Gerardo ColÃ³n

List of Publications by Year
in descending order

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126 papers	10,191 citations	30070 54 h-index	32842 100 g-index
129 all docs	129 docs citations	129 times ranked	10983 citing authors

#	Article	IF	Citations
1	Advanced Nanoarchitectures for Solar Photocatalytic Applications. Chemical Reviews, 2012, 112, 1555-1614.	47.7	2,107
2	Cu-doped TiO2 systems with improved photocatalytic activity. Applied Catalysis B: Environmental, 2006, 67, 41-51.	20.2	491
3	Improved photocatalytic activity of g-C3N4/TiO2 composites prepared by a simple impregnation method. Journal of Photochemistry and Photobiology A: Chemistry, 2013, 253, 16-21.	3.9	235
4	Structural and surface approach to the enhanced photocatalytic activity of sulfated TiO2 photocatalyst. Applied Catalysis B: Environmental, 2006, 63, 45-59.	20.2	228
5	Redox behavior of CeO2â€“ZrO2 mixed oxides. Applied Catalysis B: Environmental, 2000, 27, 49-63.	20.2	220
6	Preparation and Physicochemical Properties of ZrO2and Fe/ZrO2Prepared by a Solâˆ’Gel Technique. Langmuir, 2001, 17, 202-210.	3.5	210
7	Surface and structural characterization of CexZr1-xO2 CEZIRENCAT mixed oxides as potential three-way catalyst promoters. Journal of the Chemical Society, Faraday Transactions, 1998, 94, 3717-3726.	1.7	193
8	Modification of the oxygen storage capacity of CeO2â€“ZrO2 mixed oxides after redox cycling aging. Catalysis Today, 2000, 59, 373-386.	4.4	190
9	Cationic (V, Mo, Nb, W) doping of TiO2â€“anatase: A real alternative for visible light-driven photocatalysts. Catalysis Today, 2009, 143, 286-292.	4.4	188
10	Hydrothermal synthesis of BiVO4: Structural and morphological influence on the photocatalytic activity. Applied Catalysis B: Environmental, 2012, 117-118, 59-66.	20.2	175
11	Comparative study of the photodeposition of Pt, Au and Pd on pre-sulphated TiO2 for the photocatalytic decomposition of phenol. Journal of Photochemistry and Photobiology A: Chemistry, 2011, 217, 275-283.	3.9	164
12	Iron-doped titania semiconductor powders prepared by a solâ€“gel method. Part I: synthesis and characterization. Applied Catalysis A: General, 1999, 177, 111-120.	4.3	153
13	TiO2 activation by using activated carbon as a support Part I. Surface characterisation and decantability study. Applied Catalysis B: Environmental, 2003, 44, 161-172.	20.2	151
14	Photocatalytic deactivation of commercial TiO2 samples during simultaneous photoreduction of Cr(VI) and photooxidation of salicylic acid. Journal of Photochemistry and Photobiology A: Chemistry, 2001, 138, 79-85.	3.9	146
15	Heterogeneous photocatalytic reactions of nitrite oxidation and Cr(VI) reduction on iron-doped titania prepared by the wet impregnation method. Applied Catalysis B: Environmental, 1998, 16, 187-196.	20.2	143
16	Towards the hydrogen production by photocatalysis. Applied Catalysis A: General, 2016, 518, 48-59.	4.3	143
17	Synthesis, characterization and photocatalytic properties of iron-doped titania semiconductors prepared from TiO2 and iron(III) acetylacetonate. Journal of Molecular Catalysis A, 1996, 106, 267-276.	4.8	142
18	Monoclinicâ€“Tetragonal Heterostructured BiVO₄ by Yttrium Doping with Improved Photocatalytic Activity. Journal of Physical Chemistry C, 2013, 117, 24479-24484.	3.1	134

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19	Effect of TiO2 acidic pre-treatment on the photocatalytic properties for phenol degradation. Journal of Photochemistry and Photobiology A: Chemistry, 2006, 179, 20-27.	3.9	133
20	Sunlight highly photoactive Bi2WO6â€“TiO2 heterostructures for rhodamine B degradation. Chemical Communications, 2010, 46, 4809.	4.1	129
21	TiO2 activation by using activated carbon as a support Part II. Photoreactivity and FTIR study. Applied Catalysis B: Environmental, 2003, 44, 153-160.	20.2	122
22	Photocatalytic behaviour of sulphated TiO2 for phenol degradation. Applied Catalysis B: Environmental, 2003, 45, 39-50.	20.2	118
23	Nanostructured Tiâ€“M mixed-metal oxides: Toward a visible light-driven photocatalyst. Journal of Catalysis, 2008, 254, 272-284.	6.2	116
24	Hydrothermal preparation of highly photoactive TiO2 nanoparticles. Catalysis Today, 2007, 129, 50-58.	4.4	114
25	Gas-phase ethanol photocatalytic degradation study with TiO2 doped with Fe, Pd and Cu. Journal of Molecular Catalysis A, 2004, 215, 153-160.	4.8	112
26	Improved H2 production of Pt-TiO2/g-C3N4-MnOx composites by an efficient handling of photogenerated charge pairs. Applied Catalysis B: Environmental, 2014, 144, 775-782.	20.2	111
27	High-performance Er3+â€“TiO2 system: Dual up-conversion and electronic role of the lanthanide. Journal of Catalysis, 2013, 299, 298-306.	6.2	108
28	Redox behavior of CeO2â€“ZrO2 mixed oxides. Applied Catalysis B: Environmental, 2001, 30, 75-85.	20.2	106
29	Textural and phase stability of CexZr1â^'xO2 mixed oxides under high temperature oxidising conditions. Catalysis Today, 1999, 50, 271-284.	4.4	105
30	Cascade charge separation mechanism by ternary heterostructured BiPO4/TiO2/g-C3N4 photocatalyst. Applied Catalysis B: Environmental, 2016, 184, 96-103.	20.2	100
31	A novel preparation of high surface area TiO2 nanoparticles from alkoxide precursor and using active carbon as additive. Catalysis Today, 2002, 76, 91-101.	4.4	96
32	Active Site Considerations on the Photocatalytic H₂ Evolution Performance of Cu-Doped TiO₂ Obtained by Different Doping Methods. ACS Catalysis, 2014, 4, 3320-3329.	11.2	96
33	Heterostructured Er3+ doped BiVO4 with exceptional photocatalytic performance by cooperative electronic and luminescence sensitization mechanism. Applied Catalysis B: Environmental, 2014, 158-159, 242-249.	20.2	94
34	Novel Bi2WO6â€“TiO2 heterostructures for Rhodamine B degradation under sunlike irradiation. Journal of Hazardous Materials, 2011, 185, 1425-1434.	12.4	87
35	Photodeposition of gold on titanium dioxide for photocatalytic phenol oxidation. Applied Catalysis A: General, 2011, 397, 112-120.	4.3	86
36	Evidence of upconversion luminescence contribution to the improved photoactivity of erbium doped TiO2 systems. Chemical Communications, 2012, 48, 7865.	4.1	85

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37	Excellent photocatalytic activity of Yb3+, Er3+ co-doped BiVO4 photocatalyst. Applied Catalysis B: Environmental, 2014, 152-153, 328-334.	20.2	84
38	Photocatalytic properties of surface modified platinised TiO2: Effects of particle size and structural composition. Catalysis Today, 2007, 129, 43-49.	4.4	82
39	Erbium doped TiO2â€“Bi2WO6 heterostructure with improved photocatalytic activity under sun-like irradiation. Applied Catalysis B: Environmental, 2013, 140-141, 299-305.	20.2	82
40	Effect of Sulfate Pretreatment on Gold-Modified TiO₂ for Photocatalytic Applications. Journal of Physical Chemistry C, 2009, 113, 12840-12847.	3.1	81
41	Doping level effect on sunlight-driven W,N-co-doped TiO2-anatase photo-catalysts for aromatic hydrocarbon partial oxidation. Applied Catalysis B: Environmental, 2010, 93, 274-281.	20.2	80
42	Cuâ€“TiO2 systems for the photocatalytic H2 production: Influence of structural and surface support features. Applied Catalysis B: Environmental, 2015, 179, 468-478.	20.2	79
43	On the different photocatalytic performance of BiVO4 catalysts for Methylene Blue and Rhodamine B degradation. Journal of Molecular Catalysis A, 2013, 376, 40-47.	4.8	77
44	Influence of Carboxylic Acid on the Photocatalytic Reduction of Cr(VI) Using Commercial TiO2. Langmuir, 2001, 17, 7174-7177.	3.5	76
45	N- and/or W-(co)doped TiO2-anatase catalysts: Effect of the calcination treatment on photoactivity. Applied Catalysis B: Environmental, 2010, 95, 238-244.	20.2	74
46	Exalted photocatalytic activity of tetragonal BiVO₄by Er³⁺doping through a luminescence cooperative mechanism. Dalton Transactions, 2014, 43, 311-316.	3.3	71
47	Highly photoactive ZnO by amine capping-assisted hydrothermal treatment. Applied Catalysis B: Environmental, 2008, 83, 30-38.	20.2	70
48	Photoconductive and photocatalytic properties of ZrTiO4. Comparison with the parent oxides TiO2 and ZrO2. Journal of Photochemistry and Photobiology A: Chemistry, 1997, 108, 179-185.	3.9	69
49	Effect of deposition of silver on structural characteristics and photoactivity of TiO2-based photocatalysts. Applied Catalysis B: Environmental, 2012, 127, 112-120.	20.2	66
50	Liquid-phase alkylation of naphthalene by isopropanol over zeolites. Part 1: HY zeolites. Applied Catalysis A: General, 1998, 168, 81-92.	4.3	63
51	FTIR study of photocatalytic degradation of 2-propanol in gas phase with different TiO2 catalysts. Applied Catalysis B: Environmental, 2009, 89, 204-213.	20.2	63
52	Solar pilot plant scale hydrogen generation by irradiation of Cu/TiO2 composites in presence of sacrificial electron donors. Applied Catalysis B: Environmental, 2018, 229, 15-23.	20.2	62
53	Evolution of H2 photoproduction with Cu content on CuO -TiO2 composite catalysts prepared by a microemulsion method. Applied Catalysis B: Environmental, 2015, 163, 214-222.	20.2	61
54	Phaseâ€Contact Engineering in Monoâ€•and Bimetallic Cuâ€Ni Coâ€catalysts for Hydrogen Photocatalytic Materials. Angewandte Chemie - International Edition, 2018, 57, 1199-1203.	13.8	59

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55	CeO2â€“La2O3 catalytic system. Part I. Preparation and characterisation of catalysts. Physical Chemistry Chemical Physics, 2000, 2, 4453-4459.	2.8	54
56	Effect of ZrO2 incorporation and calcination temperature on the photocatalytic activity of commercial TiO2 for salicylic acid and Cr(VI) photodegradation. Applied Catalysis A: General, 2002, 231, 185-199.	4.3	54
57	Influence of high temperature treatments under net oxidizing and reducing conditions on the oxygen storage and buffering properties of a Ce0.68Zr0.32O2 mixed oxide. Catalysis Today, 1999, 54, 93-100.	4.4	52
58	Influence of sulfur on the structural, surface properties and photocatalytic activity of sulfated TiO2. Applied Catalysis B: Environmental, 2009, 90, 633-641.	20.2	52
59	Preparation, characterisation and activity of CeO2-ZrO2 catalysts for alcohol dehydration. Journal of Molecular Catalysis A, 2003, 204-205, 629-635.	4.8	49
60	W,N-Codoped TiO₂-Anatase: A Sunlight-Operated Catalyst for Efficient and Selective Aromatic Hydrocarbons Photo-Oxidation. Journal of Physical Chemistry C, 2009, 113, 8553-8555.	3.1	47
61	Influence of residual carbon on the photocatalytic activity of TiO2/C samples for phenol oxidation. Applied Catalysis B: Environmental, 2003, 43, 163-173.	20.2	46
62	Bifunctional, Monodisperse BiPO4-Based Nanostars: Photocatalytic Activity and Luminescent Applications. Crystal Growth and Design, 2014, 14, 3319-3326.	3.0	45
63	Oxidative dehydrogenation of propane over V2O5/TiO2/SiO2 catalysts obtained by grafting titanium and vanadium alkoxides on silica. Applied Catalysis A: General, 2001, 214, 203-212.	4.3	44
64	Modification of the physicochemical properties of commercial TiO2 samples by soft mechanical activation. Journal of Photochemistry and Photobiology A: Chemistry, 2002, 148, 341-348.	3.9	43
65	Improving the direct synthesis of hydrogen peroxide from hydrogen and oxygen over Au-Pd/SBA-15 catalysts by selective functionalization. Molecular Catalysis, 2018, 445, 142-151.	2.0	43
66	Improved O₂ evolution from a water splitting reaction over Er³⁺ and Y³⁺ co-doped tetragonal BiVO₄. Catalysis Science and Technology, 2014, 4, 2042-2050.	4.1	42
67	Effects of H2O2and SO42-Species on the Crystalline Structure and Surface Properties of ZrO2Processed by Alkaline Precipitation. Chemistry of Materials, 1997, 9, 1256-1261.	6.7	41
68	ZnO activation by using activated carbon as a support: Characterisation and photoreactivity. Applied Catalysis A: General, 2009, 364, 174-181.	4.3	41
69	A ternary Er3+-BiVO4/TiO2 complex heterostructure with excellent photocatalytic performance. RSC Advances, 2014, 4, 6920.	3.6	40
70	Photochemical methane partial oxidation to methanol assisted by H2O2. Journal of Photochemistry and Photobiology A: Chemistry, 2017, 349, 216-223.	3.9	39
71	Structure, Texture, Surface Acidity, and Catalytic Activity of AlPO4â€“ZrO2(5â€“50 wt% ZrO2) Catalysts Prepared by a Solâ€“Gel Procedure. Journal of Catalysis, 1998, 179, 483-494.	6.2	38
72	Enhancement of TiO2/C photocatalytic activity by sulfate promotion. Applied Catalysis A: General, 2004, 259, 235-243.	4.3	37

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73	Study of the synergic effect of sulphate pre-treatment and platinisation on the highly improved photocatalytic activity of TiO2. Applied Catalysis B: Environmental, 2008, 81, 49-55.	20.2	34
74	Effect of hydrothermal treatment on structural and photocatalytic properties of TiO2 synthesized by solâ€“gel method. Applied Catalysis A: General, 2012, 411-412, 153-159.	4.3	32
75	ZrO2î—¸SiO2 mixed oxides: surface aspects, photophysical properties and photoreactivity for 4-nitrophenol oxidation in aqueous phase. Journal of Molecular Catalysis A, 1996, 109, 239-248.	4.8	31
76	Gas phase photocatalytic oxidation of toluene using highly active Pt doped TiO2. Journal of Molecular Catalysis A, 2010, 320, 14-18.	4.8	31
77	On the origin of the photocatalytic activity improvement of BIVO4 through rare earth tridoping. Applied Catalysis A: General, 2015, 501, 56-62.	4.3	31
78	Photocatalytic activity of bismuth vanadates under UV-A and visible light irradiation: Inactivation of Escherichia coli vs oxidation of methanol. Catalysis Today, 2015, 240, 93-99.	4.4	31
79	TiO2-clay based nanoarchitectures for enhanced photocatalytic hydrogen production. Microporous and Mesoporous Materials, 2016, 222, 120-127.	4.4	30
80	Making Photo-selective TiO₂ Materials by Cationâ€“Anion Codoping: From Structure and Electronic Properties to Photoactivity. Journal of Physical Chemistry C, 2012, 116, 18759-18767.	3.1	29
81	Catalytic Properties of ZrO2â€“SiO2: Effects of Sulfation in the Cyclohexene Isomerization Reaction. Journal of Catalysis, 1996, 161, 605-613.	6.2	27
82	Influence of amine template on the photoactivity of TiO2 nanoparticles obtained by hydrothermal treatment. Applied Catalysis B: Environmental, 2008, 78, 176-182.	20.2	27
83	Combined use of XPS, IR and EDAX techniques for the characterization of ZrO2-SiO2 powders prepared by a sol-gel process. Applied Surface Science, 1994, 81, 325-329.	6.1	26
84	Enhanced photocatalytic activity of TiO2/WO3 nanocomposite from sonochemical-microwave assisted synthesis for the photodegradation of ciprofloxacin and oxytetracycline antibiotics under UV and sunlight. Journal of Photochemistry and Photobiology A: Chemistry, 2022, 428, 113848.	3.9	25
85	Thermoâ€Photocatalytic Methanol Reforming for Hydrogen Production over a CuPdâˆ’TiO₂ Catalyst. ChemPhotoChem, 2020, 4, 630-637.	3.0	23
86	EXAFS study and photocatalytic properties of un-doped and iron-doped ZrO2-TiO2 (photo-) catalysts. Catalysis Today, 2007, 128, 245-250.	4.4	21
87	CeO2â€“La2O3 catalytic system. Part II. Acidâ€“base properties and catalytic activity for 4-methylpentan-2-ol dehydration. Physical Chemistry Chemical Physics, 2001, 3, 2928-2934.	2.8	20
88	Photocatalytic Escherichia coli inactivation by means of trivalent Er 3+ , Y 3+ doping of BiVO 4 system. Applied Catalysis A: General, 2016, 526, 126-131.	4.3	20
89	Surface characterization of ZrO2-SiO2 systems prepared by a sol-gel method. Applied Surface Science, 1993, 70-71, 226-229.	6.1	19
90	Structural determination of the Fe-modified zirconium oxide. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2001, 470, 341-346.	1.6	19

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91	The effect of dosage on the photocatalytic degradation of organic pollutants. Research on Chemical Intermediates, 2007, 33, 351-358.	2.7	19
92	In situ XAS study of an improved natural phosphate catalyst for hydrogen production by reforming of methane. Applied Catalysis B: Environmental, 2014, 150-151, 459-465.	20.2	17
93	A novel two-steps solvothermal synthesis of nanosized BiPO4 with enhanced photocatalytic activity. Journal of Molecular Catalysis A, 2015, 402, 92-99.	4.8	17
94	Overcoming Pdâ€“TiO₂ Deactivation during H₂ Production from Photoreforming Using Cu@Pd Nanoparticles Supported on TiO₂. ACS Applied Nano Materials, 2021, 4, 3204-3219.	5.0	17
95	Water splitting performance of Er3+-doped YVO4 prepared from a layered K3V5O14 precursor. Chemical Engineering Journal, 2015, 262, 29-33.	12.7	15
96	Structural and surface considerations on Mo/ZSM-5 systems for methane dehydroaromatization reaction. Molecular Catalysis, 2020, 486, 110787.	2.0	15
97	Heterogeneous Photocatalytic Oxidation of Liquid Isopropanol by TiO2, ZrO2 and ZrTiO4 Powders. Studies in Surface Science and Catalysis, 1994, , 721-728.	1.5	13
98	Mechanistic Considerations on the H₂ Production by Methanol Thermalâ€assisted Photocatalytic Reforming over Cu/TiO₂ Catalyst. ChemCatChem, 2021, 13, 3878-3888.	3.7	13
99	Title is missing!. Journal of Sol-Gel Science and Technology, 1997, 10, 165-175.	2.4	11
100	Evidence of transalkylation during liquid-phase isopropylation of naphthalene. Reaction Kinetics and Catalysis Letters, 1998, 63, 3-8.	0.6	11
101	Thermal Behaviour of a TiO2â€”ZrO2 Microcomposite Prepared by Chemical Coating. Magyar AprÃ³vad KÃ¶zlemÃ©nyek, 2002, 67, 229-238.	1.4	11
102	(NH4)4[NiMo6O24H6].5H2O / g-C3N4 materials for selective photo-oxidation of C O and C C bonds. Applied Catalysis B: Environmental, 2020, 278, 119299.	20.2	11
103	Surface Modification of Rutile TiO₂ with Alkaline-Earth Oxide Nanoclusters for Enhanced Oxygen Evolution. ACS Applied Nano Materials, 2020, 3, 6017-6033.	5.0	10
104	Thermal evolution of TiO2î—¸ZrO2 composites prepared by chemical coating processing. Materials Letters, 1994, 20, 339-344.	2.6	8
105	Catalytic properties of sulfated and non-sulfated ZrO2â€“SiO2: effects of the sulfation submitted before or after the calcination process, in the cyclohexene isomerization reaction. Journal of Molecular Catalysis A, 1998, 135, 155-162.	4.8	8
106	Elucidating the nature of Mo species on ZSM-5 and its role in the methane aromatization reaction. Reaction Chemistry and Engineering, 2021, 6, 1265-1276.	3.7	8
107	Transformation of CO2Alone and Combined with Ethanol Present in the Hydrogen-Accumulating Intermetallic System TiFe0.95Zr0.03Mo0.02, Pd/SiO2, and Î³-Al2O3. Langmuir, 1999, 15, 6601-6604.	3.5	7
108	Visible-light driven TiO2 photocatalysts from Ti-oxychloride precursors. Journal of Photochemistry and Photobiology A: Chemistry, 2008, 199, 136-143.	3.9	7

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109	Synthesis, Characterization, and Photodegradation Behavior of Single-Phase Anatase TiO2 Materials Synthesized from Ti-oxychloride Precursors. Langmuir, 2008, 24, 11111-11118.	3.5	7
110	ACID-base properties of a CERIA-lanthana catalytic system. Journal of Thermal Analysis and Calorimetry, 2003, 72, 223-229.	3.6	6
111	Catalytic activity of a ceria-lanthana system for 4-methylpentan-2-ol dehydration. Reaction Kinetics and Catalysis Letters, 2003, 79, 93-99.	0.6	6
112	Phaseâ€Contact Engineering in Monoâ€•and Bimetallic Cuâ€Ni Coâ€catalysts for Hydrogen Photocatalytic Materials. Angewandte Chemie, 2018, 130, 1213-1217.	2.0	6
113	Kinetic study of zirconia crystallization from amorphous ZrO2-SiO2 composite precursors processed by sol-gel chemistry. Journal of Sol-Gel Science and Technology, 1994, 2, 353-357.	2.4	5
114	Effects of sulfation on the crystallization and textural properties of processed ZrO2. Materials Letters, 1994, 20, 345-349.	2.6	5
115	NaY(MoO₄)₂-based nanoparticles: synthesis, luminescence and photocatalytic properties. Dalton Transactions, 2021, 50, 16539-16547.	3.3	5
116	Low temperature selective methane activation to alkenes by a new hydrogen-accumulating system. Chemical Communications, 1999, , 943-944.	4.1	4
117	CH4 and CO2 transformations initiated by hydrogen-accumulated systems. Role of spillover and lattice bound hydrogen. Studies in Surface Science and Catalysis, 2001, , 239-250.	1.5	3
118	EXAFS study of the Fex/ZrO2composite nanomaterials obtained by solâ€“gel synthesis. Journal of Synchrotron Radiation, 2001, 8, 528-530.	2.4	3
119	XAFS study of high-disperse Pd-containing nanosystem supported on TiO2 oxide matrix. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2007, 575, 180-184.	1.6	3
120	Shepherding reaction intermediates to optimize H2 yield using composite-doped TiO2-based photocatalysts. Chemical Engineering Journal, 2022, 442, 136333.	12.7	3
121	Photocatalytic Nanooxides: The Case of TiO2 and ZnO. , 2013, , 245-266.		2
122	EXAFS Study of Fe3 Interaction with ZrO2 and TiO2 Oxides. Physica Scripta, 2005, , 736.	2.5	1
123	H2 Photoproduction Efficiency: Implications of the Reaction Mechanism as a Function of the Methanol/Water Mixture. Catalysts, 2022, 12, 402.	3.5	1
124	Characterization of Hexagonal Boron Nitride Powders. Materials Science Forum, 2001, 383, 185-190.	0.3	0
125	Title is missing!. Journal of Materials Science, 2003, 38, 2219-2222.	3.7	0
126	XAFS study of an intermetallic TiFe0.95Zr0.03Mo0.02 system for CO2 conversion. Nuclear Instruments & Methods in Physics Research B, 2003, 199, 216-221.	1.4	0