

Основные публикации Шематовича В. И. за 2017-2021 годы

1. **Shematovich, V.I.**, Bisikalo, D.V. A Kinetic Model for Precipitation of Solar-Wind Protons into the Martian Atmosphere. *Astron. Rep.*, 65, 869–875 (2021).
<https://doi.org/10.1134/S106377292110036X>
2. **Shematovich, V.I.** Atmospheric Loss of Atomic Oxygen during Proton Aurorae on Mars. *Sol Syst Res*, 55, 324–334 (2021). <https://doi.org/10.1134/S0038094621040079>
3. **Shematovich, V.I.**, Bisikalo, D.V., Zhilkin, A.G. Effect of Variations in the Extended Hydrogen Corona of Mars on the Efficiency of Charge Exchange with Solar Wind Protons. *Astron. Rep.*, 65, 203–208 (2021). <https://doi.org/10.1134/S1063772921030033>
4. **Shematovich, V.I.**, Bisikalo, D.V. Kinetic Calculations of the Charge Exchange Efficiency for Solar Wind Protons in the Extended Martian Hydrogen Corona. *Astron. Rep.*, 64, 863–869 (2020). <https://doi.org/10.1134/S1063772920110074>
5. **Shematovich, V.I.**, Kalinicheva, E.S. Oxygen Atom Escape from the Martian Atmosphere during Proton Auroral Events. *Astron. Rep.*, 64, 628–635 (2020).
<https://doi.org/10.1134/S1063772920080089>
6. **Shematovich, V.I.** Suprathermal particles in astrochemistry, *Russian Chemical Reviews*, 88 (10), 1013 (2019). <http://dx.doi.org/10.1070/RCR4882>
7. **Shematovich, V. I.**, “Precipitation of electrons into the Earth's polar atmosphere: kinetic Monte Carlo model”, *INASAN Science Reports*, 3, 288–293 (2019).
<https://doi.org/10.26087/INASAN.2019.3.1.046>
8. **Shematovich, V.I.**, Bisikalo, D.V., Gérard, J.C. *et al.* Kinetic Monte Carlo Model for the Precipitation of High-Energy Protons and Hydrogen Atoms into the Atmosphere of Mars with Taking into Account the Measured Magnetic Field. *Astron. Rep.*, 63, 835–845 (2019).
<https://doi.org/10.1134/S1063772919100056>
9. **Shematovich, V.I.** Ocean Worlds in the Outer Regions of the Solar System (Review). *Sol Syst Res*, 52, 371–381 (2018). <https://doi.org/10.1134/S0038094618050076>
10. **Shematovich, V.I.**, Marov M.Ya. Escape of planetary atmospheres: physical processes and numerical models, *Uspekhi Fizicheskikh Nauk*, 61, 217 (2018).
<https://doi.org/10.3367/UFNe.2017.09.038212>
11. **Shematovich, V.I.**, Kaigorodov, P.V., Bisikalo, D.V. *et al.* Gas–Dynamical Features of the Envelopes of Contact Binary Stars. *Astron. Rep.*, 61, 1038–1043 (2017).
<https://doi.org/10.1134/S106377291712006X>
12. **Shematovich, V.I.**, Bisikalo, D.V., Gérard, J.C. *et al.* Changes in the Martian atmosphere induced by auroral electron precipitation. *Sol Syst Res*, 51, 362–372 (2017).
<https://doi.org/10.1134/S0038094617050094>
13. **Shematovich, V.I.** Suprathermal oxygen atoms in the Martian upper atmosphere: Contribution of the proton and hydrogen atom precipitation. *Sol Syst Res*, 51, 249–257 (2017).
<https://doi.org/10.1134/S0038094617040050>
14. Gérard, J.C., Hubert, B., Ritter, B., **Shematovich, V.I.**, Bisikalo, D.V. Lyman- α emission in the Martian proton aurora: Line profile and role of horizontal induced magnetic field, *Icarus*, 321, 266–271 (2019). <https://doi.org/10.1016/j.icarus.2018.11.013>
15. Wang, X.-D., Barabash, S., Futaana, Y., **Shematovich, V.I.**, Galli, A., Wurz, P. Energy spectral properties of hydrogen energetic neutral atoms emitted from the dayside atmosphere of Mars. *Journal of Geophysical Research: Space Physics* 124, 4104–4113 (2019).
<https://doi.org/10.1029/2018JA026346>