Pasquale Stano

List of Publications by Year
in descending order

149	5,255	109321	98798
papers	citations	35 h-index	67 g-index

162	162	162	4581
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Trends and Outlooks in Synthetic Biology: A Special Issue for Celebrating 10 Years of Life and Its Landmarks. Life, 2022, 12, 181.	2.4	0
2	Towards Autopoietic SB-AI. , 2021, , .		2
3	Chromatophores efficiently promote light-driven ATP synthesis and DNA transcription inside hybrid multicompartment artificial cells. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	46
4	Exploiting the photoactivity of bacterial reaction center to investigate liposome dynamics. Photochemical and Photobiological Sciences, 2021, 20, 321-326.	2.9	0
5	A Wetware Embodied AI? Towards an Autopoietic Organizational Approach Grounded in Synthetic Biology. Frontiers in Bioengineering and Biotechnology, 2021, 9, 724023.	4.1	16
6	The Rise of the Nested Multicompartment Model in Synthetic Cell Research. Frontiers in Molecular Biosciences, 2021, 8, 750576.	3.5	17
7	Synthetic Cells Engaged in Molecular Communication: An Opportunity for Modelling Shannon- and Semantic-Information in the Chemical Domain. Frontiers in Communications and Networks, 2021, 2, .	3.0	14
8	Toward artificial cells/living cells communication in hybrid ensembles. , 2021, , .		0
9	Racemic Phospholipids for Origin of Life Studies. Symmetry, 2020, 12, 1108.	2.2	14
10	On the â€œLife-Likenessâ€•of Synthetic Cells. Frontiers in Bioengineering and Biotechnology, 2020, 8, 953.	4.1	27
11	Charge Recombination Kinetics of Bacterial Photosynthetic Reaction Centres Reconstituted in Liposomes: Deterministic Versus Stochastic Approach. Data, 2020, 5, 53.	2.3	2
12	A two-enzyme cascade reaction consisting of two reaction pathways. Studies in bulk solution for understanding the performance of a flow-through device with immobilised enzymes. RSC Advances, 2020, 10, 18655-18676.	3.6	9
13	Single Compartment Approach for Assembling Photosynthetic Protocells. Lecture Notes in Bioengineering, 2020, , 223-232.	0.4	0
14	Frontispiece: Gene Expression Inside Liposomes: From Early Studies to Current Protocols. Chemistry - A European Journal, 2019, 25, .	3.3	1
15	Gene Expression Inside Liposomes: From Early Studies to Current Protocols. Chemistry - A European Journal, 2019, 25, 7798-7814.	3.3	44
16	Towards the Synthesis of Photo-Autotrophic Protocells. Lecture Notes in Computer Science, 2019, , 186-199.	1.3	0
17	Is Research on â€œSynthetic Cellsâ€•Moving to the Next Level?. Life, 2019, 9, 3.	2.4	58
18	Molecular Communications in the Context of â€œSynthetic Cellsâ€•Research. IEEE Transactions on Nanobioscience, 2019, 18, 43-50.	3.3	9

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19	Gene-Expressing Liposomes as Synthetic Cells for Molecular Communication Studies. Frontiers in Bioengineering and Biotechnology, 2019, 7, 1.	4.1	247
20	Chemical Exchanges and Actuation in Liposome-Based Synthetic Cells: Interaction with Biological Cells. Lecture Notes in Computer Science, 2019, , 145-158.	1.3	0
21	Experimental Evidences Suggest High Between-Vesicle Diversity of Artificial Vesicle Populations: Results, Models and Implications. Lecture Notes in Computer Science, 2019, , 171-185.	1.3	0
22	Preparation methods for giant unilamellar vesicles. , 2019, , 3-20.		3
23	Synthetic biology and (embodied) artificial intelligence: opportunities and challenges. Adaptive Behavior, 2018, 26, 41-44.	1.9	7
24	Understanding Embodied Cognition by Building Models of Minimal Life. Communications in Computer and Information Science, 2018, , 73-87.	0.5	6
25	Synthetic cells produce a quorum sensing chemical signal perceived byPseudomonas aeruginosa. Chemical Communications, 2018, 54, 2090-2093.	4.1	89
26	Do protocells preferentially retain macromolecular solutes upon division/fragmentation? A study based on the extrusion of POPC giant vesicles. Integrative Biology (United Kingdom), 2018, 10, 6-17.	1.3	13
27	Antioxidant activity of hydroxytyrosyl esters studied in liposome models. Biochimica Et Biophysica Acta - Biomembranes, 2018, 1860, 600-610.	2.6	21
28	Current Directions in Synthetic Cell Research. Lecture Notes in Bioengineering, 2018, , 141-154.	0.4	3
29	Organocatalytic stereoselective epoxidation of alphaâ€alkylidene oxindoles using alpha,alphaâ€diphenylprolinol in liposome membrane. ChemCatChem, 2018, 11, 974.	3.7	0
30	Measurement and Numerical Modeling of Cell-Free Protein Synthesis: Combinatorial Block-Variants of the PURE System. Data, 2018, 3, 41.	2.3	9
31	Interfacing Synthetic Cells with Biological Cells: An Application of the Synthetic Method. , 2018, , .		1
32	Human Serum Albumin Is an Essential Component of the Host Defense Mechanism Against Clostridium difficile Intoxication. Journal of Infectious Diseases, 2018, 218, 1424-1435.	4.0	45
33	Extremely High Frequency Electromagnetic Fields Facilitate Electrical Signal Propagation by Increasing Transmembrane Potassium Efflux in an Artificial Axon Model. Scientific Reports, 2018, 8, 9299.	3.3	12
34	Extrinsic stochastic factors (solute partition) in gene expression inside lipid vesicles and lipid-stabilized water-in-oil droplets: a review. Synthetic Biology, 2018, 3, ysy011.	2.2	31
35	Rapid purification of giant lipid vesicles by microfiltration. PLoS ONE, 2018, 13, e0192975.	2.5	13
36	Modelling Giant Lipid Vesicles Designed for Light Energy Transduction. Lecture Notes in Bioengineering, 2018, , 97-109.	0.4	2

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37	Synthetic Biology and Artificial Intelligence: Grounding a Cross-Disciplinary Approach to the Synthetic Exploration of (Embodied) Cognition. Complex Systems, 2018, 27, 199-228.	0.3	24
38	Synthetic Biology and Artificial Intelligence: Toward Cross-Fertilization. Complex Systems, 2018, 27, i-vii.	0.3	0
39	Highly oriented photosynthetic reaction centers generate a proton gradient in synthetic protocells. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 3837-3842.	7.1	102
40	Vesicle aggregates as a model for primitive cellular assemblies. Physical Chemistry Chemical Physics, 2017, 19, 20082-20092.	2.8	30
41	Novel directions in molecular systems design: The case of light-transducing synthetic cells. Communicative and Integrative Biology, 2017, 10, e1365993.	1.4	8
42	Spectroscopic and calorimetric characterization of spermine oxidase and its association forms. Biochemical Journal, 2017, 474, 4253-4268.	3.7	3
43	First moves towards photoautotrophic synthetic cells: In vitro study of photosynthetic reaction centre and cytochrome bc 1 complex interactions. Biophysical Chemistry, 2017, 229, 46-56.	2.8	19
44	The Arabidopsis polyamine oxidase/dehydrogenase 5 interferes with cytokinin and auxin signaling pathways to control xylem differentiation. Journal of Experimental Botany, 2017, 68, 997-1012.	4.8	33
45	Crude phosphorylation mixtures containing racemic lipid amphiphiles self-assemble to give stable primitive compartments. Scientific Reports, 2017, 7, 18106.	3.3	31
46	Small and Random Peptides: An Unexplored Reservoir of Potentially Functional Primitive Organocatalysts. The Case of Seryl-Histidine. Life, 2017, 7, 19.	2.4	38
47	Minimal Cellular Models for Origins-of-Life Studies and Biotechnology. Springer Series in Biophysics, 2017, , 177-219.	0.4	0
48	Small-size wire phantom to study the effect of MMW on nerve fibre. , 2016, , .		0
49	Engineering Enzyme-Driven Dynamic Behaviour in Lipid Vesicles. Communications in Computer and Information Science, 2016, , 197-208.	0.5	9
50	Advances in Artificial Life, Evolutionary Computation and Systems Chemistry. Communications in Computer and Information Science, 2016, , .	0.5	2
51	Xanthium strumarium extract inhibits mammalian cell proliferation through mitotic spindle disruption mediated by xanthatin. Journal of Ethnopharmacology, 2016, 194, 781-788.	4.1	12
52	What can synthetic biology offer to artificial intelligence (and vice versa)?. BioSystems, 2016, 148, 1-3.	2.0	7
53	Stability of spermine oxidase to thermal and chemical denaturation: comparison with bovine serum amine oxidase. Amino Acids, 2016, 48, 2283-2291.	2.7	11
54	Giant Vesicles as Compartmentalized Bio-reactors: A 3D Modelling Approach. Communications in Computer and Information Science, 2016, , 184-196.	0.5	1

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55	From Cells as Computation to Cells as Apps. IFIP Advances in Information and Communication Technology, 2016, , 116-130.	0.7	1
56	Protein Synthesis in Subâ€Micrometer Waterâ€inâ€Oil Droplets. ChemBioChem, 2015, 16, 2073-2079.	2.6	7
57	Protocells Models in Origin of Life and Synthetic Biology. Life, 2015, 5, 1700-1702.	2.4	24
58	Pacific oyster polyamine oxidase: a protein missing link in invertebrate evolution. Amino Acids, 2015, 47, 949-961.	2.7	2
59	Recent Biophysical Issues About the Preparation of Solute-Filled Lipid Vesicles. Mechanics of Advanced Materials and Structures, 2015, 22, 748-759.	2.6	31
60	A Simple Protein Synthesis Model for the PURE System Operation. Bulletin of Mathematical Biology, 2015, 77, 1185-1212.	1.9	30
61	Physical Routes to Primitive Cells: An Experimental Model Based on the Spontaneous Entrapment of Enzymes inside Micrometer-Sized Liposomes. Life, 2015, 5, 969-996.	2.4	25
62	New Insights into the Growth and Transformation of Vesicles: A Free-Flow Electrophoresis Study. Journal of Physical Chemistry B, 2015, 119, 12212-12223.	2.6	15
63	Experiments on and Numerical Modeling of the Capture and Concentration of Transcription-Translation Machinery inside Vesicles. Artificial Life, 2015, 21, 445-463.	1.3	23
64	Spontaneous Encapsulation and Concentration of Biological Macromolecules in Liposomes: An Intriguing Phenomenon and Its Relevance in Origins of Life. Journal of Molecular Evolution, 2014, 79, 179-192.	1.8	36
65	Spontaneous Overcrowding in Liposomes as Possible Origin of Metabolism. Origins of Life and Evolution of Biospheres, 2014, 44, 313-317.	1.9	12
66	The Glu216/Ser218 pocket is a major determinant of spermine oxidase substrate specificity. Biochemical Journal, 2014, 461, 453-459.	3.7	11
67	Xanthium strumariumL. Extracts Produce DNA Damage Mediated by Cytotoxicity inIn VitroAssays but Does Not Induce Micronucleus in Mice. BioMed Research International, 2014, 2014, 1-8.	1.9	14
68	Recent Theoretical Approaches to Minimal Artificial Cells. Entropy, 2014, 16, 2488-2511.	2.2	19
69	A plant spermine oxidase/dehydrogenase regulated by the proteasome and polyamines. Journal of Experimental Botany, 2014, 65, 1585-1603.	4.8	71
70	A synthetic biology approach to bio-chem-ICT: first moves towards chemical communication between synthetic and natural cells. Natural Computing, 2014, 13, 333-349.	3.0	22
71	Editorial overview: Synthetic Biology. Current Opinion in Chemical Biology, 2014, 22, v-vii.	6.1	3
72	Emergent properties arising from the assembly of amphiphiles. Artificial vesicle membranes as reaction promoters and regulators. Chemical Communications, 2014, 50, 10177-10197.	4.1	115

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73	A hydrophobic disordered peptide spontaneously anchors a covalently bound RNA hairpin to giant lipidic vesicles. Organic and Biomolecular Chemistry, 2014, 12, 6363-6373.	2.8	13
74	OPEN QUESTIONS IN ORIGIN OF LIFE: EXPERIMENTAL STUDIES ON THE ORIGIN OF NUCLEIC ACIDS AND PROTEINS WITH SPECIFIC AND FUNCTIONAL SEQUENCES BY A CHEMICAL SYNTHETIC BIOLOGY APPROACH. Computational and Structural Biotechnology Journal, 2014, 9, e201402004.	4.1	14
75	Molecular Communication Technology: General Considerations on the Use of Synthetic Cells and Some Hints from In Silico Modelling. Communications in Computer and Information Science, 2014, , 169-189.	0.5	3
76	Approaches to Molecular Communication Between Synthetic Compartments Based on Encapsulated Chemical Oscillators. Communications in Computer and Information Science, 2014, , 58-74.	0.5	8
77	Chapter 11. Chemical synthetic biology projects: never born biopolymers and synthetic cells. Synthetic Biology, 2014, , 292-329.	0.2	0
78	Towards the Engineering of Chemical Communication Between Semi-Synthetic and Natural Cells. , 2014, , 91-104.		3
79	Quasi-cellular systems: stochastic simulation analysis at nanoscale range. BMC Bioinformatics, 2013, 14, S7.	2.6	19
80	Structure and Enzymatic Properties of Molecular Dendronized Polymerâ€“Enzyme Conjugates and Their Entrapment inside Giant Vesicles. Langmuir, 2013, 29, 10831-10840.	3.5	40
81	Semi-Synthetic Minimal Cells. , 2013, , 261-276.		1
82	A Remarkable Selfâ€Organization Process as the Origin of Primitive Functional Cells. Angewandte Chemie - International Edition, 2013, 52, 13397-13400.	13.8	62
83	Design and biophysical characterization of atrazine-sensing peptides mimicking the Chlamydomonas reinhardtii plastoquinone binding niche. Physical Chemistry Chemical Physics, 2013, 15, 13108.	2.8	12
84	Semi-synthetic minimal cells: origin and recent developments. Current Opinion in Biotechnology, 2013, 24, 633-638.	6.6	115
85	Bacterial Division Proteins FtsZ and ZipA Induce Vesicle Shrinkage and Cell Membrane Invagination. Journal of Biological Chemistry, 2013, 288, 26625-26634.	3.4	71
86	Identification of an estrogen receptor alpha non-covalent ubiquitin binding surface: role in 17beta-estradiol-induced transcriptional activity. Journal of Cell Science, 2013, 126, 2577-82.	2.0	15
87	Chemical communication between synthetic and natural cells: a possible experimental design.. Electronic Proceedings in Theoretical Computer Science, EPTCS, 2013, 130, 14-26.	0.8	9
88	Chemical synthetic biology: a mini-review. Frontiers in Microbiology, 2013, 4, 285.	3.5	15
89	Encapsulation of Ferritin, Ribosomes, and Ribo-Peptidic Complexes Inside Liposomes: Insights Into the Origin of Metabolism. Origins of Life and Evolution of Biospheres, 2012, 42, 421-428.	1.9	18
90	Permeability Changes of Cationic Liposomes Loaded with Carbonic Anhydrase Induced by Millimeter Waves Radiation. Radiation Research, 2012, 178, 437-446.	1.5	10

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91	Semi-synthetic minimal cells as a tool for biochemical ICT. BioSystems, 2012, 109, 24-34.	2.0	56
92	Characterization of the emergent properties of a synthetic quasi-cellular system. BMC Bioinformatics, 2012, 13, S9.	2.6	28
93	The atypical retinoid E-3-(3â€™-Adamantan-1-yl-4â€™-methoxybiphenyl-4-yl)-2-propenoic acid (ST1898) displays comedolytic activity in the rhino mouse model. European Journal of Dermatology, 2012, 22, 505-511.	0.6	5
94	Giant Vesicles â€œColoniesâ€: A Model for Primitive Cell Communities. ChemBioChem, 2012, 13, 1497-1502.	2.6	95
95	Philosophical and scientific perspectives on emergence. SynthÃˆse, 2012, 185, 165-169.	1.1	3
96	Approaches to chemical synthetic biology. FEBS Letters, 2012, 586, 2138-2145.	2.8	15
97	Compartmentalized reactions as a case of soft-matter biotechnology: synthesis of proteins and nucleic acids inside lipid vesicles. Journal of Materials Chemistry, 2011, 21, 18887.	6.7	135
98	On the Construction of Minimal Cell Models in Synthetic Biology and Origins of Life Studies. , 2011, , 337-368.		5
99	Minimal cells: Relevance and interplay of physical and biochemical factors. Biotechnology Journal, 2011, 6, 850-859.	3.5	37
100	Minimal cell mimicry. Nature Chemistry, 2011, 3, 755-756.	13.6	46
101	Probing mammalian spermine oxidase enzymeâ€“substrate complex through molecular modeling, site-directed mutagenesis and biochemical characterization. Amino Acids, 2011, 40, 1115-1126.	2.7	35
102	Computing with bacterial constituents, cells and populations: from bioputing to bactoputing. Theory in Biosciences, 2011, 130, 211-228.	1.4	12
103	Spontaneous Crowding of Ribosomes and Proteins inside Vesicles: A Possible Mechanism for the Origin of Cell Metabolism. ChemBioChem, 2011, 12, 2325-2330.	2.6	69
104	New and Unexpected Insights on the Formation of Protocells from a Synthetic Biology Approach: The Case of Entrapment of Biomacromolecules and Protein Synthesis Inside Vesicles. , 2011, , 195-216.		1
105	Synthetic biology of minimal living cells: primitive cell models and semi-synthetic cells. Systems and Synthetic Biology, 2010, 4, 149-156.	1.0	17
106	Giant Vesicles: Preparations and Applications. ChemBioChem, 2010, 11, 848-865.	2.6	624
107	Spontaneous Protein Crowding in Liposomes: A New Vista for the Origin of Cellular Metabolism. ChemBioChem, 2010, 11, 1989-1992.	2.6	115
108	Reactivity and fusion between cationic vesicles and fatty acid anionic vesicles. Journal of Colloid and Interface Science, 2010, 345, 561-565.	9.4	34

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109	Nuclear Shield: A Multi-Enzyme Task-Force for Nucleus Protection. PLoS ONE, 2010, 5, e14125.	2.5	16
110	Kinetic models for autopoietic chemical systems: the role of fluctuations in a homeostatic regime. Physical Biology, 2010, 7, 016010.	1.8	18
111	Biosynthesis of Proteins Inside Liposomes. Methods in Molecular Biology, 2010, 606, 127-145.	0.9	16
112	Achievements and open questions in the self-reproduction of vesicles and synthetic minimal cells. Chemical Communications, 2010, 46, 3639.	4.1	204
113	Serâ€Hís catalyses the formation of peptides and PNAs. FEBS Letters, 2009, 583, 153-156.	2.8	81
114	The Minimal Size of Liposomeâ€Based Model Cells Brings about a Remarkably Enhanced Entrapment and Protein Synthesis. ChemBioChem, 2009, 10, 1056-1063.	2.6	128
115	Synthesis and Investigation of Tryptophanâ€“Amphotericin B Conjugates. ChemBioChem, 2009, 10, 1617-1620.	2.6	11
116	Chemical approaches to synthetic biology. Current Opinion in Biotechnology, 2009, 20, 492-497.	6.6	65
117	A synthetic biology approach to the construction of membrane proteins in semi-synthetic minimal cells. Biochimica Et Biophysica Acta - Biomembranes, 2009, 1788, 567-574.	2.6	216
118	SEMI-SYNTHETIC MINIMAL CELLS. , 2009, , .		0
119	Inducible expression of maize polyamine oxidase in the nucleus of MCF-7 human breast cancer cells confers sensitivity to etoposide. Amino Acids, 2008, 34, 403-412.	2.7	7
120	Vesicle Behavior: In Search of Explanations. Journal of Physical Chemistry B, 2008, 112, 14655-14664.	2.6	33
121	Characterization of a Lysine-Specific Histone Demethylase from Arabidopsis thaliana. Biochemistry, 2008, 47, 4936-4947.	2.5	36
122	Approaches to the Construction of the Minimal Cell. Advances in Science and Technology, 2008, 58, 10-19.	0.2	3
123	Self-Reproduction of Micelles, Reverse Micelles, and Vesicles. Behavior Research Methods, 2008, 7, 221-263.	4.0	7
124	Self-Reproduction of Vesicles and Other Compartments. , 2008, , 681-701.		0
125	2P-239 Cell-free expression of phospholipid-synthesizing membrane proteins in the interior of liposomes(The 46th Annual Meeting of the Biophysical Society of Japan). Seibutsu Butsuri, 2008, 48, S112.	0.1	0
126	A novel strategy for bioconjugation: synthesis and preliminary evaluation with amphotericin B. Organic and Biomolecular Chemistry, 2007, 5, 1339.	2.8	16

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127	Lecithinâ€Based Waterâ€Inâ€Oil Compartments as Dividing Bioreactors. ChemBioChem, 2007, 8, 1965-1973.	2.6	38
128	Permeability changes induced by 130 GHz pulsed radiation on cationic liposomes loaded with carbonic anhydrase. Bioelectromagnetics, 2007, 28, 587-598.	1.6	106
129	From Never Born Proteins to Minimal Living Cells: Two Projects in Synthetic Biology. Origins of Life and Evolution of Biospheres, 2007, 36, 605-616.	1.9	33
130	Question 7: New Aspects of Interactions Among Vesicles. Origins of Life and Evolution of Biospheres, 2007, 37, 439-444.	1.9	12
131	Basic Questions About the Origins of Life: Proceedings of the Erice International School of Complexity (Fourth Course). Origins of Life and Evolution of Biospheres, 2007, 37, 303-307.	1.9	15
132	New Class of Aggregates in Aqueous Solution:Â An NMR, Thermodynamic, and Dynamic Light Scattering Study. Langmuir, 2006, 22, 6031-6041.	3.5	15
133	Lysozyme Effect on Oleic Acid/Oleate Vesicles. Journal of Liposome Research, 2006, 16, 143-154.	3.3	8
134	Approaches to semi-synthetic minimal cells: a review. Die Naturwissenschaften, 2006, 93, 1-13.	1.6	415
135	Investigation ofde novo Totally Random Biosequences, Part II. Chemistry and Biodiversity, 2006, 3, 840-859.	2.1	56
136	Insights into the self-reproduction of oleate vesicles. Journal of Physics Condensed Matter, 2006, 18, S2231-S2238.	1.8	47
137	Effect of Tryptophan Oligopeptides on the Size Distribution of POPC Liposomes: A Dynamic Light Scattering and Turbidimetric Study. Journal of Liposome Research, 2005, 15, 29-47.	3.3	1
138	Effect of Tryptophan Oligopeptides on the Size Distribution of POPC Liposomes: A Dynamic Light Scattering and Turbidimetric Study. Journal of Liposome Research, 2005, 15, 29-47.	3.3	16
139	Condensed DNA in Lipid Microcompartments. Journal of Physical Chemistry B, 2005, 109, 19929-19935.	2.6	22
140	A Possible Route to Prebiotic Vesicle Reproduction. Artificial Life, 2004, 10, 297-308.	1.3	74
141	An Amphotericin Bâ€“Fluorescein Conjugate as a Powerful Probe for Biochemical Studies of the Membrane. Angewandte Chemie - International Edition, 2004, 43, 5181-5185.	13.8	53
142	An Amphotericin B-Fluorescein Conjugate as a Powerful Probe for Biochemical Studies of the Membrane. Angewandte Chemie - International Edition, 2004, 43, 5428-5428.	13.8	2
143	Amphotericin B as a Potential Probe of the Physical State of Vesicle Membranes. Organic Letters, 2004, 6, 3683-3686.	4.6	24
144	Novel Camptothecin Analogue (Gimatecan)â€Containing Liposomes Prepared by the Ethanol Injection Method. Journal of Liposome Research, 2004, 14, 87-109.	3.3	90

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145	Approaches to semi-synthetic minimal cells: a review. , 0, , 272-288.		1
146	Advances in Minimal Cell Models: a New Approach to Synthetic Biology and Origin of Life. , 0, , .		1
147	Recent advancements in synthetic cells research. , 0, , .		0
148	Chemical Neural Networks Inside Synthetic Cells? A Proposal for Their Realization and Modeling. Frontiers in Bioengineering and Biotechnology, 0, 10, .	4.1	13
149	Exploring Information and Communication Theories for Synthetic Cell Research. Frontiers in Bioengineering and Biotechnology, 0, 10, .	4.1	8