

# Hyun-Jong Paik

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/2788288/publications.pdf>

Version: 2024-02-01

116  
papers

3,054  
citations

236612

25  
h-index

174990

52  
g-index

118  
all docs

118  
docs citations

118  
times ranked

2863  
citing authors

#	ARTICLE	IF	CITATIONS
1	Synthesis of Well-Defined Polyacrylonitrile by Atom Transfer Radical Polymerization. <i>Macromolecules</i> , 1997, 30, 6398-6400.	2.2	215
2	Tridentate Nitrogen-Based Ligands in Cu-Based ATRP: A Structure-Activity Study. <i>Macromolecules</i> , 2001, 34, 430-440.	2.2	198
3	An Investigation into the CuX <sub>2</sub> -Bipyridine (X = Br or Cl) Mediated Atom Transfer Radical Polymerization of Acrylonitrile. <i>Macromolecules</i> , 1999, 32, 6431-6438.	2.2	185
4	Determination of Activation and Deactivation Rate Constants of Model Compounds in Atom Transfer Radical Polymerization. <i>Macromolecules</i> , 2001, 34, 5125-5131.	2.2	178
5	Kinetic Investigation of the Atom Transfer Radical Polymerization of Methyl Acrylate. <i>Macromolecules</i> , 1999, 32, 1767-1776.	2.2	157
6	Block Copolymers by Transformation of Living Ring-Opening Metathesis Polymerization into Controlled/Living Atom Transfer Radical Polymerization. <i>Macromolecules</i> , 1997, 30, 6513-6516.	2.2	156
7	Formation of Thermo-responsive Gold Nanoparticle/PNIPAAm Hybrids by Surface-Initiated, Atom Transfer Radical Polymerization in Aqueous Media. <i>Macromolecular Chemistry and Physics</i> , 2005, 206, 1941-1946.	1.1	153
8	Synthesis and characterization of graft copolymers of poly(vinyl chloride) with styrene and (meth)acrylates by atom transfer radical polymerization. <i>Macromolecular Rapid Communications</i> , 1998, 19, 47-52.	2.0	120
9	Polymerization of Vinyl Acetate Promoted by Iron Complexes. <i>Macromolecules</i> , 1999, 32, 8310-8314.	2.2	93
10	An Immobilized/Soluble Hybrid Catalyst System for Atom Transfer Radical Polymerization. <i>Macromolecules</i> , 2001, 34, 5099-5102.	2.2	80
11	Star Synthesis Using Macroinitiators via Electrochemically Mediated Atom Transfer Radical Polymerization. <i>Macromolecules</i> , 2013, 46, 5856-5860.	2.2	65
12	Influence of the silanes on the crosslink density and crosslink structure of silica-filled solution styrene butadiene rubber compounds. <i>Composite Interfaces</i> , 2017, 24, 711-727.	1.3	60
13	Photodetachment of aryl moieties from covalently functionalized single-walled carbon nanotubes by UV laser irradiation. <i>Journal of Materials Chemistry</i> , 2006, 16, 2374.	6.7	57
14	Free-Radical Intermediates in Atom Transfer Radical Addition and Polymerization: Study of Racemization, Halogen Exchange, and Trapping Reactions. <i>Macromolecules</i> , 2001, 34, 3127-3129.	2.2	45
15	Carbon Nanotubes as a Ligand in Cp <sub>2</sub> ZrCl <sub>2</sub> -Based Ethylene Polymerization. <i>Macromolecular Rapid Communications</i> , 2006, 27, 47-50.	2.0	45
16	Styrene-butadiene-glycidyl methacrylate terpolymer/silica composites: dispersion of silica particles and dynamic mechanical properties. <i>Composite Interfaces</i> , 2014, 21, 685-702.	1.3	44
17	Segmented Polyurethanes and Thermoplastic Elastomers from Elemental Sulfur with Enhanced Thermomechanical Properties and Flame Retardancy. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 22900-22907.	7.2	44
18	Colored single-chain polymeric nanoparticles via intramolecular copper phthalocyanine formation. <i>Polymer Chemistry</i> , 2015, 6, 3392-3397.	1.9	42

#	ARTICLE	IF	CITATIONS
19	Preparation and Analysis of Bicyclic Polystyrene. <i>Macromolecules</i> , 2014, 47, 3791-3796.	2.2	35
20	Figure-Eight-Shaped and Cage-Shaped Cyclic Polystyrenes. <i>Macromolecules</i> , 2016, 49, 3672-3680.	2.2	34
21	Partially crosslinked comb-shaped PPO-based anion exchange membrane grafted with long alkyl chains: Synthesis, characterization and microbial fuel cell performance. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 27346-27358.	3.8	32
22	Effects of Poly( <i>N</i> -vinylcaprolactam) Molecular Weight and Molecular Weight Distribution on Methane Hydrate Formation. <i>Energy &amp; Fuels</i> , 2017, 31, 6358-6363.	2.5	31
23	Synthesis of Well-Defined (Nitrilotriacetic Acid)-End-Functionalized Polystyrenes and Their Bioconjugation with Histidine-Tagged Green Fluorescent Proteins. <i>Macromolecules</i> , 2011, 44, 4672-4680.	2.2	30
24	The effect of accelerator contents on the vulcanizate structures of SSBR/silica vulcanizates. <i>Composite Interfaces</i> , 2017, 24, 563-577.	1.3	27
25	MALDI-TOF MS characterization of polystyrene synthesized by ATRP. <i>Polymer</i> , 2013, 54, 6133-6139.	1.8	26
26	De-bundled single-walled carbon nanotube-modified sensors for simultaneous differential pulse voltammetric determination of ascorbic acid, dopamine, and uric acid. <i>New Journal of Chemistry</i> , 2018, 42, 2432-2438.	1.4	26
27	Graft Polymerization of Styrene from Single-Walled Carbon Nanotube using Atom Transfer Radical Polymerization. <i>Polymer Bulletin</i> , 2005, 55, 173-179.	1.7	25
28	Synthesis of ferromagnetic polymer coated nanoparticles on multi-gram scale with tunable particle size. <i>Journal of Materials Chemistry</i> , 2010, 20, 6023.	6.7	25
29	Fabrication of flexible, transparent and conductive films from single-walled carbon nanotubes with high aspect ratio using poly((furfuryl methacrylate)-co-(2-(dimethylamino)ethyl methacrylate)) as a new polymeric dispersant. <i>Nanoscale</i> , 2015, 7, 6745-6753.	2.8	25
30	Polymer-dispersed reduced graphene oxide nanosheets and Prussian blue modified biosensor for amperometric detection of sarcosine. <i>Analytica Chimica Acta</i> , 2021, 1175, 338749.	2.6	25
31	Synthesis and characterization of low molecular weight poly(methyl acrylate)- <i>b</i> -polystyrene by a combination of ATRP and click coupling method. <i>Macromolecular Research</i> , 2007, 15, 541-546.	1.0	24
32	Molecular Weight Distribution of Living Chains in Polystyrene Prepared by Atom Transfer Radical Polymerization. <i>ACS Macro Letters</i> , 2017, 6, 758-761.	2.3	24
33	Synthesis and characterization of poly(ether sulfone) block copolymers containing pendent quaternary ammonium- and imidazolium groups as anion exchange membranes. <i>Solid State Ionics</i> , 2018, 314, 46-56.	1.3	24
34	1,2,3,4-tetrazole crosslinked polymers as binders for solid rocket propellants. <i>Journal of Applied Polymer Science</i> , 2014, 131, .	1.3	22
35	Dispersion of non-covalently functionalized single-walled carbon nanotubes with high aspect ratios using poly(2-dimethylaminoethyl methacrylate-co-styrene). <i>Carbon</i> , 2014, 72, 57-65.	5.4	21
36	Reduced filler flocculation in the silica-filled styrene- <i>b</i> -butadiene- <i>b</i> -glycidyl methacrylate terpolymer. <i>Composite Interfaces</i> , 2015, 22, 137-149.	1.3	21

#	ARTICLE	IF	CITATIONS
37	Magnetically steerable Fe <sub>3</sub> O <sub>4</sub> @Ni <sup>2+</sup> -NTA-polystyrene nanoparticles for the immobilization and separation of his6-protein. <i>European Polymer Journal</i> , 2019, 112, 524-529.	2.6	21
38	Formation of carbon nanotube/glucose-carrying polymer hybrids by surface-initiated, atom transfer radical polymerization. <i>Macromolecular Research</i> , 2005, 13, 356-361.	1.0	20
39	Virus-mimetic polymer nanoparticles displaying hemagglutinin as an adjuvant-free influenza vaccine. <i>Biomaterials</i> , 2018, 183, 234-242.	5.7	20
40	Poly(styrene- <i>b</i> -butadiene)- <i>b</i> -poly(poly(ethylene glycol) methyl ether methacrylate) as a silica dispersant in rubber compounds. <i>Polymer International</i> , 2014, 63, 908-914.	1.6	19
41	Fabrication of durable and flexible single-walled carbon nanotube transparent conductive films. <i>RSC Advances</i> , 2017, 7, 19267-19272.	1.7	19
42	Purification of His-tagged proteins using Ni <sup>2+</sup> -poly(2-acetamidoacrylic acid) hydrogel. <i>Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences</i> , 2008, 876, 8-12.	1.2	18
43	Amphiphilic gradient copolymer of [poly(ethylene glycol) methyl ether] methacrylate and styrene via atom transfer radical polymerization. <i>Macromolecular Research</i> , 2011, 19, 1257-1263.	1.0	18
44	Microfluidic channels fabricated on mesoporous electrospun fiber mats: A facile route to microfluidic chips. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2011, 49, 89-95.	2.4	18
45	Development of fibrinogen microspheres as a biodegradable carrier for tissue engineering. <i>Biochip Journal</i> , 2011, 5, 175-183.	2.5	17
46	Encapsulation of Nanoparticles Using Nitrilotriacetic Acid End-Functionalized Polystyrenes and Their Application for the Separation of Proteins. <i>Advanced Functional Materials</i> , 2012, 22, 4032-4037.	7.8	17
47	Effect of polyethylene glycol on the properties of styrene- <i>b</i> -butadiene rubber/organoclay nanocomposites filled with silica and carbon black. <i>Journal of Applied Polymer Science</i> , 2011, 122, 1766-1777.	1.3	16
48	In situ formation of polymer-protein hybrid spherical aggregates from (nitrilotriacetic) Tj ETQqO 0 0 rgBT /Overlock 10 Tf 50_302 Td (a	1.9	16
49	Molecular-Weight Distribution of Living Chains in Polystyrene Prepared by Reversible Addition-Fragmentation Chain-Transfer Polymerization. <i>Macromolecules</i> , 2019, 52, 7448-7455.	2.2	16
50	Synthesis of linear tetrablock quaterpolymers via atom transfer radical polymerization and a click coupling approach. <i>Reactive and Functional Polymers</i> , 2009, 69, 681-687.	2.0	15
51	Topologically Reversible Transformation of Tricyclic Polymer into Polyring Using Disulfide/Thiol Redox Chemistry. <i>Macromolecules</i> , 2018, 51, 5313-5322.	2.2	14
52	Characterization of AN-SBR/Silica compound with acrylonitrile as a polar group in SBR. <i>Macromolecular Research</i> , 2013, 21, 738-746.	1.0	13
53	Screen-printed carbon electrode modified with de-bundled single-walled carbon nanotubes for voltammetric determination of norepinephrine in ex vivo rat tissue. <i>Bioelectrochemistry</i> , 2022, 146, 108155.	2.4	13
54	One-step immobilization and purification of his-tagged enzyme using poly(2-acetamidoacrylic acid) hydrogel. <i>Macromolecular Research</i> , 2013, 21, 5-9.	1.0	12

#	ARTICLE	IF	CITATIONS
55	Redox-responsive biodegradable nanogels for photodynamic therapy using Chlorin e6. <i>Journal of Materials Science</i> , 2016, 51, 8442-8451.	1.7	12
56	Branch-Controlled ATRP Via Sulfoxide Chemistry. <i>Macromolecules</i> , 2021, 54, 7716-7723.	2.2	12
57	Covalent attachment of polystyrene on multi-walled carbon nanotubes via nitroxide mediated polymerization. <i>Composite Interfaces</i> , 2007, 14, 493-504.	1.3	11
58	Improved synthesis of bicyclic polystyrenes by ATRP and "click" reaction. <i>Polymer</i> , 2015, 72, 447-452.	1.8	11
59	Highly tunable metal-free ring opening polymerization of glycidol into various controlled topologies catalyzed by frustrated lewis pairs. <i>Polymer Chemistry</i> , 2022, 13, 1243-1252.	1.9	11
60	Facile tuning of a polymeric dispersant for single-walled carbon nanotube dispersion. <i>RSC Advances</i> , 2015, 5, 69410-69417.	1.7	10
61	Quaternized poly (poly(ethylene glycol)methyl ether methacrylate)- b -poly (2-(dimethylamino)ethyl) Tj ETQq1 1 0.784314 rgBT /Overbo phthalocyanine. <i>Reactive and Functional Polymers</i> , 2017, 120, 147-152.	2.0	10
62	Influenza mimetic protein" polymer nanoparticles as antigen delivery vehicles to dendritic cells for cancer immunotherapy. <i>Nanoscale</i> , 2019, 11, 13878-13884.	2.8	10
63	A recyclable metal-free catalytic system for the cationic ring-opening polymerization of glycidol under ambient conditions. <i>Green Chemistry</i> , 2022, 24, 251-258.	4.6	10
64	New tridentate ligands with mixed donor atoms for Cu-based atom transfer radical polymerization. <i>Macromolecular Research</i> , 2006, 14, 539-544.	1.0	9
65	Molecular"Level Contact of Graphene/Silver Nanowires through Simultaneous Dispersion for a Highly Stable Wearable Electrothermal Heater. <i>Advanced Materials Technologies</i> , 2021, 6, 2100177.	3.0	9
66	Disposable Voltammetric Sensor Modified with Block Copolymer-Dispersed Graphene for Simultaneous Determination of Dopamine and Ascorbic Acid in Ex Vivo Mouse Brain Tissue. <i>Biosensors</i> , 2021, 11, 368.	2.3	9
67	Tuning of Magnetic Ordering by Y Substitution in Ca3Co2O6. <i>Journal of the Physical Society of Japan</i> , 2005, 74, 2317-2322.	0.7	8
68	Size-tunable protein" polymer hybrid carrier for cell internalization. <i>Reactive and Functional Polymers</i> , 2018, 124, 72-76.	2.0	8
69	A Metal-Free, Non-Enzymatic Electrochemical Glucose Sensor with a de-Bundled Single-Walled Carbon Nanotube"Modified Electrode. <i>Bulletin of the Korean Chemical Society</i> , 2018, 39, 141-145.	1.0	8
70	Polymer wrapping-induced dispersion of single walled carbon nanotubes in ethylene glycol under mild sonication. <i>RSC Advances</i> , 2020, 10, 26262-26267.	1.7	8
71	Redox-Initiated Reversible Addition-Fragmentation Chain Transfer (RAFT) Miniemulsion Polymerization of Styrene using PPEGMA-Based Macro-RAFT Agent. <i>Macromolecular Rapid Communications</i> , 2020, 41, e2000399.	2.0	8
72	Site-specific reversible immobilization and purification of His-tagged protein on poly(2-acetamidoacrylic) Tj ETQq0 0 0 rgBT /Overlo 1.6	1.6	7

#	ARTICLE	IF	CITATIONS
73	Enhanced shear thickening of polystyrene-poly(acrylamide) and polystyrene-poly(HEMA) particles. <i>Colloid and Polymer Science</i> , 2019, 297, 95-105.	1.0	7
74	Nitrilotriacetic acid-end-functionalized polycaprolactone as a template for polymer-protein nanocarriers. <i>Polymer Chemistry</i> , 2020, 11, 1580-1588.	1.9	7
75	Effect of the Functional Group Position in Functionalized Liquid Butadiene Rubbers Used as Processing Aids on the Properties of Silica-Filled Rubber Compounds. <i>Polymers</i> , 2021, 13, 2698.	2.0	7
76	Novel segmented copolymers by combination of controlled ionic and radical polymerizations. <i>Macromolecular Symposia</i> , 2000, 157, 183-192.	0.4	6
77	Radiofrequency treatment enhances the catalytic function of an immobilized nanobiohybrid catalyst. <i>Nanoscale</i> , 2014, 6, 6009-6017.	2.8	6
78	Direct introduction of hydroxyl groups in polystyrene chain ends prepared by atom-transfer radical polymerization. <i>Polymer Journal</i> , 2020, 52, 57-64.	1.3	6
79	Dynamic Covalent Polymerization of Chalcogenide Hybrid Inorganic/Organic Polymer Resins with Norbornenyl Comonomers. <i>Macromolecular Research</i> , 2020, 28, 1003-1009.	1.0	6
80	RAFT/PISA based Ni-NTA polymeric particles for virus-mimetic influenza vaccines. <i>Journal of Industrial and Engineering Chemistry</i> , 2020, 86, 35-38.	2.9	6
81	Segmented Polyurethanes and Thermoplastic Elastomers from Elemental Sulfur with Enhanced Thermomechanical Properties and Flame Retardancy. <i>Angewandte Chemie</i> , 2021, 133, 23082.	1.6	6
82	Soft Immobilization of Proteins onto Single-Walled Carbon Nanotubes through Nickel Complexed Nitrilotriacetic Acid-End Functionalized Polystyrenes. <i>Israel Journal of Chemistry</i> , 2012, 52, 359-363.	1.0	5
83	Synthesis of poly(ethylene glycol)-b-poly(mercapto ethylacrylamide) diblock copolymer via atom transfer radical polymerization. <i>Polymer Bulletin</i> , 2012, 68, 681-691.	1.7	5
84	One-pot synthesis of bicyclic polystyrene by combination of ATRP and click chemistry. <i>Macromolecular Research</i> , 2016, 24, 856-861.	1.0	5
85	Covalent fixed multicyclic polystyrene conformers. <i>Journal of Polymer Science Part A</i> , 2017, 55, 4020-4026.	2.5	5
86	High-performance shear thickening of polystyrene particles with poly(HEMA). <i>Colloid and Polymer Science</i> , 2018, 296, 1591-1598.	1.0	5
87	Evaluation of the protective effects of a nanogel-based vaccine against rabbit hepatitis E virus. <i>Vaccine</i> , 2019, 37, 5972-5978.	1.7	5
88	LCST and UCST Transition of Poly(DMAEMA- <i>b</i> -MEO <sub>2</sub> MA) Copolymer in KHP Buffer. <i>Macromolecular Chemistry and Physics</i> , 2021, 222, 2000330.	1.1	5
89	Scratch-healable automotive clearcoats based on disulfide polyacrylate urethane networks. <i>Progress in Organic Coatings</i> , 2021, 161, 106472.	1.9	5
90	Robust Nanozyme-Enzyme Nanosheets-Based Lactate Biosensor for Diagnosing Bacterial Infection in Olive Flounder ( <i>Paralichthys olivaceus</i> ). <i>Biosensors</i> , 2021, 11, 439.	2.3	5

#	ARTICLE	IF	CITATIONS
91	Ultrasonic Breaking of Fibers and Microparticles into Mesoporous Particles with High Loading of Magnetic Nanoparticles. <i>Macromolecular Materials and Engineering</i> , 2013, 298, 575-582.	1.7	4
92	The effect of thermal treatment on polymer-dispersed single-walled carbon nanotube transparent conductive film. <i>Composites Science and Technology</i> , 2015, 121, 95-103.	3.8	4
93	Orientation Controlled Protein Nanocapsules by Enzymatic Removal of a Polymer Template. <i>Biomacromolecules</i> , 2018, 19, 4219-4227.	2.6	4
94	Preparation of Thin-Layer Graphene Using RAFT Polymerization and a Thiol-Ene Click Reaction. <i>Macromolecular Research</i> , 2019, 27, 955-962.	1.0	4
95	Synthesis of an amphiphilic <i>spiro</i> -multiblock copolymer via thiol-ene click chemistry. <i>Journal of Polymer Science</i> , 2020, 58, 132-138.	2.0	4
96	Flame Retardant Submicron Particles via Surfactant-Free RAFT Emulsion Polymerization of Styrene Derivatives Containing Phosphorous. <i>Polymers</i> , 2020, 12, 1244.	2.0	4
97	Phenolphthalein Anilide Based Poly(Ether Sulfone) Block Copolymers Containing Quaternary Ammonium and Imidazolium Cations: Anion Exchange Membrane Materials for Microbial Fuel Cell. <i>Membranes</i> , 2021, 11, 454.	1.4	4
98	Organic Dispersion of $\text{Mo}_3\text{Se}_3$ Single-Chain Atomic Crystals Using Surface Modification Methods. <i>ACS Nano</i> , 2022, 16, 8022-8029.	7.3	4
99	Preparation and Characterization of Inorganic-Organic Composites with Highly Dense CdS Nanoparticles Using Poly(2-acetamidoacrylic acid) Hydrogels. <i>Composite Interfaces</i> , 2009, 16, 493-505.	1.3	3
100	Self-assembly behavior of inconvertible star poly(acrylic acid) conformers based on p-tert-butylthiacalix[4]arene. <i>Macromolecular Research</i> , 2017, 25, 615-623.	1.0	3
101	Metal acetylacetonate as a radical initiator and catalyst for polyurethane in dual-curing reaction at low temperature. <i>Progress in Organic Coatings</i> , 2021, 151, 105926.	1.9	3
102	Synthesis of Well-Defined Block Copolymer Dispersants with (2-Dimethylamino)ethyl Methacrylate and Oligo(ethylene oxide)methyl Ether Methacrylate via ATRP for Dispersing Copper Phthalocyanine Pigment. <i>Porrime</i> , 2012, 36, 104-110.	0.0	3
103	4-Arm Star Shaped and Linear Block Copolymers for Copper Phthalocyanine Dispersion. <i>Porrime</i> , 2014, 38, 671-675.	0.0	3
104	<i>In situ</i> formation of core-shell nanoparticles in epoxy resin <i>via</i> reversible addition-fragmentation chain transfer dispersion polymerization. <i>Materials Advances</i> , 2021, 2, 7846-7850.	2.6	3
105	Multivalent (Nitrilotriacetic Acid)-End-Functionalized Polystyrenes by ATRP and Their Self-Assembly. <i>Macromolecular Chemistry and Physics</i> , 2013, 214, 2027-2035.	1.1	2
106	Inconvertible p-tert-butylthiacalix[4]arene-core-star polystyrene conformers. <i>RSC Advances</i> , 2016, 6, 74614-74619.	1.7	2
107	Morphology Control of Ni(II)-NTA-End-Functionalized Block Copolymer and Bio-Conjugation through Metal-Ligand Complex. <i>Polymers</i> , 2017, 9, 144.	2.0	2
108	Continuous Preparation of Hollow Polymeric Nanocapsules Using Self-Assembly and a Photo-Crosslinking Process of an Amphiphilic Block Copolymer. <i>Molecules</i> , 2017, 22, 1892.	1.7	2

#	ARTICLE	IF	CITATIONS
109	Controlling Graphene Wrinkles through the Phase Transition of a Polymer with a Low Critical Solution Temperature. <i>Macromolecular Rapid Communications</i> , 2021, 42, e2100489.	2.0	2
110	A facile post-modification strategy for carboxylic acid-functionalized UV-responsive pressure-sensitive adhesives. <i>Polymer Chemistry</i> , 2022, 13, 193-200.	1.9	2
111	Microfluidic Tracking of the Growth of Polymeric Vesicles in Hydrodynamic Flow. <i>ACS Applied Polymer Materials</i> , 2020, 2, 5845-5850.	2.0	1
112	Enhanced Shear Thickening of Silica Colloidal Suspension Using Polystyrene-Polyacrylamide Particles. <i>Macromolecular Research</i> , 2020, 28, 523-529.	1.0	1
113	Molecular Weight Distribution of Two Types of Living Chains Formed during Nitroxide-Mediated Polymerization of Styrene. <i>Macromolecular Rapid Communications</i> , 2021, 42, 2000624.	2.0	1
114	Application and toxicity of CNTs in human body. <i>Toxicology and Environmental Health Sciences</i> , 2010, 2, 94-98.	1.1	0
115	(Nitrilotriacetic Acid)-End-Functionalized Polystyrenes Synthesized by ATRP. <i>ACS Symposium Series</i> , 2012, , 303-314.	0.5	0
116	Glass-shaped triblock copolymer prepared by combination of atom transfer radical polymerization and ring opening polymerization. <i>Journal of Polymer Science</i> , 2022, 60, 258.	2.0	0