

STARINSKIY SERGEY V.

PUBLICATIONS IN REFEREED JOURNALS:

2014

1. A. V. Bulgakov, N. Goodfriend, O. Nerushev, N.M. Bulgakova, **S. V. Starinskiy**, Y.G. Shukhov, E.E.B. Campbell, Laser-induced transfer of nanoparticles for gas-phase analysis, *J. Opt. Soc. Am. B*. 31 (2014) C15

2016

2. N.T. Goodfriend, **S. V. Starinskiy**, O.A. Nerushev, N.M. Bulgakova, A. V. Bulgakov, E.E.B. Campbell, Laser pulse duration dependence of blister formation on back-radiated Ti thin films for BB-LIFT, *Appl. Phys. A*. 122 (2016) 154.
3. A.I. Safonov, V. S. Sulyaeva, N.I. Timoshenko, **S. V. Starinskiy**, Deposition of thin composite films consisting of fluoropolymer and silver nanoparticles having surface plasmon resonance, *Thin Solid Films*. 603 (2016) 313–316.
4. A.I. Safonov, V.S. Sulyaeva, N.I. Timoshenko, K. V. Kubrak, **S. V. Starinskiy**, Deposition of plasmon gold–fluoropolymer nanocomposites, *Phys. Lett. A*. 380 (2016) 3919–3923.
5. **S. V. Starinskiy**, Y.G. Shukhov, A. V. Bulgakov, Dynamics of pulsed laser ablation of gold in vacuum in the regime of nanostructured film synthesis, *Tech. Phys. Lett.* 42 (2016) 411–414.

2017

6. **S. V. Starinskiy**, Y.G. Shukhov, A. V. Bulgakov, Laser-induced damage thresholds of gold, silver and their alloys in air and water, *Appl. Surf. Sci.* 396 (2017) 1765–1774.
7. A.I. Safonov, **S. V. Starinskii**, V.S. Sulyaeva, N.I. Timoshenko, E.Y. Gatapova, Hydrophobic properties of a fluoropolymer film covering gold nanoparticles, *Tech. Phys. Lett.* 43 (2017) 159–161.
8. **S. V. Starinskiy**, Y.G. Shukhov, A. V. Bulgakov, Effect of nanoparticle sizes on the extinction spectrum of colloidal solutions produced by laser ablation of gold in water, *Quantum Electron.* 47 (2017) 343–346.
9. A. Safonov, V. Sulyaeva, N. Timoshenko, **S. Starinskiy**, Synthesis of copper nanoparticles in a fluoropolymer matrix by annealing in vacuum, *Phys. Lett. A*. 381 (2017) 2103–2106.
10. E.A. Baranov, A.O. Zamchii, A.I. Safonov, **S. V Starinskii**, S.Y. Khmel', Effect of a thin a-SiO_x : H film on plasmonic properties of gold nanoparticles, *Tech. Phys. Lett.* 43 (2017) 244–246.
11. Starinskiy S. V. et al. Comparison of structures of gold nanoparticles synthesized by pulsed laser ablation and magnetron sputtering // *J. Struct. Chem.* 2017. Vol. 58, № 8. P. 1581–1587.

2018

12. A.I. Safonov, V.S. Sulyaeva, E.Y. Gatapova, **S. V. Starinskiy**, N.I. Timoshenko, O.A. Kabov, Deposition features and wettability behavior of fluoropolymer coatings from hexafluoropropylene oxide activated by NiCr wire, *Thin Solid Films*. 653 (2018) 165–172.

13. **S. V. Starinskiy**, A. V. Bulgakov, E.Y. Gatapova, Y.G. Shukhov, V.S. Sulyaeva, N.I. Timoshenko, A.I. Safonov, Transition from superhydrophilic to superhydrophobic of silicon wafer by a combination of laser treatment and fluoropolymer deposition, *J. Phys. D. Appl. Phys.* 51 (2018) 255307.
14. N.Y. Bykov, A.I. Safonov, D. V. Leshchev, **S. V. Starinskiy**, A. V. Bulgakov, Gas-jet Method of metal film deposition: Direct simulation monte-carlo of He-Ag mixture flow, *Mater. Phys. Mech.* 38 (2018) 119–130.

2019

15. N.Y. Bykov, A.I. Safonov, D. V Leshchev, **S. V Starinsky**, A. V Bulgakov, The Gas-Jet Method of Deposition of Nanostructured Silver Films, *Tech. Phys.* 64 (2019) 776–789.
16. **S. V Starinskiy**, A.A. Rodionov, Y.G. Shukhov, E.A. Maximovskiy, A. V. Bulgakov, Dynamics of nanosecond - laser - induced melting of tin in vacuum , air , and water, *Appl. Phys. A.* 125 (2019)

2020

17. **S. V Starinskiy**, A.A. Rodionov, Y.G. Shukhov, A.I. Safonov, E.A. Maximovskiy, V.S. Sulyaeva, A. V Bulgakov, Formation of periodic superhydrophilic microstructures by infrared nanosecond laser processing of single-crystal silicon, *Appl. Surf. Sci.* 512 (2020) 145753.
18. A.O. Zamchiy, **S. V. Starinskiy**, E.A. Baranov, Morphology and Optical Properties of a Composite Material Based on Gold Nanoparticles and Nonstoichiometric Silicon Oxide, *Tech. Phys. Lett.* 46 (2020) 827–830.
19. **S. V. Starinskiy**, A.I. Safonov, V.S. Sulyaeva, A.A. Rodionov, Y.G. Shukhov, A. V. Bulgakov, An optical method for determination of the mass thickness of thin gold films with arbitrary morphology, *Thin Solid Films.* 714 (2020) 138392.

2021

20. A.I. Safonov, A.L. Bogoslovtsseva, V.S. Sulyaeva, M.S. Kiseleva, I.S. Zhidkov, **S. V. Starinskiy**, Effect of Annealing on the Structure and Properties of Thin Fluoropolymer Coatings Prepared By Hw Cvd, *J. Struct. Chem.* 62 (2021) 1441–1446. doi:10.1134/S0022476621090134.
21. A.I. Safonov, **S. V. Starinskiy**, V.S. Sulyaeva, Hot-Wire Chemical Vapor Deposition of Fluoropolymer Coatings on Rotating Cylindrical Surfaces, *Tech. Phys. Lett.* 47 (2021) 205–207.
22. A.A. Morozov, **S.V. Starinskiy**, A.V. Bulgakov, Pulsed laser ablation of binary compounds: Effect of time delay in component evaporation on ablation plume expansion, *J. Phys. D. Appl. Phys.* 54 (2021).
23. **S. V. Starinskiy**, A.A. Rodionov, Y.G. Shukhov, A. V. Bulgakov, Optical properties of nanocolumnar silver films obtained by pulsed laser deposition, *J. Phys. Conf. Ser.* 1867 (2021).
24. V. Serdyukov, **S. Starinskiy**, I. Malakhov, A. Safonov, A. Surtaev, Laser texturing of silicon surface to enhance nucleate pool boiling heat transfer, *Appl. Therm. Eng.* 194 (2021) 117102.

25. A. Lebedev, K. Dobroselsky, A. Safonov, **S. Starinskiy**, V. Sulyaeva, A. Lobasov, V. Dulin, C.N. Markides, Control of the turbulent wake flow behind a circular cylinder by asymmetric sectoral hydrophobic coatings, *Phys. Fluids*. 33 (2021).
26. A.O. Zamchiy, E.A. Baranov, **S. V. Starinskiy**, N.A. Lunev, I.E. Merkulova, Fabrication of polycrystalline silicon thin films by gold-induced crystallization of amorphous silicon suboxide, *Vacuum*. 192 (2021) 110462.
27. A.A. Rodionov, **S. V. Starinskiy**, Y.G. Shukhov, A. V. Bulgakov, Deposition of oxide nanostructures by nanosecond laser ablation of silicon in an oxygen-containing background gas, *Thermophys. Aeromechanics*. 28 (2021) 549–554.
28. N.Y. Bykov, F. V. Ronshin, A.I. Safonov, S. V. Starinskiy, V.S. Sulyaeva, Fluoropolymer coatings deposited on rotating cylindrical surfaces by HW CVD: experiment and simulation, *J. Phys. D. Appl. Phys.* 54 (2021) 225204.

2022

29. E. Starinskaya, A.D. Nazarov, N. Miskiv, **S. Starinskiy**, Effect of SiO₂ nanoparticle addition on the evaporation of a suspended water droplet, *Heat Transf. Res.* 6161 (2022).
30. **S. V. Starinskiy**, A.I. Safonov, Y.G. Shukhov, V.S. Sulyeva, I. V. Korolkov, V.A. Volodin, L.S. Kibis, A. V. Bulgakov, Nanostructured silver substrates produced by cluster-assisted gas jet deposition for surface-enhanced Raman spectroscopy, *Vacuum*. 199 (2022) 110929. doi:10.1016/j.vacuum.2022.110929.

2023

31. S. Khmel, **S. V Starinskiy**, E.A. Baranov, A. Zamchiy, A. Safonov, Y. Shukhov, A. Bulgakov, Low-temperature catalyzed growth and plasmonic properties of columnar Au-SiO_x nanocomposite thin films, *Interfacial Phenom. Heat Transf.* (2023). <https://doi.org/10.1615/InterfacPhenomHeatTransfer.2023047643>.
32. A. V. Bulgakov, N.Y. Bykov, A.I. Safonov, Y.G. Shukhov, **S. V. Starinskiy**, Silver Vapor Supersonic Jets: Expansion Dynamics, Cluster Formation, and Film Deposition, *Materials (Basel)*. 16 (2023) 4876. <https://doi.org/https://doi.org/10.3390/ma16134876>.
33. S. Khmel, **S. V. Starinskiy**, E.A. Baranov, A. Zamchiy, A. Safonov, Y. Shukhov, A. Bulgakov, Low-temperature catalyzed growth and plasmonic properties of columnar Au-SiO_x nanocomposite thin films, *Interfacial Phenom. Heat Transf.* 11 (2023) 75–85. <https://doi.org/10.1615/interfacphenomheattransfer.2023047643>.
34. **S. Starinskiy**, E. Starinskaya, N. Miskiv, A. Rodionov, F. Ronshin, A. Safonov, M. Lei, V. Terekhov, Spreading of Impacting Water Droplet on Surface with Fixed Microstructure and Different Wetting from Superhydrophilicity to Superhydrophobicity, *Water*. 15 (2023) 719. <https://doi.org/https://doi.org/10.3390/w15040719>.
35. D. Smovzh, S. Sakhapov, V. Andryushchenko, D. Sorokin, I. Betke, S. Komlina, **S. Starinskiy**, E. Maximovskiy, Stability of graphene films on copper, silicon and glass substrates in contact with boiling water, *Interfacial Phenom. Heat Transf.* 11 (2023) 1–10. <https://doi.org/10.1615/InterfacPhenomHeatTransfer.2023046926>.
36. S.G. Skripkin, **S. V. Starinskiy**, M.A. Tsoy, M.M. Vasiliev, A.Y. Kravtsova, Effect of a textured surface on the occurrence and development of cavitation on the hydrofoil, *Phys. Fluids*. 35 (2023) 025109. <https://doi.org/10.1063/5.0136468>.

37. E. Starinskaya, N. Miskiv, V. Terekhov, A. Safonov, Y. Li, M. Lei, **S. Starinskiy**, Evaporation Dynamics of Sessile and Suspended Almost-Spherical Droplets from a Biphilic Surface, Water. 15 (2023) 273. <https://doi.org/https://doi.org/10.3390/w15020273>.
38. A. V. Petrova, A.L. Bogoslovtseva, **S. V Starinskiy**, A.I. Safonov, Silicon surface patterning by glow discharge plasma, J. Appl. Mech. Tech. Phys. 64 (2023) 472–477. <https://doi.org/10.1134/S0021894423030136>.
39. V. Serdyukov, I. Vladyko, **S. Starinskiy**, A. Rodionov, Y. Shukhov, I. Malakhov, A. Safonov, A. Surtaev, Pool boiling performance on the textured hemi-wicking surfaces fabricated by nanosecond laser ablation, Appl. Therm. Eng. 228 (2023) 120472. <https://doi.org/10.1016/j.applthermaleng.2023.120472>.
40. **S. V Starinskiy**, A.I. Safonov, A.A. Rodionov, N.B. Miskiv, E.M. Starinskaya, Experimental Confirmation of the Contact Angle Transcendence Phenomena on a Superhydrophobic Surface, Chem. Eng. Sci. 281 (2023) 119173. <https://doi.org/10.1016/j.ces.2023.119173>.