Lucimara Stolz Roman

List of Publications by Year
in descending order

135 papers	4,820 citations	147726 31 h-index	102432 66 g-index
136 all docs	136 docs citations	136 times ranked	5779 citing authors

#	Article	IF	Citations
1	Modeling photocurrent action spectra of photovoltaic devices based on organic thin films. Journal of Applied Physics, 1999, 86, 487-496.	1.1	1,424
2	High Quantum Efficiency Polythiophene. Advanced Materials, 1998, 10, 774-777.	11.1	200
3	Photodiode performance and nanostructure of polythiophene/C60blends. Advanced Materials, 1997, 9, 1164-1168.	11.1	183
4	Patterning of Polymer Light-Emitting Diodes with Soft Lithography. Advanced Materials, 2000, 12, 269-273.	11.1	174
5	ITOâ€Free and Flexible Organic Photovoltaic Device Based on High Transparent and Conductive Polyaniline/Carbon Nanotube Thin Films. Advanced Functional Materials, 2013, 23, 1490-1499.	7.8	174
6	Trapping Light in Polymer Photodiodes with Soft Embossed Gratings. Advanced Materials, 2000, 12, 189-195.	11.1	160
7	Doping effect on self-assembled films of polyaniline and carbon nanotube applied as ammonia gas sensor. Sensors and Actuators B: Chemical, 2017, 245, 25-33.	4.0	136
8	Superhydrophobic electrosprayed PTFE. Surface and Coatings Technology, 2007, 202, 194-198.	2.2	114
9	Polymer diodes with high rectification. Applied Physics Letters, 1999, 75, 3557-3559.	1.5	99
10	A Simple Two-Phase Route to Silver Nanoparticles/Polyaniline Structures. Journal of Physical Chemistry B, 2006, 110, 17063-17069.	1.2	99
11	Photovoltaic cells with a conjugated polyelectrolyte. Synthetic Metals, 2000, 110, 133-140.	2.1	81
12	Quantum efficiency of exciton-to-charge generation in organic photovoltaic devices. Journal of Applied Physics, 2001, 89, 5564-5569.	1.1	69
13	Optical band-edge absorption of oxide compound SnO2. Applied Surface Science, 2006, 252, 5361-5364.	3.1	68
14	The use of tin oxide thin films as a transparent electrode in PPV based light-emitting diodes. Thin Solid Films, 2000, 371, 201-206.	0.8	67
15	Organic photovoltaic devices based on polythiophene films electrodeposited on FTO substrates. Solar Energy Materials and Solar Cells, 2007, 91, 684-688.	3.0	55
16	Excitation Transfer in Polymer Photodiodes for Enhanced Quantum Efficiency. Advanced Materials, 2000, 12, 1110-1114.	11.1	53
17	Self-assembled films of multi-wall carbon nanotubes used in gas sensors to increase the sensitivity limit for oxygen detection. Carbon, 2012, 50, 1953-1958.	5.4	51
18	Iron- and iron oxide-filled multi-walled carbon nanotubes: Electrical properties and memory devices. Chemical Physics Letters, 2007, 444, 304-308.	1.2	41

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19	Carbon nanotubes based nanocomposites for photocurrent improvement. Applied Surface Science, 2006, 252, 5575-5578.	3.1	40
20	Recent progress in thin film organic photodiodes. Synthetic Metals, 2001, 121, 1525-1528.	2.1	38
21	Strong inter-conduction-band absorption in heavily fluorine doped tin oxide. Applied Surface Science, 2008, 255, 1874-1879.	3.1	38
22	Sulfonated polyaniline/poly(3-methylthiophene)-based photovoltaic devices.. Journal of Solid State Electrochemistry, 2006, 10, 24-27.	1.2	37
23	Electronic structure, molecular orientation, charge transfer dynamics and solar cells performance in donor/acceptor copolymers and fullerene: Experimental and theoretical approaches. Journal of Applied Physics, 2014, 115, 134901.	1.1	36
24	Enhanced lifetime in porous silicon light-emitting diodes with fluorine doped tin oxide electrodes. Thin Solid Films, 2008, 517, 870-873.	0.8	35
25	Determination of electroaffinity and ionization potential of conjugated polymers via Fowlerâ€“Nordheim tunneling measurements: Theoretical formulation and application to poly(pâ€phenylene vinylene). Journal of Chemical Physics, 1996, 105, 10614-10620.	1.2	34
26	Charge transport model for photovoltaic devices based on printed polymer: Fullerene nanoparticles. Solar Energy Materials and Solar Cells, 2015, 141, 171-177.	3.0	34
27	Preparation and characterization of transparent conducting tin oxide thin film electrodes by chemical vapour deposition from reactive thermal evaporation of SnCl2. Materials Chemistry and Physics, 1997, 48, 263-267.	2.0	33
28	Charge carrier mobility in substituted polythiophene-based diodes. Synthetic Metals, 2001, 125, 419-422.	2.1	33
29	Electrosprayed superhydrophobic PTFE: a non-contaminating surface. Journal Physics D: Applied Physics, 2007, 40, 7778-7781.	1.3	33
30	The role of the double peaked absorption spectrum in the efficiency of solar cells based on donorâ€“acceptorâ€“donor copolymers. Solar Energy Materials and Solar Cells, 2011, 95, 2287-2294.	3.0	33
31	Water based, solution-processable, transparent and flexible graphene oxide composite as electrodes in organic solar cell application. Journal Physics D: Applied Physics, 2016, 49, 105106.	1.3	33
32	The total chemical synthesis of polymer/graphene nanocomposite films. Chemical Communications, 2016, 52, 1629-1632.	2.2	33
33	Femtosecond Electron Delocalization in Poly(thiophene) Probed by Resonant Auger Spectroscopy. Journal of Physical Chemistry C, 2013, 117, 8208-8213.	1.5	30
34	Charge Transfer Dynamics and Molecular Orientation Probed by Core Electron Spectroscopies on thermal-annealed Polysilafluorene Derivative: Experimental and Theoretical Approaches. Journal of Physical Chemistry C, 2014, 118, 23863-23873.	1.5	30
35	Polarization dependence of the optical response in SnO2 and the effects from heavily F doping. Thin Solid Films, 2009, 517, 6301-6304.	0.8	29
36	Electrical Properties of Self-Assembled Films of Polyaniline/Carbon Nanotubes Composites. Journal of Physical Chemistry C, 2014, 118, 24811-24818.	1.5	29

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37	Charge Transfer Dynamics and Device Performance of Environmentally Friendly Processed Nonfullerene Organic Solar Cells. ACS Applied Energy Materials, 2018, 1, 4776-4785.	2.5	28
38	Comparing C60 and C70 as acceptor in organic solar cells: Influence of the electronic structure and aggregation size on the photovoltaic characteristics. Thin Solid Films, 2020, 697, 137827.	0.8	28
39	Polymer and polymer/metal interface characterization via Fowlerâ€“Nordheim tunneling measurements. Applied Physics Letters, 1996, 68, 3194-3196.	1.5	24
40	Photon stimulated ion desorption from poly(3-methylthiophene) following sulphur K-shell excitation. Surface Science, 2004, 560, 45-52.	0.8	24
41	Modeling bilayer polymer/fullerene photovoltaic devices. Journal of Applied Physics, 2004, 96, 40-43.	1.1	24
42	Hole mobility effect in the efficiency of bilayer heterojunction polymer/C60 photovoltaic cells. Applied Physics Letters, 2011, 98, 253501.	1.5	23
43	The interplay of electronic structure, molecular orientation and charge transport in organic semiconductors: Poly(thiophene) and poly(bithiophene). Organic Electronics, 2013, 14, 2980-2986.	1.4	23
44	Worldwide outdoor round robin study of organic photovoltaic devices and modules. Solar Energy Materials and Solar Cells, 2014, 130, 281-290.	3.0	23
45	Development of a Chemiresistor Sensor Based on Polymers-Dye Blend for Detection of Ethanol Vapor. Sensors, 2010, 10, 2812-2820.	2.1	22
46	Electrochemically deposited poly(3-methylthiophene) performance in single layer photovoltaic devices. European Physical Journal E, 2003, 12, 507-511.	0.7	21
47	Poly(3-methylthiophene)-based photovoltaic devices prepared onto tin-oxide/sulfonated-polyaniline electrodes. Electrochemistry Communications, 2004, 6, 357-360.	2.3	21
48	On the energy gap determination of organic optoelectronic materials: the case of porphyrin derivatives. Materials Advances, 2022, 3, 1791-1803.	2.6	21
49	Bilayer and bulk heterojunction solar cells with functional poly(2,2â€²-bithiophene) films electrochemically deposited from aqueous emulsion. Synthetic Metals, 2013, 170, 63-68.	2.1	19
50	Effects of native defects on the structural and magnetic properties of hematite<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>Î±</mml:mi></mml:math>-Fe<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>2</mml:mn></mml:msub></mml:math>O<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow />	1.1	19
51	Modification of the sheet resistance of ink jet printed polymer conducting films by changing the plastic substrate. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2005, 122, 231-235.	1.7	18
52	Effect of conjugation length on photophysical properties of a conjugatedâ€“non-conjugated multiblock copolymer. Synthetic Metals, 2009, 159, 1975-1982.	2.1	18
53	Conformational Change on a Bithiophene-Based Copolymer Induced by Additive Treatment: Application in Organic Photovoltaics. Journal of Physical Chemistry C, 2017, 121, 16035-16044.	1.5	18
54	Photodiodes made from poly(pyridopyrazine vinylene):polythiophene blends. Synthetic Metals, 2001, 119, 185-186.	2.1	17

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55	Resistive switching in iron-oxide-filled carbon nanotubes. Nanoscale, 2014, 6, 378-384.	2.8	17
56	Synthesis and Solar Cell Application of New Alternating Donorâ€“Acceptor Copolymers Based on Variable Units of Fluorene, Thiophene, and Phenylene. Journal of Physical Chemistry C, 2012, 116, 18641-18648.	1.5	16
57	Modification of PEDOT:PSS anode buffer layer with HFA for flexible polymer solar cells. Chemical Physics Letters, 2013, 572, 73-77.	1.2	16
58	Photoanode for Aqueous Dyeâ€Sensitized Solar Cells based on a Novel Multicomponent Thin Film. ChemSusChem, 2018, 11, 1238-1245.	3.6	16
59	Kinetic model for photoluminescence quenching by selective excitation of D/A blends: implications for charge separation in fullerene and non-fullerene organic solar cells. Journal of Materials Chemistry C, 2020, 8, 8755-8769.	2.7	16
60	Conditions for efficient charge generation preceded by energy transfer process in non-fullerene organic solar cells. Journal of Materials Chemistry A, 2021, 9, 27568-27585.	5.2	16
61	Performance of fluorene and terthiophene copolymer in bilayer photovoltaic devices: The role of the polymer conformations. Organic Electronics, 2012, 13, 2716-2726.	1.4	15
62	Enhancement of conductivity and transmittance of graphene oxide/PEDOT:PSS electrodes and the evaluation of charge transfer dynamics. Journal of Applied Physics, 2019, 126, .	1.1	15
63	Molecular orientation and femtosecond charge transfer dynamics in transparent and conductive electrodes based on graphene oxide and PEDOT:PSS composites. Physical Chemistry Chemical Physics, 2019, 21, 736-743.	1.3	15
64	Multifunctional polythiophenes in photodiodes. Synthetic Metals, 1999, 102, 977-978.	2.1	14
65	Self organised polymer photodiodes for extended spectral coverage. Thin Solid Films, 2000, 363, 286-289.	0.8	14
66	Optical absorption of rutile SnO2 and TiO2. Physica Status Solidi C: Current Topics in Solid State Physics, 2009, 6, 2740-2742.	0.8	14
67	Characterization of asymmetric fragmentation patterns in SFM images of porous silicon. Solid State Communications, 2000, 113, 703-708.	0.9	13
68	Space-charge-limited bipolar currents in polymer/C60 diodes. Journal of Applied Physics, 2002, 92, 5575-5577.	1.1	13
69	An electrochemically synthesized sulfonated polyaniline layer for positive charge carrier injection improvement in conjugated polymer devices. Journal of Solid State Electrochemistry, 2004, 8, 118-121.	1.2	13
70	Photoabsorption and desorption studies on poly-3-hexylthiophene/multi-walled carbon nanotube composite films. Surface Science, 2009, 603, 647-652.	0.8	13
71	The effect of thermal annealing on the charge transfer dynamics of a donorâ€“acceptor copolymer and fullerene: F8T2 and F8T2:PCBM. Physical Chemistry Chemical Physics, 2015, 17, 11244-11251.	1.3	12
72	Annealing effect on donor-acceptor interface and its impact on the performance of organic photovoltaic devices based on PSiF-DBT copolymer and C60. Applied Physics Letters, 2015, 106, 133301.	1.5	12

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73	Ultrafast interface charge transfer dynamics on P3HT/MWCNT nanocomposites probed by resonant Auger spectroscopy. RSC Advances, 2018, 8, 26416-26422.	1.7	12
74	Mechanical properties of polyhedral oligomeric silsesquioxane (POSS) thin films submitted to Si irradiation. Nuclear Instruments & Methods in Physics Research B, 2004, 218, 375-380.	0.6	11
75	Improving light harvesting in polymer photodetector devices through nanoindented metal mask films. Journal of Applied Physics, 2008, 104, 033714.	1.1	11
76	Electronic and structural properties in thermally annealed PSiF-DBT:PC71BM blends for organic photovoltaics. Thin Solid Films, 2016, 615, 165-170.	0.8	11
77	Electrical and morphological study of carbon nanotubes/polyaniline composite films: A model to explain different tunneling regimes induced by a vertical electric field. Thin Solid Films, 2017, 636, 314-324.	0.8	11
78	Tin oxide as a transparent electrode material for light-emitting diodes fabricated with poly (p-phenylene vinylene). Bulletin of Materials Science, 1996, 19, 423-427.	0.8	10
79	Nonradiative Energy Transfer between Porphyrin and Copolymer in Films Processed by Organic Solvent and Water-Dispersible Nanoparticles with Photovoltaic Applications. Journal of Physical Chemistry C, 2018, 122, 5796-5804.	1.5	10
80	Enhanced photo conversion efficiency utilizing interference inside organic heteroj unction photovoltaic devices. Synthetic Metals, 1999, 102, 1107.	2.1	9
81	Naphthalimide-derivative with blue electroluminescence for OLED applications. Journal of Taibah University for Science, 2015, 9, 579-585.	1.1	9
82	Additive Driven Increase in Donorâ€“Acceptor Copolymer Coupling Studied by X-ray Resonant Photoemission. Journal of Physical Chemistry C, 2017, 121, 25187-25194.	1.5	9
83	The role of carbon nanotubes on the sensitivity of composites with polyaniline for ammonia sensors. Carbon Trends, 2021, 3, 100026.	1.4	9
84	Evidence of fractal structure for charge transport in carbon-nanotube/conjugated-polymer composites. Europhysics Letters, 2007, 79, 47011.	0.7	8
85	Electrical and optical properties of poly(2-dodecanoylsulfanyl-p-phenylenevnylene) and its application in electroluminescent devices. Journal of Materials Science: Materials in Electronics, 2010, 21, 1235-1239.	1.1	8
86	Kinetic Modeling of the Electric Field Dependent Exciton Quenching at the Donorâ€“Acceptor Interface. Journal of Physical Chemistry C, 2021, 125, 4436-4448.	1.5	8
87	Photovoltaic devices based on photo induced charge transfer in polythiophene: CN-PPV blends. Brazilian Journal of Physics, 2003, 33, 376-381.	0.7	7
88	Morphology Dependence on Fluorine Doped Tin Oxide Film Thickness Studied with Atomic Force Microscopy. Microscopy and Microanalysis, 2005, 11, 118-121.	0.2	7
89	Polythiophene thin films electrochemically deposited on solâ€“gel based TiO2 for photovoltaic applications. Thin Solid Films, 2010, 519, 1511-1515.	0.8	7
90	Conductive ink based on PEDOT nanoparticles dispersed in water without organic solvents, passivant agents or metallic residues. Synthetic Metals, 2021, 272, 116657.	2.1	7

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91	Thermal and optical properties of porous silicon. Materials Research, 2001, 4, 23-26.	0.6	6
92	Photovoltaics based on thin electrodeposited bilayers of poly(3-methylthiophene) and polypyrrole. Physica Status Solidi A, 2004, 201, 842-849.	1.7	6
93	Electrical aspects of photovoltaic devices based on bi-layer organic semiconducting materials. Microelectronics Journal, 2005, 36, 995-997.	1.1	6
94	Modeling and gradient pattern analysis of irregular SFM structures of porous silicon. Microelectronics Journal, 2006, 37, 290-294.	1.1	6
95	Photoabsorption and desorption studies on thiophene-based polymers following sulphur K-shell excitation. Journal of Electron Spectroscopy and Related Phenomena, 2011, 184, 265-269.	0.8	6
96	Correlations between the number of thiophene units and the photovoltaic behavior of fluoreneâ€“oligothiophene copolymers. European Polymer Journal, 2013, 49, 3539-3547.	2.6	6
97	Thermally induced anchoring of fullerene in copolymers with Si-bridging atom: Spectroscopic evidences. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2017, 171, 376-382.	2.0	6
98	Femtosecond and Attosecond Electron Transfer Dynamics of Semiconductors Probed by the Core-Hole Clock Spectroscopy. Topics in Catalysis, 2019, 62, 1004-1010.	1.3	6
99	Graphene oxide as a surfactant in the nanostructuring of a conduction polymer: Effect on the electronic structure, chain orientation, and charge transfer dynamics. Organic Electronics, 2019, 75, 105440.	1.4	6
100	Correlation between structural and optical characteristics of conjugated copolymers differing by a Si bridge atom. Physical Chemistry Chemical Physics, 2020, 22, 19923-19931.	1.3	6
101	Effects of non-halogenated solvent on the main properties of a solution-processed polymeric thin film for photovoltaic applications: a computational study. Physical Chemistry Chemical Physics, 2020, 22, 9693-9702.	1.3	6
102	High Quantum Efficiency Polythiophene. Advanced Materials, 1998, 10, 774-777.	11.1	6
103	Binding Energy of Triplet Excitons in Nonfullerene Acceptors: The Effects of Fluorination and Chlorination. Journal of Physical Chemistry A, 2022, 126, 1393-1402.	1.1	6
104	The unstable behaviour of Ag/PPV charge injection contacts. Journal of Materials Science Letters, 1996, 15, 1307.	0.5	5
105	PolÃmeros conjugados como camada ativa de diodos emissores de luz e fotodetectores. Polimeros, 1998, 8, 55-63.	0.2	5
106	Preparation of porous titanium oxide films onto indium tin oxide for application in organic photovoltaic devices. Applied Surface Science, 2012, 258, 5375-5379.	3.1	5
107	The current-voltage characteristics of polymer/C60 diodes in the dark: A direct way to assess photovoltaic devices efficiency parameters. Applied Physics Letters, 2013, 103, 033304.	1.5	5
108	Energy Transfer in Aqueously Dispersed Organic Semiconductor Nanoparticles. Journal of Physical Chemistry C, 2020, 124, 27946-27953.	1.5	5

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109	Non-radiative energy transfer in aqueously dispersed polymeric nanoparticles for photovoltaic applications. Synthetic Metals, 2021, 275, 116740.	2.1	5
110	Electronic properties of poly(1,4-phenylene methylidynenitrilo-1,4-phenylene nitrilomethylidyne) (PPI). Synthetic Metals, 1997, 90, 147-151.	2.1	4
111	Conformational and Electron Dynamics Changes Induced by Cooling Treatment on GO:PEDOT:PSS Transparent Electrodes. Journal of Physical Chemistry C, 2020, 124, 26640-26647.	1.5	4
112	Synthesis and characterization of poly(decyloxy-p-phenylenevinylene). Synthetic Metals, 2003, 135-136, 3-4.	2.1	3
113	Structural complexity of disordered surfaces: Analyzing the porous silicon SFM patterns. Physica A: Statistical Mechanics and Its Applications, 2007, 386, 666-673.	1.2	3
114	Organic Photodiodes: From Diodes to Blends. Springer Series in Materials Science, 2003, , 249-272.	0.4	3
115	Structural flyby characterization of nanoporosity. Physica Status Solidi C: Current Topics in Solid State Physics, 2004, 1, S277-S281.	0.8	2
116	Optical and morphological properties of porous diamond-like-carbon films deposited by magnetron sputtering. Journal of Non-Crystalline Solids, 2006, 352, 3734-3738.	1.5	2
117	Effect of the Temperature of Annealing on the Performance of Fluorene and Bithiophene Copolymer in Bilayer Solar Cells. Materials Research Society Symposia Proceedings, 2012, 1390, 100.	0.1	2
118	Thickness Effect on F8T2/C60Bilayer Photovoltaic Devices. Journal of Nanotechnology, 2012, 2012, 1-5.	1.5	2
119	Interactions of iron-oxide filled carbon nanotubes with gas molecules. Physical Chemistry Chemical Physics, 2013, 15, 14340.	1.3	2
120	Understanding the effect of solvent additive in polymeric thin film: turning a bilayer into a bulk heterojunction-like photovoltaic device. Journal Physics D: Applied Physics, 2020, 53, 365101.	1.3	2
121	Morphology, Photoexcitation Dynamics and Stability of Water-Dispersed Nanoparticle Films based on Semiconducting Copolymer. Thin Solid Films, 2021, 721, 138536.	0.8	2
122	Organic Photovoltaic Solar Panels (OPV) Applied to a Tubelike Bus Station. Brazilian Journal of Physics, 2022, 52, 1.	0.7	2
123	Time-dependent structural modifications in tin oxide thin films under environmental conditions. Journal of Materials Science: Materials in Electronics, 1996, 7, 423.	1.1	1
124	Theoretical and experimental investigation into environment dependence and electric properties for volatile memory based on methyl-red dye thin film. Solid-State Electronics, 2010, 54, 1697-1700.	0.8	1
125	Femtosecond Electron Delocalization in Polymer:Fullerene Blend Films. Journal of Physics: Conference Series, 2015, 635, 122003.	0.3	1
126	Interplay among electronic characteristics, morphology and device efficiency in three fluorene alternated copolymers. Synthetic Metals, 2016, 219, 60-66.	2.1	1

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127	Electron and Photon Stimulated Ion Desorption from Poly(thiophene). Journal of the Brazilian Chemical Society, 2013, , .	0.6	1
128	Clean and Renewable Energy, Healthy Organic Electronics. Revista Virtual De Quimica, 2020, 12, 583-597.	0.1	1
129	Morphology and energy transfer study between conjugated polymers thin films: experimental and theoretical approaches. Journal of Physics Condensed Matter, 2022, 34, 214010.	0.7	1
130	Photoacoustic investigations of optical absorption, photoluminescence, and thermal diffusivity of Porous Diamond-Like-Carbon films. European Physical Journal Special Topics, 2005, 125, 293-295.	0.2	0
131	Light emission and current rectification in a molecular device: Experiment and theory. Journal of Applied Physics, 2012, 112, 113108.	1.1	0
132	Space-Charge-Limited Bipolar Currents at High Fields in Polymer/C₆₀ Diodes: A Simple Model Description. Advanced Materials Research, 0, 747, 591-594.	0.3	0
133	Modifying Interfaces to Semiconducting Polymers. , 2001, , .		0
134	Organic Photovoltaic Panels for Bus Rapid Transit Stations in Curitiba â€“ A Viability Study. , 2019, , .		0
135	Molecular Orientation and Femtosecond Electron Transfer Dynamics in Halogenated and Nonhalogenated, Eco-Friendly Processed PTB7-Th, ITIC, PTB7-Th:ITIC, and PTB7-Th:PCBM Films. Journal of Physical Chemistry C, 0, , .	1.5	0