Alessandra Polissi

List of Publications by Year
in descending order

76 papers	3,568 citations	172443 29 h-index	144002 57 g-index
79 all docs	79 docs citations	79 times ranked	3275 citing authors

#	Article	IF	Citations
1	Large-Scale Identification of Virulence Genes from <i>Streptococcus pneumoniae</i>. Infection and Immunity, 1998, 66, 5620-5629.	2.2	421
2	Function of Escherichia coli MsbA, an Essential ABC Family Transporter, in Lipid A and Phospholipid Biosynthesis. Journal of Biological Chemistry, 1998, 273, 12466-12475.	3.4	306
3	Functional Analysis of the Protein Machinery Required for Transport of Lipopolysaccharide to the Outer Membrane of <i>Escherichia coli</i>. Journal of Bacteriology, 2008, 190, 4460-4469.	2.2	218
4	Characterization of lptA and lptB , Two Essential Genes Implicated in Lipopolysaccharide Transport to the Outer Membrane of Escherichia coli. Journal of Bacteriology, 2007, 189, 244-253.	2.2	212
5	Novel Structure of the Conserved Gram-Negative Lipopolysaccharide Transport Protein A and Mutagenesis Analysis. Journal of Molecular Biology, 2008, 380, 476-488.	4.2	144
6	The lipopolysaccharide transport system of Gram-negative bacteria. Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids, 2009, 1791, 594-602.	2.4	132
7	Mutational analysis and properties of the msbA gene of Escherichia coli, coding for an essential ABC family transporter. Molecular Microbiology, 1996, 20, 1221-1233.	2.5	121
8	Peptidoglycan Remodeling Enables Escherichia coli To Survive Severe Outer Membrane Assembly Defect. MBio, 2019, 10, .	4.1	115
9	Global analysis of transcription kinetics during competence development in Streptococcus pneumoniae using high density DNA arrays. Molecular Microbiology, 2002, 36, 1279-1292.	2.5	101
10	Annotated Draft Genomic Sequence from aStreptococcus pneumoniaeType 19F Clinical Isolate. Microbial Drug Resistance, 2001, 7, 99-125.	2.0	98
11	Changes in Escherichia coli transcriptome during acclimatization at low temperature. Research in Microbiology, 2003, 154, 573-580.	2.1	94
12	The Escherichia coli Lpt Transenvelope Protein Complex for Lipopolysaccharide Export Is Assembled via Conserved Structurally Homologous Domains. Journal of Bacteriology, 2013, 195, 1100-1108.	2.2	90
13	New Insights into the Lpt Machinery for Lipopolysaccharide Transport to the Cell Surface: LptA-LptC Interaction and LptA Stability as Sensors of a Properly Assembled Transenvelope Complex. Journal of Bacteriology, 2011, 193, 1042-1053.	2.2	86
14	Non-essential KDO biosynthesis and new essential cell envelope biogenesis genes in the Escherichia coli yrbGâ€“yhbG locus. Research in Microbiology, 2006, 157, 547-558.	2.1	83
15	Lipopolysaccharide biogenesis and transport at the outer membrane of Gram-negative bacteria. Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids, 2017, 1862, 1451-1460.	2.4	73
16	The lipopolysaccharide transport (Lpt) machinery: A nonconventional transporter for lipopolysaccharide assembly at the outer membrane of Gram-negative bacteria. Journal of Biological Chemistry, 2017, 292, 17981-17990.	3.4	66
17	Copper inhibits peptidoglycan LD-transpeptidases suppressing Î²-lactam resistance due to bypass of penicillin-binding proteins. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 10786-10791.	7.1	59
18	Development of antibacterial quaternary ammonium silane coatings on polyurethane catheters. Journal of Colloid and Interface Science, 2015, 451, 78-84.	9.4	48

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19	Divergent evolution of chloroplast-type ferredoxins. FEBS Letters, 1991, 285, 85-88.	2.8	43
20	The Lipopolysaccharide Export Pathway in Escherichia coli: Structure, Organization and Regulated Assembly of the Lpt Machinery. Marine Drugs, 2014, 12, 1023-1042.	4.6	41
21	Nanostructured Ag₄O₄films with enhanced antibacterial activity. Nanotechnology, 2008, 19, 475602.	2.6	38
22	New Targets for Antibacterial Design: Kdo Biosynthesis and LPS Machinery Transport to the Cell Surface. Current Medicinal Chemistry, 2011, 18, 830-852.	2.4	38
23	Thanatin Impairs Lipopolysaccharide Transport Complex Assembly by Targeting LptCâ€"LptA Interaction and Decreasing LptA Stability. Frontiers in Microbiology, 2020, 11, 909.	3.5	38
24	Site-Specific Mutation of <i>Staphylococcus aureus</i> VraS Reveals a Crucial Role for the VraR-VraS Sensor in the Emergence of Glycopeptide Resistance. Antimicrobial Agents and Chemotherapy, 2011, 55, 1008-1020.	3.2	36
25	Dissecting Escherichia coli Outer Membrane Biogenesis Using Differential Proteomics. PLoS ONE, 2014, 9, e100941.	2.5	36
26	Mutation and Suppressor Analysis of the Essential Lipopolysaccharide Transport Protein LptA Reveals Strategies To Overcome Severe Outer Membrane Permeability Defects in Escherichia coli. Journal of Bacteriology, 2018, 200, .	2.2	36
27	Interaction of lipopolysaccharides at intermolecular sites of the periplasmic Lpt transport assembly. Scientific Reports, 2017, 7, 9715.	3.3	32
28	Photosynthetic membranes. VI. Characterization of ultrafiltration membranes prepared by photografting zeolite-epoxy-diacrylate resin composites onto cellulose. Journal of Membrane Science, 1988, 36, 277-295.	8.2	31
29	Crystal structure of LptH, the periplasmic component of the lipopolysaccharide transport machinery from <i>PseudomonasÂaeruginosa</i>. FEBS Journal, 2015, 282, 1980-1997.	4.7	31
30	Scanning the Escherichia coli chromosome by random transposon mutagenesis and multiple phenotypic screening. Research in Microbiology, 2004, 155, 692-701.	2.1	30
31	LptA Assembles into Rod-Like Oligomers Involving Disorder-to-Order Transitions. Journal of the American Society for Mass Spectrometry, 2013, 24, 1593-1602.	2.8	29
32	<i>Pseudomonas aeruginosa</i> LptE is crucial for LptD assembly, cell envelope integrity, antibiotic resistance and virulence. Virulence, 2018, 9, 1718-1733.	4.4	29
33	ActS activates peptidoglycan amidases during outer membrane stress in <i>Escherichia coli</i>. Molecular Microbiology, 2021, 116, 329-342.	2.5	28
34	Targeting Bacterial Membranes: NMR Spectroscopy Characterization of Substrate Recognition and Binding Requirements of <scp>D</scp>â€Arabinoseâ€5â€Phosphate Isomerase. Chemistry - A European Journal, 2010, 16, 1897-1902.	3.3	27
35	Lipopolysaccharide Biosynthesis and Transport to the Outer Membrane of Gram-Negative Bacteria. Sub-Cellular Biochemistry, 2019, 92, 9-37.	2.4	27
36	The Lack of the Essential LptC Protein in the Trans-Envelope Lipopolysaccharide Transport Machine Is Circumvented by Suppressor Mutations in LptF, an Inner Membrane Component of the Escherichia coli Transporter. PLoS ONE, 2016, 11, e0161354.	2.5	26

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37	The puzzle of zmpB and extensive chain formation, autolysis defect and non-translocation of choline-binding proteins in Streptococcus pneumoniae. Molecular Microbiology, 2001, 39, 1651-1660.	2.5	24
38	The Kdo Biosynthetic Pathway Toward OM Biogenesis as Target in Antibacterial Drug Design and Development. Current Drug Discovery Technologies, 2009, 6, 19-33.	1.2	24
39	Targeting Bacterial Membranes: Identification of <i>Pseudomonas aeruginosa</i><scp>D</scp>â€Arabinoseâ€5P Isomerase and NMR Characterisation of its Substrate Recognition and Binding Properties. ChemBioChem, 2011, 12, 719-727.	2.6	24
40	Self-Assembled Monolayers of Copper Sulfide Nanoparticles on Glass as Antibacterial Coatings. Nanomaterials, 2020, 10, 352.	4.1	24
41	Skin infections are eliminated by cooperation of the fibrinolytic and innate immune systems. Science Immunology, 2017, 2, .	11.9	22
42	Novel photo-thermally active polyvinyl alcohol-Prussian blue nanoparticles hydrogel films capable of eradicating bacteria and mitigating biofilms. Nanotechnology, 2019, 30, 295702.	2.6	22
43	Covalent Grafting of Antimicrobial Peptides onto Microcrystalline Cellulose. ACS Applied Bio Materials, 2020, 3, 4895-4901.	4.6	22
44	DpaA Detaches Braunâ€™s Lipoprotein from Peptidoglycan. MBio, 2021, 12, .	4.1	22
45	PVA Films with Mixed Silver Nanoparticles and Gold Nanostars for Intrinsic and Photothermal Antibacterial Action. Nanomaterials, 2021, 11, 1387.	4.1	20
46	Probing the active site of the sugar isomerase domain from <i>E. coli</i> arabinoseâ€5â€phosphate isomerase via Xâ€ray crystallography. Protein Science, 2010, 19, 2430-2439.	7.6	19
47	Complex transcriptional organization regulates an Escherichia coli locus implicated in lipopolysaccharide biogenesis. Research in Microbiology, 2011, 162, 470-482.	2.1	19
48	Solid State NMR Studies of Intact Lipopolysaccharide Endotoxin. ACS Chemical Biology, 2018, 13, 2106-2113.	3.4	18
49	Functional Interaction between the Cytoplasmic ABC Protein LptB and the Inner Membrane LptC Protein, Components of the Lipopolysaccharide Transport Machinery in Escherichia coli. Journal of Bacteriology, 2016, 198, 2192-2203.	2.2	17
50	The Lpt ABC transporter for lipopolysaccharide export to the cell surface. Research in Microbiology, 2019, 170, 366-373.	2.1	17
51	Functional Characterization of <i>E. coli</i> LptC: Interaction with LPS and a Synthetic Ligand. ChemBioChem, 2014, 15, 734-742.	2.6	16
52	Synthesis and anti-bacterial activity of a library of 1,2-benzisothiazol-3(2H)-one (BIT) derivatives amenable of crosslinking to polysaccharides. Tetrahedron, 2017, 73, 1745-1761.	1.9	16
53	Structure prediction and functional analysis of KdsD, an enzyme involved in lipopolysaccharide biosynthesis. Biochemical and Biophysical Research Communications, 2009, 388, 222-227.	2.1	15
54	Targeting Bacterial Biofilm: A New LecA Multivalent Ligand with Inhibitory Activity. ChemBioChem, 2019, 20, 2911-2915.	2.6	15

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55	The Landscape of Pseudomonas aeruginosa Membrane-Associated Proteins. Cells, 2020, 9, 2421.	4.1	14
56	Genetic analysis of chromosomal operons involved in degradation of aromatic hydrocarbons in Pseudomonas putida TMB. Journal of Bacteriology, 1990, 172, 6355-6362.	2.2	13
57	Lysozyme Mucoadhesive Tablets Obtained by Freeze-Drying. Journal of Pharmaceutical Sciences, 2019, 108, 3667-3674.	3.3	11
58	Cloning and transposon vectors derived from satellite bacteriophage P4 for genetic manipulation of Pseudomonas and other gram-negative bacteria. Plasmid, 1992, 28, 101-114.	1.4	10
59	Arabinose 5-phosphate isomerase as a target for antibacterial design: Studies with substrate analogues and inhibitors. Bioorganic and Medicinal Chemistry, 2014, 22, 2576-2583.	3.0	10
60	Lipopolysaccharide Transport to the Cell Surface: New Insights in Assembly into the Outer Membrane. Structure, 2016, 24, 847-849.	3.3	10
61	Nanocomposite Sprayed Films with Photo-Thermal Properties for Remote Bacteria Eradication. Nanomaterials, 2020, 10, 786.	4.1	10
62	Linking dual mode of action of host defense antimicrobial peptide thanatin: Structures, lipopolysaccharide and LptAm binding of designed analogs. Biochimica Et Biophysica Acta - Biomembranes, 2022, 1864, 183839.	2.6	10
63	Immobilization of biocatalysts by photochemically grafted membranes: some studies with catalase as model system. Biotechnology and Bioengineering, 1990, 35, 646-649.	3.3	8
64	The lipopolysaccharide-transporter complex LptB2FG also displays adenylate kinase activity inÂvitro dependent on the binding partners LptC/LptA. Journal of Biological Chemistry, 2021, 297, 101313.	3.4	6
65	Degradation of Components of the Lpt Transenvelope Machinery Reveals LPS-Dependent Lpt Complex Stability in Escherichia coli. Frontiers in Molecular Biosciences, 2021, 8, 758228.	3.5	6
66	A model study for release of plasticizers from polymer films through vapor phase. Journal of Applied Polymer Science, 1984, 29, 3185-3195.	2.6	4
67	Lipopolysaccharide Export to the Outer Membrane. , 2011, , 311-337.		4
68	Phosphonate Analogues of Arabinose 5â€Phosphate: Putative Ligands for Arabinose 5â€Phosphate Isomerases. European Journal of Organic Chemistry, 2013, 2013, 7776-7784.	2.4	4
69	<i>N</i>â€Spirofused Bicyclic Derivatives of 1â€Deoxynojirimycin: Synthesis and Preliminary Biological Evaluation. ChemistrySelect, 2016, 1, 2444-2447.	1.5	4
70	Fat Matters for Bugs: How Lipids and Lipid Modifications Make the Difference in Bacterial Life. European Journal of Lipid Science and Technology, 2019, 121, 1900204.	1.5	4
71	On-cell saturation transfer difference NMR for the identification of FimH ligands and inhibitors. Bioorganic Chemistry, 2021, 112, 104876.	4.1	4
72	Thermodynamic study of solvent and substituent effects on 4-substituted aminoazobenzenes. Dyes and Pigments, 1987, 8, 239-251.	3.7	3

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73	Re LPS Biogenetic Pathway: Enzyme Characterisation and Synthetic Efforts Towards Inhibitors. Current Organic Chemistry, 2008, 12, 576-600.	1.6	3
74	Synthesis and biological evaluation of arabinose 5-phosphate mimics modified at position five. Carbohydrate Research, 2014, 389, 186-191.	2.3	1
75	An induced folding process characterizes the partial-loss of function mutant LptAI36D in its interactions with ligands. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2015, 1854, 1451-1457.	2.3	1
76	Differential Proteomics Based on Multidimensional Protein Identification Technology to Understand the Biogenesis of Outer Membrane of Escherichia coli. Methods in Molecular Biology, 2016, 1440, 57-70.	0.9	1