

Статьи в научных журналах из квартиля Q1 (общее число цитирований 79):

1. Shoev G., Oblapenko G., Kunova O., Mekhonoshina M., Kustova E. Validation of vibration-dissociation coupling models in hypersonic non-equilibrium separated flows // *Acta Astronautica*, 2018. Vol. 144, P. 147-159. <https://doi.org/10.1016/j.actaastro.2017.12.023>. **Impact Factor: 2.413 (Q1), число цитирований - 22.**
2. Kustova E., Mekhonoshina M., Kosareva A. Relaxation processes in carbon dioxide // *Physics of Fluids*, 2019. Vol. 31, № 4, 046104. <https://doi.org/10.1063/1.5093141>. **Impact Factor: 3.521 (Q1), число цитирований - 28. По данным SciVal входит в 5% наиболее цитируемых статей в своей предметной области.**
3. Kosareva A., Shoev G. Numerical Simulation of a CO₂, CO, O₂, O, C Mixture: Validation through Comparisons with Results Obtained in a Ground-Based Facility and Thermochemical Effects // *Acta Astronautica*. 2019. Vol. 160. P. 461-478. <https://doi.org/10.1016/j.actaastro.2019.01.029>. **Impact Factor: 2.413 (Q1), число цитирований - 8.**
4. Kustova E., Mekhonoshina M. Multi-temperature vibrational energy relaxation rates in CO₂ // *Physics of Fluids*, 2020. Vol. 32, № 9, 096101. <https://doi.org/10.1063/5.0021654>. **Impact Factor: 3.521 (Q1), число цитирований - 11.**
5. Kunova O., Kosareva A., Kustova E., Nagnibeda E. Vibrational relaxation of carbon dioxide in state-to-state and multi-temperature approaches // *Physical Review Fluids*. 2020. Vol. 5, № 12, 123401. <https://doi.org/10.1103/PhysRevFluids.5.123401>. **Impact Factor: 2.537 (Q1), число цитирований - 6.**
6. Campoli L., Kunova O., Kustova E. & Melnik M. Models validation and code profiling in state-to-state simulations of shock heated air flows // *Acta Astronautica*. 2020. Vol. 175, P. 493-509. <https://doi.org/10.1016/j.actaastro.2020.06.008>. **Impact Factor: 2.413 (Q1), число цитирований - 4.**

Статьи в научных журналах из квартиля Q2 (общее число цитирований 61):

7. Kunova O., Kustova E., Savelev A. Generalized Treanor–Marrone model for state-specific dissociation rate coefficients // *Chemical Physics Letters*. 2016. Vol. 659, P. 80-87. <https://doi.org/10.1016/j.cplett.2016.07.006>. **Impact Factor: 2.328 (Q2), число цитирований - 27.**
8. Kustova E., Mekhonoshina M., Oblapenko G. On the applicability of simplified state-to-state models of transport coefficients // *Chemical Physics Letters*, 2017. Vol. 686, P. 161-166 <https://doi.org/10.1016/j.cplett.2017.08.041>. **Impact Factor: 2.328 (Q2), число цитирований - 13.**
9. Kunova O., Shoev G., Kudryavtsev A. Numerical simulation of nonequilibrium flows by using the state-to-state approach in commercial software // *Thermophysics and Aeromechanics*. 2017. Vol. 24, № 1, P. 7-17. <https://doi.org/10.1134/S0869864317010024>. **Impact Factor: 1.023 (Q2), число цитирований - 7.**
10. Kremer G.M., Kunova O., Kustova E., Oblapenko G. The influence of vibrational state-resolved transport coefficients on the wave propagation in diatomic gases // *Physica A: Statistical Mechanics and its Applications*. 2018. Vol. 490, P. 92-113.

<https://doi.org/10.1016/j.physa.2017.08.019>. **Impact Factor: 3.263 (Q2), число цитирований - 11.**

11. Kosareva A., Nagnibeda E., Savelev A. New multi-temperature reaction models for CO₂ containing mixtures and their applications // Chemical Physics. 2020. Vol. 533. Paper 110718. <https://doi.org/10.1016/j.chemphys.2020.110718>. **Impact Factor: 2.348. (Q2), число цитирований - 3.**

Статьи в материалах конференций:

12. Kunova O., Kustova E., Mekhonoshina M., Shoev G. Numerical simulation of coupled state-to-state kinetics and heat transfer in viscous non-equilibrium flows // AIP Conference Proceedings. 2016. Vol. 1786, P. 070012. <https://doi.org/10.1063/1.4967588>
13. Kustova E.V., Mekhonoshina M.A. Similarity criteria in vibrationally and electronically excited gases // AIP Conference Proceedings. 2016. Vol. 1786, P. 150006. <https://doi.org/10.1063/1.4967647>
14. Kosareva A., Nagnibeda E. Vibrational-Chemical Coupling in mixtures CO₂/CO/O and CO₂/CO/O₂/O/C // Journal of Physics: Conference Series. IOP Publishing Ltd. 2017. Vol. 815. P. 012027. <https://doi.org/10.1088/1742-6596/815/1/012027>
15. Alekseev I., Kosareva A., Kustova E., Nagnibeda E. Various continuum approaches for studying shock wave structure in carbon dioxide // AIP Conference Proceedings, 2018. Vol. 1959, P. 060001. <https://doi.org/10.1063/1.5034662>
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17. Kustova E.V., Savelev A.S., Kunova O.V. Rate coefficients of exchange reactions accounting for vibrational excitation of reagents and products // AIP Conference Proceedings, 2018. Vol. 1959, P. 060010. <https://doi.org/10.1063/1.5034671>
18. Kustova E., Mekhonoshina M. Models for bulk viscosity in carbon dioxide // AIP Conference Proceedings, 2019. Vol. 2132, P. 150006. <https://doi.org/10.1063/1.5119646>
19. Kosareva A.A., Nagnibeda E.A. On the influence of kinetic models on parameters of CO₂/CO/O₂/O/C mixture flows behind shock waves // AIP Conference Proceedings. 2019. Vol. 2132(1). P. 130001. <https://doi.org/10.1063/1.5119621>
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21. Kosareva A., Nagnibeda E., Savelev A. The influence of chemical reaction models on shock heated flow parameters in CO₂/CO/O₂/O/C mixture // IOP Conference Series: Materials Science and Engineering, 2020. Vol. 927, № 1. P. 012048. <https://doi.org/10.1088/1757-899X/927/1/012048>
22. Kustova E., Lukashva A., Mekhonoshina M. Improvement of the Landau-Teller model for CO₂ on the basis of the Chapman-Enskog method // IOP Conference Series: Materials Science and Engineering, 2020. Vol. 927, Iss. 125, P. 012047. <https://doi.org/10.1088/1757-899X/927/1/012047>