

Andrei Savel'ev

List of Publications by Year in descending order

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146
papers

1,447
citations

361045

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500791

28
g-index

146
all docs

146
docs citations

146
times ranked

743
citing authors

#	ARTICLE	IF	CITATIONS
1	Postfilament supercontinuum on 100µm path in air. Optics Letters, 2021, 46, 1125.	1.7	15
2	Transient optical non-linearity in p-Si induced by a few cycle extreme THz field. Optics Express, 2021, 29, 5730.	1.7	4
3	Remote triggering of air-gap discharge by a femtosecond laser filament and postfilament at distances up to 80 m. Applied Physics Letters, 2021, 119, .	1.5	13
4	Robust multifilament arrays in air by Dammann grating. Optics Express, 2021, 29, 34189-34204.	1.7	16
5	Tracing Evolution of Angle-Wavelength Spectrum along the 40-m Postfilament in Corridor Air. Photonics, 2021, 8, 446.	0.9	3
6	Efficient electron injection by hybrid parametric instability and forward direct laser acceleration in subcritical plasma. Plasma Physics and Controlled Fusion, 2021, 63, 022001.	0.9	13
7	Laser-triggered stochastic volumetric heating of sub-microwire array target. High Energy Density Physics, 2020, 37, 100856.	0.4	8
8	Spectrally selective modulation of terahertz radiation beams. Quantum Electronics, 2020, 50, 1029-1033.	0.3	1
9	Hybrid stimulated Raman scattering—two-plasmon decay instability and 3/2 harmonic in steep-gradient femtosecond plasmas. Physical Review E, 2020, 102, 063206.	0.8	16
10	Efficiency enhancement of thermonuclear DD reaction in femtosecond laser plasma with the use of structured low-average-density targets. Quantum Electronics, 2020, 50, 169-174.	0.3	10
11	Generation of gamma radiation by a subterawatt ultrashort laser pulse: optimisation of preplasma and pulse duration. Quantum Electronics, 2020, 50, 335-342.	0.3	2
12	Femtosecond multifilament arrays in air using diffraction optical elements. , 2020, , .		0
13	Acceleration of highly stripped ions by relativistic femtosecond laser pulse from nanoscale targets with contrast control. , 2020, , .		0
14	Three-channel polaro-interferometer for laser-produced plasma diagnostics with femtosecond time resolution. Quantum Electronics, 2019, 49, 577-580.	0.3	0
15	Well collimated MeV electron beam generation in the plasma channel from relativistic laser-solid interaction. Plasma Physics and Controlled Fusion, 2019, 61, 075016.	0.9	19
16	Electron parametric instabilities in nonuniform plasma with a strong density gradient excited by femtosecond laser pulses of subrelativistic intensity. Quantum Electronics, 2019, 49, 386-390.	0.3	8
17	Waveform, spectrum, and energy of backward terahertz emission from two-color femtosecond laser induced microplasma. Applied Physics Letters, 2019, 114, .	1.5	20
18	Transverse structure and energy deposition by a subTW femtosecond laser in air: from single filament to superfilament. New Journal of Physics, 2019, 21, 033027.	1.2	16

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19	Electron acceleration up to MeV level under nonlinear interaction of subterawatt femtosecond laser chirped pulses with Kr clusters. Laser Physics Letters, 2019, 16, 115401.	0.6	10
20	Estimation of THz field strength by an electro-optic sampling technique using arbitrary long gating pulses. Laser Physics Letters, 2019, 16, 115302.	0.6	17
21	Photoexcitation of spin isomers of In and Cd nuclei in the pigmy resonance region. Physica Scripta, 2019, 94, 015303.	1.2	7
22	Nuclear isomer excitation in ^{229}Th atoms by superintense laser fields. Physical Review A, 2019, 99, .	1.0	15
23	Electrons acceleration in plasma channel in the relativistic laser-plasma of solid targets. , 2019, , .		2
24	Study of electron acceleration and near threshold nuclear reactions in the relativistic laser-plasma of solid targets. , 2019, , .		0
25	Optimum chirp for efficient terahertz generation from two-color femtosecond pulses in air. Applied Physics Letters, 2018, 113, .	1.5	33
26	Nonlinear transfer of an intense few-cycle terahertz pulse through opaque n -doped Si. Physical Review B, 2018, 98, .	1.1	9
27	Accelerated electrons for <i>in situ</i> peak intensity monitoring of tightly focused femtosecond laser radiation at high intensities. Plasma Physics and Controlled Fusion, 2018, 60, 105011.	0.9	18
28	Ring and unimodal angular-frequency distribution of THz emission from two-color femtosecond plasma spark. Optics Express, 2018, 26, 18202.	1.7	20
29	Polarization control of terahertz radiation from two-color femtosecond gas breakdown plasma. Optics Letters, 2018, 43, 90.	1.7	30
30	Comparative analysis of 2D spatio-temporal visualisation techniques for the pulsed THz-radiation field using an electro-optic crystal. Quantum Electronics, 2018, 48, 487-490.	0.3	3
31	Observation of crossover from intraband to interband nonlinear terahertz optics. Optics Letters, 2018, 43, 5463.	1.7	20
32	Near-infrared conical emission from 800nm filament in air. Laser Physics Letters, 2017, 14, 035401.	0.6	6
33	Positioning of a spatially nonuniform plasma plume under high-intensity femtosecond laser irradiation. Quantum Electronics, 2017, 47, 42-47.	0.3	8
34	Laboratory modeling of big bang nucleosynthesis using powerful laser facilities. Laser Physics, 2017, 27, 066001.	0.6	1
35	Prepulse controlled electron acceleration from solids by a femtosecond laser pulse in the slightly relativistic regime. Physics of Plasmas, 2017, 24, .	0.7	21
36	Direct detection of delayed high energy electrons from the ^{181}Ta target irradiated by a moderate intensity femtosecond laser pulse. Plasma Physics and Controlled Fusion, 2017, 59, 035004.	0.9	2

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37	Ionisation response in semiconductor structures exposed to the X-ray radiation of a femtosecond laser-plasma source. Quantum Electronics, 2017, 47, 528-532.	0.3	1
38	On the possibility of generating low-energy positrons on accelerators of electrons with a beam energy of a few MeV and on terawatt lasers. Quantum Electronics, 2017, 47, 522-527.	0.3	7
39	Symmetry Breaking and Strong Persistent Plasma Currents via Resonant Destabilization of Atoms. Physical Review Letters, 2017, 119, 243202.	2.9	2
40	Investigation of the reaction $D(\text{H}^3, n)H$ near the threshold by means of powerful femtosecond laser radiation. Physics of Atomic Nuclei, 2017, 80, 397-401.	0.1	11
41	Interaction of High-Intensity Femtosecond Radiation With Gas Cluster Beam: Effect of Pulse Duration on Joint Terahertz and X-Ray Emission. IEEE Transactions on Terahertz Science and Technology, 2017, 7, 70-79.	2.0	29
42	Nuclear Photonics. Physics of Atomic Nuclei, 2017, 80, 1477-1483.	0.1	8
43	Fifteen meter long uninterrupted filaments from sub-terawatt ultraviolet pulse in air. Optics Express, 2017, 25, 25386.	1.7	26
44	Giant self-induced transparency of intense few-cycle terahertz pulses in n-doped silicon. Optics Letters, 2017, 42, 4889.	1.7	21
45	GENERATION OF CLOSELY LOCATED LIGHT SPOTS USING SPECULAR AIRY LASER BEAMS. Computer Optics, 2017, 41, 661-668.	1.3	4
46	Optimization of the laser plasma source of terahertz radiation and interferometric study of its spatio-temporal field distribution. , 2016, , .		0
47	Promising lines of research in the realms of laboratory nuclear astrophysics by means of powerful lasers. Physics of Atomic Nuclei, 2016, 79, 648-665.	0.1	2
48	THz and X-ray emission as a tool for study of ionization dynamics in gas clusters. , 2016, , .		0
49	Generation of Hermiteâ€ Gaussian modes of high-power femtosecond laser radiation using binary-phase diffractive optical elements. Quantum Electronics, 2016, 46, 733-737.	0.3	22
50	Laser optoacoustic diagnostics of femtosecond filaments in air using wideband piezoelectric transducers. Laser Physics Letters, 2016, 13, 095401.	0.6	20
51	Laser energy absorption and hot electrons generation in near-critical plasma at relativistic intensities. , 2016, , .		0
52	Fusion of regularized femtosecond filaments in air: far field on-axis emission. Laser Physics Letters, 2016, 13, 116005.	0.6	18
53	Acceleration of multiply charged ions by a high-contrast femtosecond laser pulse of relativistic intensity with the front surface of a solid target. Quantum Electronics, 2016, 46, 432-436.	0.3	9
54	Filamentation of four beams under focusing in air. , 2016, , .		0

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55	Spatial coherence of a Raman wake excited inside a uniform filament. <i>Physical Review A</i> , 2015, 92, .	1.0	0
56	Parametric waves excitation in relativistic laser-plasma interactions for electron acceleration. <i>Journal of Physics: Conference Series</i> , 2015, 653, 012007.	0.3	7
57	Enhanced relativistic laser-plasma coupling utilizing laser-induced micromodified target. <i>Laser Physics Letters</i> , 2015, 12, 046005.	0.6	16
58	Laser-induced plasma influence onto intrapulse four-wave mixing under femtosecond filamentation in air. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2015, 48, 094017.	0.6	6
59	Optimal polarization of a two-colored pump for terahertz generation with a phase-unstable scheme. <i>Laser Physics</i> , 2015, 25, 065403.	0.6	10
60	Robust near-infrared light bullet in 800-nm femtosecond light filaments in air. <i>Applied Physics B: Lasers and Optics</i> , 2015, 120, 383-387.	1.1	7
61	Study of focusing into closely spaced spots via illuminating a diffractive optical element by a short-pulse laser beam. <i>Computer Optics</i> , 2015, 39, 187-196.	1.3	8
62	Generation of terahertz radiation due to air breakdown induced by two-frequency laser pulses with different polarization states. <i>Physics of Wave Phenomena</i> , 2014, 22, 236-239.	0.3	0
63	Microjet formation and hard x-ray production from a liquid metal target irradiated by intense femtosecond laser pulses. <i>Physics of Plasmas</i> , 2014, 21, 093103.	0.7	5
64	Comparative study of amplified spontaneous emission and short pre-pulse impacts onto fast electron generation at sub-relativistic femtosecond laser-plasma interaction. <i>Physics of Plasmas</i> , 2014, 21, .	0.7	17
65	On the possibility of controlling laser ablation by tightly focused femtosecond radiation. <i>Quantum Electronics</i> , 2014, 44, 1061-1065.	0.3	35
66	Novel photonuclear techniques based on femtosecond lasers. <i>Physics of Particles and Nuclei Letters</i> , 2014, 11, 54-59.	0.1	3
67	Experimental search for low energy nuclear excitation by femtosecond plasma. <i>Laser Physics</i> , 2014, 24, 116002.	0.6	3
68	Four-wave mixing in molecular gases under filamentation of the collimated femtosecond beam. <i>Laser Physics Letters</i> , 2014, 11, 125302.	0.6	3
69	Generation of terahertz radiation by focusing femtosecond bichromatic laser pulses in a gas or plasma. <i>Quantum Electronics</i> , 2013, 43, 347-349.	0.3	15
70	Prepulse induced microstructured plasma with melted and solid targets: formation, properties & prospects to relativistic laser-plasma interaction. <i>Proceedings of SPIE</i> , 2013, , .	0.8	1
71	3D Raman bullet formed under filamentation of femtosecond laser pulses in air and nitrogen. <i>Applied Physics B: Lasers and Optics</i> , 2013, 110, 123-130.	1.1	15
72	X-ray Diagnostics of Ultrashort Laser-Driven Plasma: Experiment and Simulations. <i>Contributions To Plasma Physics</i> , 2013, 53, 116-121.	0.5	18

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73	Search for the low energy nuclear excitation with a femtosecond plasma: An overview and perspectives. , 2013, , .		0
74	Femtosecond laser filament in different air pressures simulating vertical propagation up to 10 km. Laser Physics Letters, 2012, 9, 868-874.	0.6	22
75	Femtosecond laser-plasma interaction with prepulse-generated liquid metal micro-jets. , 2012, , .		0
76	Femtosecond laser-plasma interaction with prepulse-generated liquid metal microjets. Physics of Plasmas, 2012, 19, 013104.	0.7	19
77	Effect of a short weak prepulse on laser-triggered front-surface heavy-ion acceleration. Physics of Plasmas, 2012, 19, 103101.	0.7	3
78	Filamentation of femtosecond Gaussian pulses with close-to-linear or -circular elliptical polarisation. Quantum Electronics, 2011, 41, 160-162.	0.3	14
79	Angular distribution of the terahertz radiation intensity from the plasma channel of a femtosecond filament. JETP Letters, 2011, 93, 638-641.	0.4	36
80	High repetition rate laser-driven $K\alpha$ X-ray source utilizing melted metal target. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2011, 653, 58-61.	0.7	12
81	Analysis of Dual Frequency Interaction in the Filament with the Purpose of Efficiency Control of THz Pulse Generation. Journal of Infrared, Millimeter, and Terahertz Waves, 2011, 32, 1157-1167.	1.2	14
82	Effective Generation of Collimated Ion Beams by Relativistic Laser Pulse Using 2D Microstructured Foils: 3D PIC Simulations. Contributions To Plasma Physics, 2011, 51, 457-462.	0.5	1
83	Filamentation of femtosecond laser radiation with a non-Gaussian transverse spatial profile. Quantum Electronics, 2011, 41, 958-962.	0.3	6
84	Internal electron conversion of the isomeric ^{57}Fe nucleus state with an energy of 14.4 keV excited by the radiation of the plasma of a high-power femtosecond laser pulse. Quantum Electronics, 2011, 41, 222-226.	0.3	7
85	Acceleration of heavy multicharged ions in the interaction of a subrelativistic femtosecond laser pulse with a melted metal surface. Plasma Physics Reports, 2010, 36, 99-104.	0.3	6
86	Numerical 1D PIC-simulations of ion acceleration during laser-plasma interaction: Optimization of a two-component multilayered target structure. Plasma Physics Reports, 2010, 36, 1107-1111.	0.3	0
87	Polarization rotation due to femtosecond filamentation in an atomic gas. Optics Letters, 2010, 35, 2904.	1.7	34
88	Few-cycle optical pulse production from collimated femtosecond laser beam filamentation. Journal of the Optical Society of America B: Optical Physics, 2010, 27, 667.	0.9	22
89	Spectral soliton transformation and four-wave mixing under femtosecond laser radiation filamentation in molecular gases. , 2009, , .		0
90	Femtosecond filaments as a new type of laser guide stars for astronomical adaptive optics. Quantum Electronics, 2009, 39, 560-565.	0.3	3

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91	Hot electron generation in a dense plasma by femtosecond laser pulses of subrelativistic intensity. Quantum Electronics, 2009, 39, 669-674.	0.3	9
92	Generation of optical pulses of duration down to 8 fs upon filamentation of collimated femtosecond laser radiation in argon. Quantum Electronics, 2009, 39, 879-881.	0.3	7
93	Experimental Study of Hard X-Ray Production at Sub-Relativistic Intensities: Effect of Polarization and Nanosecond Pre-Pulse. Contributions To Plasma Physics, 2009, 49, 568-574.	0.5	2
94	Observation of high-energy electrons from a metal target irradiated by protons with a mean energy of 25 keV. JETP Letters, 2009, 89, 492-495.	0.4	2
95	Investigation of the transformation of the spectrum of femtosecond laser radiation on filamentation in gas medium. Optics and Spectroscopy (English Translation of Optika I Spektroskopiya), 2009, 107, 429-434.	0.2	4
96	Optimization of a femtosecond pulse self-compression region along a filament in air. Applied Physics B: Lasers and Optics, 2008, 91, 35-43.	1.1	49
97	Efficient generation of relativistic electrons in a target irradiated by a pair of femtosecond laser pulses with a nanosecond delay. JETP Letters, 2008, 88, 360-364.	0.4	6
98	Few cycle powerful pulse production under filamentation in gaseous media without external compressor. , 2008, , .		0
99	Four-wave parametric conversion of femtosecond laser pulse in a filament induced in a solid target. Optics Letters, 2008, 33, 666.	1.7	10
100	Highly stable plasma source produced on the liquid-gallium surface by a femtosecond laser pulse. Quantum Electronics, 2007, 37, 651-655.	0.3	7
101	Peculiarities of femtosecond laser radiation interaction with liquid metal targets. , 2007, , .		2
102	<title>Ultrafast x-ray source using liquid metal target</title>. , 2007, , .		1
103	Pulse shortening due to filamentation in transparent medium. Laser Physics Letters, 2007, 4, 126-132.	0.6	39
104	Efficient broadband optical parametric amplification of supercontinuum in the visible by narrowband pump. Laser Physics Letters, 2007, 4, 345-349.	0.6	5
105	Laser plasma acceleration of quasi-monoenergetic beams of light multicharged ions. JETP Letters, 2007, 85, 23-26.	0.4	3
106	<title>Simple design of femtosecond laser plasma highly stable hard x-ray source using free surface of liquid gallium</title>. , 2006, 5975, 76.		0
107	<title>Production of high-energy multi-charged mono-atomic ion bunches from FLP: the role of pulsed laser pre-cleaning</title>. , 2006, 6053, 295.		0
108	<title>Enhanced ionization of W ions at a plasma-vacuum boundary in femtosecond laser plasma at moderate intensities</title>. , 2006, 5975, 43.		0

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109	<title>Femtosecond laser plasma x-ray source at free surface of liquid gallium</title>. , 2006, , .		0
110	Generation of superintense femtosecond pulses by the Cr:forsterite laser system. Laser Physics, 2006, 16, 427-435.	0.6	15
111	Formation of fast multicharged heavy ions under the action of a superintense femtosecond laser pulse on the cleaned surface of a target. Journal of Experimental and Theoretical Physics, 2006, 103, 303-316.	0.2	5
112	Application of the K008 camera in nonstationary spectroscopy. , 2005, , .		4
113	Acceleration of heavy multicharged ions up to 1 MeV from a cleaned solid target irradiated by a femtosecond laser pulse with an intensity of 10^{16} W/cm ² . JETP Letters, 2005, 81, 575-578.	0.4	1
114	Enhanced production of fast multi-charged ions from plasmas formed at cleaned surface by femtosecond laser pulse. Applied Physics B: Lasers and Optics, 2005, 80, 733-739.	1.1	15
115	Efficient heating of near-surface plasmas with femtosecond laser pulses stimulated by nanoscale inhomogeneities. Quantum Electronics, 2005, 35, 38-42.	0.3	8
116	Subsurface generation of hard X-rays by a BaF ₂ target exposed to repetitively pulsed radiation from a femtosecond Cr:forsterite laser at power densities below 10^{15} W cm ⁻² . Quantum Electronics, 2005, 35, 487-488.	0.3	11
117	Implantation of high-energy ions produced by femtosecond laser pulses. Quantum Electronics, 2005, 35, 33-37.	0.3	0
118	High-temperature plasma produced on a free liquid surface by femtosecond laser pulses. Quantum Electronics, 2004, 34, 135-138.	0.3	8
119	Efficient hard X-ray source using femtosecond plasma at solid targets with a modified surface. Laser and Particle Beams, 2004, 22, 301-306.	0.4	20
120	Excitation of low-lying nuclear states by the ion line emission in femtosecond laser plasma. JETP Letters, 2004, 79, 71-75.	0.4	0
121	<title>Self-channeling of femtosecond laser radiation in transparent two-component condensed medium</title>. , 2004, , .		8
122	High-energy negative ions from expansion of high-temperature femtosecond laser plasma. Applied Physics B: Lasers and Optics, 2003, 77, 831-837.	1.1	8
123	Overheated plasma at the surface of a target with a periodic structure induced by femtosecond laser radiation. JETP Letters, 2003, 77, 473-476.	0.4	27
124	Formation of the ion current of a high-temperature femtosecond laser plasma on the target surface containing an impurity layer. Quantum Electronics, 2003, 33, 981-986.	0.3	11
125	Femtosecond Cr ⁴⁺ :forsterite laser pumped by ytterbium-doped fibre laser and its noise characteristics. Quantum Electronics, 2002, 32, 511-515.	0.3	4
126	Ultrashort laser pulse ablation and spatial distribution of ablation products of NiMoRe target. , 2002, , .		0

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127	Experimental characterization of hot electron production under femtosecond laser plasma interaction at moderate intensities. <i>Plasma Physics and Controlled Fusion</i> , 2002, 44, 2555-2568.	0.9	30
128	Generation of high-energy negative hydrogen ions upon the interaction of superintense femtosecond laser radiation with a solid target. <i>JETP Letters</i> , 2002, 76, 139-142.	0.4	12
129	Title is missing!. <i>Hyperfine Interactions</i> , 2002, 143, 23-36.	0.2	3
130	<title>Fusion neutrons production in D-enriched modified solid targets using moderate-intensity femtosecond pulses</title>. , 2002, , .		0
131	Observation of thermonuclear neutrons emitted from dense femtosecond plasma at moderate intensities. <i>Laser and Particle Beams</i> , 2001, 19, 209-213.	0.4	2
132	Nuclear processes in a high-temperature plasma produced by an ultrashort laser pulse. <i>Quantum Electronics</i> , 2001, 31, 941-956.	0.3	65
133	Generation of hot particles in a femtosecond laser-produced plasma with the use of solid modified targets. <i>Quantum Electronics</i> , 2001, 31, 241-246.	0.3	17
134	On the possibility of controlling the decay rate of low-lying nuclear levels upon excitation in a laser plasma. <i>Quantum Electronics</i> , 2001, 31, 567-568.	0.3	3
135	Hard x-ray radiation yield from a dense plasma as a function of the wavelength of the heating ultrashort laser pulse. <i>Quantum Electronics</i> , 2000, 30, 523-528.	0.3	11
136	Dependence of the yield of hard incoherent X-rays from femtosecond laser plasma on the atomic number of a target material. <i>Quantum Electronics</i> , 2000, 30, 896-900.	0.3	14
137	Detection of the gamma decay of an isomeric low-lying ^{181}Ta level excited in a high-temperature near-surface laser plasma. <i>Quantum Electronics</i> , 1999, 29, 191-192.	0.3	1
138	Excitation of low-lying nuclear levels in a nonrelativistic hot dense laser-produced plasma. <i>Quantum Electronics</i> , 1999, 29, 55-58.	0.3	6
139	Generation of hard x-ray radiation by irradiation of porous silicon with ultraintense femtosecond laser pulses. <i>Quantum Electronics</i> , 1998, 28, 1-2.	0.3	20
140	Overheating of a femtosecond plasma in freely suspended ultrathin carbon films. <i>Quantum Electronics</i> , 1997, 27, 283-284.	0.3	2
141	Numerical simulation of stimulated-Raman-scattering conversion of femtosecond UV pulses. <i>Quantum Electronics</i> , 1997, 27, 249-253.	0.3	4
142	Feasibility of constructing a 100 TW femtosecond electric-discharge excimer system. <i>Quantum Electronics</i> , 1997, 27, 54-58.	0.3	0
143	X-Ray Production and Second Harmonic Generation by Superintense Femtosecond Laser Pulses in the Solids with Restricted Thermal Conduction. <i>Journal of Nonlinear Optical Physics and Materials</i> , 1997, 06, 495-505.	1.1	4
144	Control of the properties and diagnostics of a dense femtosecond plasma formed from modified targets. <i>Quantum Electronics</i> , 1997, 27, 1081-1093.	0.3	13

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145	Excitation of nuclei in a hot, dense plasma: Feasibility of experiments with ^{201}Hg . JETP Letters, 1997, 66, 331-335.	0.4	15
146	RefEXAFS Spectroscopy of Thin Fe/Sc Multilayers. Journal of X-Ray Science and Technology, 1995, 5, 379-388.	0.7	0