

Siarhei Khirevich

List of Publications by Year in descending order

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Version: 2024-02-01

26
papers

1,181
citations

394421

19
h-index

580821

25
g-index

28
all docs

28
docs citations

28
times ranked

750
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 1 | Statistical analysis of packed beds, the origin of short-range disorder, and its impact on eddy dispersion. <i>Journal of Chromatography A</i> , 2010, 1217, 4713-4722. | 3.7 | 114 |
| 2 | Coarse- and fine-grid numerical behavior of MRT/TRT lattice-Boltzmann schemes in regular and random sphere packings. <i>Journal of Computational Physics</i> , 2015, 281, 708-742. | 3.8 | 109 |
| 3 | Influence of the Particle Size Distribution on Hydraulic Permeability and Eddy Dispersion in Bulk Packings. <i>Analytical Chemistry</i> , 2011, 83, 3903-3910. | 6.5 | 96 |
| 4 | From random sphere packings to regular pillar arrays: Analysis of transverse dispersion. <i>Journal of Chromatography A</i> , 2012, 1257, 98-115. | 3.7 | 85 |
| 5 | Finite-difference method Stokes solver (FDMSS) for 3D pore geometries: Software development, validation and case studies. <i>Computers and Geosciences</i> , 2018, 114, 41-58. | 4.2 | 70 |
| 6 | Time and Length Scales of Eddy Dispersion in Chromatographic Beds. <i>Analytical Chemistry</i> , 2009, 81, 7057-7066. | 6.5 | 67 |
| 7 | From random sphere packings to regular pillar arrays: Effect of the macroscopic confinement on hydrodynamic dispersion. <i>Journal of Chromatography A</i> , 2011, 1218, 8231-8248. | 3.7 | 64 |
| 8 | Impact of Conduit Geometry and Bed Porosity on Flow and Dispersion in Noncylindrical Sphere Packings. <i>Analytical Chemistry</i> , 2007, 79, 9340-9349. | 6.5 | 63 |
| 9 | Impact of microstructure on the effective diffusivity in random packings of hard spheres. <i>Journal of Applied Physics</i> , 2014, 116, . | 2.5 | 63 |
| 10 | Structure-transport correlation for the diffusive tortuosity of bulk, monodisperse, random sphere packings. <i>Journal of Chromatography A</i> , 2011, 1218, 6489-6497. | 3.7 | 51 |
| 11 | Computational investigation of longitudinal diffusion, eddy dispersion, and trans-particle mass transfer in bulk, random packings of core-shell particles with varied shell thickness and shell diffusion coefficient. <i>Journal of Chromatography A</i> , 2015, 1407, 139-156. | 3.7 | 50 |
| 12 | Comparison of first and second generation analytical silica monoliths by pore-scale simulations of eddy dispersion in the bulk region. <i>Journal of Chromatography A</i> , 2013, 1303, 28-38. | 3.7 | 45 |
| 13 | Validation of Pore-Scale Simulations of Hydrodynamic Dispersion in Random Sphere Packings. <i>Communications in Computational Physics</i> , 2013, 13, 801-822. | 1.7 | 41 |
| 14 | Geometrical and topological measures for hydrodynamic dispersion in confined sphere packings at low column-to-particle diameter ratios. <i>Journal of Chromatography A</i> , 2012, 1262, 77-91. | 3.7 | 39 |
| 15 | Pore-size entropy of random hard-sphere packings. <i>Soft Matter</i> , 2013, 9, 3361. | 2.7 | 39 |
| 16 | Large-Scale Simulation of Flow and Transport in Reconstructed HPLC-Microchip Packings. <i>Analytical Chemistry</i> , 2009, 81, 4937-4945. | 6.5 | 38 |
| 17 | Pore-Scale Dispersion in Electrokinetic Flow through a Random Sphere Packing. <i>Analytical Chemistry</i> , 2007, 79, 113-121. | 6.5 | 37 |
| 18 | Impact of Fracture Geometry and Topology on the Connectivity and Flow Properties of Stochastic Fracture Networks. <i>Water Resources Research</i> , 2021, 57, e2020WR028652. | 4.2 | 24 |

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 19 | Behavior of numerical error in pore-scale lattice Boltzmann simulations with simple bounce-back rule: Analysis and highly accurate extrapolation. <i>Physics of Fluids</i> , 2018, 30, 093604. | 4.0 | 23 |
| 20 | Longitudinal and transverse dispersion in flow through random packings of spheres: A quantitative comparison of experiments, simulations, and models. <i>Physical Review E</i> , 2014, 89, 053023. | 2.1 | 19 |
| 21 | Structure-transport analysis for particulate packings in trapezoidal microchip separation channels. <i>Lab on A Chip</i> , 2008, 8, 1801. | 6.0 | 15 |
| 22 | Transient and asymptotic dispersion in confined sphere packings with cylindrical and non-cylindrical conduit geometries. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2011, 369, 2485-2493. | 3.4 | 12 |
| 23 | Three-dimensional simulation of tracer transport dynamics in formations with high-permeability channels or fractures: Estimation of oil saturation. <i>Physics of Fluids</i> , 2019, 31, . | 4.0 | 8 |
| 24 | Percolation Properties of Stochastic Fracture Networks in 2D and Outcrop Fracture Maps. , 2018, , . | | 3 |
| 25 | Comment on "A periodic grain consolidation model of porous media" [<i>Phys. Fluids A</i> 1, 38 (1989)]. <i>Physics of Fluids</i> , 2019, 31, 109101. | 4.0 | 2 |
| 26 | Fault Traces: Generation of Fault Segments and Estimation of Their Fractal Dimension. <i>Lithosphere</i> , 2021, 2021, . | 1.4 | 2 |