Raffaele Saladino

List of Publications by Year
in descending order

125	4,799	81839	114418
papers	citations	39 h-index	63 g-index

127	127	127	3973
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Milled Wood Lignin: A Linear Oligomer. Biomacromolecules, 2011, 12, 3928-3935.	2.6	255
2	Formamide and the origin of life. Physics of Life Reviews, 2012, 9, 84-104.	1.5	226
3	A possible prebiotic synthesis of purine, adenine, cytosine, and 4(3H)-pyrimidinone from formamide implications for the origin of life. Bioorganic and Medicinal Chemistry, 2001, 9, 1249-1253.	1.4	187
4	Genetics first or metabolism first? The formamide clue. Chemical Society Reviews, 2012, 41, 5526.	18.7	181
5	Meteorite-catalyzed syntheses of nucleosides and of other prebiotic compounds from formamide under proton irradiation. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, E2746-55.	3.3	158
6	One-Pot TiO2-Catalyzed Synthesis of Nucleic Bases and Acyclonucleosides from Formamide: Implications for the Origin of Life. ChemBioChem, 2003, 4, 514-521.	1.3	122
7	Formamide Chemistry and the Origin of Informational Polymers. Chemistry and Biodiversity, 2007, 4, 694-720.	1.0	118
8	Nucleoside Phosphorylation by Phosphate Minerals. Journal of Biological Chemistry, 2007, 282, 16729-16735.	1.6	110
9	Selective oxidation of phenol and anisole derivatives to quinones with hydrogen peroxide and polymer-supported methylrhenium trioxide systems. Tetrahedron, 2002, 58, 8493-8500.	1.0	92
10	Synthesis and Degradation of Nucleobases and Nucleic Acids by Formamide in the Presence of Montmorillonites. ChemBioChem, 2004, 5, 1558-1566.	1.3	87
11	Efficient oxidation of thiophene derivatives with homogeneous and heterogeneous MTO/H2O2 systems: A novel approach for, oxidative desulfurization (ODS) of diesel fuel. Applied Catalysis B: Environmental, 2009, 89, 239-245.	10.8	85
12	Advances in the Prebiotic Synthesis of Nucleic Acids Bases: Implications for the Origin of Life. Current Organic Chemistry, 2004, 8, 1425-1443.	0.9	83
13	Preparation and Structural Characterization of Polymer-Supported Methylrhenium Trioxide Systems as Efficient and Selective Catalysts for the Epoxidation of Olefins. Journal of Organic Chemistry, 2002, 67, 1323-1332.	1.7	81
14	Synthesis and Degradation of Nucleic Acid Components by Formamide and Iron Sulfur Minerals. Journal of the American Chemical Society, 2008, 130, 15512-15518.	6.6	81
15	Nano-Structured Lignin as Green Antioxidant and UV Shielding Ingredient for Sunscreen Applications. Antioxidants, 2021, 10, 274.	2.2	81
16	The key role of meteorites in the formation of relevant prebiotic molecules in a formamide/water environment. Scientific Reports, 2016, 6, 38888.	1.6	76
17	Meteorites as Catalysts for Prebiotic Chemistry. Chemistry - A European Journal, 2013, 19, 16916-16922.	1.7	73
18	Emergence of the First Catalytic Oligonucleotides in a Formamideâ€Based Origin Scenario. Chemistry - A European Journal, 2016, 22, 3572-3586.	1.7	65

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19	A Global Scale Scenario for Prebiotic Chemistry: Silica-Based Self-Assembled Mineral Structures and Formamide. Biochemistry, 2016, 55, 2806-2811.	1.2	65
20	Synthesis and Degradation of Nucleic Acid Components by Formamide and Cosmic Dust Analogues. ChemBioChem, 2005, 6, 1368-1374.	1.3	64
21	From formamide to RNA: the roles of formamide and water in the evolution of chemical information. Research in Microbiology, 2009, 160, 441-448.	1.0	61
22	A Universal Geochemical Scenario for Formamide Condensation and Prebiotic Chemistry. Chemistry - A European Journal, 2019, 25, 3181-3189.	1.7	59
23	Origin of Informational Polymers: The Concurrent Roles of Formamide and Phosphates. ChemBioChem, 2006, 7, 1707-1714.	1.3	56
24	Methyltrioxorhenium Catalysis in Nonconventional Solvents: A Great Catalyst in a Safe Reaction Medium. ChemSusChem, 2010, 3, 524-540.	3.6	55
25	Generation of RNA Molecules by a Baseâ€Catalysed Clickâ€Like Reaction. ChemBioChem, 2012, 13, 999-1008.	1.3	53
26	Selective epoxidation of monoterpenes with H2O2 and polymer-supported methylrheniumtrioxide systems. Tetrahedron, 2003, 59, 7403-7408.	1.0	52
27	Preparation of wrapped carbon nanotubes poly(4-vinylpyridine)/MTO based heterogeneous catalysts for the oxidative desulfurization (ODS) of model and synthetic diesel fuel. Applied Catalysis B: Environmental, 2017, 200, 392-401.	10.8	51
28	Carbon Nanotubes as Activating Tyrosinase Supports for the Selective Synthesis of Catechols. ACS Catalysis, 2014, 4, 810-822.	5.5	50
29	Regioselective IBX-Mediated Synthesis of Coumarin Derivatives with Antioxidant and Anti-influenza Activities. Journal of Natural Products, 2017, 80, 3247-3254.	1.5	49
30	A new and efficient Baeyerâ€“Villiger rearrangement of flavanone derivatives by the methyltrioxorhenium/H2O2 catalytic system. Tetrahedron Letters, 2001, 42, 5401-5404.	0.7	48
31	Prebiotic synthesis of nucleic acids and their building blocks at the atomic level â€“ merging models and mechanisms from advanced computations and experiments. Physical Chemistry Chemical Physics, 2016, 18, 20047-20066.	1.3	48
32	Origin of Informational Polymers. Journal of Biological Chemistry, 2006, 281, 5790-5796.	1.6	45
33	Oxidative functionalisation of lignin by layer-by-layer immobilised laccases and laccase microcapsules. Applied Catalysis A: General, 2010, 372, 115-123.	2.2	45
34	Novel multienzyme oxidative biocatalyst for lignin bioprocessing. Bioorganic and Medicinal Chemistry, 2011, 19, 5071-5078.	1.4	45
35	Tannin Structural Elucidation and Quantitative ³¹P NMR Analysis. 1. Model Compounds. Journal of Agricultural and Food Chemistry, 2013, 61, 9307-9315.	2.4	45
36	Mechanism of Degradation of Purine Nucleosides by Formamide. Implications for Chemical DNA Sequencing Proceduresâ€. Journal of the American Chemical Society, 1996, 118, 5615-5619.	6.6	43

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37	Silica Metal Oxide Vesicles Catalyze Comprehensive Prebiotic Chemistry. Chemistry - A European Journal, 2018, 24, 8126-8132.	1.7	43
38	The Effects of Borate Minerals on the Synthesis of Nucleic Acid Bases, Amino Acids and Biogenic Carboxylic Acids from Formamide. Origins of Life and Evolution of Biospheres, 2011, 41, 317-330.	0.8	42
39	Intracellular Redox State as Target for Anti-Influenza Therapy: Are Antioxidants Always Effective?. Current Topics in Medicinal Chemistry, 2014, 14, 2529-2541.	1.0	42
40	Functionalized Tyrosinase-Lignin Nanoparticles as Sustainable Catalysts for the Oxidation of Phenols. Nanomaterials, 2018, 8, 438.	1.9	41
41	SBA-15 Anchored Metal Containing Catalysts in the Oxidative Desulfurization Process. Catalysts, 2019, 9, 984.	1.6	41
42	Layer-by-Layer Preparation of Microcapsules and Nanocapsules of Mixed Polyphenols with High Antioxidant and UV-Shielding Properties. Biomacromolecules, 2018, 19, 3883-3893.	2.6	40
43	A new and efficient synthesis of ortho- and para-benzoquinones of cardanol derivatives by the catalytic system MeReO3â€“H2O2. Journal of the Chemical Society, Perkin Transactions 1, 2000, , 581-586.	1.3	39
44	On the Prebiotic Synthesis of Nucleobases, Nucleotides, Oligonucleotides, Pre-RNA and Pre-DNA Molecules. , 0, , 29-68.		39
45	Layer-by-Layer coated tyrosinase: An efficient and selective synthesis of catechols. Bioorganic and Medicinal Chemistry, 2012, 20, 157-166.	1.4	38
46	Selective Oxidation of Uracil and Adenine Derivatives by the Catalytic System MeReO3/H2O2 and MeReO3/Urea Hydrogen Peroxide. Tetrahedron, 2000, 56, 10031-10037.	1.0	37
47	The Role of the Formamide/Zirconia System in the Synthesis of Nucleobases and Biogenic Carboxylic Acid Derivatives. Journal of Molecular Evolution, 2010, 71, 100-110.	0.8	36
48	Proton irradiation: a key to the challenge of N-glycosidic bond formation in a prebiotic context. Scientific Reports, 2017, 7, 14709.	1.6	35
49	Catalytic effects of Murchison Material: Prebiotic Synthesis and Degradation of RNA Precursors. Origins of Life and Evolution of Biospheres, 2011, 41, 437-451.	0.8	34
50	First Evidence on the Role of Heavy Ion Irradiation of Meteorites and Formamide in the Origin of Biomolecules. Origins of Life and Evolution of Biospheres, 2016, 46, 515-521.	0.8	34
51	A novel and efficient catalytic epoxidation of monoterpenes by homogeneous and heterogeneous methyltrioxorhenium in ionic liquids. Applied Catalysis A: General, 2009, 360, 171-176.	2.2	33
52	Photochemical Synthesis of Citric Acid Cycle Intermediates Based on Titanium Dioxide. Astrobiology, 2011, 11, 815-824.	1.5	33
53	Carbon nanotubes supported tyrosinase in the synthesis of lipophilic hydroxytyrosol and dihydrocaffeoyl catechols with antiviral activity against DNA and RNA viruses. Bioorganic and Medicinal Chemistry, 2015, 23, 5345-5351.	1.4	33
54	Layer by layer supported laccase on lignin nanoparticles catalyzes the selective oxidation of alcohols to aldehydes. Catalysis Science and Technology, 2019, 9, 4125-4134.	2.1	33

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55	Lignin nanoparticles are renewable and functional platforms for the concanavalin a oriented immobilization of glucose oxidaseâ€“peroxidase in cascade bio-sensing. RSC Advances, 2020, 10, 29031-29042.	1.7	31
56	Tyrosinase and Layer-by-Layer supported tyrosinases in the synthesis of lipophilic catechols with antiinfluenza activity. Bioorganic and Medicinal Chemistry, 2013, 21, 7699-7708.	1.4	30
57	Transformations of thiopyrimidine and thiopurine nucleosides following oxidation with dimethyldioxirane. Tetrahedron, 1996, 52, 6759-6780.	1.0	29
58	Astrochemistry and Astrobiology: Materials Sciencein Wonderland?. International Journal of Molecular Sciences, 2019, 20, 4079.	1.8	29
59	Enzyme-Lignin Nanocapsules Are Sustainable Catalysts and Vehicles for the Preparation of Unique Polyvalent Bioinks. Biomacromolecules, 2019, 20, 1975-1988.	2.6	29
60	Catalytic MTO-based Câ€“H insertion reactions of hydrogen peroxide: an investigation on the polymeric support role in heterogeneous conditions. Topics in Catalysis, 2006, 40, 221-227.	1.3	27
61	A selective de-O-methylation of guaiacyl lignans to corresponding catechol derivatives by 2-iodoxybenzoic acid (IBX). The role of the catechol moiety on the toxicity of lignans. Organic and Biomolecular Chemistry, 2009, 7, 2367.	1.5	26
62	Versatile and Efficient Immobilization of 2-Deoxyribose-5-phosphate Aldolase (DERA) on Multiwalled Carbon Nanotubes. ACS Catalysis, 2014, 4, 3059-3068.	5.5	26
63	Oxidation of substituted 2-thiouracils and pyrimidine-2-thione with ozone and 3,3-dimethyl-1,2-dioxirane.. Tetrahedron, 1994, 50, 3259-3272.	1.0	25
64	Origin of Informational Polymers. Journal of Biological Chemistry, 2005, 280, 35658-35669.	1.6	25
65	A Novel and Efficient Synthesis of Tocopheryl Quinones by Homogeneous and Heterogeneous Methyltrioxorhenium/Hydrogen Peroxide Catalytic Systems. Advanced Synthesis and Catalysis, 2008, 350, 321-331.	2.1	24
66	Chitin- and chitosan-anchored methyltrioxorhenium: An innovative approach for selective heterogeneous catalytic epoxidations of olefins. Journal of Catalysis, 2010, 276, 412-422.	3.1	23
67	Formamide-based prebiotic chemistry in the Phlegrean Fields. Advances in Space Research, 2018, 62, 2372-2379.	1.2	23
68	Advances in biotechnological synthetic applications of carbon nanostructured systems. Journal of Materials Chemistry B, 2017, 5, 6490-6510.	2.9	21
69	Synthesis and Evaluation of Artemisinin-Based Hybrid and Dimer Derivatives as Antimelanoma Agents. ACS Omega, 2020, 5, 243-251.	1.6	20
70	Current Advances in Prebiotic Chemistry Under Space Conditions. Current Organic Chemistry, 2015, 19, 1963-1979.	0.9	20
71	Synthesis of 2â€²â€Deoxyâ€1â€²â€homoâ€Nâ€nucleosides with Antiâ€Influenza Activity by Catalytic Methyltrioxorhenium (MTO)/H₂O₂ Oxyfunctionalization. Chemistry - A European Journal, 2013, 19, 2392-2404.	1.7	19
72	Dye Degradation by Layerâ€byâ€Layer Immobilised Peroxidase/Redox Mediator Systems. ChemCatChem, 2013, 5, 1407-1415.	1.8	19

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73	The role of borosilicate glass in Millerâ€“Urey experiment. Scientific Reports, 2021, 11, 21009.	1.6	19
74	Ozonation of thionucleosides. A new chemical transformation of 4-thiouracil and 6-thioguanine nucleosides to cytosine and adenosine counterparts. Tetrahedron, 1995, 51, 3607-3616.	1.0	18
75	A novel oxidative side-chain transformation of Î±-amino acids and peptides by methyltrioxorhenium/H2O2 system. Tetrahedron Letters, 2004, 45, 9237-9240.	0.7	18
76	A novel and efficient synthesis of highly oxidized lignans by a methyltrioxorhenium/hydrogen peroxide catalytic system. Studies on their apoptogenic and antioxidant activity. Bioorganic and Medicinal Chemistry, 2009, 17, 5676-5682.	1.4	18
77	A Novel Synthesis of Bioactive Catechols by Layerâ€byâ€Layer Immobilized Tyrosinase in an Organic Solvent Medium. ChemCatChem, 2012, 4, 89-99.	1.8	18
78	Prebiotic synthesis of carboxylic acids, amino acids and nucleic acid bases from formamide under photochemical conditionsâ‹†. European Physical Journal Plus, 2017, 132, 1.	1.2	18
79	Synthesis of Stilbene and Chalcone Inhibitors of Influenza A Virus by SBA-15 Supported Hoveyda-Grubbs Metathesis. Catalysts, 2019, 9, 983.	1.6	18
80	Artemisinin Derivatives with Antimelanoma Activity Show Inhibitory Effect against Human DNA Topoisomerase 1. ACS Medicinal Chemistry Letters, 2020, 11, 1035-1040.	1.3	18
81	Insoluble organic matter in chondrites: Archetypal melanin-like PAH-based multifunctionality at the origin of life?. Physics of Life Reviews, 2021, 37, 65-93.	1.5	18
82	Green and Scalable Preparation of Colloidal Suspension of Lignin Nanoparticles and Its Application in Eco-friendly Sunscreen Formulations. ACS Omega, 2021, 6, 21444-21456.	1.6	18
83	An Efficient and Selective Epoxidation of Olefins with Novel Methyltrioxorhenium/(Fluorous) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf	2.1	17
84	Highly efficient synthesis of aldehydes by layer by layer multi-walled carbon nanotubes (MWCNTs) laccase mediator systems. Applied Catalysis A: General, 2015, 499, 77-88.	2.2	17
85	The Prevailing Catalytic Role of Meteorites in Formamide Prebiotic Processes. Life, 2018, 8, 6.	1.1	17
86	Dimethyldioxirane oxidations: A new and efficient desulfurization of thiopyrimidine and thiopurine nucleosides.. Tetrahedron Letters, 1993, 34, 7785-7788.	0.7	16
87	Tyrosinase-Treated Hydroxytyrosol-Enriched Olive Vegetation Waste with Increased Antioxidant Activity Promotes Autophagy and Inhibits the Inflammatory Response in Human THP-1 Monocytes. Journal of Agricultural and Food Chemistry, 2018, 66, 12274-12284.	2.4	16
88	Laccase-Mediated Enhancement of the Antioxidant Activity of Propolis and Poplar Bud Exudates. ACS Omega, 2017, 2, 2515-2523.	1.6	15
89	Chemomimesis and Molecular Darwinism in Action: From Abiotic Generation of Nucleobases to Nucleosides and RNA. Life, 2018, 8, 24.	1.1	15
90	Oxidative Bio-Desulfurization by Nanostructured Peroxidase Mediator System. Catalysts, 2020, 10, 313.	1.6	15

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91	Prebiotic Organic Chemistry of Formamide and the Origin of Life in Planetary Conditions: What We Know and What Is the Future. International Journal of Molecular Sciences, 2021, 22, 917.	1.8	15
92	Methyltrioxorhenium catalysed synthesis of highly oxidised aryltetralin lignans with anti-topoisomerase II and apoptogenic activities. Bioorganic and Medicinal Chemistry, 2005, 13, 5949-5960.	1.4	14
93	Synthesis of Aldehydes by Layerâ€byâ€Layer Immobilized Laccases in the Presence of Redox Mediators. ChemCatChem, 2012, 4, 1987-1996.	1.8	14
94	Ionic liquids in methyltrioxorhenium catalyzed epoxidationâ€“methanolysis of glycals under homogeneous and heterogeneous conditions. Journal of Molecular Catalysis A, 2008, 284, 108-115.	4.8	13
95	Tyrosinase mediated oxidative functionalization in the synthesis of DOPA-derived peptidomimetics with anti-Parkinson activity. RSC Advances, 2017, 7, 20502-20509.	1.7	13
96	Oxidative nucleophilic substitution selectively produces cambinol derivatives with antiproliferative activity on bladder cancer cell lines. Bioorganic and Medicinal Chemistry Letters, 2019, 29, 78-82.	1.0	12
97	Aminomalononitrile inspired prebiotic chemistry as a novel multicomponent tool for the synthesis of imidazole and purine derivatives with anti-influenza A virus activity. RSC Advances, 2021, 11, 30020-30029.	1.7	11
98	Homogentisic Acid and Gentisic Acid Biosynthesized Pyomelanin Mimics: Structural Characterization and Antioxidant Activity. International Journal of Molecular Sciences, 2021, 22, 1739.	1.8	11
99	Selective Synthesis of DOPA and DOPA Peptides by Native and Immobilized Tyrosinase in Organic Solvent. ChemPlusChem, 2013, 78, 325-330.	1.3	10
100	Meteoriteâ€Assisted Phosphorylation of Adenosine Under Proton Irradiation Conditions. ChemSystemsChem, 2020, 2, e1900039.	1.1	10
101	Biomimetic synthesis of galantamine via laccase/TEMPO mediated oxidative coupling. RSC Advances, 2020, 10, 10897-10903.	1.7	10
102	Current Advances in L-DOPA and DOPA-Peptidomimetics: Chemistry, Applications and Biological Activity. Current Medicinal Chemistry, 2015, 22, 4138-4165.	1.2	10
103	Rewarming the Primordial Soup: Revisitations and Rediscoveries in Prebiotic Chemistry. ChemBioChem, 2018, 19, 22-25.	1.3	9
104	L-DOPA-quinone Mediated Recovery from GIRK Channel Firing Inhibition in Dopaminergic Neurons. ACS Medicinal Chemistry Letters, 2019, 10, 431-436.	1.3	9
105	Novel Nanoarchitectures Based on Lignin Nanoparticles for Electrochemical Eco-Friendly Biosensing Development. Nanomaterials, 2021, 11, 718.	1.9	9
106	Lignin Nanoparticles Deliver Novel Thymine Biomimetic Photo-Adducts with Antimelanoma Activity. International Journal of Molecular Sciences, 2022, 23, 915.	1.8	9
107	Dendrimer crown-ether tethered multi-wall carbon nanotubes support methyltrioxorhenium in the selective oxidation of olefins to epoxides. RSC Advances, 2020, 10, 17185-17194.	1.7	8
108	Stereoselective Access to Antimelanoma Agents by Hybridization and Dimerization of Dihydroartemisinin and Artesunic acid. ChemMedChem, 2021, 16, 2270-2277.	1.6	8

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109	Oxidative Coupling of Coumarins by Blueâ€ŁEDâ€Đriven inâ€...situ Activation of Horseradish Peroxidase in a Twoâ€ŁLiquidâ€Phase System. ChemCatChem, 2021, 13, 4151-4158.	1.8	8
110	Fungal biomarkers are detectable in Martian rock-analogues after space exposure: implications for the search of life on Mars. International Journal of Astrobiology, 2021, 20, 345-358.	0.9	8
111	Multicomponent Reactions in the Synthesis of Antiviral Compounds. Current Medicinal Chemistry, 2022, 29, 2013-2050.	1.2	7
112	On the binding site of quinolone antibacterials. An attempt to probe the shen model. Bioorganic and Medicinal Chemistry Letters, 1996, 6, 2333-2338.	1.0	6
113	Materials for the Onset. A story of necessity and chance.. Frontiers in Bioscience - Landmark, 2013, 18, 1275.	3.0	6
114	Iodoxybenzoic Acid Supported on Multi Walled Carbon Nanotubes as Biomimetic Environmental Friendly Oxidative Systems for the Oxidation of Alcohols to Aldehydes. Nanomaterials, 2018, 8, 516.	1.9	6
115	Highâ€Energy Protonâ€Beamâ€Induced Polymerization/Oxygenation of Hydroxynaphthalenes on Meteorites and Nitrogen Transfer from Urea: Modeling Insoluble Organic Matter?. Chemistry - A European Journal, 2020, 26, 14919-14928.	1.7	6
116	Laccase-Catalyzed 1,4-Dioxane-Mediated Synthesis of Belladine N-Oxides with Anti-Influenza A Virus Activity. International Journal of Molecular Sciences, 2021, 22, 1337.	1.8	6
117	Meteorite-catalyzed intermoleculartrans-glycosylation produces nucleosides under proton beam irradiation. RSC Advances, 2021, 11, 19258-19264.	1.7	6
118	Fungal Biomarkers Stability in Mars Regolith Analogues after Simulated Space and Mars-like Conditions. Journal of Fungi (Basel, Switzerland), 2021, 7, 859.	1.5	6
119	Laccase Mediator Cocktail System as a Sustainable Skin Whitening Agent for Deep Eumelanin Decolorization. International Journal of Molecular Sciences, 2022, 23, 6238.	1.8	5
120	Dendrimeric Structures in the Synthesis of Fine Chemicals. Materials, 2021, 14, 5318.	1.3	3
121	Computational investigation of the primordial soup. Physics of Life Reviews, 2020, 34-35, 149-152.	1.5	2
122	Investigation of fungal biomolecules after Low Earth Orbit exposure: a testbed for the next Moon missions. Environmental Microbiology, 2022, , .	1.8	2
123	A Threeâ€Way Regioselective Synthesis of Amino Acid Decorated Imidazole, Purine and Pyrimidine Derivatives by Multicomponent Chemistry Starting from Prebiotic Diaminomaleonitrile. European Journal of Organic Chemistry, 2022, 2022, .	1.2	2
124	Ariel â€“ a window to the origin of life on early earth?. Experimental Astronomy, 2020, , 1.	1.6	1
125	From chemical complexity to origin of life. Physics of Life Reviews, 2020, 32, 111-113.	1.5	0