JosÃ© M Cruz

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/7885419/publications.pdf

Version: 2024-02-01

135	7,176	57719	66879
papers	citations	44 h-index	78 g-index

136	136	136	7339
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Study of biosurfactant extract from corn steep water as a potential ingredient in antiacne formulations. Journal of Dermatological Treatment, 2022, 33, 393-400.	1.1	6
2	Characterization of extracellular and cell bound biosurfactants produced by Aneurinibacillus aneurinilyticus isolated from commercial corn steep liquor. Microbiological Research, 2021, 242, 126614.	2.5	22
3	Nanomaterials synthesized by biosurfactants. Comprehensive Analytical Chemistry, 2021, , 267-301.	0.7	7
4	Synthetic and Bio-Derived Surfactants Versus Microbial Biosurfactants in the Cosmetic Industry: An Overview. International Journal of Molecular Sciences, 2021, 22, 2371.	1.8	70
5	Evaluation of Morphological Changes in Grapes Coated with a Biosurfactant Extract Obtained from Corn Steep Liquor. Applied Sciences (Switzerland), 2021, 11, 5904.	1.3	4
6	Evaluation of Calcium Alginate-Based Biopolymers as Potential Component of Membranes for Recovering Biosurfactants from Corn Steep Water. Water (Switzerland), 2021, 13, 2396.	1.2	1
7	Biodegradability Study of the Biosurfactant Contained in a Crude Extract from Corn Steep Water. Journal of Surfactants and Detergents, 2020, 23, 79-90.	1.0	24
8	Selective Adsorption Capacity of Grape Marc Hydrogel for Adsorption of Binary Mixtures of Dyes. Water, Air, and Soil Pollution, 2020, 231, 1.	1.1	6
9	Towards more Ecofriendly Pesticides: Use of Biosurfactants Obtained from the Corn Milling Industry as Solubilizing Agent of Copper Oxychloride. Journal of Surfactants and Detergents, 2020, 23, 1055-1066.	1.0	12
10	Characterization and Cytotoxic Effect of Biosurfactants Obtained from Different Sources. ACS Omega, 2020, 5, 31381-31390.	1.6	21
11	Effective Removal of Cyanide and Heavy Metals from an Industrial Electroplating Stream Using Calcium Alginate Hydrogels. Molecules, 2020, 25, 5183.	1.7	6
12	Can a Corn-Derived Biosurfactant Improve Colour Traits of Wine? First Insight on Its Application during Winegrape Skin Maceration versus Oenological Tannins. Foods, 2020, 9, 1747.	1.9	7
13	Extraction, separation and characterization of lipopeptides and phospholipids from corn steep water. Separation and Purification Technology, 2020, 248, 117076.	3.9	30
14	Novel Multifunctional Biosurfactant Obtained from Corn as a Stabilizing Agent for Antidandruff Formulations Based on Zn Pyrithione Powder. ACS Omega, 2020, 5, 5704-5712.	1.6	14
15	Efficient Adsorption of Lead Ions onto Alginateâ€“Grape Marc Hybrid Beads: Optimization and Bioadsorption Kinetics. Environmental Modeling and Assessment, 2020, 25, 677-687.	1.2	3
16	Potential application of a multifunctional biosurfactant extract obtained from corn as stabilizing agent of vitamin C in cosmetic formulations. Sustainable Chemistry and Pharmacy, 2020, 16, 100248.	1.6	15
17	Fungistatic and Fungicidal Capacity of a Biosurfactant Extract Obtained from Corn Steep Water. Foods, 2020, 9, 662.	1.9	12
18	Effect of biosurfactant extract obtained from the cornâ€milling industry on probiotic bacteria in drinkable yogurt. Journal of the Science of Food and Agriculture, 2019, 99, 824-830.	1.7	27

#	Article	IF	Citations
19	Isolation and characterization of a microorganism that produces biosurfactants in corn steep water. CYTA - Journal of Food, 2019, 17, 509-516.	0.9	22
20	A Multifunctional Biosurfactant Extract Obtained From Corn Steep Water as Bactericide for Agrifood Industry. Foods, 2019, 8, 410.	1.9	28
21	Evaluation of a biosurfactant extract obtained from corn for dermal application. International Journal of Pharmaceutics, 2019, 564, 225-236.	2.6	32
22	Preservative and Irritant Capacity of Biosurfactants From Different Sources: A Comparative Study. Journal of Pharmaceutical Sciences, 2019, 108, 2296-2304.	1.6	30
23	Study of the synergic effect between mica and biosurfactant to stabilize Pickering emulsions containing Vitamin E using a triangular design. Journal of Colloid and Interface Science, 2019, 537, 34-42.	5.0	19
24	The effect of the presence of biosurfactant on the permeation of pharmaceutical compounds through silicone membrane. Colloids and Surfaces B: Biointerfaces, 2019, 176, 456-461.	2.5	21
25	Recycled Lactobacillus pentosus biomass can regenerate biosurfactants after various fermentative and extractive cycles. Biochemical Engineering Journal, 2018, 132, 191-195.	1.8	13
26	Industrial Symbiosis Between the Winery and Environmental Industry Through the Utilization of Grape Marc for Water Desalination Containing Copper(II). Water, Air, and Soil Pollution, 2018, 229, 1.	1.1	10
27	Design and characterization of greener sunscreen formulations based on mica powder and a biosurfactant extract. Powder Technology, 2018, 327, 442-448.	2.1	36
28	Identification and characterization of phenolic compounds extracted from barley husks by LC-MS and antioxidant activity inÂvitro. Journal of Cereal Science, 2018, 81, 83-90.	1.8	24
29	Bioactivity of glycolipopeptide cell-bound biosurfactants against skin pathogens. International Journal of Biological Macromolecules, 2018, 109, 971-979.	3.6	62
30	Biological Surfactants vs. Polysorbates: Comparison of Their Emulsifier and Surfactant Properties. Tenside, Surfactants, Detergents, 2018, 55, 273-280.	0.5	24
31	LINKING EDUCATION AND INNOVATION IN URBAN WASTE WATER TREATMENT PLANTS THROUGH FINAL DEGREE PROJECTS. , 2018, , .		0
32	FINAL DEGREE PROJECTS AS VEHICLE TO PROMOTE INDUSTRIAL SYMBIOSIS IN ENGINEERING SCHOOLS. , 2018, , .		0
33	Biosurfactants in cosmetic formulations: trends and challenges. Critical Reviews in Biotechnology, 2017, 37, 911-923.	5.1	167
34	Influence of micelle formation on the adsorption capacity of a biosurfactant extracted from corn on dyed hair. RSC Advances, 2017, 7, 16444-16452.	1.7	22
35	Novel cosmetic formulations containing a biosurfactant from Lactobacillus paracasei. Colloids and Surfaces B: Biointerfaces, 2017, 155, 522-529.	2.5	96
36	Vineyard pruning waste as an alternative carbon source to produce novel biosurfactants by Lactobacillus paracasei. Journal of Industrial and Engineering Chemistry, 2017, 55, 40-49.	2.9	53

#	Article	IF	Citations
37	Ionic Behavior Assessment of Surface-Active Compounds from Corn Steep Liquor by Exchange Resins. Journal of Surfactants and Detergents, 2017, 20, 207-217.	1.0	21
38	Nutraceuticals and Food Additives. , 2017, , 143-164.		23
39	Biogenic Synthesis of Metal Nanoparticles Using a Biosurfactant Extracted from Corn and Their Antimicrobial Properties. Nanomaterials, 2017, 7, 139.	1.9	42
40	Determination of Partition Coefficients of Selected Model Migrants between Polyethylene and Polypropylene and Nanocomposite Polypropylene. Journal of Chemistry, 2016, 2016, 1-10.	0.9	2
41	Adsorption of natural surface active compounds obtained from corn on human hair. RSC Advances, 2016, 6, 63064-63070.	1.7	25
42	Evaluation of a cactus mucilage biocomposite to remove total arsenic from water. Environmental Technology and Innovation, 2016, 6, 69-79.	3.0	21
43	A multifunctional extract from corn steep liquor: antioxidant and surfactant activities. Food and Function, 2016, 7, 3724-3732.	2.1	39
44	Molecularly imprinted hydrogels as functional active packaging materials. Food Chemistry, 2016, 190, 487-494.	4.2	39
45	Determination of key diffusion and partition parameters and their use in migration modelling of benzophenone from low-density polyethylene (LDPE) into different foodstuffs. Food Additives and Contaminants - Part A Chemistry, Analysis, Control, Exposure and Risk Assessment, 2016, 33, 1-10.	1.1	11
46	Kinetic and morphology study of alginate-vineyard pruning waste biocomposite vs. non modified vineyard pruning waste for dye removal. Journal of Environmental Sciences, 2015, 38, 158-167.	3.2	23
47	Selective removal of ATP degradation products from food matrices II: Rapid screening of hypoxanthine and inosine by molecularly imprinted matrix solid-phase dispersion for evaluation of fish freshness. Talanta, 2015, 135, 58-66.	2.9	19
48	Sewage Sludge Polycyclic Aromatic Hydrocarbon (PAH) Decontamination Technique Based on the Utilization of a Lipopeptide Biosurfactant Extracted from Corn Steep Liquor. Journal of Agricultural and Food Chemistry, 2015, 63, 7143-7150.	2.4	22
49	Wastewater treatment enhancement by applying a lipopeptide biosurfactant to a lignocellulosic biocomposite. Carbohydrate Polymers, 2015, 131, 186-196.	5.1	31
50	Heterogenous Lignocellulosic Composites as Bio-Based Adsorbents for Wastewater Dye Removal: a Kinetic Comparison. Water, Air, and Soil Pollution, 2015, 226, 1.	1.1	21
51	Optimization of liquidâ€“liquid extraction of biosurfactants from corn steep liquor. Bioprocess and Biosystems Engineering, 2015, 38, 1629-1637.	1.7	54
52	Physicochemical study of a bio-based adsorbent made from grape marc. Ecological Engineering, 2015, 84, 190-193.	1.6	12
53	Optimization of extraction conditions and fatty acid characterization of Lactobacillus pentosus cellâ€bound biosurfactant/bioemulsifier. Journal of the Science of Food and Agriculture, 2015, 95, 313-320.	1.7	68
54	Saltâ€Free Aqueous Extraction of a Cellâ€Bound Biosurfactant: a Kinetic Study. Journal of Surfactants and Detergents, 2015, 18, 267-274.	1.0	19

#	Article	IF	Citations
55	Study of the physical properties of calcium alginate hydrogel beads containing vineyard pruning waste for dye removal. Carbohydrate Polymers, 2015, 115, 129-138.	5.1	51
56	Brewery waste as a potential source of phenolic compounds: Optimisation of the extraction process and evaluation of antioxidant and antimicrobial activities. Food Chemistry, 2014, 145, 191-197.	4.2	67
57	Removal of pigments from aqueous solution by a calcium alginateâ€“grape marc biopolymer: A kinetic study. Carbohydrate Polymers, 2014, 101, 954-960.	5.1	26
58	Development of new active packaging films coated with natural phenolic compounds to improve the oxidative stability of beef. Meat Science, 2014, 97, 249-254.	2.7	96
59	Elimination of micronutrients from winery wastewater using entrapped grape marc in alginate beads. CYTA - Journal of Food, 2014, 12, 73-79.	0.9	12
60	Development of new active packaging films containing bioactive nanocomposites. Innovative Food Science and Emerging Technologies, 2014, 26, 310-318.	2.7	76
61	Study of the Surfactant Properties of Aqueous Stream from the Corn Milling Industry. Journal of Agricultural and Food Chemistry, 2014, 62, 5451-5457.	2.4	43
62	Formulation of an alginate-vineyard pruning waste composite as a new eco-friendly adsorbent to remove micronutrients from agroindustrial effluents. Chemosphere, 2014, 111, 24-31.	4.2	32
63	Entrapped Peat in Alginate Beads as Green Adsorbent for the Elimination of Dye Compounds from Vinasses. Water, Air, and Soil Pollution, 2013, 224, 1.	1.1	23
64	Phenolic profile and antioxidant properties of a crude extract obtained from a brewery waste stream. Food Research International, 2013, 51, 663-669.	2.9	44
65	Development of antioxidant active films containing tocopherols to extend theÂshelf life of fish. Food Control, 2013, 31, 236-243.	2.8	100
66	Evaluation of biosurfactant obtained from Lactobacillus pentosus as foaming agent in froth flotation. Journal of Environmental Management, 2013, 128, 655-660.	3.8	28
67	Partial Characterization of Biosurfactant fromLactobacillus pentosusand Comparison with Sodium Dodecyl Sulphate for the Bioremediation of Hydrocarbon Contaminated Soil. BioMed Research International, 2013, 2013, 1-6.	0.9	52
68	Fractionation and Purification of Bioactive Compounds Obtained from a Brewery Waste Stream. BioMed Research International, 2013, 2013, 1-11.	0.9	52
69	Study of the Synergistic Effects of Salinity, pH, and Temperature on the Surface-Active Properties of Biosurfactants Produced by Lactobacillus pentosus. Journal of Agricultural and Food Chemistry, 2012, 60, 1258-1265.	2.4	43
70	Extraction, purification and characterization of an antioxidant extract from barley husks and development of an antioxidant active film for food package. Innovative Food Science and Emerging Technologies, 2012, 13, 134-141.	2.7	22
71	Effect of a Polyphenolâ€“Vacuum Packaging on Lipid Deterioration During an 18-Month Frozen Storage of Coho Salmon (Oncorhynchus kisutch). Food and Bioprocess Technology, 2012, 5, 2602-2611.	2.6	28
72	Active and Intelligent Packaging for the Food Industry. Food Reviews International, 2012, 28, 146-187.	4.3	249

#	Article	IF	Citations
73	Optimization of batch operating conditions for the decolourization of vinasses using surface response methodology. Microchemical Journal, 2012, 102, 83-90.	2.3	13
74	Antioxidants from barley husks impregnated in films of lowâ€density polyethylene and their effect over lipid deterioration of frozen cod (Gadus morhua). Journal of the Science of Food and Agriculture, 2012, 92, 427-432.	1.7	28
75	Evaluation of Non-Conventional Coagulants to Remove Turbidity from Water. Water, Air, and Soil Pollution, 2012, 223, 591-598.	1.1	13
76	Ex Situ Treatment of Hydrocarbon-Contaminated Soil Using Biosurfactants from Lactobacillus pentosus. Journal of Agricultural and Food Chemistry, 2011, 59, 9443-9447.	2.4	62
77	Natural antioxidant active packaging film and its effect on lipid damage in frozen blue shark (Prionace) Tj ETQq1 1 0.784314 rgBT /Overl	2.7	95
78	Valorization of winery waste vs. the costs of not recycling. Waste Management, 2011, 31, 2327-2335.	3.7	261
79	Active Packaging Film Based in Natural Antioxidant from Barley Husks and Effect over Lipid Damage of Frozen Swordfish (Xiphias gladius). Food Science and Technology Research, 2011, 17, 453-460.	0.3	2
80	Optimization of the dose of calcium lactate as a new coagulant for the coagulationâ€“flocculation of suspended particles in water. Desalination, 2011, 280, 63-71.	4.0	19
81	Analytical method for the simultaneous determination of polyfunctional amines used as monomers in the manufacture of food packaging materials. Journal of Chromatography A, 2011, 1218, 7105-7109.	1.8	5
82	Lipid Damage Inhibition in Hake by Active Packaging Film with Natural Antioxidants. Packaging Technology and Science, 2011, 24, 353-360.	1.3	10
83	Effectiveness of antioxidants on lipid oxidation and lipid hydrolysis of cod liver oil. European Journal of Lipid Science and Technology, 2011, 113, 1395-1401.	1.0	10
84	Lipid damage during frozen storage of Atlantic halibut (Hippoglossus hippoglossus) in active packaging film containing antioxidants. Food Chemistry, 2011, 126, 315-320.	4.2	63
85	Optimisation of entrapped activated carbon conditions to remove coloured compounds from winery wastewaters. Bioresource Technology, 2011, 102, 6437-6442.	4.8	22
86	Mass transport studies of different additives in polyamide and exfoliated nanocomposite polyamide films for food industry. Packaging Technology and Science, 2010, 23, 59-68.	1.3	48
87	Study of the diffusion coefficients of diphenylbutadiene and triclosan into and within meat. European Food Research and Technology, 2010, 230, 957-964.	1.6	10
88	Chromatographic Methods for the Determination of Polyfunctional Amines and Related Compounds Used as Monomers and Additives in Food Packaging Materials: A Stateâ€ofâ€theâ€Art Review. Comprehensive Reviews in Food Science and Food Safety, 2010, 9, 676-694.	5.9	24
89	Effect of amines in the release of bisphenol A from polycarbonate baby bottles. Food Research International, 2010, 43, 1283-1288.	2.9	25
90	Evaluation of the effectiveness of a new active packaging film containing natural antioxidants (from) Tj ETQq0 0 0 rgBT /Overlock 10 Tf International, 2010, 43, 1277-1282.	2.9	161

#	Article	IF	Citations
91	Analytical strategies to evaluate antioxidants in food: a review. Trends in Food Science and Technology, 2010, 21, 229-246.	7.8	139
92	Development of a polyamide nanocomposite for food industry: Morphological structure, processing, and properties. Polymer Composites, 2009, 30, 436-444.	2.3	28
93	Study of the Migration of Photoinitiators Used in Printed Food-Packaging Materials into Food Simulants. Journal of Agricultural and Food Chemistry, 2009, 57, 9516-9523.	2.4	73
94	Effect of detergents in the release of bisphenol A from polycarbonate baby bottles. Food Research International, 2009, 42, 1410-1414.	2.9	50
95	Migration and Diffusion of Diphenylbutadiene from Packages into Foods. Journal of Agricultural and Food Chemistry, 2009, 57, 10225-10230.	2.4	49
96	Development of an in-house method for the incorporation of model migrants in polyethylene films and determination of diffusion constants in food. European Food Research and Technology, 2008, 226, 1357-1363.	1.6	5
97	Study of the migration of benzophenone from printed paperboard packages to cakes through different plastic films. European Food Research and Technology, 2008, 227, 1585-1590.	1.6	50
98	Non-isothermal autohydrolysis of barley husks: Product distribution and antioxidant activity of ethyl acetate soluble fractions. Journal of Food Engineering, 2008, 84, 544-552.	2.7	50
99	Studies of mass transport of model chemicals from packaging into and within cheeses. Journal of Food Engineering, 2008, 87, 107-115.	2.7	32
100	Influence of the Metabolism Pathway on Lactic Acid Production from Hemicellulosic Trimming Vine Shoots Hydrolyzates Using Lactobacillus pentosus. Biotechnology Progress, 2008, 21, 793-798.	1.3	82
101	Development of a Multimethod for the Determination of Photoinitiators in Beverage Packaging. Journal of Food Science, 2008, 73, C92-9.	1.5	32
102	Mass transport studies of model migrants within dry foodstuffs. Journal of Cereal Science, 2008, 48, 662-669.	1.8	32
103	Development of a Method To Study the Migration of Six Photoinitiators into Powdered Milk. Journal of Agricultural and Food Chemistry, 2008, 56, 2722-2726.	2.4	56
104	Changes in the flesh of cooked farmed salmon (Oncorhynchus kisutch) with previous storage in slurry ice (â^'1.5Â°C). LWT - Food Science and Technology, 2008, 41, 1726-1732.	2.5	24
105	Time-temperature study of the kinetics of migration of diphenylbutadiene from polyethylene films into aqueous foodstuffs. Food Research International, 2008, 41, 138-144.	2.9	21
106	Development of an Analytical Method for the Determination of Photoinitiators Used for Food Packaging Materials with Potential to Migrate into Milk. Journal of Dairy Science, 2008, 91, 900-909.	1.4	40
107	Timeâ€“temperature study of the kinetics of migration of DPBD from plastics into chocolate, chocolate spread and margarine. Food Research International, 2007, 40, 679-686.	2.9	39
108	Kinetic migration studies from packaging films into meat products. Meat Science, 2007, 77, 238-245.	2.7	56

#	Article	IF	Citations
109	Determination of Butylated Hydroxytoluene in Food Samples by High-Performance Liquid Chromatography with Ultraviolet Detection and Gas Chromatography/Mass Spectrometry. Journal of AOAC INTERNATIONAL, 2007, 90, 277-283.	0.7	20
110	Integral utilisation of barley husk for the production of food additives. Journal of the Science of Food and Agriculture, 2007, 87, 1000-1008.	1.7	37
111	Development of new polyolefin films with nanoclays for application in food packaging. European Polymer Journal, 2007, 43, 2229-2243.	2.6	156
112	Thermal stability of antioxidants obtained from wood and industrial wastes. Food Chemistry, 2007, 100, 1059-1064.	4.2	30
113	Revalorization of hemicellulosic trimming vine shoots hydrolyzates trough continuous production of lactic acid and biosurfactants by L. pentosus. Journal of Food Engineering, 2007, 78, 405-412.	2.7	95
114	Anti-oxidant activity of isolates from acid hydrolysates of Eucalyptus globulus wood. Food Chemistry, 2005, 90, 503-511.	4.2	37
115	Production of lactic acid from vine-trimming wastes and viticulture lees using a simultaneous saccharification fermentation method. Journal of the Science of Food and Agriculture, 2005, 85, 466-472.	1.7	57
116	Xylitol production by a Pichia stipitis D-xylulokinase mutant. Applied Microbiology and Biotechnology, 2005, 68, 42-45.	1.7	43
117	Production of antioxidants from Eucalyptus globulus wood by solvent extraction of hemicellulose hydrolysates. Food Chemistry, 2004, 84, 243-251.	4.2	72
118	Production of fermentable media from vine-trimming wastes and bioconversion into lactic acid byLactobacillus pentosus. Journal of the Science of Food and Agriculture, 2004, 84, 2105-2112.	1.7	78
119	Formulation of Low-Cost Fermentative Media for Lactic Acid Production with Lactobacillus rhamnosus Using Vinification Lees as Nutrients. Journal of Agricultural and Food Chemistry, 2004, 52, 801-808.	2.4	50
120	Evaluation of Vinification Lees as a General Medium forLactobacillusStrains. Journal of Agricultural and Food Chemistry, 2004, 52, 5233-5239.	2.4	39
121	Assessment of the Production of Antioxidants from Winemaking Waste Solids. Journal of Agricultural and Food Chemistry, 2004, 52, 5612-5620.	2.4	56
122	Production of xylooligosaccharides by autohydrolysis of lignocellulosic materials. Trends in Food Science and Technology, 2004, 15, 115-120.	7.8	191
123	Antioxidant activity of byproducts from the hydrolytic processing of selected lignocellulosic materials. Trends in Food Science and Technology, 2004, 15, 191-200.	7.8	102
124	Valorisation of waste fractions from autohydrolysis of selected lignocellulosic materials. Journal of Chemical Technology and Biotechnology, 2003, 78, 392-398.	1.6	62
125	SHAM-sensitive alternative respiration in the xylose-metabolizing yeastPichia stipitis. Yeast, 2002, 19, 1203-1220.	0.8	45
126	Antioxidant and Antimicrobial Effects of Extracts from Hydrolysates of Lignocellulosic Materials. Journal of Agricultural and Food Chemistry, 2001, 49, 2459-2464.	2.4	110

#	Article	IF	Citations
127	Natural antioxidants from residual sources. Food Chemistry, 2001, 72, 145-171.	4.2	1,325
128	Dimorphic behaviour of Debaryomyces hansenii grown on barley bran acid hydrolyzates. Biotechnology Letters, 2000, 22, 605-610.	1.1	18
129	Title is missing!. Biotechnology Letters, 2000, 22, 1895-1898.	1.1	35
130	Preparation of fermentation media from agricultural wastes and their bioconversion into xylitol. Food Biotechnology, 2000, 14, 79-97.	0.6	60
131	Solvent extraction of hemicellulosic wood hydrolysates: a procedure useful for obtaining both detoxified fermentation media and polyphenols with antioxidant activity. Food Chemistry, 1999, 67, 147-153.	4.2	102
132	Xylitol Production from Wood Hydrolyzates by Entrapped Debaryomyces hansenii and Candida guilliermondii Cells. Applied Biochemistry and Biotechnology, 1999, 81, 119-130.	1.4	28
133	Disruption of the cytochromec gene in xylose-utilizing yeastPichia stipitis leads to higher ethanol production. , 1999, 15, 1021-1030.		61
134	Improved astaxanthin production by Xanthophyllomyces dendrorhous growing on enzymatic wood hydrolysates containing glucose and cellobiose. Food Chemistry, 1998, 63, 479-484.	4.2	34
135	Production of carotenoids by Xanthophyllomyces dendrorhous growing on enzymatic hydrolysates of prehydrolysed wood. Food Chemistry, 1997, 60, 347-355.	4.2	21