Laurence Rongy

List of Publications by Year
in descending order

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37	833	361413	477307
papers	citations	20 h-index	29 g-index

39	39	39	361
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Control of Convective Dissolution by Chemical Reactions: General Classification and Application to<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>CO</mml:mi></mml:mrow><mml:mrow><mml:mn>2</mml:mn></ in Reactive Aqueous Solutions. Physical Review Letters, 2014, 113, 114501.	7.8	76
2	Dynamics of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>A</mml:mi><mml:mo>+</mml:mo><mml:mi>B</mml:mi><mml:mo>â†'</mml:mo><mml:mi>C</mml:mi></m Fronts in the Presence of Buoyancy-Driven Convection. Physical Review Letters, 2008, 101, 084503.	7.8	60
3	Mixing from Fickian diffusion and natural convection in binary nonâ€equilibrium fluid phases. AICHE Journal, 2012, 58, 1336-1345.	3.6	52
4	Steady Marangoni flow traveling with chemical fronts. Journal of Chemical Physics, 2006, 124, 164705.	3.0	50
5	Buoyancy-driven convection around chemical fronts traveling in covered horizontal solution layers. Journal of Chemical Physics, 2007, 127, 114710.	3.0	40
6	Influence of thermal effects on buoyancy-driven convection around autocatalytic chemical fronts propagating horizontally. Chaos, 2009, 19, 023110.	2.5	38
7	Impact of pressure, salt concentration, and temperature on the convective dissolution of carbon dioxide in aqueous solutions. Chaos, 2014, 24, 043120.	2.5	38
8	Convective dissolution of CO 2 in reactive alkaline solutions: Active role of spectator ions. International Journal of Greenhouse Gas Control, 2016, 53, 230-242.	4.6	36
9	Dynamics due to combined buoyancy- and Marangoni-driven convective flows around autocatalytic fronts. Physical Chemistry Chemical Physics, 2012, 14, 14619.	2.8	34
10	Chemical control of dissolution-driven convection in partially miscible systems: theoretical classification. Physical Chemistry Chemical Physics, 2015, 17, 29814-29823.	2.8	30
11	Influence of buoyancy-driven convection on the dynamics of A+Bâ†'C reaction fronts in horizontal solution layers. Chemical Engineering Science, 2010, 65, 2382-2391.	3.8	29
12	Marangoni-driven convection around exothermic autocatalytic chemical fronts in free-surface solution layers. Chaos, 2012, 22, 037106.	2.5	27
13	Enhanced steady-state dissolution flux in reactive convective dissolution. Physical Chemistry Chemical Physics, 2017, 19, 18565-18579.	2.8	24
14	Viscous fluid injection into a confined channel. Physics of Fluids, 2015, 27, .	4.0	23
15	Surface tension- and buoyancy-driven flows across horizontally propagating chemical fronts. Advances in Colloid and Interface Science, 2018, 255, 76-83.	14.7	23
16	Marangoni flow around chemical fronts traveling in thin solution layers: influence of the liquid depth. Journal of Engineering Mathematics, 2007, 59, 221-227.	1.2	22
17	A + B â†' C reaction fronts in Hele-Shaw cells under modulated gravitational acceleration. Physical Chemistry Chemical Physics, 2012, 14, 7337.	2.8	22
18	Convective dynamics of traveling autocatalytic fronts in a modulated gravity field. Physical Chemistry Chemical Physics, 2014, 16, 26279-26287.	2.8	22

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19	Density profiles around <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>A</mml:mi><mml:mo>+</mml:mo><mml:mi>B</mml:mi> reaction-diffusion fronts in partially miscible systems: A general classification. Physical Review E, 2016, 94, 043115.	2.1	22
20	Solitary Marangoni-driven convective structures in bistable chemical systems. Physical Review E, 2008, 77, 046310.	2.1	21
21	Asymptotic structure of steady nonlinear reaction-diffusion-Marangoni convection fronts. Physics of Fluids, 2008, 20, .	4.0	17
22	Buoyancy-driven convection around exothermic autocatalytic chemical fronts traveling horizontally in covered thin solution layers. Journal of Chemical Physics, 2009, 131, 184701.	3.0	16
23	Influence of Marangoni flows on the dynamics of isothermal A + B â†' C reaction fronts. Journal of Chemical Physics, 2016, 145, 124701.	3.0	16
24	Making a Simple <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>A</mml:mi><mml:mo>+</mml:mo><mml:mi>B</mml:mi><mml:mo>â†'</mml:mo><mml:mi>C< Reaction Oscillate by Coupling to Hydrodynamic Effect. Physical Review Letters, 2019, 122, 244502.	7.8	15
25	Interaction of Pure Marangoni Convection with a Propagating Reactive Interface under Microgravity. Physical Review Letters, 2018, 121, 024501.	7.8	14
26	Differential Diffusivity Effects in Reactive Convective Dissolution. Fluids, 2018, 3, 83.	1.7	13
27	Chemo-hydrodynamic pulsations in simple batch A + B â†' C systems. Journal of Chemical Physics, 2021, 154, 114501.	3.0	10
28	Enhanced convective dissolution due to an A + B â†' C reaction: control of the non-linear dynamicsviasolutal density contributions. Physical Chemistry Chemical Physics, 2019, 21, 6432-6442.	2.8	8
29	Chemically-driven convective dissolution. Physical Chemistry Chemical Physics, 2019, 21, 19054-19064.	2.8	7
30	Reactive convective dissolution with differential diffusivities: Nonlinear simulations of onset times and asymptotic fluxes. Physical Review Fluids, 2020, 5, .	2.5	7
31	From Transport Phenomena to Systems Chemistry: Chemohydrodynamic Oscillations in A+Bâ†'C Systems. ChemSystemsChem, 2022, 4, e2100023.	2.6	6
32	Complex dynamics of interacting fronts in a simple A+Bâ†'C reaction-diffusion system. Physical Review E, 2019, 100, 030201.	2.1	4
33	Spatial and Temporal Oscillations of Surface Tension Induced by an A + B â†' C Traveling Front. Frontiers in Physics, 2022, 10, .	2.1	3
34	Critical Role of Layer Thickness in Frontal Polymerization. Journal of Physical Chemistry B, 2022, 126, 3607-3618.	2.6	3
35	Modelling the propagation of a dynamical signature in gene expression mediated by the transport of extracellular microRNAs. Molecular BioSystems, 2017, 13, 2379-2391.	2.9	2
36	Control of chemically driven convective dissolution by differential diffusion effects. Physical Review Fluids, 2021, 6, .	2.5	2

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37	Connecting gene expression to cellular movement: A transport model for cell migration. Physical Review E, 2019, 100, 032412.	2.1	1