change, Stress and Plant Productivity. , 2009, , 503-521.		49
24	Modulation in growth, biochemical attributes and proteome profile of rice cultivars under salt stress. Plant Physiology and Biochemistry, 2020, 146, 55-70.	5.8	49
25	Photosynthesis and its related physiological variables in the leaves ofBrassicagenotypes as influenced by sulphur fertilization. Physiologia Plantarum, 2000, 110, 144-149.	5.2	48
26	Effect of sulphur application on lipid, RNA and fatty acid content in developing seeds of rapeseed (Brassica campestris L.). Plant Science, 2000, 150, 71-76.	3.6	47
27	Uptake-related parameters as indices of phytoremediation potential. Biologia (Poland), 2010, 65, 1004-1011.	1.5	41
28	Effect of Timing of Sulfur Fertilizer Application on Growth and Yield of Rapeseed. Journal of Plant Nutrition, 2005, 28, 1049-1059.	1.9	39
29	Interactive Effect of Nitrogen and Sulphur on Growth and Yield of Rapeâ€seedâ€Mustard (Brassica) Tj ETQq1 1 0.784314 rgBT /Ov Crop Science, 1998, 181, 193-199.	3.5	38
30	Proteomic Analysis for Low and High Nitrogen-Responsive Proteins in the Leaves of Rice Genotypes Grown at Three Nitrogen Levels. Applied Biochemistry and Biotechnology, 2012, 168, 834-850.	2.9	38
31	Responses of Components of Antioxidant System in Moongbean Genotypes to Cadmium Stress. Communications in Soil Science and Plant Analysis, 2008, 39, 2469-2483.	1.4	37
32	Antioxidant response and proteomic modulations in Indian mustard grown under salt stress. Plant Growth Regulation, 2017, 81, 31-50.	3.4	36
33	Ethylene reduces glucose sensitivity and reverses photosynthetic repression through optimization of glutathione production in salt-stressed wheat (Triticum aestivum L.). Scientific Reports, 2021, 11, 12650.	3.3	36
34	Determination of Curcuminoids inCurcuma longaLinn. by UPLC/Q-TOFâ€“MS: An Application in Turmeric Cultivation. Journal of Chromatographic Science, 2015, 53, 1346-1352.	1.4	35
35	Validated HPTLC analysis method for quantification of variability in content of curcumin in Curcuma longa L (turmeric) collected from different geographical region of India. Asian Pacific Journal of Tropical Biomedicine, 2012, 2, S584-S588.	1.2	34
36	Effect of calcium against salinity-induced inhibition in growth, ion accumulation and proline contents in Cichorium intybus L. Journal of Environmental Biology, 2010, 31, 939-44.	0.5	34

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37	Effect of split application of sulphur and nitrogen on growth and yield attributes of Brassica genotypes differing in time of flowering. Canadian Journal of Plant Science, 1999, 79, 175-180.	0.9	33
38	Role of sulphate transporter systems in sulphur efficiency of mustard genotypes. Plant Science, 2005, 169, 842-846.	3.6	33
39	Nitrogen-Deficiency Stress Induces Protein Expression Differentially in Low-N Tolerant and Low-N Sensitive Maize Genotypes. Frontiers in Plant Science, 2016, 7, 298.	3.6	33
40	NADH: nitrate reductase and NAD(P)H: nitrate reductase activities in mustard seedlings. Plant Science, 1999, 143, 1-8.	3.6	32
41	Physiological Investigation of the Impact of Nitrogen and Sulphur Application on Seed and Oil Yield of Rapeseed (Brassica campestris L.) and Mustard (Brassica juncea L. Czern. and Coss.) Genotypes. Journal of Agronomy and Crop Science, 1999, 183, 19-25.	3.5	31
42	Salt stress-induced modulations in the shoot proteome of Brassica juncea genotypes. Environmental Science and Pollution Research, 2016, 23, 2391-2401.	5.3	31
43	Screening Indian Mustard Genotypes for Phytoremediating Arsenicâ€Contaminated Soils. Clean - Soil, Air, Water, 2013, 41, 195-201.	1.1	30
44	FRET-based genetically-encoded sensors for quantitative monitoring of metabolites. Biotechnology Letters, 2015, 37, 1919-1928.	2.2	29
45	Antibacterial and Antifungal Activity of the Extracts of Different Parts of Avicennia marina (Forssk.) Vierh. Plants, 2021, 10, 252.	3.5	29
46	Nitrogen Challenges and Opportunities for Agricultural and Environmental Science in India. Frontiers in Sustainable Food Systems, 2021, 5, .	3.9	29
47	Salt-stress-responsive chloroplast proteins in Brassica juncea genotypes with contrasting salt tolerance and their quantitative PCR analysis. Protoplasma, 2016, 253, 1565-1575.	2.1	27
48	Implication of protein tyrosine phosphatase SHP-1 in cancer-related signaling pathways. Future Oncology, 2016, 12, 1287-1298.	2.4	27
49	Genotypic Variation in Phytoremediation Potential of Indian Mustard Exposed to Nickel Stress: A Hydroponic Study. International Journal of Phytoremediation, 2015, 17, 135-144.	3.1	26
50	Genetic diversity analysis of Zingiber Officinale Roscoe by RAPD collected from subcontinent of India. Saudi Journal of Biological Sciences, 2014, 21, 159-165.	3.8	25
51	Protein tyrosine phosphatase SHP-1: resurgence as new drug target for human autoimmune disorders. Immunologic Research, 2016, 64, 804-819.	2.9	25
52	Live cell monitoring of glycine betaine by FRET-based genetically encoded nanosensor. Biosensors and Bioelectronics, 2016, 86, 169-175.	10.1	25
53	Phytoremediation and Rhizoremediation: Uptake, Mobilization and Sequestration of Heavy Metals by Plants. , 2017, , 367-394.		25
54	Sulfur starvation and restoration affect nitrate uptake and assimilation in rapeseed. Protoplasma, 2011, 248, 299-311.	2.1	24

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55	Live cell imaging of vitamin B12 dynamics by genetically encoded fluorescent nanosensor. Sensors and Actuators B: Chemical, 2018, 257, 866-874.	7.8	24
56	Low nitrogen stress regulates chlorophyll fluorescence in coordination with photosynthesis and Rubisco efficiency of rice. Physiology and Molecular Biology of Plants, 2020, 26, 83-94.	3.1	24
57	Genotypic variation of nitrogen use efficiency in Indian mustard. Environmental Pollution, 2008, 154, 462-466.	7.5	23
58	Physiological and Molecular Analysis of Applied Nitrogen in Rice Genotypes. Rice Science, 2012, 19, 213-222.	3.9	23
59	Mercury-induced changes in growth variables and antioxidative enzyme activities in Indian mustard. Journal of Plant Interactions, 2009, 4, 131-136.	2.1	22
60	Chromium-Induced Modulation in the Antioxidant Defense System During Phenological Growth Stages of Indian Mustard. International Journal of Phytoremediation, 2009, 12, 142-158.	3.1	22
61	Photosynthesis and growth responses of mustard (Brassica juncea L. cv Pusa Bold) plants to free air carbon dioxide enrichment (FACE). Protoplasma, 2015, 252, 935-946.	2.1	22
62	Salinity-induced inhibition of growth in the aquatic pteridophyte Azolla microphylla primarily involves inhibition of photosynthetic components and signaling molecules as revealed by proteome analysis. Protoplasma, 2017, 254, 303-313.	2.1	22
63	Application of loop-mediated isothermal amplification (LAMP)-based technology for authentication of Catharanthus roseus (L.) G. Don. Protoplasma, 2012, 249, 417-422.	2.1	21
64	Elevated CO₂Improves Growth and Phosphorus Utilization Efficiency in Cereal Species Under Sub-Optimal Phosphorus Supply. Journal of Plant Nutrition, 2015, 38, 1196-1217.	1.9	20
65	Nitrogen stress-induced alterations in the leaf proteome of two wheat varieties grown at different nitrogen levels. Physiology and Molecular Biology of Plants, 2015, 21, 19-33.	3.1	19
66	Effect of sulfur fertilisation on oil accumulation, acetyl-CoA concentration, and acetyl-CoA carboxylase activity in the developing seeds of rapeseed (Brassica campestris L.). Australian Journal of Agricultural Research, 2000, 51, 1023.	1.5	19
67	In vitro propagation and the acclimatization effect on the synthesis of 2-hydroxy-4-methoxy benzaldehyde in Decalepis hamiltonii Wight and Arn.. Acta Physiologiae Plantarum, 2014, 36, 2331-2344.	2.1	18
68	Nitrogen-regulated changes in total amino acid profile of maize genotypes having contrasting response to nitrogen deficit. Protoplasma, 2017, 254, 2143-2153.	2.1	18
69	RAPD Markers Associated with Salt Tolerance in Soybean Genotypes Under Salt Stress. Applied Biochemistry and Biotechnology, 2013, 170, 257-272.	2.9	17
70	Identification of the Phytoremediation Potential of Indian mustard Genotypes for Copper, Evaluated from a Hydroponic Experiment. Clean - Soil, Air, Water, 2013, 41, 789-796.	1.1	16
71	Responsive Proteins in Wheat Cultivars with Contrasting Nitrogen Efficiencies under the Combined Stress of High Temperature and Low Nitrogen. Genes, 2017, 8, 356.	2.4	16
72	Reactive oxygen species detection-approaches in plants: Insights into genetically encoded FRET-based sensors. Journal of Biotechnology, 2020, 308, 108-117.	3.8	16

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73	Variability in Indian bread wheat (Triticum aestivum L.) varieties differing in nitrogen efficiency as assessed by microsatellite markers. Protoplasma, 2010, 242, 55-67.	2.1	15
74	Physiological studies and proteomic analysis for differentially expressed proteins and their possible role in the root of N-efficient rice (Oryza sativa L.). Molecular Breeding, 2013, 32, 785-798.	2.1	15
75	Real-time monitoring of glutathione in living cells using genetically encoded FRET-based ratiometric nanosensor. Scientific Reports, 2020, 10, 992.	3.3	15
76	Determination of Gingerols in Ginger by Ultra-High Performance Liquid Chromatography-Tandem Mass Spectrometry. Analytical Letters, 2014, 47, 2120-2128.	1.8	14
77	Photosynthesis and Nitrogen-Use Efficiency. , 2002, , 23-34.		13
78	Morphological changes and antioxidant defence systems in soybean genotypes as affected by salt stress. Journal of Plant Interactions, 2009, 4, 295-306.	2.1	12
79	Differential response of wheat genotypes to applied nitrogen: biochemical and molecular analysis. Archives of Agronomy and Soil Science, 2012, 58, 915-929.	2.6	12
80	Metabolic Flux Analysis of Catechin Biosynthesis Pathways Using Nanosensor. Antioxidants, 2020, 9, 288.	5.1	12
81	Variability of nitrogen uptake and assimilation among N-efficient and N-inefficient wheat (Triticum) Tj ETQq1 1 0.784314 rgBT /Overlo	2.1	11
82	Nutrient alginate encapsulation of nodal segments of Althaea officinalis L., for short-term conservation and germplasm exchange. Plant Biosystems, 2018, 152, 1256-1262.	1.6	11
83	Role of green fluorescent proteins and their variants in development of FRET-based sensors. Journal of Biosciences, 2018, 43, 763-784.	1.1	11
84	Targeted SHP-1 Silencing Modulates the Macrophage Phenotype, Leading to Metabolic Improvement in Dietary Obese Mice. Molecular Therapy - Nucleic Acids, 2019, 16, 626-636.	5.1	11
85	Suitability of Indian mustard genotypes for phytoremediation of mercury-contaminated sites. South African Journal of Botany, 2021, 142, 12-18.	2.5	11
86	Constitutive expression of high-affinity sulfate transporter (HAST) gene in Indian mustard showed enhanced sulfur uptake and assimilation. Protoplasma, 2011, 248, 591-600.	2.1	10
87	Stimuli responsive polymeric nanoparticles in regulated drug delivery for cancer. Polish Journal of Chemical Technology, 2012, 14, 57-64.	0.5	10
88	Restructuring BODâ€‰:â€‰COD Ratio of Dairy Milk Industrial Wastewaters in BOD Analysis by Formulating a Specific Microbial Seed. Scientific World Journal, The, 2012, 2012, 1-7.	2.1	10
89	Nitrogen-Efficient and Nitrogen-Inefficient Indian Mustard Showed Differential Expression Pattern of Proteins in Response to Elevated CO2 and Low Nitrogen. Frontiers in Plant Science, 2016, 7, 1074.	3.6	10
90	Inhibition of Src homology 2 domain containing protein tyrosine phosphatase as the possible mechanism of metformin-assisted amelioration of obesity induced insulin resistance in high fat diet fed C57BL/6J mice. Biochemical and Biophysical Research Communications, 2017, 487, 54-61.	2.1	10

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91	Construction and characterization of protein-based cysteine nanosensor for the real time measurement of cysteine level in living cells. International Journal of Biological Macromolecules, 2020, 143, 273-284.	7.5	10
92	Comparative studies on antioxidant enzyme action and ion accumulation in soybean cultivars under salinity stress. Journal of Environmental Biology, 2012, 33, 9-20.	0.5	10
93	Conversion of Cytochrome P450 2D6 of Human Into a FRET-Based Tool for Real-Time Monitoring of Ajmalicine in Living Cells. Frontiers in Bioengineering and Biotechnology, 2019, 7, 375.	4.1	9
94	Analysis of Proteomic Profile of Contrasting Phosphorus Responsive Rice Cultivars Grown under Phosphorus Deficiency. Agronomy, 2020, 10, 1028.	3.0	9
95	Physiological, Agronomical, and Proteomic Studies Reveal Crucial Players in Rice Nitrogen Use Efficiency under Low Nitrogen Supply. International Journal of Molecular Sciences, 2022, 23, 6410.	4.1	9
96	Symbiotic Nitrogen Fixation by Lentil Improves Biochemical Characteristics and Yield of Intercropped Wheat Under Low Fertilizer Input. Journal of Crop Improvement, 2013, 27, 53-66.	1.7	8
97	Metabolite Profiling and Network Analysis Reveal Coordinated Changes in Low-N Tolerant and Low-N Sensitive Maize Genotypes under Nitrogen Deficiency and Restoration Conditions. Plants, 2020, 9, 1459.	3.5	8
98	Leveraging the Pathophysiological Alterations of Obstructive Nephropathy to Treat Renal Fibrosis by Cerium Oxide Nanoparticles. ACS Biomaterials Science and Engineering, 2020, 6, 3563-3573.	5.2	8
99	Stress Signaling in Plants: Genomics and Proteomics Perspective, Volume 1. , 2013, , .		7
100	Reactive Nitrogen Inflows and Nitrogen Use Efficiency in Agriculture: An Environment Perspective. , 2012, , 217-232.		6
101	Genetically encoded FRET-based nanosensor for in vivo monitoring of zinc concentration in physiological environment of living cell. Biochemical Engineering Journal, 2015, 102, 62-68.	3.6	6
102	Salinity induced changes in the chloroplast proteome of the aquatic pteridophyte Azolla microphylla. Symbiosis, 2018, 75, 61-67.	2.3	6
103	A Fluorescence Resonance Energy Transfer-Based Analytical Tool for Nitrate Quantification in Living Cells. ACS Omega, 2020, 5, 30306-30314.	3.5	6
104	GENETIC DIVERSITY IN ACCESSIONS OF INDIAN TURMERIC (CURCUMA LONGA L.) USING RAPD MARKERS. International Journal of Pharmacy and Pharmaceutical Sciences, 2017, 9, 288.	0.3	5
105	Real-Time Optical Detection of Isoleucine in Living Cells through a Genetically-Encoded Nanosensor. Sensors, 2020, 20, 146.	3.8	5
106	Metabolic Regulation Analysis of Ajmalicine Biosynthesis Pathway in Catharanthus roseus (L.) G. Don Suspension Culture Using Nanosensor. Processes, 2020, 8, 589.	2.8	5
107	A Non-Invasive Tool for Real-Time Measurement of Sulfate in Living Cells. International Journal of Molecular Sciences, 2020, 21, 2572.	4.1	5
108	Salinity tolerance mechanism in the aquatic nitrogen fixing pteridophyte Azolla: a review. Symbiosis, 2021, 83, 129-142.	2.3	5

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109	Signal Transduction and Regulatory Networks in Plant-Pathogen Interaction: A Proteomics Perspective. , 2013, , 69-90.		4
110	Status of antioxidant defense system for detoxification of arsenic in Brassica juncea (L.). Ecoprint an International Journal of Ecology, 0, 22, 7-19.	0.1	4
111	TDZ-Induced Efficient Micropropagation from Juvenile Nodal Segment of Syzygium cumini (Skill): A Recalcitrant Tree. , 2021, , 163-175.		4
112	Proteome Profiling of the Mutagen-Induced Morphological and Yield Macro-Mutant Lines of Nigella sativa L.. Plants, 2019, 8, 321.	3.5	3
113	Proteomics Insights Into Salt Stress Signaling in Plants. , 2019, , 479-497.		3
114	Designing and construction of genetically encoded FRET-based nanosensor for qualitative analysis of digoxin. Journal of Biotechnology, 2020, 323, 322-330.	3.8	3
115	Development of an In Vitro Propagation Protocol and a Sequence Characterized Amplified Region (SCAR) Marker of Viola serpens Wall. ex Ging. Plants, 2020, 9, 246.	3.5	3
116	FRET-Based Genetically Encoded Nanosensor for Real-Time Monitoring of the Flux of Î±-Tocopherol in Living Cells. ACS Omega, 2021, 6, 9020-9027.	3.5	3
117	Biochemical Evaluation of Sulfur and Nitrogen Assimilation Potential of Mustard (Brassica juncea L.) Tj ETQq1 1 0.784314 rgBT /Overl Biotechnology, 2001, 96, 167-172.	2.9	2
118	Selection of an apt support for the immobilization of microbes for the development of a BOD biosensor. Analytical Methods, 2013, 5, 1533.	2.7	2
119	Sample preparation method for tissue based proteomic analysis of Azolla microphylla. Symbiosis, 2017, 72, 207-214.	2.3	2
120	Construction of a Nanosensor for Non-Invasive Imaging of Hydrogen Peroxide Levels in Living Cells. Biology, 2020, 9, 430.	2.8	2
121	Designing and Development of FRET-Based Nanosensor for Real Time Analysis of N-Acetyl-5-Neuraminic Acid in Living Cells. Frontiers in Nutrition, 2021, 8, 621273.	3.7	2
122	Molecular Network of Nitrogen and Sulphur Signaling in Plants. , 2013, , 191-223.		1
123	Giant cell tumor of axis: A rare entity. Journal of Pediatric Neurology, 2015, 05, 351-354.	0.2	1
124	Regulation of Leaf Senescence by Macromolecule Degradation and Hormones. , 2019, , 61-97.		1
125	Role of green fluorescent proteins and their variants in development of FRET-based sensors. Journal of Biosciences, 2018, 43, 763-784.	1.1	1
126	Impact of Ferrous Sulfate on Thylakoidal Multiprotein Complexes, Metabolism and Defence of Brassica juncea L. under Arsenic Stress. Plants, 2022, 11, 1559.	3.5	1

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127	Relationship between Soil Nitrate Content and Activities of NADH: and NAD(P)H:Nitrate Reductases in Indian Mustard. Biologia Plantarum, 2003, 46, 295-296.	1.9	0
128	Chromium Toxicity and Tolerance in Crop Plants. , 2013, , 309-332.		0
129	Auxin Genes and Auxin Responsive Factors in Signaling During Leaf Senescence. , 2013, , 91-103.		0
130	Molecular Network of Monoterpene Indole Alkaloids (MIAs) Signaling in Plants with Reference to Catharanthus roseus (L.) G. Don. , 2017, , 37-67.		0
131	SCAR MARKER DEVELOPMENT FOR THE CORRECT IDENTIFICATION OF IRIS ENSATA. International Journal of Pharmacy and Pharmaceutical Sciences, 2017, 9, 201.	0.3	0
132	Current Status of Nanosensors in Biological Sciences. , 2020, , 15-41.		0