

S.V. Popruzhenko

List of publication in peer-reviewed journals

2016

65. Th. Keil, S.V. Popruzhenko, and D. Bauer, Laser-Driven Recollisions under the Coulomb Barrier, *Physical Review Letters* **117**, 243003.
64. T.V. Lisykina, S.V. Popruzhenko and A. Macchi, Inverse Faraday Effect driven by the radiation reaction force, *New Journal of Physics* **18**, 072001.
63. V.S. Popov, V.D. Mur, N.B. Narozhny and S.V. Popruzhenko, On electron-positron pair creation by the field of intense laser radiation from vacuum, *JETP* **149**, 623 (in Russian).

2015

62. S.V. Popruzhenko, V.A. Tulsy, Control of terahertz photoelectron currents generated by intense two-color laser radiation interacting with atoms, *Phys. Rev. A* **92**, 033414.
61. B.M. Karnakov, V.D. Mur, S.V. Popruzhenko and V.S. Popov, Current progress in developing the nonlinear ionization theory of atoms and ions, *Physics-Uspekhi* **58**, 3.

2014

60. S.V. Popruzhenko, Keldysh theory of strong-field ionization: history, applications, difficulties and perspectives, *J. Phys. B: At. Mol. Opt. Phys.* **47**, 204001.
59. S.V. Popruzhenko, Invariant form of Coulomb corrections in the theory of nonlinear ionization of atoms by intense laser radiation, *JETP* **118**, 580.

2013

58. T.-M. Yan, S.V. Popruzhenko, D. Bauer, Trajectory-based Coulomb-corrected strong field approximation, *Progress in Ultrafast Intense Laser Science*, 1-16, Springer Berlin Heidelberg.

2012

57. Ph.A. Korneev, S.V. Popruzhenko, S.P. Goreslavski, W. Becker, G.G Paulus, B. Fetic and D.B. Milosevic, Interference structure of above-threshold ionization versus above-threshold detachment, *New Journal of Physics* **14**, 055019.
56. P.A. Korneev, S.V. Popruzhenko, S.P. Goreslavski, T-M. Yan, D. Bauer, W. Becker, M. Kuebel, M.F. Kling, C. Roedel, M. Wuensche, G.G. Paulus, Interference carpets in above-threshold ionization: from the Coulomb-free to the Coulomb-dominated regime, *Physical Review Letters* **108**, 223601.

2011

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54. H.M. Castañeda Cortés, S.V. Popruzhenko, D. Bauer and A. Pálffy, Laser-assisted decay of quasistationary states, *New Journal of Physics* **13**, 063007.

53. B.M. Karnakov, V.D. Mur, V.S. Popov, S.V. Popruzhenko, Ionization of atoms and ions by intense laser radiation, JETP Letters **93**, 238.

2010

52. Tian-Min Yan, S.V. Popruzhenko, M.J.J. Vrakking, D. Bauer, Low-energy structures in strong-field ionization revealed by quantum orbits, Physical Review Letters **105**, 253002.

51. S.V. Popruzhenko, D.F. Zaretsky, W. Becker, High-order harmonic generation by an intense infrared laser pulse in the presence of a weak UV pulse, Physical Review A **81**, 063417.

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50. B.M. Karnakov, V.D. Mur, S.V. Popruzhenko, V.S. Popov, Strong field ionization by ultrashort laser pulses: Application of the Keldysh theory Physics Letters A **374**, 386.

49. S.B. Popruzhenko, V.D. Mur, V.S. Popov, D. Bauer, Multiphoton ionization of atom and ions by intense by high-intensity X-Ray lasers, JETP **108**, 947.

48. N.I. Shvetsov-Shilovski, S.P. Goreslavki, S.V. Popruzhenko, W. Becker, Capture into Rydberg states and momentum distributions of ionized electrons, Laser Physics **19**, 1550.

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47. S.V. Popruzhenko, D. Bauer, Strong field approximation for systems with Coulomb interaction, Journal of Modern Optics **55**, 2573.

46. S.V. Popruzhenko, G.G. Paulus, D. Bauer, Coulomb-corrected quantum trajectories in strong-field ionization, Physical Review A **77**, 053409.

45. S.V. Popruzhenko, M. Kundu, D.F. Zaretsky, D. Bauer Harmonic emission from cluster nanoplasmas subject to intense short laser pulses, Physical Review A **77**, 063201.

44. N.I. Shvetsov-Shilovski, S.P. Goreslavki, S.V. Popruzhenko, W. Becker, Ellipticity effects and the contributions of long orbits in nonsequential double ionization of atoms, Physical Review A **77**, 063405.

43. S.V. Popruzhenko, V.D. Mur, V.S. Popov, D. Bauer, Strong field ionization rate for arbitrary laser frequencies, Physical Review Letters **101**, 193003.

42. M. Ruggenthaler, S.V. Popruzhenko, D. Bauer, Recollision-induced plasmon excitation in strong laser fields, Physical Review A **78**, 033413.

41. S.V. Popruzhenko, D.F. Zaretsky, D. Bauer, Energy absorption and emission of harmonics from clusters subject to intense short laser pulses, Laser Physics Letters **5**, 631.

40. B.M. Karnakov, Ph.A. Korneev and S.V. Popruzhenko, Radiation of a nonrelativistic particle during its finite motion in a central field, JETP **106**, 650.

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39. N.I. Shvetsov-Shilovski, S.P. Goreslavski, S.V. Popruzhenko, W. Becker, G.G. Paulus, Reconstruction of an arbitrarily polarized few-cycle laser pulse by two-dimensional streaking, Las. Phys. Lett. **10**, 726.

38. M. Kundu, S.V. Popruzhenko, D. Bauer, Harmonic generation from laser-irradiated clusters, Phys. Rev. A **76**, 033201.

37. S.V. Popruzhenko, N.I. Shvetsov-Shilovski, S.P. Goreslavski, W. Becker, G.G. Paulus, Two-dimensional streaking: complete characterization of an arbitrarily polarized few-cycle laser pulse using a stereodetector technique, *Opt. Lett.* **32**, 1372.
36. V.S. Popov, V.D. Mur, S.V. Popruzhenko, On the inclusion of the Coulomb interaction in the theory of multiphoton ionization, *JETP Lett.* **85**, 223.
35. D.F. Zaretsky, P.A. Korneev, S.V. Popruzhenko, Collisionless absorption of intense laser radiation in nanoplasma, *Quant. Elect.* **37**, 565.

2006

34. S.V. Popruzhenko, D.F. Zaretsky, W. Becker, Third harmonic generation by small metal clusters in a dielectric medium, *J. Phys. B: At. Mol. Opt. Phys.* **39**, 4933.

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33. Ph.A. Korneev, S.V. Popruzhenko, D.F. Zaretsky, W. Becker, Collisionless heating of a nanoplasma in laser-irradiated clusters, *Las. Phys. Lett.* **9**, 452.
32. S.P. Goreslavskii, S.V. Popruzhenko, N.I. Shvetsov-Shilovskii, O.V. Shcherbachev, The above-threshold ionization spectrum in a strong linearly polarized laser field, *JETP* **100**, 22.
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29. D.F. Zaretsky, Ph.A. Korneev, S.V. Popruzhenko, W. Becker, Landau damping in thin films irradiated by a strong laser field, *J. Phys. B: At. Mol. Opt. Phys.* **37**, 4817.

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28. V.D. Mur, S.G. Pozdnyakov, S.V. Popruzhenko, V.S. Popov, Zeldovich's regularization method in the theory of quasistationary states, *Phys. At. Nuclei* **66**, 1964.
27. V.D. Mur, S.V. Popruzhenko, S.G. Pozdnyakov, V.S. Popov, On the problem of negative ions photodetachment in intense circularly polarized laser field, *Phys. Lett. A* **316**, 226.
26. S.V. Fomichev, S.V. Popruzhenko, D.F. Zaretsky and W. Becker, Laser-induced nonlinear excitation of collective electron motion in a cluster, *J. Phys. B: At. Mol. Opt. Phys.* **36**, 3817.
25. S.P. Goreslavskii, Ph.A. Korneev, S.V. Popruzhenko, R. Kopold, W. Becker, A closer look at electron-electron correlation in laser-induced non-sequential double ionization, *Journ. Mod. Opt.* **50**, 423.
24. N.I. Shvetsov-Shilovski, S.V. Popruzhenko, S.P. Goreslavski, Asymmetric emission of rescattered photoelectrons in intense laser fields with elliptical polarization, *Laser Phys.* **13**, 1054.
23. S.V. Fomichev, S.V. Popruzhenko, D.F. Zaretsky, Nonlinear mie resonance excitation in clusters irradiated by a strong IR laser field, *Laser Phys.* **13**, 1188.
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20. M.V. Fedorov, S.V. Popruzhenko, D.F. Zaretsky and W. Becker, Delay-dependent amplification of a probe pulse via stimulated Rayleigh scattering, *Phys. Rev. Lett.* **88**, 213001.
19. V.D. Mur, S.G. Pozdnyakov, V.S. Popov and S.V. Popruzhenko, On the Zeldovich regularization method in the theory of quasistationary states, *JETP Letters* **75**, 249.

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18. S.V. Popruzhenko, S.P. Goreslavskii, Photoelectron momentum distributions for double ionization in strong laser fields, *J. Phys. B: At. Mol. Opt. Phys.* **34**, L239.
17. D.F. Zaretsky, E.A. Nersesov, S.V. Popruzhenko, and W. Becker, On the possibility of increasing of high order harmonic intensity due to stimulated emission, *Laser Physics* **11**, 616-619.
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15. S.P. Goreslavski and S.V. Popruzhenko, Nonsequential double ionization: a quasiclassical analysis of the Keldysh-type transition amplitude, *Optics Express* **8**, 395-400.
14. S.P. Goreslavskii, S.V. Popruzhenko, R. Kopold and W. Becker, Electron-electron correlation in laser-induced double ionization, *Phys. Rev. A* **64**, 053402.
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11. S.P. Goreslavskii and S.V. Popruzhenko, Photoionization with rescattering: Quantum theory and the semiclassical approach, *Laser Phys.* **10**, 583.
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9. S.P. Goreslavskii and S.V. Popruzhenko, Rescattering and quantum interference near the classical cut-offs, *J. Phys. B: At. Mol. Opt. Phys.* **32**, L531.
8. S.P. Goreslavskii, S.V. Popruzhenko and O.V. Scherbachev, The angular distribution of nonlinear Thomson scattering in a circular field, *Laser Phys.* **9**, 1039.

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