Jerome A Neufeld

List of Publications by Year in Descending Order

66 papers	1,482 citations	19 h-index	37 g-index
78 ext. papers	1,843 ext. citations	4 avg, IF	5.1 L-index

#	Paper	IF	Citations
66	Upscaling multiphase viscous-to-capillary transitions in heterogeneous porous media. *Journal of Fluid Mechanics*, **2021**, 911,	3.7	3
65	The Thermal Evolution of Planetesimals During Accretion and Differentiation: Consequences for Dynamo Generation by Thermally-Driven Convection. *Journal of Geophysical Research E: Planets*, **2021**, 126, e2020JE006704	4.1	5
64	CO2 Dissolution Trapping Rates in Heterogeneous Porous Media. *Geophysical Research Letters*, **2020**, 47, e2020GL087001	4.9	6
63	Dispersive entrainment into gravity currents in porous media. *Journal of Fluid Mechanics*, **2020**, 886,	3.7	3
62	Permeability measurements using oscillatory flows. *Experiments in Fluids*, **2020**, 61, 1	2.5	
61	Deformation of an Elastic Beam on a Winkler Foundation. *Journal of Applied Mechanics, Transactions ASME*, **2020**, 87,	2.7	2
60	The elastic Landau evich problem on a slope. *Journal of Fluid Mechanics*, **2020**, 883,	3.7	3
59	Heat Production and Tidally Driven Fluid Flow in the Permeable Core of Enceladus. *Journal of Geophysical Research E: Planets*, **2020**, 125, e2019JE006209	4.1	9
58	Tidal Grounding-Line Migration Modulated by Subglacial Hydrology. *Geophysical Research Letters*, **2020**, 47, e2020GL089088	4.9	8
57	Self-similar dynamics of two-phase flows injected into a confined porous layer. *Journal of Fluid Mechanics*, **2019**, 877, 882-921	3.7	3
56	Shock formation in two-layer equal-density viscous gravity currents. *Journal of Fluid Mechanics*, **2019**, 863, 730-756	3.7	4
55	Stable and unstable miscible displacements in layered porous media. *Journal of Fluid Mechanics*, **2019**, 869, 468-499	3.7	9
54	Controls on the geometry and evolution of thin-skinned fold-thrust belts, and applications to the Makran accretionary prism and Indo Burman Ranges. *Geophysical Journal International*, **2019**, 218, 247-267	2.6	8
53	The top-down solidification of iron asteroids driving dynamo evolution. *Journal of Geophysical Research E: Planets*, **2019**, 124, 1331-1356	4.1	10
52	Constraints on asteroid magnetic field evolution and the radii of meteorite parent bodies from thermal modelling. *Earth and Planetary Science Letters*, **2019**, 521, 68-78	5.3	16
51	On the dynamics of a thin viscous film spreading between a permeable horizontal plate and an elastic sheet. *Journal of Fluid Mechanics*, **2018**, 841, 989-1011	3.7	1
50	The dynamics of miscible viscous fingering from onset to shutdown. *Journal of Fluid Mechanics*, **2018**, 837, 520-545	3.7	19

49	Flow of buoyant granular materials along a free surface. *Journal of Fluid Mechanics*, **2018**, 848, 312-339	3.7	2
48	Static and dynamic fluid-driven fracturing of adhered elastica. *Physical Review Fluids*, **2018**, 3,	2.8	12
47	Microstructural evidence for crystallization regimes in mafic intrusions: a case study from the Little Minch Sill Complex, Scotland. *Contributions To Mineralogy and Petrology*, **2018**, 173, 97	3.5	4
46	The influence of a poroelastic till on rapid subglacial flooding and cavity formation. *Journal of Fluid Mechanics*, **2018**, 855, 1170-1207	3.7	7
45	The relaxation time for viscous and porous gravity currents following a change in flux. *Journal of Fluid Mechanics*, **2017**, 821, 330-342	3.7	4
44	Two-phase gravity currents resulting from the release of a fixed volume of fluid in a porous medium. *Journal of Fluid Mechanics*, **2017**, 832, 550-577	3.7	3
43	Crystal settling and convection in the Shiant Isles Main Sill. *Contributions To Mineralogy and Petrology*, **2017**, 172, 7	3.5	20
42	Orientation of Tabular Mafic Intrusions Controls Convective Vigour and Crystallization Style. *Journal of Petrology*, **2017**, 58, 2035-2053	3.9	4
41	Indentation of a floating elastic sheet: geometry versus applied tension. *Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences*, **2017**, 473, 20170335	2.4	10
40	Maximal liquid bridges between horizontal cylinders. *Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences*, **2016**, 472, 20160233	2.4	3
39	Flow-induced compaction of a deformable porous medium. *Physical Review E*, **2016**, 93, 023116	2.4	19
38	An inverse method for estimating thickness and volume with time of a thin CO2-filled layer at the Sleipner Field, North Sea. *Journal of Geophysical Research: Solid Earth*, **2016**, 121, 5068-5085	3.6	11
37	Propagation of viscous currents on a porous substrate with finite capillary entry pressure. *Journal of Fluid Mechanics*, **2016**, 801, 65-90	3.7	3
36	Stratified gravity currents in porous media. *Journal of Fluid Mechanics*, **2016**, 791, 329-357	3.7	4
35	The feasibility of thermal and compositional convection in Earth's inner core. *Geophysical Journal International*, **2015**, 201, 764-782	2.6	7
34	Fluid invasion of an unsaturated leaky porous layer. *Journal of Fluid Mechanics*, **2015**, 777, 97-121	3.7	1
33	Shallow, gravity-driven flow in a poro-elastic layer. *Journal of Fluid Mechanics*, **2015**, 778, 335-360	3.7	11
32	Earth's inner core: Innermost inner core or hemispherical variations?. *Earth and Planetary Science Letters*, **2014**, 385, 181-189	5.3	36

31	The Fluid Mechanics of Carbon Dioxide Sequestration. *Annual Review of Fluid Mechanics*, **2014**, 46, 255-272	22	185
30	High Rayleigh number convection in a three-dimensional porous medium. *Journal of Fluid Mechanics*, **2014**, 748, 879-895	3.7	47
29	Fluid injection into a confined porous layer. *Journal of Fluid Mechanics*, **2014**, 745, 592-620	3.7	35
28	Fluid migration between confined aquifers. *Journal of Fluid Mechanics*, **2014**, 757, 330-353	3.7	8
27	High Rayleigh number convection in a porous medium containing a thin low-permeability layer. *Journal of Fluid Mechanics*, **2014**, 756, 844-869	3.7	10
26	Viscous control of peeling an elastic sheet by bending and pulling. *Physical Review Letters*, **2013**, 111, 154501	7.4	72
25	Stability of columnar convection in a porous medium. *Journal of Fluid Mechanics*, **2013**, 737, 205-231	3.7	20
24	The competition between gravity and flow focusing in two-layered porous media. *Journal of Fluid Mechanics*, **2013**, 720, 5-14	3.7	15
23	Convective shutdown in a porous medium at high Rayleigh number. *Journal of Fluid Mechanics*, **2013**, 719, 551-586	3.7	74
22	Topographic controls on gravity currents in porous media. *Journal of Fluid Mechanics*, **2013**, 734, 317-337	3.7	7
21	The effects of capillary forces on the axisymmetric propagation of two-phase, constant-flux gravity currents in porous media. *Physics of Fluids*, **2013**, 25, 036602	4.4	33
20	Interface pinning of immiscible gravity-exchange flows in porous media. *Physical Review E*, **2013**, 87, 023015	2.4	17
19	Spatial and temporal evolution of injected CO2 at the Sleipner Field, North Sea. *Journal of Geophysical Research*, **2012**, 117,		76
18	Ultimate regime of high Rayleigh number convection in a porous medium. *Physical Review Letters*, **2012**, 108, 224503	7.4	60
17	Spreading and convective dissolution of carbon dioxide in vertically confined, horizontal aquifers. *Water Resources Research*, **2012**, 48,	5.4	65
16	Two-phase gravity currents in porous media. *Journal of Fluid Mechanics*, **2011**, 678, 248-270	3.7	63
15	Leakage from gravity currents in a porous medium. Part 1. A localized sink. *Journal of Fluid Mechanics*, **2011**, 666, 391-413	3.7	26
14	Leakage from gravity currents in a porous medium. Part 2. A line sink. *Journal of Fluid Mechanics*, **2011**, 666, 414-427	3.7	20

13	Leakage from inclined porous reservoirs. *Journal of Fluid Mechanics*, **2011**, 673, 395-405	3.7	5
12	Shear flow, phase change and matched asymptotic expansions: Pattern formation in mushy layers. *Physica D: Nonlinear Phenomena*, **2011**, 240, 140-149	3.3	6
11	Convective dissolution of carbon dioxide in saline aquifers. *Geophysical Research Letters*, **2010**, 37, n/a-n/a	4.9	216
10	On the mechanisms of icicle evolution. *Journal of Fluid Mechanics*, **2010**, 647, 287-308	3.7	12
9	Application of gravity currents to the migration of CO2 in heterogeneous saline formations. *Energy Procedia*, **2009**, 1, 3331-3338	2.3	2
8	Axisymmetric viscous gravity currents flowing over a porous medium. *Journal of Fluid Mechanics*, **2009**, 622, 135-144	3.7	17
7	Modelling carbon dioxide sequestration in layered strata. *Journal of Fluid Mechanics*, **2009**, 625, 353-370	3.7	47
6	The effect of a fissure on storage in a porous medium. *Journal of Fluid Mechanics*, **2009**, 639, 239-259	3.7	35
5	Shear-enhanced convection in a mushy layer. *Journal of Fluid Mechanics*, **2008**, 612, 339-361	3.7	13
4	An experimental study of shear-enhanced convection in a mushy layer. *Journal of Fluid Mechanics*, **2008**, 612, 363-385	3.7	13
3	Flow-induced morphological instability of a mushy layer - CORRIGENDUM. *Journal of Fluid Mechanics*, **2006**, 549, 442	3.7	7
2	Two-phase gravity currents in porous media		1
1	Water flow through sediments and at the ice-sediment interface beneath Sermeq Kujalleq (Store Glacier), Greenland. *Journal of Glaciology*,1-20	3.4	1