# Alexander V Eremin

List of Publications by Year
in descending order



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|---|---|---|---|
| 91 papers | 936 citations | 516561<br>16 h-index | 610775<br>24 g-index |
| 92 all docs | 92 docs citations | 92 times ranked | 376 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | High-temperature oxidation of acetylene by N2O at high Ar dilution conditions and in laminar premixed C2H2â€¯+â€¯O2â€¯+â€¯N2 flames. Combustion and Flame, 2022, 238, 111924. | 2.8 | 12 |
| 2 | PAH formation in the pyrolysis of benzene and dimethyl ether mixtures behind shock waves. Combustion and Flame, 2021, 232, 111548. | 2.8 | 8 |
| 3 | Experimental study of high temperature oxidation of dimethyl ether, n-butanol and methane. Combustion and Flame, 2020, 218, 121-133. | 2.8 | 13 |
| 4 | On the Possibility of Promoting a Detonation Condensation Wave in Acetylene with Methane Additions. Doklady Physical Chemistry, 2020, 490, 1-3. | 0.2 | 3 |
| 5 | The influence of hydrogen and methane on the growth of carbon particles during acetylene pyrolysis in a burnt-gas flow reactor. Proceedings of the Combustion Institute, 2019, 37, 1125-1132. | 2.4 | 12 |
| 6 | Features of Haloalkane Effect on the Concentration Limits and Induction Time for the Ignition of Methaneâ€“Oxygen Mixtures. Doklady Physical Chemistry, 2019, 484, 20-22. | 0.2 | 0 |
| 7 | The Role of Methyl Radical in Soot Formation. Combustion Science and Technology, 2019, 191, 2226-2242. | 1.2 | 14 |
| 8 | Direct measurements of C<sub>3</sub>F<sub>7</sub>I dissociation rate constants using a shock tube ARAS technique. International Journal of Chemical Kinetics, 2019, 51, 206-214. | 1.0 | 4 |
| 9 | Experimental study of reaction of n-butanol with oxygen behind shock waves using ARAS method. Physical-Chemical Kinetics in Gas Dynamics, 2019, 20, 1-15. | 0.1 | 3 |
| 10 | Influence of methane addition on soot formation in pyrolysis of acetylene. Combustion and Flame, 2018, 193, 83-91. | 2.8 | 17 |
| 11 | Direct measurements of rate coefficients for thermal decomposition of CF<sub>3</sub>I using shockâ€"tube ARAS technique. Journal Physics D: Applied Physics, 2018, 51, 184004. | 1.3 | 11 |
| 12 | On Relative Effectiveness of Halogenated Hydrocarbons for Suppression of Hydrogen-Oxygen Mixture Autoignition. Combustion Science and Technology, 2018, 190, 550-555. | 1.2 | 10 |
| 13 | Soot formation in shock-wave-induced pyrolysis of acetylene and benzene with H2, O2, and CH4 addition. Combustion and Flame, 2018, 198, 158-168. | 2.8 | 24 |
| 14 | Experimental study of chemiluminescence in UV and VIS range at hydrogen-oxygen mixtures ignition. MATEC Web of Conferences, 2018, 209, 00012. | 0.1 | 1 |
| 15 | The influence of iodinated fire suppressants on shock-induced ignition of acetyleneâ€" and methaneâ€“oxygen mixtures. Combustion Science and Technology, 2018, 190, 2061-2065. | 1.2 | 1 |
| 16 | The opposite influences of flame suppressants on the ignition of combustible mixtures behind shock waves. Combustion and Flame, 2017, 176, 592-598. | 2.8 | 15 |
| 17 | Ignition delays in methaneâ€“oxygen mixture in the presence of small amount of iron or carbon nanoparticles. Journal of Physics: Conference Series, 2016, 774, 012085. | 0.3 | 1 |
| 18 | Synthesis of binary ironâ€“carbon nanoparticles by UV laser photolysis of Fe(CO)5with various hydrocarbons. Materials Research Express, 2016, 3, 105041. | 0.8 | 10 |

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|---|---|---|---|
| 19 | Promoting effect of halogen- and phosphorus-containing flame retardants on the autoignition of a methaneâ€“oxygen mixture. Combustion, Explosion and Shock Waves, 2016, 52, 375-385. | 0.3 | 8 |
| 20 | Binary ironâ€“carbon nanoparticle synthesis in photolysis of Fe(CO)<sub>5</sub>with methane and acetylene. Journal of Physics: Conference Series, 2016, 774, 012127. | 0.3 | 4 |
| 21 | Anomalous behavior of optical density of iron nanoparticles heated behind shock waves. High Temperature, 2016, 54, 902-904. | 0.1 | 7 |
| 22 | Opposite influence of haloalkanes on combustion and pyrolysis of acetylene. Journal of Physics: Conference Series, 2015, 653, 012058. | 0.3 | 0 |
| 23 | Synthesis of metal-carbon nanoparticles in pulsed UV-photolysis of Fe(CO)5-CCl4 mixtures at room temperature. Technical Physics Letters, 2015, 41, 547-550. | 0.2 | 10 |
| 24 | Kinetics of Mo atom formation and consumption in UV multiphoton dissociation of Mo(CO)<sub>6</sub>at room temperature. Physica Scripta, 2015, 90, 128006. | 1.2 | 1 |
| 25 | Molybdenum atoms yield in pulse ultraviolet laser photolysis of Mo(CO)6. Journal of Physics: Conference Series, 2015, 653, 012029. | 0.3 | 1 |
| 26 | Promotion of methane ignition by the fire suppressants CCl4 and CF3H. Combustion and Flame, 2015, 162, 2746-2747. | 2.8 | 7 |
| 27 | Sizing of Mo nanoparticles synthesised by Krâ€“F laser pulse photo-dissociation of Mo(CO)6. Applied Physics A: Materials Science and Processing, 2015, 119, 615-622. | 1.1 | 14 |
| 28 | Energy gain of the detonation pyrolysis of acetylene. High Temperature, 2015, 53, 363-369. | 0.1 | 10 |
| 29 | Experimental study of temperature influence on carbon particle formation in shock wave pyrolysis of benzene and benzeneâ€“ethanol mixtures. Combustion and Flame, 2015, 162, 207-215. | 2.8 | 20 |
| 30 | Experimental study of soot size decrease with pyrolysis temperature rise. Proceedings of the Combustion Institute, 2015, 35, 1753-1760. | 2.4 | 4 |
| 31 | Influence of $$ext{ CF }_{3}ext{ H }$$ CF 3 H and $$ext{ CCl }_{4}$$ CCl 4 additives on acetylene detonation. Shock Waves, 2014, 24, 231-237. | 1.0 | 10 |
| 32 | Influence of quantum effects on the initiation of ignition and detonation. Journal of Experimental and Theoretical Physics, 2014, 118, 831-843. | 0.2 | 6 |
| 33 | Iron nanoparticle growth induced by Krâ€“F excimer laser photolysis of Fe(CO)5. Journal of Nanoparticle Research, 2013, 15, 1. | 0.8 | 13 |
| 34 | On the origin of nonequilibrium radiation from iodine molecules at the shock wave front. Technical Physics, 2013, 58, 647-652. | 0.2 | 4 |
| 35 | Experimental study of carbon and iron nanoparticle vaporisation under pulse laser heating. Applied Physics B: Lasers and Optics, 2013, 112, 421-432. | 1.1 | 21 |
| 36 | A new model for carbon nanoparticle formation in the pyrolysis process behind shock waves. High Temperature, 2013, 51, 673-680. | 0.1 | 9 |

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| 37 | Analysis of the production and clusterization of iron atoms under pulsed laser photolysis of Fe(CO)5. Technical Physics, 2013, 58, 1337-1345. | 0.2 | 8 |
| 38 | Experimental investigation and modeling of the kinetics of CCl4 pyrolysis behind reflected shock waves using high-repetition-rate time-of-flight mass spectrometry. Physical Chemistry Chemical Physics, 2013, 15, 2821. | 1.3 | 10 |
| 39 | Synthesis of Small Carbon Nanoparticles in a Microwave Plasma Flow Reactor. Zeitschrift Fur Physikalische Chemie, 2013, 227, 357-370. | 1.4 | 5 |
| 40 | The effect of chlorine atoms on the charging kinetics of carbon nanoparticles forming in shock-heated plasma. High Temperature, 2012, 50, 687-693. | 0.1 | 3 |
| 41 | Experimental study of molecular hydrogen influence on carbon particle growth in acetylene pyrolysis behind shock waves. Combustion and Flame, 2012, 159, 3607-3615. | 2.8 | 26 |
| 42 | Quantum Phenomena in Ignition and Detonation at Elevated Density. Physical Review Letters, 2012, 109, 183201. | 2.9 | 15 |
| 43 | On the effect of molecular and hydrocarbon-bonded hydrogen on carbon particle formation in C3O2 pyrolysis behind shock waves. Combustion and Flame, 2012, 159, 932-939. | 2.8 | 4 |
| 44 | Formation of carbon nanoparticles from the gas phase in shock wave pyrolysis processes. Progress in Energy and Combustion Science, 2012, 38, 1-40. | 15.8 | 49 |
| 45 | Investigation of the kinetics of carbon nanoparticle charging in shock-heated plasma. High Temperature, 2011, 49, 349-355. | 0.1 | 4 |
| 46 | Size measurement of carbon and iron nanoparticles by laser induced incadescence. High Temperature, 2011, 49, 667-673. | 0.1 | 28 |
| 47 | Quantum effects in the kinetics of the initiation of detonation condensation waves. JETP Letters, 2011, 94, 530-534. | 0.4 | 7 |
| 48 | Size dependence of complex refractive index function of growing nanoparticles. Applied Physics B: Lasers and Optics, 2011, 104, 285-295. | 1.1 | 63 |
| 49 | Carbon condensation wave in C3O2 and C2H2 initiated by a shock wave. Proceedings of the Combustion Institute, 2011, 33, 525-532. | 2.4 | 19 |
| 50 | Formation of Condensed Particles in Premixed Flames Catalyzed by Metal Carbonyls. Zeitschrift Fur Physikalische Chemie, 2010, 224, 715-727. | 1.4 | 1 |
| 51 | The nature of nonequilibrium phenomena in the shock-wave front. Doklady Physics, 2010, 55, 207-210. | 0.2 | 4 |
| 52 | Detonation wave initiated by explosive condensation of supersaturated carbon vapor. Shock Waves, 2010, 20, 491-498. | 1.0 | 1 |
| 53 | Formation of a detonation wave in the process of chemical condensation of carbon nanoparticles. Journal of Engineering Physics and Thermophysics, 2010, 83, 1197-1209. | 0.2 | 6 |
| 54 | Formation of detonation wave upon condensation of supersaturated carbon vapor. High Temperature, 2010, 48, 823-829. | 0.1 | 4 |

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| 55 | Formation of a detonation wave in the thermal decomposition of acetylene. JETP Letters, 2010, 92, 97-101. | 0.4 | 14 |
| 56 | Experimental study of carbon particle charging at shock-wave pyrolysis of C3O2. Proceedings of the Combustion Institute, 2009, 32, 721-728. | 2.4 | 5 |
| 57 | Photosynthesis of nanoparticles. Nanotechnologies in Russia, 2009, 4, 319-330. | 0.7 | 6 |
| 58 | Detonation wave driven by condensation of supersaturated carbon vapor. Physical Review E, 2009, 79, 035303. | 0.8 | 14 |
| 59 | Nonequilibrium processes at the shock wave front in inert gases with a small amount of Fe(CO)5 impurity. Technical Physics, 2008, 53, 1022-1028. | 0.2 | 3 |
| 60 | Formation of a detonation-like condensation wave. JETP Letters, 2008, 87, 470-473. | 0.4 | 9 |
| 61 | Nonequilibrium radiation and ionization during formation of iron clusters in shock waves. Journal Physics D: Applied Physics, 2008, 41, 135201. | 1.3 | 6 |
| 62 | Influence of the bath gas on the condensation of supersaturated iron atom vapour at room temperature. Journal Physics D: Applied Physics, 2008, 41, 055203. | 1.3 | 42 |
| 63 | Nonequilibrium Processes During Fe(CO)5 Pyrolysis in a Shock Wave. Zeitschrift Fur Physikalische Chemie, 2008, 222, 103-115. | 1.4 | 1 |
| 64 | Heat release of carbon particle formation from hydrogen-free precursors behind shock waves. Proceedings of the Combustion Institute, 2007, 31, 649-656. | 2.4 | 26 |
| 65 | Formation of carbon nanoparticles by the condensation of supersaturated atomic vapor obtained by the laser photolysis of C3O2. Kinetics and Catalysis, 2007, 48, 194-203. | 0.3 | 11 |
| 66 | <title>Interaction of intense femtosecond laser pulses with iron clusters formed by photo-dissociation of Fe(CO)<formula><inf><roman>5</roman></inf></formula></title>. , 2006, , . | | 2 |
| 67 | TR-LII for sizing of carbon particles forming at room temperature. Applied Physics B: Lasers and Optics, 2006, 83, 449-454. | 1.1 | 30 |
| 68 | Nanoparticle formation from supersaturated carbon vapour generated by laser photolysis of carbon suboxide. Journal Physics D: Applied Physics, 2006, 39, 4359-4365. | 1.3 | 6 |
| 69 | Time and temperature dependence of carbon particle growth in various shock wave pyrolysis processes. Proceedings of the Combustion Institute, 2005, 30, 1433-1440. | 2.4 | 29 |
| 70 | Formation of Iron-Carbon Nanoparticles behind Shock Waves. Kinetics and Catalysis, 2005, 46, 309-318. | 0.3 | 17 |
| 71 | Title is missing!. Kinetics and Catalysis, 2003, 44, 463-470. | 0.3 | 6 |
| 72 | Shock wave induced carbon particle formation from CCL4 and C3O2 observed by laser extinction and by laser-induced incandescence (LII). Combustion and Flame, 2003, 135, 77-85. | 2.8 | 17 |

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|---|---|---|---|
| 73 | To the Temperature Dependence of Carbon Particle Formation in Shock Wave Pyrolysis Processes. Zeitschrift Fur Physikalische Chemie, 2003, 217, 893-910. | 1.4 | 13 |
| 74 | Formation of Nanoparticles by Photolysis from Metal and Carbon Bearing Molecules. Zeitschrift Fur Physikalische Chemie, 2003, 217, 1361-1368. | 1.4 | 12 |
| 75 | Ignition of Multicomponent Hydrocarbon/Air Mixtures behind Shock Waves. High Temperature, 2002, 40, 379-386. | 0.1 | 17 |
| 76 | Overequilibrium Excitation of C2Radicals in Thermal Decomposition of C3O2. Doklady Chemistry, 2001, 379, 181-186. | 0.2 | 3 |
| 77 | Kinetics of Carbon Cluster Formation in the Course of C3O2Pyrolysis. Kinetics and Catalysis, 2001, 42, 583-593. | 0.3 | 17 |
| 78 | Numerical simulation and experimental observation of magnetic flux distribution in high-temperature superconductors. Superconductor Science and Technology, 2001, 14, 690-694. | 1.8 | 6 |
| 79 | Carbon particle formation and decay in two-step pyrolysis of carbon suboxide behind shock waves. Proceedings of the Combustion Institute, 2000, 28, 2515-2522. | 2.4 | 19 |
| 80 | Recombination radiation from a nonequilibrium jet of dissociated carbon dioxide. Journal of Applied Mechanics and Technical Physics, 1994, 34, 752-760. | 0.1 | 3 |
| 81 | Nonequilibrium radiation from the CO2 band (1 B 2 ?X 1? g /+ ) in shock-heated flows. Shock Waves, 1993, 3, 11-17. | 1.0 | 11 |
| 82 | Generalized empirical laws of starting discontinuity dynamics associated with the startup of underexpanded jets. Journal of Applied Mechanics and Technical Physics, 1992, 32, 665-669. | 0.1 | 2 |
| 83 | An experimental study into the nonsteady radiation of a jet consisting of an impact-heating gas containing CO2. Journal of Applied Mechanics and Technical Physics, 1991, 31, 533-540. | 0.1 | 2 |
| 84 | Density distribution in pulsed gas jets effusing into a rarefied space. Journal of Applied Mechanics and Technical Physics, 1991, 31, 914-918. | 0.1 | 0 |
| 85 | Mechanism of vibronic exchange between sodium and vibrationally nonequilibrium nitrogen. Combustion, Explosion and Shock Waves, 1982, 17, 443-445. | 0.3 | 0 |
| 86 | Improving accuracy when machining stepped components on multiwheel grinders. Chemical and Petroleum Engineering (English Translation of Khimicheskoe I Neftyanoe Mashinostroenie), 1981, 17, 312-313. | 0.1 | 0 |
| 87 | Nonstationary processes in starting strongly underexpanded jets. Journal of Applied Mechanics and Technical Physics, 1978, 19, 27-31. | 0.1 | 7 |
| 88 | Sodium excitation in non-equilibrium conditions behind shock waves in nitrogen. Chemical Physics Letters, 1977, 45, 351-355. | 1.2 | 12 |
| 89 | Formation of a jet of gas outflowing into evacuated space. Journal of Applied Mechanics and Technical Physics, 1976, 16, 196-200. | 0.1 | 2 |
| 90 | Detonation wave of condensation. Physics-Uspekhi, 0, , . | 0.8 | 0 |

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|---|---|---|---|
| 91 | Influence of chemically active additives on kinetics of acetylene self-decomposition and following soot formation. Combustion Science and Technology, 0, , 1-27. | 1.2 | 1 |