

Polina A Ryabochkina

List of Publications by Year in descending order

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papers

952
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#	ARTICLE	IF	CITATIONS
1	Morphological changes of veins and perivenous tissues during endovenous laser coagulation using 2-1¼m laser radiation and various types of optical fibers. <i>Journal of Vascular Surgery: Venous and Lymphatic Disorders</i> , 2022, 10, 749-757.	0.9	4
2	Structure and transport characteristics of single crystals of zirconia stabilized by scandia and co-doped with terbium oxide. <i>Solid State Ionics</i> , 2022, 375, 115836.	1.3	2
3	Single crystal solid state electrolytes based on yttria, ytterbia and gadolinia doped zirconia. <i>Materials Chemistry and Physics</i> , 2022, 277, 125499.	2.0	2
4	Exploring the potential of Pr ³⁺ :LiY _{0.3} Lu _{0.7} F ₄ mixed crystal for diode-pumped watt-level continuous-wave lasers in the visible region. <i>Optics and Laser Technology</i> , 2022, 151, 108023.	2.2	9
5	Phase Stability and Transport Properties of (ZrO ₂) _{0.91-\times} (Sc ₂ O ₃) _{0.09} (Yb ₂ O ₃) _{\times} Crystals ($\times = 0 \hat{=} 0.01$). <i>Crystals</i> , 2021, 11, 83.	1.0	1
6	Mechanical characteristics, structure, and phase stability of tetragonal crystals of ZrO ₂ -Y ₂ O ₃ solid solutions doped with cerium and neodymium oxides. <i>Journal of Physics and Chemistry of Solids</i> , 2021, 150, 109808.	1.9	13
7	Effect of heat treatment on the structure and mechanical properties of partially gadolinia-stabilized zirconia crystals. <i>Journal of Asian Ceramic Societies</i> , 2021, 9, 559-569.	1.0	4
8	Comparative study of luminescent properties of Bi _{1-x} Pr _x GeSbO ₆ and La _{1-x} Pr _x Ga _{0.5} Sb _{1.5} O ₆ ($\times = 0 \hat{=} 0.5$) solid solutions with rosiite structures. <i>Journal of Luminescence</i> , 2021, 232, 117869.	1.5	3
9	Influence of saturable absorber parameters on the operation regimes of a dumbbell-shaped thulium fibre laser. <i>Quantum Electronics</i> , 2021, 51, 518-524.	0.3	4
10	Effect of the ionic radius of stabilizing oxide cation on the local structure and transport properties of zirconia based solid solutions. <i>Journal of Alloys and Compounds</i> , 2021, 870, 159396.	2.8	2
11	Q-switched lasing in ZrO ₂ - Y ₂ O ₃ - Ho ₂ O ₃ crystals. <i>Quantum Electronics</i> , 2021, 51, 586-592.	0.3	0
12	Synthesis and photoluminescence properties of novel LaGa _{0.5} Sb _{1.5} O ₆ : Eu ³⁺ , Dy ³⁺ , Tb ³⁺ and BiGeSbO ₆ : Eu ³⁺ , Dy ³⁺ , Tb ³⁺ phosphors. <i>Journal of Alloys and Compounds</i> , 2021, 886, 161175.	2.8	5
13	Vein wall changes after 1910 nm laser coagulation with bare-fiber and radial fiber. <i>Flebologiya</i> , 2021, 15, 154.	0.2	3
14	Optimization of endovenous laser coagulation: in vivo experiments. <i>Lasers in Medical Science</i> , 2020, 35, 867-875.	1.0	11
15	Influence of growth and heat treatment conditions on lasing properties of ZrO ₂ -Y ₂ O ₃ -Ho ₂ O ₃ crystals. <i>Optical Materials</i> , 2020, 99, 109611.	1.7	2
16	Synthesis and Luminescent Properties of Nanocrystalline (1 - \tilde{N} ...)ZrO ₂ - \tilde{N} ...Er ₂ O ₃ ($\tilde{N} \dots = 0.015 \hat{=} 0.5$) Solid Solutions. <i>Russian Journal of Inorganic Chemistry</i> , 2020, 65, 1298-1303.	0.3	5
17	Mechanisms of Upconversion Luminescence in BaF ₂ -HoF ₃ Crystals under Excitation to the 5I ₅ Level of Ho ³⁺ Ions. <i>Inorganic Materials</i> , 2020, 56, 1033-1038.	0.2	2
18	Blackbody emission from CaF ₂ and ZrO ₂ nanosized dielectric particles doped with Er ³⁺ ions. <i>RSC Advances</i> , 2020, 10, 26288-26297.	1.7	6

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19	Melt grown ZrO ₂ single crystals partially stabilized with Cd ₂ O ₃ : Phase composition and indentation induced transformations. <i>Journal of Crystal Growth</i> , 2020, 535, 125546.	0.7	1
20	Lasing characteristics of ZrO ₂ - Y ₂ O ₃ - Ho ₂ O ₃ crystals pumped by a Tm : LiYF ₄ laser. <i>Quantum Electronics</i> , 2020, 50, 727-729.	0.3	0
21	Structural characteristics of melt-grown (ZrO ₂) _{0.99} -(Sc ₂ O ₃) (Yb ₂ O ₃) _{0.01} solid solution crystals and their effect on ionic conductivity. <i>Journal of Crystal Growth</i> , 2020, 547, 125808.	0.7	3
22	Phase composition and local structure of scandia and yttria stabilized zirconia solid solution. <i>Journal of Luminescence</i> , 2020, 222, 117170.	1.5	9
23	Nonradiative energy transfer of electronic excitation between Tm ³⁺ ions in Y ₂ O ₃ :Tm laser ceramics. <i>Optical Materials</i> , 2020, 101, 109762.	1.7	3
24	Thermal Conductivity of Cubic ZrO ₂ Single Crystals Stabilized with Yttrium Oxide. <i>Physics of the Solid State</i> , 2020, 62, 235-239.	0.2	7
25	Spatial anomalies in spectral-kinetic properties of Pr ³⁺ - Doped LiY _{1-x} Lu _x F ₄ mixed crystals. <i>Journal of Luminescence</i> , 2020, 222, 117172.	1.5	3
26	Structure and phase transformations in scandia, yttria, ytterbia and ceria-doped zirconia-based solid solutions during directional melt crystallization. <i>Journal of Alloys and Compounds</i> , 2020, 844, 156040.	2.8	6
27	Characteristics of Upconversion Luminescence of CaF ₂ :Er Powders Excited by 1.5-µm Laser Radiation. <i>Optics and Spectroscopy (English Translation of Optika i Spektroskopiya)</i> , 2020, 128, 200-206.	0.2	2
28	Effect of Heat Treatment on the Thermal Conductivity of Single Crystals of ZrO ₂ -Based Solid Solutions Stabilized with Scandium and Yttrium Oxides. <i>Physics of the Solid State</i> , 2020, 62, 2357-2364.	0.2	2
29	Influence of saturable absorber saturation power, modulation depth and relaxation time on pulse parameters of a soliton fibre laser. <i>Quantum Electronics</i> , 2020, 50, 419-424.	0.3	1
30	Dual-wavelength Soliton Dumbbell-shaped Thulium-doped Fiber Laser. , 2020, , .		1
31	The soliton mode-lock fiber laser pulse energy dependence from saturable absorber parameters. , 2020, , .		0
32	Comparison of the results of endovenous laser coagulation (EVLC) using 2-µm radiation and various types of fiber. , 2020, , .		0
33	Optimization of the endovenous laser coagulation using two-micron laser radiation. , 2020, , .		3
34	Features of the local structure and transport properties of ZrO ₂ -Y ₂ O ₃ -Eu ₂ O ₃ solid solutions. <i>Journal of Alloys and Compounds</i> , 2019, 770, 320-326.	2.8	19
35	Ionic conductivity, phase composition, and local defect structure of ZrO ₂ -Gd ₂ O ₃ system solid solution crystals. <i>Journal of Solid State Electrochemistry</i> , 2019, 23, 2619-2626.	1.2	7
36	Effect of initial precursor concentration on the spectral-luminescent characteristics and cytotoxicity of carbon nanoparticles. <i>Biomedical Physics and Engineering Express</i> , 2019, 5, 025017.	0.6	0

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37	Comparison of Structural and Transport Properties of Zirconia Single-Crystals Stabilized by Yttria and Gadolinia. ECS Transactions, 2019, 91, 1173-1183.	0.3	2
38	Synthesis and spectral-luminescent properties of La _{1-x} Pr _x Ga _{0.5} Sb _{1.5} O ₆ solid solutions. Ceramics International, 2019, 45, 16886-16892.	2.3	8
39	Anisotropy of the mechanical properties and features of the tetragonal to monoclinic transition in partially stabilized zirconia crystals. Journal of Alloys and Compounds, 2019, 792, 1255-1260.	2.8	14
40	Mechanical properties and transformation hardening mechanism in yttria, ceria, neodymia and ytterbia co-doped zirconia based solid solutions. Materials Chemistry and Physics, 2019, 232, 28-33.	2.0	6
41	Structure and transport properties of zirconia crystals co-doped by scandia, ceria and yttria. Journal of Materiomics, 2019, 5, 273-279.	2.8	13
42	Tunable upconversion luminescence of SrF ₂ : Er, Tm phosphors. Journal of Physics: Conference Series, 2019, 1410, 012121.	0.3	1
43	Upconversion luminescence of CaF ₂ -SrF ₂ -ErF ₃ single crystals upon 1.5 μ m laser excitation. Journal of Physics: Conference Series, 2019, 1410, 012086.	0.3	7
44	Effect of the Phase Composition and Local Crystal Structure on the Transport Properties of the ZrO ₂ -Y ₂ O ₃ and ZrO ₂ -Gd ₂ O ₃ Solid Solutions. Russian Microelectronics, 2019, 48, 523-530.	0.1	1
45	Comparison of mechanical properties of zirconia crystals partially stabilized with yttria and gadolinia. Journal of Physics: Conference Series, 2019, 1347, 012059.	0.3	2
46	Development of efficient polymer films with upconversion particles. Journal of Physics: Conference Series, 2019, 1410, 012154.	0.3	0
47	Effect of recovery time of nonlinear absorber saturated losses on the soliton pulse structure in a fibre laser with different cavity lengths. Quantum Electronics, 2019, 49, 819-823.	0.3	1
48	Broadband emission from Er-contained yttrium orthophosphate and orthovanadate nanopowders excited by near infrared radiation. Journal of Luminescence, 2019, 205, 560-567.	1.5	13
49	Vein Wall Changes After Laser Coagulation with Different Parameters. Flebologiya, 2019, 13, 190.	0.2	0
50	Influence of phase composition and local crystal structure on the transport properties of ZrO ₂ -Y ₂ O ₃ and ZrO ₂ -Gd ₂ O ₃ solid solutions. Izvestiya Vysshikh Uchebnykh Zavedenii Materialy Elektronnoi Tekhniki = Materials of Electronics Engineering, 2019, 21, 156-165.	0.1	1
51	Spectroscopy of optical centers of Eu ³⁺ ions in ZrO ₂ -Gd ₂ O ₃ -Eu ₂ O ₃ crystals. Journal of Luminescence, 2018, 200, 66-73.	1.5	3
52	CW and Q-switched μ m solid-state laser on ZrO ₂ -Y ₂ O ₃ -Ho ₂ O ₃ crystals pumped by a Tm fiber laser. Laser Physics, 2018, 28, 035803.	0.6	7
53	Specific Features of the Local Structure and Transport Properties of ZrO ₂ -Sc ₂ O ₃ -Y ₂ O ₃ and ZrO ₂ -Sc ₂ O ₃ -Yb ₂ O ₃ Crystals. Optics and Spectroscopy (English Translation of Optika I) Tj ETQq1 1 0.784314xgBT / Overlock 10		
54	Upconversion Luminescence of Fluoride Phosphors SrF ₂ :Er,Yb under Laser Excitation at 1.5 μ m. Optics and Spectroscopy (English Translation of Optika I Spektroskopiya), 2018, 125, 537-542.	0.2	13

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55	Infrared-to-visible upconversion luminescence in SrF ₂ :Er powders upon excitation of the ⁴ I _{13/2} level. Optical Materials Express, 2018, 8, 1863.	1.6	17
56	Mechanisms and absolute quantum yield of upconversion luminescence of fluoride phosphors. Chinese Optics Letters, 2018, 16, 091901.	1.3	10
57	Ce,Pr:LiY _{1-x} Lu _x F ₄ mixed crystals as perspective active media for UV lasing. , 2018, , .		0
58	Tunable 2-μm ZrO ₂ :Y ₂ O ₃ :Ho ₂ O ₃ solid-state laser. Laser Physics Letters, 2017, 14, 055807.	0.6	5
59	The impact of structural changes in ZrO ₂ -Y ₂ O ₃ solid solution crystals grown by directional crystallization of the melt on their transport characteristics. Materials Letters, 2017, 205, 186-189.	1.3	18
60	Upconversion luminescence of Ca _{1-x} Ho _x F _{2+x} and Sr _{0.98x} Er _{0.02} Ho _x F _{2.02+x} powders upon excitation by an infrared laser. Laser Physics Letters, 2017, 14, 076003.	0.6	18
61	Structural features and distribution coefficients of Pr ³⁺ , Y ³⁺ and Lu ³⁺ ions in LiY _{1-x} Lu _x F ₄ mixture crystals. Journal of Alloys and Compounds, 2017, 720, 1-7.	2.8	6
62	Preparation and properties of methylcellulose/nanocellulose/DF ₂ polymer-inorganic composite films for two-micron radiation visualizers. Journal of Fluorine Chemistry, 2017, 202, 9-18.	0.9	16
63	Tunable 2-mm lasing in calcium niobium gallium garnet crystals doped with Ho ³⁺ ions. Quantum Electronics, 2017, 47, 607-609.	0.3	8
64	Structure and conductivity of yttria and scandia-doped zirconia crystals grown by skull melting. Journal of the American Ceramic Society, 2017, 100, 5536-5547.	1.9	37
65	Anisotropy of mechanical properties and hardening mechanism in ZrO ₂ :Y ₂ O ₃ solid solution crystals. Modern Electronic Materials, 2017, 3, 142-147.	0.2	2
66	Spectroscopy of optical centers of Eu ³⁺ ions in partially stabilized and stabilized zirconium crystals. Optics and Spectroscopy (English Translation of Optika i Spektroskopiya), 2017, 122, 580-587.	0.2	16
67	Phase composition, structure and properties of (ZrO ₂) _{1-x} (Sc ₂ O ₃) _y (Y ₂ O ₃) solid solution crystals (x=0.08-0.11; y=0.01-0.02) grown by directional crystallization of the melt. Journal of Crystal Growth, 2017, 457, 122-127.	0.7	15
68	Two-micron lasing on diode-pumped Y ₂ O ₃ :Tm ceramics. Quantum Electronics, 2016, 46, 597-600.	0.3	29
69	Diode-pumped LiY _{0.3} Lu _{0.7} F ₄ :Pr and LiYF ₄ :Pr red lasers. Laser Physics Letters, 2016, 13, 125801.	0.6	9
70	Lasing on the ⁴ I _{13/2} → ⁴ I _{15/2} transition of Er ³⁺ ions in ZrO ₂ :Y ₂ O ₃ crystals under resonant diode pumping into the ⁴ I _{13/2} level. Quantum Electronics, 2016, 46, 451-452.	0.3	2
71	Broadband white radiation in Yb ³⁺ - and Er ³⁺ -doped nanocrystalline powders of yttrium orthophosphates irradiated by 972-nm laser radiation. JETP Letters, 2016, 103, 302-308.	0.4	13
72	Structure, phase composition, and spectral luminescence properties of partially stabilized zirconium dioxide crystals doped with Yb ³⁺ ions. Physics of the Solid State, 2016, 58, 1308-1313.	0.2	1

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73	Features of the interaction of near-infrared laser radiation with Yb-doped dielectric nanoparticles. JETP Letters, 2016, 103, 743-751.	0.4	9
74	Melt growth, structure and properties of (ZrO ₂) _{1-x} (Sc ₂ O ₃) solid solution crystals (x=0.035~0.11). Journal of Crystal Growth, 2016, 443, 54-61.	0.7	15
75	Investigation of endovenous laser ablation of varicose veins in vitro using 1.885- μ m laser radiation. Lasers in Medical Science, 2016, 31, 503-510.	1.0	27
76	Spectroscopic studies of a tetragonal \leftrightarrow monoclinic phase transition in ZrO ₂ \cdot Y ₂ O ₃ \cdot CeO ₂ \cdot Nd ₂ O ₃ crystals. Physics of the Solid State, 2015, 57, 1984-1990.	0.2	0
77	Absorption and luminescence characteristics of ⁵ I ₇ \rightarrow ⁵ I ₈ transitions of the holmium ion in Ho ³⁺ -doped aluminosilicate preforms and fibres. Quantum Electronics, 2015, 45, 102-104.	0.3	9
78	Structure, phase composition, and spectral-luminescent properties of ZrO ₂ -Y ₂ O ₃ -Er ₂ O ₃ crystals. Physics of the Solid State, 2015, 57, 1579-1587.	0.2	5
79	Investigation of the mechanisms of upconversion luminescence in Ho ³⁺ doped CaF ₂ crystals and ceramics upon excitation of 5I ₇ level. Journal of Luminescence, 2015, 167, 120-125.	1.5	28
80	Phase composition and spectral-luminescent properties of yttrium partially stabilized zirconia crystals doped with Nd ₂ O ₃ and CeO ₂ . Optics and Spectroscopy (English Translation of Optika i Tj ETQq0 0 0 rgBT0.0verlock 10 Tf 50 0 4		
81	Nanostructured crystals of partially yttria-stabilized and Nd ³⁺ doped zirconia: Structure and luminescent properties. Journal of Alloys and Compounds, 2015, 621, 295-300.	2.8	10
82	Spectroscopic properties of erbium-doped yttria-stabilised zirconia crystals. Quantum Electronics, 2014, 44, 135-137.	0.3	8
83	Cooperative processes in Cs ₂ NaYbF ₆ elpasolite crystals. Journal of Luminescence, 2014, 153, 125-129.	1.5	3
84	Synthesis, spectroscopic and luminescent properties of nanosized powders of yttrium phosphates doped with Er ³⁺ ions. Journal of Nanoparticle Research, 2014, 16, 1.	0.8	11
85	Visualiser of two-micron laser radiation based on Ho:CaF ₂ crystals. Quantum Electronics, 2014, 44, 602-605.	0.3	24
86	Spectroscopic properties of Nd ³⁺ doped NaLa _{0.5} Gd _{0.5} (WO ₄) ₂ crystals. Journal of Luminescence, 2013, 138, 32-38.	1.5	7
87	Spectroscopic, luminescent and laser properties of nanostructured CaF ₂ :Tm materials. Optical Materials, 2013, 35, 1859-1864.	1.7	23
88	Lasing characteristics of ZrO ₂ \cdot Y ₂ O ₃ \cdot O ₃ \cdot Ho ₂ O ₃ crystal. Quantum Electronics, 2013, 43, 838-840.	0.3	7
89	Structural, spectral-luminescent, and lasing properties of nanostructured Tm : CaF ₂ ceramics. Quantum Electronics, 2012, 42, 853-857.	0.3	16
90	Spectral, luminescent, and lasing properties of ZrO ₂ \cdot Y ₂ O ₃ \cdot Tm ₂ O ₃ crystals. Quantum Electronics, 2012, 42, 580-582.	0.3	7

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91	Spectroscopic characteristics of the Nd ³⁺ ions in garnet crystals. Journal of Luminescence, 2012, 132, 240-243.	1.5	7
92	Hypersensitive transitions of Tm ³⁺ , Ho ³⁺ and Dy ³⁺ rare-earth ions in garnet crystals. Journal of Luminescence, 2012, 132, 1900-1905.	1.5	27
93	Structure and spectral-luminescence properties of yttrium-stabilized zirconia crystals activated with Tm ³⁺ ions. Optics and Spectroscopy (English Translation of Optika i Spektroskopiya), 2012, 112, 594-600.	0.2	5
94	Structure and spectral-luminescent properties of nanostructured CaF ₂ -TmF ₃ ceramics a potential active medium for 2 μm lasers. , 2011, , .		0
95	Spectroscopic, luminescent and laser properties of Tm ³⁺ -doped mixed NaLaGd tungstates and molybdates. , 2011, , .		0
96	Nanostructured Tm:CaF ₂ ceramics: potential gain media for two micron lasers. Quantum Electronics, 2011, 41, 193-197.	0.3	21
97	Intensities of hypersensitive transitions in garnet crystals doped with Er ³⁺ ions. Optics and Spectroscopy (English Translation of Optika i Spektroskopiya), 2011, 110, 910-916.	0.2	16
98	Growth, optical parameters, and spectroscopic properties of crystals of disordered scheelite-like molybdates NaLa _x Gd _{1-x} (MoO ₄) ₂ (x = 0-1) activated by Tm ³⁺ ions. Optics and Spectroscopy (English) Tj ETQ 0 0 rgBT /Overlo	0.2	16
99	Interaction of Er ³⁺ ions in Er-doped calcium niobium gallium garnet crystals. Quantum Electronics, 2010, 40, 377-380.	0.3	7
100	Cw and Q-switched Nd:NaLa(MoO ₄) ₂ laser noncritical to the temperature drift of the diode pump laser wavelength. Quantum Electronics, 2010, 40, 475-478.	0.3	5
101	Two-micron lasing in NaLa _{1/2} Gd _{1/2} (WO ₄) ₂ crystals doped with Tm ³⁺ ions. Quantum Electronics, 2010, 40, 101-102.	0.3	7
102	Tunable quasi-cw two-micron lasing in diode-pumped crystals of mixed Tm ³⁺ -doped sodium niobium lanthanum gadolinium molybdates and tungstates. Quantum Electronics, 2010, 40, 847-850.	0.3	13
103	Growth, refined structural and spectroscopic characteristics of Tm ³⁺ -doped NaGd(WO ₄) ₂ single crystals. Journal of Crystal Growth, 2009, 311, 4171-4178.	0.7	13
104	Optical, spectroscopic and luminescent properties of Tm ³⁺ -doped NaLaGd(MoO ₄) ₂ and NaLa(MoO ₄) ₂ crystals. , 2009, , .		0
105	Intensity of the f-f transitions of Nd ³⁺ , Er ³⁺ , and Tm ³⁺ rare-earth ions in calcium niobium gallium garnet crystals. Physics of the Solid State, 2008, 50, 1611-1618.	0.2	22
106	The study of spectroscopic and luminescence properties of disordered laser crystals calcium niobium gallium garnet doped with Er ³⁺ . , 2008, , .		1
107	<title>The study of processes of nonradiative energy transfer between ions Yb ³⁺ and Tm ³⁺ in alumosilicate fibers</title>. , 2007, , .		0
108	Spectral and laser properties of Tm-doped calcium-niobium-gallium garnets. , 2007, , .		3

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109	Intensity parameters for Er ³⁺ ions in calcium-niobium-gallium garnet crystals. Optics and Spectroscopy (English Translation of Optika i Spektroskopiya), 2007, 102, 722-727.	0.2	11
110	Modelling the population processes of the energy levels of Tm ³⁺ ions in yttrium-aluminum garnet and calcium-niobium-gallium garnet crystals doped with Tm ³⁺ ions under steady-state pumping. Journal of Optical Technology (A Translation of Opticheski Zhurnal), 2006, 73, 51.	0.2	1
111	Calcium niobium gallium and calcium lithium niobium gallium garnets doped with rare earth ions – effective laser media. Optical Materials, 2002, 20, 197-209.	1.7	90
112	Calcium niobium gallium and calcium lithium niobium gallium garnet crystals as active media for diode-pumped lasers. Quantum Electronics, 2001, 31, 531-533.	0.3	11
113	Lasing and spectroscopic properties of calcium-niobium-gallium garnet crystals doped with Tm ³⁺ ions. Quantum Electronics, 1993, 23, 309-311.	0.3	4
114	Interaction of Tm ³⁺ ions in calcium-niobium-gallium and yttrium-aluminum garnet laser crystals. Quantum Electronics, 1993, 23, 958-961.	0.3	7