

Vlad Stolojan

List of Publications by Year in descending order

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134
papers

3,610
citations

185998

28
h-index

149479

56
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136
all docs

136
docs citations

136
times ranked

4995
citing authors

#	ARTICLE	IF	CITATIONS
1	Density, sp ³ fraction, and cross-sectional structure of amorphous carbon films determined by x-ray reflectivity and electron energy-loss spectroscopy. <i>Physical Review B</i> , 2000, 62, 11089-11103.	1.1	506
2	Stress reduction and bond stability during thermal annealing of tetrahedral amorphous carbon. <i>Journal of Applied Physics</i> , 1999, 85, 7191-7197.	1.1	390
3	Large-area synthesis of carbon nanofibres at room temperature. <i>Nature Materials</i> , 2002, 1, 165-168.	13.3	204
4	Hybrid Carbon Nanotube Networks as Efficient Hole Extraction Layers for Organic Photovoltaics. <i>ACS Nano</i> , 2013, 7, 556-565.	7.3	102
5	Nanostructured Copper Phthalocyanine-Sensitized Multiwall Carbon Nanotube Films. <i>Langmuir</i> , 2007, 23, 6424-6430.	1.6	96
6	Density, sp ³ content and internal layering of DLC films by X-ray reflectivity and electron energy loss spectroscopy. <i>Diamond and Related Materials</i> , 2000, 9, 771-776.	1.8	94
7	Structural and optoelectronic properties of C ₆₀ rods obtained via a rapid synthesis route. <i>Journal of Materials Chemistry</i> , 2006, 16, 3715.	6.7	94
8	Thermal expansion coefficient of hydrogenated amorphous carbon. <i>Applied Physics Letters</i> , 2003, 83, 3099-3101.	1.5	85
9	Determination of bonding in amorphous carbons by electron energy loss spectroscopy, Raman scattering and X-ray reflectivity. <i>Journal of Non-Crystalline Solids</i> , 2000, 266-269, 765-768.	1.5	81
10	Multi-Functional Carbon Fibre Composites using Carbon Nanotubes as an Alternative to Polymer Sizing. <i>Scientific Reports</i> , 2016, 6, 37334.	1.6	76
11	Highly Stretchable, Directionally Oriented Carbon Nanotube/PDMS Conductive Films with Enhanced Sensitivity as Wearable Strain Sensors. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 39560-39573.	4.0	75
12	Confined Crystals of the Smallest Phase-Change Material. <i>Nano Letters</i> , 2013, 13, 4020-4027.	4.5	73
13	The Relationship between Reaction Temperature and Carbon Deposition on Nickel Catalysts Based on Al ₂ O ₃ , ZrO ₂ or SiO ₂ Supports during the Biogas Dry Reforming Reaction. <i>Catalysts</i> , 2019, 9, 676.	1.6	72
14	Ultra-high Performance C ₆₀ Nanorod Large Area Flexible Photoconductor Devices via Ultralow Organic and Inorganic Photodoping. <i>Scientific Reports</i> , 2015, 4, 5041.	1.6	67
15	Growth of carbon nanotubes at temperatures compatible with integrated circuit technologies. <i>Carbon</i> , 2011, 49, 280-285.	5.4	53
16	Observation of van der Waals Driven Self-Assembly of MoSI Nanowires into a Low-Symmetry Structure Using Aberration-Corrected Electron Microscopy. <i>Advanced Materials</i> , 2007, 19, 543-547.	11.1	42
17	Deposition of carbon nitride films using an electron cyclotron wave resonance plasma source. <i>Diamond and Related Materials</i> , 2000, 9, 524-529.	1.8	41
18	Photo-thermal chemical vapor deposition growth of graphene. <i>Carbon</i> , 2012, 50, 668-673.	5.4	40

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19	High-rate low-temperature growth of vertically aligned carbon nanotubes. <i>Nanotechnology</i> , 2010, 21, 505604.	1.3	38
20	High Quality Carbon Nanotubes on Conductive Substrates Grown at Low Temperatures. <i>Advanced Functional Materials</i> , 2015, 25, 4419-4429.	7.8	38
21	Supercapacitor electrode with high charge density based on boron-doped porous carbon derived from covalent organic frameworks. <i>Carbon</i> , 2021, 184, 418-425.	5.4	38
22	Optimizing the oxide support composition in Pr-doped CeO ₂ towards highly active and selective Ni-based CO ₂ methanation catalysts. <i>Journal of Energy Chemistry</i> , 2022, 71, 547-561.	7.1	36
23	Controlled Growth-Reversal of Catalytic Carbon Nanotubes under Electron-Beam Irradiation. <i>Nano Letters</i> , 2006, 6, 1837-1841.	4.5	33
24	The Inner Shell Influence on the Electronic Structure of Double-Walled Carbon Nanotubes. <i>Advanced Materials</i> , 2008, 20, 189-194.	11.1	33
25	Inner-Tube Chirality Determination for Double-Walled Carbon Nanotubes by Scanning Tunneling Microscopy. <i>Nano Letters</i> , 2007, 7, 1232-1239.	4.5	31
26	Highly aligned arrays of super resilient carbon nanotubes by steam purification. <i>Carbon</i> , 2015, 84, 130-137.	5.4	31
27	Development of sizing-free multi-functional carbon fibre nanocomposites. <i>Composites Part A: Applied Science and Manufacturing</i> , 2016, 90, 306-319.	3.8	31
28	Carbon spheres generated in $\tilde{\text{dusty plasmas}}^{\text{TM}}$. <i>Carbon</i> , 2005, 43, 704-708.	5.4	30
29	Chemico-physical characterisation and in vivo biocompatibility assessment of DLC-coated coronary stents. <i>Analytical and Bioanalytical Chemistry</i> , 2013, 405, 321-329.	1.9	29
30	Highly photoconductive amorphous carbon nitride films prepared by cyclic nitrogen radical sputtering. <i>Applied Physics Letters</i> , 2004, 85, 2803-2805.	1.5	28
31	Electron energy loss spectroscopy of carbonaceous materials. <i>Thin Solid Films</i> , 2005, 488, 283-290.	0.8	28
32	Biomass preservation in impact melt ejecta. <i>Nature Geoscience</i> , 2013, 6, 1018-1022.	5.4	28
33	Laser implantation of plasmonic nanostructures into glass. <i>Nanoscale</i> , 2013, 5, 1054-1059.	2.8	27
34	Solution processable multi-channel ZnO nanowire field-effect transistors with organic gate dielectric. <i>Nanotechnology</i> , 2013, 24, 405203.	1.3	27
35	Determining the Level and Location of Functional Groups on Few-Layer Graphene and Their Effect on the Mechanical Properties of Nanocomposites. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 13481-13493.	4.0	27
36	A fast sonochemical approach for the synthesis of solution processable ZnO rods. <i>Journal of Applied Physics</i> , 2008, 104, .	1.1	26

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37	Facile Synthesis of Titania Nanowires via a Hot Filament Method and Conductometric Measurement of Their Response to Hydrogen Sulfide Gas. <i>ACS Applied Materials & Interfaces</i> , 2013, 5, 1197-1205.	4.0	26
38	Reactive Polymorphic Nanoparticles: Preparation via Polymerization-Induced Self-Assembly and Postsynthesis Thiol-Fluoro Core Modification. <i>Macromolecular Rapid Communications</i> , 2019, 40, e1800346.	2.0	26
39	From Stems (and Stars) to Roses: Shape-Controlled Synthesis of Zinc Oxide Crystals. <i>Crystal Growth and Design</i> , 2009, 9, 3432-3437.	1.4	25
40	Simultaneous Tunable Selection and Self-Assembly of Si Nanowires from Heterogeneous Feedstock. <i>ACS Nano</i> , 2016, 10, 4384-4394.	7.3	25
41	Raman, EELS and XPS studies of maghemite decorated multi-walled carbon nanotubes. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2014, 121, 715-718.	2.0	24
42	Branched carbon nanofiber network synthesis at room temperature using radio frequency supported microwave plasmas. <i>Journal of Applied Physics</i> , 2004, 96, 3443-3446.	1.1	22
43	Efficient Coupling of Optical Energy for Rapid Catalyzed Nanomaterial Growth: High-Quality Carbon Nanotube Synthesis at Low Substrate Temperatures. <i>ACS Applied Materials & Interfaces</i> , 2013, 5, 3861-3866.	4.0	22
44	Diamond-like carbon thin films for high-temperature applications prepared by filtered pulsed laser deposition. <i>Vacuum</i> , 2005, 80, 163-167.	1.6	21
45	Electrochemical supercapacitors based on 3D nanocomposites of reduced graphene oxide/carbon nanotube and ZnS. <i>Journal of Alloys and Compounds</i> , 2020, 836, 155408.	2.8	21
46	The fabrication of aspherical microlenses using focused ion-beam techniques. <i>Micron</i> , 2014, 57, 56-66.	1.1	20
47	Towards type-selective carbon nanotube growth at low substrate temperature via photo-thermal chemical vapour deposition. <i>Carbon</i> , 2015, 84, 409-418.	5.4	20
48	Carbon Nanotube Interconnects Realized through Functionalization and Sintered Silver Attachment. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 5563-5570.	4.0	20
49	Solution-Processed Neodymium Oxide/ZnO Thin-Film Transistors with Electron Mobility in Excess of $65 \text{ cm}^2 \text{ V}^{-1} \text{ s}^{-1}$. <i>Advanced Electronic Materials</i> , 2017, 3, 1700025.	2.6	20
50	Electron field emission properties of Co quantum dots in SiO ₂ matrix synthesised by ion implantation. <i>Ultramicroscopy</i> , 2007, 107, 819-824.	0.8	19
51	Electrical conduction mechanism in laser deposited amorphous carbon. <i>Thin Solid Films</i> , 2007, 516, 257-261.	0.8	19
52	Pulsed laser deposited tetrahedral amorphous carbon with high sp ³ fractions and low optical bandgaps. <i>Journal of Applied Physics</i> , 2009, 105, 073521.	1.1	18
53	Probing of polymer to carbon nanotube surface interactions within highly aligned electrospun nanofibers for advanced composites. <i>Carbon</i> , 2018, 138, 207-214.	5.4	18
54	Electron field-emission properties of Ag-SiO ₂ nanocomposite layers. <i>Journal of Vacuum Science & Technology B</i> , 2006, 24, 958.	1.3	17

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55	The effect of silane incorporation on a metal adhesive interface: A study by electron energy loss spectroscopy. <i>Micron</i> , 2010, 41, 130-134.	1.1	17
56	Negative differential conductance observed in electron field emission from band gap modulated amorphous-carbon nanolayers. <i>Applied Physics Letters</i> , 2006, 89, 193103.	1.5	16
57	High concentration Mn ion implantation in Si. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2009, 267, 1623-1625.	0.6	16
58	Growth and characterization of ceria thin films and Ce-doped Al_2O_3 nanowires using sol-gel techniques. <i>Nanotechnology</i> , 2010, 21, 465606.	1.3	16
59	Source-Gated Transistors Based on Solution Processed Silicon Nanowires for Low Power Applications. <i>Advanced Electronic Materials</i> , 2017, 3, 1600256.	2.6	16
60	Synthesis and Electrochemical Properties of Bi_2MoO_6 /Carbon Anode for Lithium-Ion Battery Application. <i>Materials</i> , 2020, 13, 1132.	1.3	16
61	Bandgap enhancement of layered nanocrystalline silicon from excimer laser crystallization. <i>Nanotechnology</i> , 2006, 17, 5412-5416.	1.3	15
62	Study of the current stressing in nanomanipulated three-dimensional carbon nanotube structures. <i>Applied Physics Letters</i> , 2005, 87, 033102.	1.5	14
63	Electronic state modification in laser deposited amorphous carbon films by the inclusion of nitrogen. <i>Journal of Applied Physics</i> , 2008, 104, 063701.	1.1	14
64	Adsorbent 2D and 3D carbon matrices with protected magnetic iron nanoparticles. <i>Nanoscale</i> , 2015, 7, 17441-17449.	2.8	14
65	Physicochemical characterisation of reduced graphene oxide for conductive thin films. <i>RSC Advances</i> , 2018, 8, 37540-37549.	1.7	14
66	Probing the band structure of hydrogen-free amorphous carbon and the effect of nitrogen incorporation. <i>Carbon</i> , 2011, 49, 5229-5238.	5.4	13
67	The role of the gas species on the formation of carbon nanotubes during thermal chemical vapour deposition. <i>Nanotechnology</i> , 2008, 19, 445605.	1.3	12
68	Decoration of multiwalled carbon nanotubes with protected iron nanoparticles. <i>Carbon</i> , 2015, 84, 47-55.	5.4	12
69	Large area uniform electrospun polymer nanofibres by balancing of the electrostatic field. <i>Reactive and Functional Polymers</i> , 2018, 129, 89-94.	2.0	12
70	Micro-Centrifugal Technique for Improved Assessment and Optimization of Nanomaterial Dispersions: The Case for Carbon Nanotubes. <i>ACS Applied Nano Materials</i> , 2018, 1, 6217-6225.	2.4	12
71	Formamidinium Lead Halide Perovskite Nanocomposite Scintillators. <i>Nanomaterials</i> , 2022, 12, 2141.	1.9	12
72	Towards manufacturing high uniformity polysilicon circuits through TFT contact barrier engineering. <i>Scientific Reports</i> , 2018, 8, 17558.	1.6	11

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73	Textile-compatible, Electroactive Polyvinylidene Fluoride Electrospun Mats for Energy Harvesting. <i>Macromolecular Chemistry and Physics</i> , 2019, 220, 1900364.	1.1	11
74	Synthesis of linear ZnO structures by a thermal decomposition method and their characterisation. <i>Journal of Materials Science</i> , 2012, 47, 1893-1901.	1.7	10
75	Rapid determination of nanowires electrical properties using a dielectrophoresis-well based system. <i>Applied Physics Letters</i> , 2017, 110, .	1.5	10
76	Suppression of Self-Discharge in Aqueous Supercapacitor Devices Incorporating Highly Polar Nanofiber Separators. <i>Energy and Environmental Materials</i> , 2023, 6, .	7.3	10
77	Nanostructural studies of PVD TiAlB coatings. <i>Surface and Interface Analysis</i> , 2006, 38, 731-735.	0.8	9
78	Microstructure Analyses of Metal-Filled Carbon Nanotubes Synthesized by Microwave Plasma-Enhanced Chemical Vapor Deposition. <i>IEEE Nanotechnology Magazine</i> , 2006, 5, 485-490.	1.1	8
79	Structural characterization of hard a-C:H films as a function of the methane pressure. <i>Diamond and Related Materials</i> , 2002, 11, 980-984.	1.8	7
80	Reversible increase of photocurrents in excimer laser-crystallized silicon solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2008, 92, 1378-1381.	3.0	7
81	The growth of silica and silica-clad nanowires using a solid-state reaction mechanism on Ti, Ni and SiO ₂ layers. <i>Nanotechnology</i> , 2010, 21, 295603.	1.3	7
82	Spontaneous Emergence of Long-Range Shape Symmetry. <i>Nano Letters</i> , 2011, 11, 160-163.	4.5	7
83	Catalysing the production of multiple arm carbon octopi nanostructures. <i>Carbon</i> , 2012, 50, 2141-2146.	5.4	7
84	X-ray micro-computed tomography as a non-destructive tool for imaging the uptake of metal nanoparticles by graphene-based 3D carbon structures. <i>Nanoscale</i> , 2019, 11, 14734-14741.	2.8	7
85	Zinc-based Metal-Organic Frameworks for High-performance Supercapacitor Electrodes: Mechanism Underlying Pore Generation. <i>Energy and Environmental Materials</i> , 2023, 6, .	7.3	7
86	Dendrimer assisted catalytic growth of mats of multiwall carbon nanofibers. <i>Carbon</i> , 2005, 43, 2229-2231.	5.4	6
87	Deployment of titanium thermal barrier for low-temperature carbon nanotube growth. <i>Applied Physics Letters</i> , 2005, 87, 253115.	1.5	6
88	Dielectric properties of WS ₂ -coated multiwalled carbon nanotubes studied by energy-loss spectroscopic profiling. <i>Applied Physics Letters</i> , 2005, 86, 063112.	1.5	6
89	Interface Passivation and Trap Reduction via a Solution-Based Method for Near-Zero Hysteresis Nanowire Field-Effect Transistors. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 22115-22120.	4.0	6
90	Damage effects in Pyrex by CF ₄ reactive ion etching in dual RF-microwave plasmas. <i>Micro and Nano Letters</i> , 2006, 1, 103.	0.6	6

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91	Energy loss spectroscopic profiling across linear interfaces: The example of amorphous carbon superlattices. <i>Ultramicroscopy</i> , 2006, 106, 346-355.	0.8	5
92	Failure mechanisms in adhesively bonded aluminium: an XPS and PEELS study. <i>Surface and Interface Analysis</i> , 2008, 40, 128-131.	0.8	5
93	Top-Down Heating for Low Substrate Temperature Synthesis of Carbon Nanotubes. <i>Journal of Nanoscience and Nanotechnology</i> , 2010, 10, 3952-3958.	0.9	5
94	Carbon nanotube micro-contactors on ohmic substrates for on-chip microelectromechanical probing applications at wafer level. <i>Carbon</i> , 2019, 150, 117-127.	5.4	5
95	Field electron emission measurements as a complementary technique to assess carbon nanotube quality. <i>Applied Physics Letters</i> , 2020, 116, .	1.5	5
96	Effect of Surfactants on the Thermoelectric Performance of Double-Walled Carbon Nanotubes. <i>Energy and Environmental Materials</i> , 2023, 6, .	7.3	5
97	Phonon transport probed at carbon nanotube yarn/sheet boundaries by ultrafast structural dynamics. <i>Carbon</i> , 2020, 170, 165-173.	5.4	5
98	The electron field emission properties of ion beam synthesised metal-dielectric nanocomposite layers on silicon substrates. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2005, 124-125, 453-457.	1.7	4
99	Enhancement of phosphorus activation in vacancy engineered thin silicon-on-insulator substrates. <i>Journal of Applied Physics</i> , 2009, 106, .	1.1	4
100	Semiconductor Quantum Well Lasers With a Temperature-Insensitive Threshold Current. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2015, 21, 177-182.	1.9	4
101	Delivering interlaminar reinforcement in composites through electrospun nanofibres. <i>Advanced Manufacturing: Polymer and Composites Science</i> , 2019, 5, 155-171.	0.2	4
102	Low-Cost Catalyst Ink for Simple Patterning and Growth of High-Quality Single- and Double-Walled Carbon Nanotubes. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 11898-11906.	4.0	4
103	Subnanometer-resolved measurement of the tunneling effective mass using bulk plasmons. <i>Applied Physics Letters</i> , 2006, 88, 122109.	1.5	3
104	Carbon nanotube field effect transistor measurements in vacuum. , 2010, , .		3
105	Characterisation of gold nanoparticles and rods using high angle annular dark field imaging. <i>Journal of Nanoparticle Research</i> , 2012, 14, 1.	0.8	3
106	Charge Funneling through Metal Electrode Structuring for High-Efficiency Gains in Polymer Solar Cells. <i>Advanced Electronic Materials</i> , 2016, 2, 1600049.	2.6	3
107	Solution-Processed InAs Nanowire Transistors as Microwave Switches. <i>Advanced Electronic Materials</i> , 2019, 5, 1800323.	2.6	3
108	Understanding the bonding mechanisms of organic molecules deposited on graphene for biosensing applications. <i>Journal of Chemical Physics</i> , 2021, 155, 174703.	1.2	3

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109	One-pot rapid low-cost synthesis of Pd-fullerite catalysts. Journal of Materials Chemistry, 2008, 18, 4808.	6.7	2
110	Characterisation of electron-beam deposited tungsten interconnects. Journal of Physics: Conference Series, 2008, 126, 012073.	0.3	2
111	A Route Towards Metal-free Electrical Cables via Carbon Nanotube Wires. Carbon Trends, 2022, 7, 100159.	1.4	2
112	Direct observation and characterisation of the oxide nanostructured interface resulting from organosilane pre-treatment of aluminium. Materials Research Society Symposia Proceedings, 2002, 734, 181.	0.1	1
113	Silver intercalated carbon nanotubes. AIP Conference Proceedings, 2005, , .	0.3	1
114	Quantum effects in band gap-modulated amorphous carbon superlattices. , 2005, , 307-310.		1
115	Growth of tungsten oxide nanowires using simple thermal heating. , 0, , .		1
116	Improving the electron emission properties of ion-beam-synthesized Ag-SiO ₂ nanocomposites by pulsed laser annealing. Journal of Vacuum Science & Technology B, 2008, 26, 860-863.	1.3	1
117	Laser Patterned Polymer/Carbon Nanotubes Composite Electrodes for Flexible Silicon Nanowire Transistors. Journal of Nanoscience and Nanotechnology, 2019, 19, 4765-4770.	0.9	1
118	In situ Observation of the Growth of Tungsten Oxide Nanostructures. Springer Proceedings in Physics, 2008, , 277-280.	0.1	1
119	Gas Sensing Properties of Vapour-Deposited Tungsten Oxide Nanostructures. Springer Proceedings in Physics, 2008, , 281-284.	0.1	1
120	Growth kinetics changes of vertically aligned carbon nanostructures synthesised at low substrate temperatures. Materials Research Society Symposia Proceedings, 2004, 858, 192.	0.1	0
121	Ion-Beam-Synthesised Ag-SiO ₂ Nanocomposite Layers for Electron Field Emission Devices. Materials Research Society Symposia Proceedings, 2005, 908, 1.	0.1	0
122	The electron field emission properties of Ag-SiO ₂ /sub 2/ nanocomposite layers. , 0, , .		0
123	Carbon nanotubes and nanostructures grown at below 400°C. Materials Research Society Symposia Proceedings, 2005, 901, 1.	0.1	0
124	Microstructure analyses of metal-filled carbon nanotubes synthesized by microwave plasma-enhanced chemical vapour deposition. , 0, , .		0
125	Novel approach to low substrate temperature synthesis of carbon nanotubes. , 0, , .		0
126	Electron Field Emission Properties of Co Quantum Dots in SiO ₂ Matrix Synthesised by Ion Implantation. , 2006, , .		0

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127	Negative Differential Conductance Observed in Electron Field Emission from Band Gap Modulated A-C Nanolayers. , 2006, , .		0
128	Improving the electron emission properties of ion-beam-synthesized Ag-SiO ₂ nanocomposites by pulsed laser annealing. , 2007, , .		0
129	Influences of Hydrogen Gas on Carbon Nanotube Growth. Materials Research Society Symposia Proceedings, 2008, 1081, 1.	0.1	0
130	Engineering the shape of Zinc Oxide crystals via sonochemical or hydrothermal solution-based methods. Materials Research Society Symposia Proceedings, 2008, 1087, 60401.	0.1	0
131	Direct catalytic growth of high-density carbon nanotubes on nanoclusters at low temperatures. , 2010, , .		0
132	Raman analysis of oxide cladded silicon core nanowires grown with solid silicon feed stock. Journal of Nanoparticle Research, 2011, 13, 2697-2703.	0.8	0
133	Electron energy loss line spectral and TEM analysis of heterojunctions. , 2018, , 41-44.		0
134	Rapid determination of nanowire electrical properties using a dielectrophoresis-well based system. Applied Physics Letters, 2017, 110, .	1.5	0