Nuno Filipe Azevedo

List of Publications by Year
in descending order

126 papers	4,528 citations	117625 34 h-index	118850 62 g-index
131 all docs	131 docs citations	131 times ranked	5852 citing authors

#	Article	IF	Citations
1	Helicobacter pylori infection: from standard to alternative treatment strategies. Critical Reviews in Microbiology, 2022, 48, 376-396.	6.1	31
2	Improving aptamer performance with nucleic acid mimics: de novo and post-SELEX approaches. Trends in Biotechnology, 2022, 40, 549-563.	9.3	18
3	SARS-CoV-2 Diagnostics Based on Nucleic Acids Amplification: From Fundamental Concepts to Applications and Beyond. Frontiers in Cellular and Infection Microbiology, 2022, 12, 799678.	3.9	13
4	Modelling aptamers with nucleic acid mimics (NAM): From sequence to three-dimensional docking. PLoS ONE, 2022, 17, e0264701.	2.5	9
5	Prevalence and Diversity of Staphylococcus aureus and Staphylococcal Enterotoxins in Raw Milk From Northern Portugal. Frontiers in Microbiology, 2022, 13, 846653.	3.5	13
6	The role of Nucleic Acid Mimics (NAMs) on FISH-based techniques and applications for microbial detection. Microbiological Research, 2022, 262, 127086.	5.3	7
7	Liposome Delivery of Nucleic Acids in Bacteria: Toward In Vivo Labeling of Human Microbiota. ACS Infectious Diseases, 2022, 8, 1218-1230.	3.8	8
8	Development of a Novel Peptide Nucleic Acid Probe for the Detection of Legionella spp. in Water Samples. Microorganisms, 2022, 10, 1409.	3.6	1
9	Helicobacter pylori lipopolysaccharide structural domains and their recognition by immune proteins revealed with carbohydrate microarrays. Carbohydrate Polymers, 2021, 253, 117350.	10.2	14
10	Computational resources and strategies to assess single-molecule dynamics of the translation process in S. cerevisiae. Briefings in Bioinformatics, 2021, 22, 219-231.	6.5	3
11	Integration of FISH and Microfluidics. Methods in Molecular Biology, 2021, 2246, 249-261.	0.9	0
12	FISH Variants. Methods in Molecular Biology, 2021, 2246, 17-33.	0.9	4
13	FISH in Food Samples. Methods in Molecular Biology, 2021, 2246, 279-290.	0.9	0
14	Delivery of Oligonucleotides into Bacteria by Fusogenic Liposomes. Methods in Molecular Biology, 2021, 2246, 87-96.	0.9	2
15	An Introduction to Fluorescence in situ Hybridization in Microorganisms. Methods in Molecular Biology, 2021, 2246, 1-15.	0.9	4
16	Can Vitamin B12 Assist the Internalization of Antisense LNA Oligonucleotides into Bacteria?. Antibiotics, 2021, 10, 379.	3.7	7
17	New Insights on Biofilm Antimicrobial Strategies. Antibiotics, 2021, 10, 407.	3.7	1
18	Biofilms vs. cities and humans vs. aliens â€“ a tale of reproducibility in biofilms. Trends in Microbiology, 2021, 29, 1062-1071.	7.7	9

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19	Lipoplexes to Deliver Oligonucleotides in Gram-Positive and Gram-Negative Bacteria: Towards Treatment of Blood Infections. Pharmaceutics, 2021, 13, 989.	4.5	9
20	Interlaboratory study for the evaluation of three microtiter plate-based biofilm quantification methods. Scientific Reports, 2021, 11, 13779.	3.3	24
21	Friends with Benefits: An Inside Look of Periodontal Microbesâ€™ Interactions Using Fluorescence In Situ Hybridizationâ€”Scoping Review. Microorganisms, 2021, 9, 1504.	3.6	5
22	Computational Resources and Strategies to Construct Single-Molecule Models of FISH. Methods in Molecular Biology, 2021, 2246, 317-330.	0.9	0
23	Minimum information guideline for spectrophotometric and fluorometric methods to assess biofilm formation in microplates. Biofilm, 2020, 2, 100010.	3.8	50
24	Increased Intraspecies Diversity in Escherichia coli Biofilms Promotes Cellular Growth at the Expense of Matrix Production. Antibiotics, 2020, 9, 818.	3.7	8
25	Establishment of a New PNA-FISH Method for Aspergillus fumigatus Identification: First Insights for Future Use in Pulmonary Samples. Microorganisms, 2020, 8, 1950.	3.6	6
26	A comprehensive model for the diffusion and hybridization processes of nucleic acid probes in fluorescence in situ hybridization. Biotechnology and Bioengineering, 2020, 117, 3212-3223.	3.3	3
27	FISH and chips: a review of microfluidic platforms for FISH analysis. Medical Microbiology and Immunology, 2020, 209, 373-391.	4.8	18
28	Antimicrobial coating innovations to prevent infectious disease: a consensus view from the AMiCl COST Action. Journal of Hospital Infection, 2020, 105, 116-118.	2.9	13
29	Detection of Microorganisms by Fluorescence In Situ Hybridization Using Peptide Nucleic Acid. Methods in Molecular Biology, 2020, 2105, 217-230.	0.9	6
30	Application of Agent-Based Modelling to Simulate Ribosome Translation. Lecture Notes in Computer Science, 2020, , 200-211.	1.3	0
31	Optimizing locked nucleic acid/2â€™-O-methyl-RNA fluorescence in situ hybridization (LNA/2â€™OMe-FISH) procedure for bacterial detection. PLoS ONE, 2019, 14, e0217689.	2.5	18
32	Propidium iodide staining underestimates viability of adherent bacterial cells. Scientific Reports, 2019, 9, 6483.	3.3	203
33	Application of agent-based modelling to assess single-molecule transport across the cell envelope of E. coli. Computers in Biology and Medicine, 2019, 107, 218-226.	7.0	3
34	Validation of Biomode S.A. Probe4Cronobacter^{TM} for the Identification of Cronobacter spp.. Journal of AOAC INTERNATIONAL, 2019, 102, 855-864.	1.5	5
35	Development and application of Peptide Nucleic Acid Fluorescence in situ Hybridization for the specific detection of Listeria monocytogenes. Food Microbiology, 2019, 80, 1-8.	4.2	30
36	Eco-friendly non-biocide-release coatings for marine biofouling prevention. Science of the Total Environment, 2019, 650, 2499-2511.	8.0	87

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37	Agent-based model of diffusion of N-acyl homoserine lactones in a multicellular environment of Pseudomonas aeruginosa and Candida albicans. Biofouling, 2018, 34, 335-345.	2.2	9
38	Surface modifications for antimicrobial effects in the healthcare setting: a critical overview. Journal of Hospital Infection, 2018, 99, 239-249.	2.9	225
39	Nanomaterials and molecular transporters to overcome the bacterial envelope barrier: Towards advanced delivery of antibiotics. Advanced Drug Delivery Reviews, 2018, 136-137, 28-48.	13.7	91
40	Anti-miRNA oligonucleotides: A comprehensive guide for design. RNA Biology, 2018, 15, 338-352.	3.1	172
41	Pulsed laser deposition of copper and zinc doped hydroxyapatite coatings for biomedical applications. Surface and Coatings Technology, 2018, 333, 168-177.	4.8	88
42	Identification of pathogenic bacteria in complex samples using a smartphone based fluorescence microscope. RSC Advances, 2018, 8, 36493-36502.	3.6	48
43	Targeting miR-9 in gastric cancer cells using locked nucleic acid oligonucleotides. BMC Molecular Biology, 2018, 19, 6.	3.0	16
44	Quantitative assessment of individual populations within polymicrobial biofilms. Scientific Reports, 2018, 8, 9494.	3.3	32
45	Influence of the fixation/permeabilization step on peptide nucleic acid fluorescence in situ hybridization (PNA-FISH) for the detection of bacteria. PLoS ONE, 2018, 13, e0196522.	2.5	22
46	Response surface methodology to optimize peptide nucleic acid fluorescence in situ hybridization (PNA-FISH) in Saccharomyces cerevisiae. LWT - Food Science and Technology, 2017, 80, 27-31.	5.2	5
47	Yeasts identification in microfluidic devices using peptide nucleic acid fluorescence in situ hybridization (PNA-FISH). Biomedical Microdevices, 2017, 19, 11.	2.8	11
48	Intracellular delivery of oligonucleotides in Helicobacter pylori by fusogenic liposomes in the presence of gastric mucus. Biomaterials, 2017, 138, 1-12.	11.4	27
49	Detection of Helicobacter pylori in the Gastric Mucosa by Fluorescence In Vivo Hybridization. Methods in Molecular Biology, 2017, 1616, 137-146.	0.9	4
50	Impact of polymicrobial biofilms in catheter-associated urinary tract infections. Critical Reviews in Microbiology, 2017, 43, 423-439.	6.1	63
51	An in vitro model of catheter-associated urinary tract infections to investigate the role of uncommon bacteria on the Escherichia coli microbial consortium. Biochemical Engineering Journal, 2017, 118, 64-69.	3.6	15
52	Developing a model for cystic fibrosis sociomicrobiology based on antibiotic and environmental stress. International Journal of Medical Microbiology, 2017, 307, 460-470.	3.6	11
53	Morphological transition of Helicobacter pylori adapted to water. Future Microbiology, 2017, 12, 1167-1179.	2.0	7
54	Discriminating typical and atypical cystic fibrosisâ€related bacteria by multiplex PNAâ€FISH. Biotechnology and Bioengineering, 2017, 114, 355-367.	3.3	15

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55	Critical review on biofilm methods. Critical Reviews in Microbiology, 2017, 43, 313-351.	6.1	693
56	Applications of optical DNA mapping in microbiology. BioTechniques, 2017, 62, 255-267.	1.8	19
57	Polymicrobial Ventilator-Associated Pneumonia: Fighting In Vitro Candida albicans-Pseudomonas aeruginosa Biofilms with Antifungal-Antibacterial Combination Therapy. PLoS ONE, 2017, 12, e0170433.	2.5	36
58	It is all about location: how to pinpoint microorganisms and their functions in multispecies biofilms. Future Microbiology, 2017, 12, 987-999.	2.0	13
59	Prediction of melting temperatures in fluorescencein situhybridization (FISH) procedures using thermodynamic models. Critical Reviews in Biotechnology, 2016, 36, 1-12.	9.0	25
60	Fluorescence In Vivo Hybridization (FIVH) for Detection of Helicobacter pylori Infection in a C57BL/6 Mouse Model. PLoS ONE, 2016, 11, e0148353.	2.5	16
61	Single Molecule Simulation of Diffusion and Enzyme Kinetics. Journal of Physical Chemistry B, 2016, 120, 3809-3820.	2.6	6
62	FISHji: New ImageJ macros for the quantification of fluorescence in epifluorescence images. Biochemical Engineering Journal, 2016, 112, 61-69.	3.6	16
63	Novel strategy to detect and locate periodontal pathogens: The PNA-FISH technique. Microbiological Research, 2016, 192, 185-191.	5.3	17
64	Discrimination of bacteriophage infected cells using locked nucleic acid fluorescent in situ hybridization (LNA-FISH). Biofouling, 2016, 32, 179-190.	2.2	29
65	The cystic fibrosis microbiome in an ecological perspective and its impact in antibiotic therapy. Applied Microbiology and Biotechnology, 2016, 100, 1163-1181.	3.6	30
66	Application of locked nucleic acid-based probes in fluorescence in situ hybridization. Applied Microbiology and Biotechnology, 2016, 100, 5897-5906.	3.6	17
67	Optimization of peptide nucleic acid fluorescence in situ hybridization (PNA-FISH) for the detection of bacteria: The effect of pH, dextran sulfate and probe concentration. Journal of Biotechnology, 2016, 226, 1-7.	3.8	19
68	Impact ofDelftia tsuruhatensisandAchromobacter xylosoxidansonEscherichia colidual-species biofilms treated with antibiotic agents. Biofouling, 2016, 32, 227-241.	2.2	17
69	Computational resources and strategies to construct single-molecule metabolic models of microbial cells. Briefings in Bioinformatics, 2016, 17, 863-876.	6.5	11
70	Agent-Based Spatiotemporal Simulation of Biomolecular Systems within the Open Source MASON Framework. BioMed Research International, 2015, 2015, 1-12.	1.9	6
71	Effect of Native Gastric Mucus on in vivo Hybridization Therapies Directed at Helicobacter pylori. Molecular Therapy - Nucleic Acids, 2015, 4, e269.	5.1	11
72	Relationship between invasion of theperiodontiumby periodontal pathogens and periodontal disease: a systematic review. Virulence, 2015, 6, 208-215.	4.4	27

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73	Mismatch discrimination in fluorescent in situ hybridization using different types of nucleic acids. Applied Microbiology and Biotechnology, 2015, 99, 3961-3969.	3.6	26
74	Enabling systematic, harmonised and large-scale biofilms data computation: The Biofilms Experiment Workbench. Computer Methods and Programs in Biomedicine, 2015, 118, 309-321.	4.7	7
75	Detection and discrimination of biofilm populations using locked nucleic acid/2â€²-O-methyl-RNA fluorescence in situ hybridization (LNA/2â€²OMe-FISH). Biochemical Engineering Journal, 2015, 104, 64-73.	3.6	20
76	Microbiome in cystic fibrosis: Shaping polymicrobial interactions for advances in antibiotic therapy. Critical Reviews in Microbiology, 2015, 41, 353-365.	6.1	24
77	Towards Fluorescence In Vivo Hybridization (FIVH) Detection of H. pylori in Gastric Mucosa Using Advanced LNA Probes. PLoS ONE, 2015, 10, e0125494.	2.5	28
78	Water-induced modulation of Helicobacter pylori virulence properties. Memorias Do Instituto Oswaldo Cruz, 2014, 109, 414-419.	1.6	2
79	Emergent Bacteria in Cystic Fibrosis:In VitroBiofilm Formation and Resilience under Variable Oxygen Conditions. BioMed Research International, 2014, 2014, 1-7.	1.9	25
80	A new colorimetric peptide nucleic acid-based assay for the specific detection of bacteria. Future Microbiology, 2014, 9, 1131-1142.	2.0	1
81	Detection of <i>Dehalococcoides</i> spp. by Peptide Nucleic Acid Fluorescent in situ Hybridization. Journal of Molecular Microbiology and Biotechnology, 2014, 24, 142-149.	1.0	1
82	Interaction between atypical microorganisms andE. coliin catheter-associated urinary tract biofilms. Biofouling, 2014, 30, 893-902.	2.2	27
83	Optimization of a peptide nucleic acid fluorescence in situ hybridization (PNA-FISH) method for the detection of bacteria and disclosure of a formamide effect. Journal of Biotechnology, 2014, 187, 16-24.	3.8	36
84	Minimum information about a biofilm experiment (MIABiE): standards for reporting experiments and data on sessile microbial communities living at interfaces. Pathogens and Disease, 2014, 70, 250-256.	2.0	43
85	A harmonised vocabulary for communicating and interchanging Biofilms experimental results. Journal of Integrative Bioinformatics, 2014, 11, 32-47.	1.5	2
86	BEW: Bioinformatics Workbench for Analysis of Biofilms Experimental Data. Advances in Intelligent Systems and Computing, 2014, , 49-56.	0.6	2
87	Designing an Ontology Tool for the Unification of Biofilms Data. Advances in Intelligent Systems and Computing, 2014, , 41-48.	0.6	0
88	An harmonised vocabulary for communicating and interchanging biofilms experimental results. Journal of Integrative Bioinformatics, 2014, 11, 249.	1.5	0
89	Biofilm formation with mixed cultures ofPseudomonas aeruginosa/Escherichia colion silicone using artificial urine to mimic urinary catheters. Biofouling, 2013, 29, 829-840.	2.2	56
90	Fluorescence in situ Hybridization method using Peptide Nucleic Acid probes for rapid detection of Lactobacillus and Gardnerella spp.. BMC Microbiology, 2013, 13, 82.	3.3	44

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91	Rapid detection of urinary tract infections caused by Proteus spp. using PNA-FISH. European Journal of Clinical Microbiology and Infectious Diseases, 2013, 32, 781-786.	2.9	17
92	Detection of Salmonella enterica serovar Enteritidis using real time PCR, immunocapture assay, PNA FISH and standard culture methods in different types of food samples. International Journal of Food Microbiology, 2013, 161, 16-22.	4.7	67
93	Fluorescence in situ hybridization method using a peptide nucleic acid probe for identification of Lactobacillus spp. in milk samples. International Journal of Food Microbiology, 2013, 162, 64-70.	4.7	30
94	Detection of Escherichia coli O157 by Peptide Nucleic Acid Fluorescence In Situ Hybridization (PNA-FISH) and Comparison to a Standard Culture Method. Applied and Environmental Microbiology, 2013, 79, 6293-6300.	3.1	35
95	Validation of a Fluorescence In Situ Hybridization Method Using Peptide Nucleic Acid Probes for Detection of Helicobacter pylori Clarithromycin Resistance in Gastric Biopsy Specimens. Journal of Clinical Microbiology, 2013, 51, 1887-1893.	3.9	49
96	Hybridization-Based Detection of Helicobacter pylori at Human Body Temperature Using Advanced Locked Nucleic Acid (LNA) Probes. PLoS ONE, 2013, 8, e81230.	2.5	40
97	Computational approaches to standard-compliant biofilm data for reliable analysis and integration. Journal of Integrative Bioinformatics, 2012, 9, 57-68.	1.5	3
98	Proposal for a method to estimate nutrient shock effects in bacteria. BMC Research Notes, 2012, 5, 422.	1.4	12
99	Antibiotic resistance of mixed biofilms in cystic fibrosis: impact of emerging microorganisms on treatment of infection. International Journal of Antimicrobial Agents, 2012, 40, 260-263.	2.5	85
100	Environmental factors influencing molinate biodegradation by a two-member mixed culture in rice paddy field floodwater. International Biodeterioration and Biodegradation, 2012, 72, 52-58.	3.9	9
101	BiofOmics: A Web Platform for the Systematic and Standardized Collection of High-Throughput Biofilm Data. PLoS ONE, 2012, 7, e39960.	2.5	35
102	A Systematic Approach to the Interrogation and Sharing of Standardised Biofilm Signatures. Advances in Intelligent and Soft Computing, 2012, , 113-120.	0.2	0
103	Computational approaches to standard-compliant biofilm data for reliable analysis and integration. Journal of Integrative Bioinformatics, 2012, 9, 203.	1.5	2
104	Application of flow cytometry for the identification of Staphylococcus epidermidis by peptide nucleic acid fluorescence in situ hybridization (PNA FISH) in blood samples. Antonie Van Leeuwenhoek, 2011, 100, 463-470.	1.7	20
105	PNA-FISH as a new diagnostic method for the determination of clarithromycin resistance of Helicobacter pylori. BMC Microbiology, 2011, 11, 101.	3.3	34
106	Interaction of legionella pneumophila and helicobacter pylori with bacterial species isolated from drinking water biofilms. BMC Microbiology, 2011, 11, 57.	3.3	42
107	Discriminating Multi-Species Populations in Biofilms with Peptide Nucleic Acid Fluorescence In Situ Hybridization (PNA FISH). PLoS ONE, 2011, 6, e14786.	2.5	128
108	Identification of cell-surface mannans in a virulent Helicobacter pylori strain. Carbohydrate Research, 2010, 345, 830-838.	2.3	11

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109	Fluorescence In Situ Hybridization Method Using a Peptide Nucleic Acid Probe for Identification of Salmonella spp. in a Broad Spectrum of Samples. Applied and Environmental Microbiology, 2010, 76, 4476-4485.	3.1	80
110	Effect of Chlorine on Incorporation of Helicobacter pylori into Drinking Water Biofilms. Applied and Environmental Microbiology, 2010, 76, 1669-1673.	3.1	29
111	Development and Application of a Novel Peptide Nucleic Acid Probe for the Specific Detection of Cronobacter Genomospecies (Enterobacter sakazakii) in Powdered Infant Formula. Applied and Environmental Microbiology, 2009, 75, 2925-2930.	3.1	51
112	Time to â€œgo largeâ€•on biofilm research: advantages of an omics approach. Biotechnology Letters, 2009, 31, 477-485.	2.2	23
113	Validation of SYTO 9/Propidium Iodide Uptake for Rapid Detection of Viable but Noncultivable Legionella pneumophila. Microbial Ecology, 2009, 58, 56-62.	2.8	57
114	The Epidemiology of Helicobacter pylori and Public Health Implications. Helicobacter, 2009, 14, 1-7.	3.5	83
115	Bioaccumulation of Amyloseâ€Like Glycans by Helicobacter pylori. Helicobacter, 2009, 14, 559-570.	3.5	12
116	Survival of Gastric and Enterohepatic Helicobacter spp. in Water: Implications for Transmission. Applied and Environmental Microbiology, 2008, 74, 1805-1811.	3.1	59
117	Persistence of Helicobacter pylori in Heterotrophic Drinking-Water Biofilms. Applied and Environmental Microbiology, 2008, 74, 5898-5904.	3.1	85
118	DNA Mimics for the Rapid Identification of Microorganisms by Fluorescence in situ Hybridization (FISH). International Journal of Molecular Sciences, 2008, 9, 1944-1960.	4.1	94
119	Coccoid Form of Helicobacter pylori as a Morphological Manifestation of Cell Adaptation to the Environment. Applied and Environmental Microbiology, 2007, 73, 3423-3427.	3.1	89
120	Detection of Escherichia coli in Biofilms from Pipe Samples and Coupons in Drinking Water Distribution Networks. Applied and Environmental Microbiology, 2007, 73, 7456-7464.	3.1	94
121	Development and Application of a Novel Peptide Nucleic Acid Probe for the Specific Detection of Helicobacter pylori in Gastric Biopsy Specimens. Journal of Clinical Microbiology, 2007, 45, 3089-3094.	3.9	53
122	A New Model for the Transmission ofHelicobacter pylori: Role of Environmental Reservoirs as Gene Pools to Increase Strain Diversity. Critical Reviews in Microbiology, 2007, 33, 157-169.	6.1	40
123	Drinking water biofilm assessment of total and culturable bacteria under different operating conditions. Biofouling, 2006, 22, 91-99.	2.2	35
124	Adhesion of water stressed Helicobacter pylori to abiotic surfaces. Journal of Applied Microbiology, 2006, 101, 718-724.	3.1	56
125	Shear Stress, Temperature, and Inoculation Concentration Influence the Adhesion of Water-Stressed Helicobacter pylori to Stainless Steel 304 and Polypropylene. Applied and Environmental Microbiology, 2006, 72, 2936-2941.	3.1	66
126	Nutrient Shock and Incubation Atmosphere Influence Recovery of Culturable Helicobacter pylori from Water. Applied and Environmental Microbiology, 2004, 70, 490-493.	3.1	39