Alberto Munuzuri

List of Publications by Year
in descending order

97 papers	1,641 citations	304602 22 h-index	345118 36 g-index
97 all docs	97 docs citations	97 times ranked	844 citing authors

#	Article	IF	Citations
1	Intermittency regimes of poorly-mixed chemical oscillators. Chaos, Solitons and Fractals, 2022, 157, 111920.	2.5	0
2	Assessing the risk of pandemic outbreaks across municipalities with mathematical descriptors based on age and mobility restrictions. Chaos, Solitons and Fractals, 2022, 160, 112156.	2.5	1
3	Impact of Enhanced Phagocytosis of Glycated Erythrocytes on Human Endothelial Cell Functions. Cells, 2022, 11, 2200.	1.8	2
4	Incorporating social opinion in the evolution of an epidemic spread. Scientific Reports, 2021, 11, 1772.	1.6	9
5	Social Opinion Influence on Epidemic Scenarios. Infosys Science Foundation Series, 2021, , 465-482.	0.3	1
6	Highly viscous fluid displaced by a chemically controlled reactive interface. Chaos, 2021, 31, 023135.	1.0	1
7	Optimal control of the COVID-19 pandemic: controlled sanitary deconfinement in Portugal. Scientific Reports, 2021, 11, 3451.	1.6	56
8	Chemical oscillators synchronized via an active oscillating medium: Dynamics and phase approximation model. Chaos, Solitons and Fractals, 2021, 145, 110809.	2.5	3
9	Linguistic evolution driven by network heterogeneity and the Turing mechanism. Physical Review Research, 2021, 3, .	1.3	4
10	Risk evaluation at municipality level of a COVID-19 outbreak incorporating relevant geographic data: the study case of Galicia. Scientific Reports, 2021, 11, 21248.	1.6	6
11	Haemodynamic-dependent arrest of circulating tumour cells at large blood vessel bifurcations as new model for metastasis. Scientific Reports, 2021, 11, 23231.	1.6	8
12	A bottom-up approach to construct or deconstruct a fluid instability. Scientific Reports, 2021, 11, 24368.	1.6	3
13	Turing instability in nonlinear chemical oscillators coupled via an active medium. Chaos, Solitons and Fractals, 2020, 133, 109603.	2.5	3
14	Resonant Behavior in a Periodically Forced Nonisothermal Oregonator. Journal of Physical Chemistry A, 2019, 123, 8083-8088.	1.1	0
15	Interface Fingering Instability Triggered by a Density-Coupled Oscillatory Chemical Reaction via Precipitation. Langmuir, 2019, 35, 13769-13781.	1.6	3
16	Turing patterns mediated by network topology in homogeneous active systems. Physical Review E, 2019, 99, 062303.	0.8	47
17	Urbanity and the dynamics of language shift in Galicia. Nature Communications, 2019, 10, 1680.	5.8	7
18	Viscous Fingering Induced by a pH-Sensitive Clock Reaction. Langmuir, 2019, 35, 4182-4188.	1.6	20

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19	Determination of hemodynamic risk for vascular disease in planar artery bifurcations. Scientific Reports, 2018, 8, 2795.	1.6	17
20	Osmotically Induced Membrane Fission in Giant Polymer Vesicles: Multilamellarity and Effect of the Amphiphilic Block Lengths. Langmuir, 2018, 34, 10984-10992.	1.6	3
21	Noise-Induced and Control of Collective Behavior in a Population of Coupled Chemical Oscillators. Journal of Physical Chemistry A, 2017, 121, 1855-1860.	1.1	9
22	Thermodynamic and morphological characterization of Turing patterns in non-isothermal reactionâ€“diffusion systems. Physical Chemistry Chemical Physics, 2017, 19, 14401-14411.	1.3	11
23	Temporal viscosity modulations driven by a pH sensitive polymer coupled to a pH-changing chemical reaction. Physical Chemistry Chemical Physics, 2017, 19, 11914-11919.	1.3	14
24	Social media enhances languages differentiation: a mathematical description. Royal Society Open Science, 2017, 4, 170094.	1.1	9
25	Nonperfect mixing affects synchronization on a large number of chemical oscillators immersed in a chemically active time-dependent chaotic flow. Physical Review E, 2016, 94, 013103.	0.8	0
26	Emergence of a super-synchronized mobbing state in a large population of coupled chemical oscillators. Scientific Reports, 2016, 6, 19186.	1.6	16
27	Spatially Localized Chemical Patterns around an A + B â†' Oscillator Front. Journal of Physical Chemistry A, 2016, 120, 851-860.	1.1	18
28	Influence of oscillatory centrifugal forces on the mechanism of Turing pattern formation. Physical Review E, 2015, 91, 012917.	0.8	8
29	Accelerated Dynamics in Active Media: From Turing Patterns to Sparkling Waves. Langmuir, 2015, 31, 3021-3026.	1.6	5
30	Externally controlled anisotropy in pattern-forming reaction-diffusion systems. Chaos, 2015, 25, 064309.	1.0	3
31	Periodic Perturbation of Chemical Oscillators: Entrainment and Induced Synchronization. Chemistry - A European Journal, 2014, 20, 14213-14217.	1.7	13
32	Self-Organized Traveling Chemo-Hydrodynamic Fingers Triggered by a Chemical Oscillator. Journal of Physical Chemistry Letters, 2014, 5, 413-418.	2.1	26
33	Measurement of Large Spiral and Target Waves in Chemical Reaction-Diffusion-Advection Systems: Turbulent Diffusion Enhances Pattern Formation. Physical Review Letters, 2013, 110, 088302.	2.9	15
34	Turing instability under centrifugal forces. Soft Matter, 2013, 9, 4509.	1.2	3
35	Characterizing topological transitions in a Turing-pattern-forming reaction-diffusion system. Physical Review E, 2012, 85, 056205.	0.8	12
36	Path planning based on reaction-diffusion process. , 2012, , .		9

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37	Effect of electric field on Turing patterns in a microemulsion. Soft Matter, 2012, 8, 2945.	1.2	16
38	In Situ Formation of Oneâ€Dimensional Assemblies of Gold Nanoparticles in Confined Media. ChemPhysChem, 2012, 13, 1347-1353.	1.0	3
39	Nanoscale changes induce microscale effects in Turing patterns. Physical Chemistry Chemical Physics, 2011, 13, 4596.	1.3	7
40	Pattern formation in the Belousovâ€“Zhabotinsky-PAMAM dendrimer system. Physical Chemistry Chemical Physics, 2011, 13, 7426.	1.3	5
41	Harmonic vibration on a reactive fluid at boundary layer regime modifies the Turing instability. Journal of Physics: Conference Series, 2011, 296, 012016.	0.3	2
42	Double Cascade Turbulence and Richardson Dispersion in a Horizontal Fluid Flow Induced by Faraday Waves. Physical Review Letters, 2011, 107, 074502.	2.9	65
43	Interaction of chemical patterns in coupled layers. Physical Review E, 2011, 84, 046210.	0.8	18
44	Modulation of volume fraction results in different kinetic effects in Belousovâ€“Zhabotinsky reaction confined in AOT-reverse microemulsion. Journal of Chemical Physics, 2011, 134, 094512.	1.2	6
45	Propagation of a chemical wave front in a quasi-two-dimensional superdiffusive flow. Physical Review E, 2010, 81, 066211.	0.8	26
46	Manipulation of diffusion coefficients via periodic vertical forcing controls the mechanism of Turing pattern formation. Physical Review E, 2010, 82, 066209.	0.8	6
47	Applications of autowave based algorithms for autonomous explorations. , 2010, , .		0
48	Navigation algorithm for autonomous devices based on biological waves. , 2010, , .		3
49	Harmonic resonant excitation of flow-distributed oscillation waves and Turing patterns driven at a growing boundary. Physical Review E, 2009, 80, 026209.	0.8	5
50	Selection of flow-distributed oscillation and Turing patterns by boundary forcing in a linearly growing, oscillating medium. Physical Review E, 2009, 80, 026208.	0.8	5
51	Transition from traveling to standing waves as a function of frequency in a reaction-diffusion system. Journal of Chemical Physics, 2008, 128, 244907.	1.2	3
52	Long-lasting dashed waves in a reactive microemulsion. Physical Chemistry Chemical Physics, 2008, 10, 1094.	1.3	14
53	The CNN solution to the shortest-path-finder problem. , 2008, , .		2
54	Coexistence of Eckhaus instability in forced zigzag Turing patterns. Journal of Chemical Physics, 2008, 129, 114508.	1.2	5

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55	Breathing spiral waves in the chlorine dioxideâ€“iodineâ€“malonic acid reaction-diffusion system. Physical Review E, 2008, 78, 025101.	0.8	15
56	Chemical-wave dynamics in a vertically oscillating fluid layer. Physical Review E, 2008, 77, 026204.	0.8	14
57	Waving patterns: A general transition from stationary to moving forced Turing structures. Physical Review E, 2006, 74, 036202.	0.8	4
58	Experimental Evidence of Localized Oscillations in the Photosensitive Chlorine Dioxide-Iodine-Malonic Acid Reaction. Physical Review Letters, 2006, 97, 178301.	2.9	35
59	Effect of Axial Growth on Turing Pattern Formation. Physical Review Letters, 2006, 96, 048304.	2.9	31
60	On the orientation of stripes in fish skin patterning. Biophysical Chemistry, 2006, 124, 161-167.	1.5	15
61	Active media under rotational forcing. Physical Review E, 2006, 74, 046203.	0.8	7
62	Robustness and stability of flow-and-diffusion structures. Physical Review E, 2006, 73, 016207.	0.8	13
63	Experimental steady pattern formation in reaction-diffusion-advection systems. Physical Review E, 2006, 73, 025201.	0.8	15
64	Turing instability controlled by spatiotemporal imposed dynamics. Physical Review E, 2005, 71, 066217.	0.8	23
65	Travelling-stripe forcing of Turing patterns. Physica D: Nonlinear Phenomena, 2004, 199, 235-242.	1.3	17
66	Control of chemical pattern formation by a clock-and-wavefront type mechanism. Biophysical Chemistry, 2004, 110, 231-238.	1.5	26
67	Traveling-Stripe Forcing Generates Hexagonal Patterns. Physical Review Letters, 2004, 93, 048303.	2.9	46
68	Dynamics of Turing Patterns under Spatiotemporal Forcing. Physical Review Letters, 2003, 90, 128301.	2.9	81
69	Transverse instabilities in chemical Turing patterns of stripes. Physical Review E, 2003, 68, 056206.	0.8	27
70	Spiral wave meandering induced by fluid convection in an excitable medium. Physical Review E, 2002, 66, 036309.	0.8	7
71	Controlled pattern formation in the CDIMA reaction with a moving boundary of illumination. Physical Chemistry Chemical Physics, 2002, 4, 1315-1319.	1.3	25
72	EXPERIMENTAL AND QUANTITATIVE MODELING STUDIES OF TURING PATTERN FORMATION UNDER STOCHASTIC SPATIAL FLUCTUATIONS. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2001, 11, 2739-2749.	0.7	4

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73	Turing pattern formation induced by spatially correlated noise. Physical Review E, 2001, 63, 056124.	0.8	55
74	Convective structures in a two-layer gel-liquid excitable medium. Physical Review E, 2000, 61, 3771-3776.	0.8	12
75	EFFECTS OF A QUENCHED DISORDER ON WAVE PROPAGATION IN EXCITABLE MEDIA. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 1999, 09, 2353-2361.	0.7	2
76	Control of Turing Structures by Periodic Illumination. Physical Review Letters, 1999, 83, 2950-2952.	2.9	92
77	Comparison between the role of discontinuities in cardiac conduction and in a one-dimensional hardware model. Physical Review E, 1999, 59, 5962-5969.	0.8	11
78	Control of the Chlorine Dioxideâˆ'Iodineâˆ'Malonic Acid Oscillating Reaction by Illumination. Journal of the American Chemical Society, 1999, 121, 8065-8069.	6.6	87
79	Wave Propagation in a Medium with Disordered Excitability. Physical Review Letters, 1998, 80, 5437-5440.	2.9	47
80	Attraction and repulsion of spiral waves by localized inhomogeneities in excitable media. Physical Review E, 1998, 58, R2689-R2692.	0.8	27
81	A CNN Approach to Brian-Like Chaos-Periodicity Transitions. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 1998, 08, 2263-2278.	0.7	1
82	Shortest-Path-Finder Algorithm in a Two-Dimensional Array of Nonlinear Electronic Circuits. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 1998, 08, 2493-2501.	0.7	6
83	Simple optical feedback loop: Excitation waves and their mirror image. Physical Review E, 1997, 55, R33-R35.	0.8	9
84	Splitting of Autowaves in an Active Medium. Physical Review Letters, 1997, 79, 1941-1944.	2.9	41
85	Stationary Structures in a Discrete Bistable Reactionâ€"Diffusion System. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 1997, 07, 2807-2825.	0.7	3
86	Long-term vortex interaction in active media. Physical Review E, 1996, 54, 2999-3002.	0.8	21
87	Frequency-modulated autowaves in excitable media. Physical Review E, 1996, 54, R5921-R5924.	0.8	7
88	Boundary-imposed spiral drift. Physical Review E, 1996, 53, 5480-5483.	0.8	21
89	CELLULAR AUTOMATON MODEL AND MEASUREMENTS OF AUTOWAVE SPLITTING. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 1996, 06, 1837-1844.	0.7	2
90	@sV-shaped stable nonspiral patterns. Physical Review E, 1995, 51, R845-R847.	0.8	18

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91	A method for spiral wave generation in the Belousov-Zhabotinsky reaction. European Journal of Physics, 1994, 15, 221-227.	0.3	6
92	Parametric resonance of a vortex in an active medium. Physical Review E, 1994, 50, 4258-4261.	0.8	56
93	Elastic excitable medium. Physical Review E, 1994, 50, R667-R670.	0.8	51
94	Spiral breakup induced by an electric current in a Belousovâ€"Zhabotinsky medium. Chaos, 1994, 4, 519-524.	1.0	50
95	CHAOTIC SYNCHRONIZATION OF A ONE-DIMENSIONAL ARRAY OF NONLINEAR ACTIVE SYSTEMS. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 1993, 03, 1067-1074.	0.7	18
96	Mechanism of the electric-field-induced vortex drift in excitable media. Physical Review E, 1993, 48, R3232-R3235.	0.8	37
97	Ventilation time recommendation system incorporating local meteorological data. Indoor and Built Environment, 0, , 1420326X2210817.	1.5	0