# Donald A Cowan

List of Publications by Year
in descending order



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|---|---|---|---|
| 330 papers | 16,199 citations | 20817 60 h-index | 25787 108 g-index |
| 346 all docs | 346 docs citations | 346 times ranked | 15580 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Review and re-analysis of domain-specific 16S primers. Journal of Microbiological Methods, 2003, 55, 541-555. | 1.6 | 1,591 |
| 2 | On the rocks: the microbiology of Antarctic Dry Valley soils. Nature Reviews Microbiology, 2010, 8, 129-138. | 28.6 | 505 |
| 3 | Some like it cold: understanding the survival strategies of psychrophiles. EMBO Reports, 2014, 15, 508-517. | 4.5 | 501 |
| 4 | Microbial ecology of hot desert edaphic systems. FEMS Microbiology Reviews, 2015, 39, 203-221. | 8.6 | 299 |
| 5 | Enhancing the functional properties of thermophilic enzymes by chemical modification and immobilization. Enzyme and Microbial Technology, 2011, 49, 326-346. | 3.2 | 295 |
| 6 | The search for the ideal biocatalyst. Nature Biotechnology, 2002, 20, 37-45. | 17.5 | 275 |
| 7 | A reservoir of â€˜historicalâ€™ antibiotic resistance genes in remote pristine Antarctic soils. Microbiome, 2018, 6, 40. | 11.1 | 244 |
| 8 | Metagenomic gene discovery: past, present and future. Trends in Biotechnology, 2005, 23, 321-329. | 9.3 | 241 |
| 9 | Molecular adaptations to psychrophily: the impact of â€˜omicâ€™ technologies. Trends in Microbiology, 2010, 18, 374-381. | 7.7 | 240 |
| 10 | Thermophilic ethanologenesis: future prospects for second-generation bioethanol production. Trends in Biotechnology, 2009, 27, 398-405. | 9.3 | 229 |
| 11 | The Healthy Human Blood Microbiome: Fact or Fiction?. Frontiers in Cellular and Infection Microbiology, 2019, 9, 148. | 3.9 | 221 |
| 12 | Bacterial Diversity in Three Different Antarctic Cold Desert Mineral Soils. Microbial Ecology, 2006, 51, 413-421. | 2.8 | 216 |
| 13 | Xerotolerant bacteria: surviving through a dry spell. Nature Reviews Microbiology, 2017, 15, 285-296. | 28.6 | 208 |
| 14 | Blind spots in global soil biodiversity and ecosystem function research. Nature Communications, 2020, 11, 3870. | 12.8 | 192 |
| 15 | Endangered Antarctic Environments. Annual Review of Microbiology, 2004, 58, 649-690. | 7.3 | 177 |
| 16 | A roadmap for Antarctic and Southern Ocean science for the next two decades and beyond. Antarctic Science, 2015, 27, 3-18. | 0.9 | 158 |
| 17 | Phylogenetic analysis of actinobacterial populations associated with Antarctic Dry Valley mineral soils. Environmental Microbiology, 2009, 11, 566-576. | 3.8 | 154 |
| 18 | Challenges to the Future Conservation of the Antarctic. Science, 2012, 337, 158-159. | 12.6 | 146 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Sources of edaphic cyanobacterial diversity in the Dry Valleys of Eastern Antarctica. ISME Journal, 2008, 2, 308-320. | 9.8 | 144 |
| 20 | Using Signature Genes as Tools To Assess Environmental Viral Ecology and Diversity. Applied and Environmental Microbiology, 2014, 80, 4470-4480. | 3.1 | 141 |
| 21 | Non-indigenous microorganisms in the Antarctic: assessing the risks. Trends in Microbiology, 2011, 19, 540-548. | 7.7 | 136 |
| 22 | Extremophiles in biofuel synthesis. Environmental Technology (United Kingdom), 2010, 31, 871-888. | 2.2 | 130 |
| 23 | Rhizosheath microbial community assembly of sympatric desert speargrasses is independent of the plant host. Microbiome, 2018, 6, 215. | 11.1 | 122 |
| 24 | Antarctic Dry Valley mineral soils contain unexpectedly high levels of microbial biomass. Extremophiles, 2002, 6, 431-436. | 2.3 | 121 |
| 25 | High-Level Diversity of Tailed Phages, Eukaryote-Associated Viruses, and Virophage-Like Elements in the Metaviromes of Antarctic Soils. Applied and Environmental Microbiology, 2014, 80, 6888-6897. | 3.1 | 121 |
| 26 | Microbial Biogeography of Six Salt Lakes in Inner Mongolia, China, and a Salt Lake in Argentina. Applied and Environmental Microbiology, 2009, 75, 5750-5760. | 3.1 | 119 |
| 27 | Microbial ecology and biogeochemistry of continental Antarctic soils. Frontiers in Microbiology, 2014, 5, 154. | 3.5 | 119 |
| 28 | Hypolithic microbial communities: between a rock and a hard place. Environmental Microbiology, 2012, 14, 2272-2282. | 3.8 | 118 |
| 29 | Metagenomics of extreme environments. Current Opinion in Microbiology, 2015, 25, 97-102. | 5.1 | 117 |
| 30 | Phylogenomic re-assessment of the thermophilic genus Geobacillus. Systematic and Applied Microbiology, 2016, 39, 527-533. | 2.8 | 116 |
| 31 | Airborne microbial transport limitation to isolated Antarctic soil habitats. Nature Microbiology, 2019, 4, 925-932. | 13.3 | 114 |
| 32 | Thermophilic proteins: Stability and function in aqueous and organic solvents. Comparative Biochemistry and Physiology A, Comparative Physiology, 1997, 118, 429-438. | 0.6 | 106 |
| 33 | Hypolithic and soil microbial community assembly along an aridity gradient in the Namib Desert. Extremophiles, 2013, 17, 329-337. | 2.3 | 104 |
| 34 | Diverse hypolithic refuge communities in the McMurdo Dry Valleys. Antarctic Science, 2010, 22, 714-720. | 0.9 | 97 |
| 35 | Metagenomic analysis provides insights into functional capacity in a hyperarid desert soil niche community. Environmental Microbiology, 2016, 18, 1875-1888. | 3.8 | 96 |
| 36 | Environmental drivers of viral community composition in Antarctic soils identified by viromics. Microbiome, 2017, 5, 83. | 11.1 | 94 |

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| 37 | Evidence for successional development in Antarctic hypolithic bacterial communities. ISME Journal, 2013, 7, 2080-2090. | 9.8 | 93 |
| 38 | Identification of a Novel Alkaliphilic Esterase Active at Low Temperatures by Screening a Metagenomic Library from Antarctic Desert Soil. Applied and Environmental Microbiology, 2009, 75, 4657-4659. | 3.1 | 90 |
| 39 | Diversity and Ecology of Viruses in Hyperarid Desert Soils. Applied and Environmental Microbiology, 2016, 82, 770-777. | 3.1 | 89 |
| 40 | Evidence of species recruitment and development of hot desert hypolithic communities. Environmental Microbiology Reports, 2013, 5, 219-224. | 2.4 | 88 |
| 41 | Correlation between microbial protein thermostability and resistance to denaturation in aqueous: organic solvent two-phase systems. Enzyme and Microbial Technology, 1989, 11, 568-574. | 3.2 | 87 |
| 42 | Purification and some properties of an extracellular protease (caldolysin) from an extreme thermophile. BBA - Proteins and Proteomics, 1982, 705, 293-305. | 2.1 | 85 |
| 43 | Abiotic factors influence microbial diversity in permanently cold soil horizons of a maritime-associated Antarctic Dry Valley. FEMS Microbiology Ecology, 2012, 82, 326-340. | 2.7 | 85 |
| 44 | Characterization of an inducible nitrilase from a thermophilic bacillus. Extremophiles, 1999, 3, 283-291. | 2.3 | 84 |
| 45 | Metagenomic analysis of the viral community in <scp>N</scp>amib <scp>D</scp>esert hypoliths. Environmental Microbiology, 2015, 17, 480-495. | 3.8 | 83 |
| 46 | Thermophilic proteases: Properties and potential applications. Trends in Biotechnology, 1985, 3, 68-72. | 9.3 | 81 |
| 47 | Halalkalicoccus tibetensis gen. nov., sp. nov., representing a novel genus of haloalkaliphilic archaea. International Journal of Systematic and Evolutionary Microbiology, 2005, 55, 2501-2505. | 1.7 | 78 |
| 48 | Distinct assembly mechanisms underlie similar biogeographical patterns of rare and abundant bacteria in Tibetan Plateau grassland soils. Environmental Microbiology, 2020, 22, 2261-2272. | 3.8 | 77 |
| 49 | Temporal dynamics of hot desert microbial communities reveal structural and functional responses to water input. Scientific Reports, 2016, 6, 34434. | 3.3 | 74 |
| 50 | Hypolithic Microbial Community of Quartz Pavement in the High-Altitude Tundra of Central Tibet. Microbial Ecology, 2010, 60, 730-739. | 2.8 | 72 |
| 51 | A novel thermostable nitrile hydratase. Extremophiles, 1998, 2, 347-357. | 2.3 | 70 |
| 52 | High 16S rDNA bacterial diversity in glacial meltwater lake sediment, Bratina Island, Antarctica. Extremophiles, 2003, 7, 275-282. | 2.3 | 70 |
| 53 | Hypolithic communities: important nitrogen sources in Antarctic desert soils. Environmental Microbiology Reports, 2011, 3, 581-586. | 2.4 | 69 |
| 54 | Rapid microbial response to the presence of an ancient relic in the Antarctic Dry Valleys. Nature Communications, 2012, 3, 660. | 12.8 | 69 |

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|---|---|---|---|
| 55 | Characterization of bacterial communities in lithobionts and soil niches from Victoria Valley, Antarctica. FEMS Microbiology Ecology, 2016, 92, fiw051. | 2.7 | 69 |
| 56 | Key microbial taxa in the rhizosphere of sorghum and sunflower grown in crop rotation. Science of the Total Environment, 2018, 624, 530-539. | 8.0 | 69 |
| 57 | Multiple energy sources and metabolic strategies sustain microbial diversity in Antarctic desert soils. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, . | 7.1 | 68 |
| 58 | Sequence analysis of an Archaeal virus isolated from a hypersaline lake in Inner Mongolia, China. BMC Genomics, 2007, 8, 410. | 2.8 | 66 |
| 59 | Ecology and biogeochemistry of cyanobacteria in soils, permafrost, aquatic and cryptic polar habitats. Biodiversity and Conservation, 2015, 24, 819-840. | 2.6 | 66 |
| 60 | Energetic Basis of Microbial Growth and Persistence in Desert Ecosystems. MSystems, 2020, 5, . | 3.8 | 66 |
| 61 | Nanoarchaeal 16S rRNA gene sequences are widely dispersed in hyperthermophilic and mesophilic halophilic environments. Extremophiles, 2008, 12, 651-656. | 2.3 | 65 |
| 62 | Biochemistry and biotechnology of mesophilic and thermophilic nitrile metabolizing enzymes. Extremophiles, 1998, 2, 207-216. | 2.3 | 64 |
| 63 | Endolithic Microbial Colonization of Limestone in a High-altitude Arid Environment. Microbial Ecology, 2010, 59, 689-699. | 2.8 | 64 |
| 64 | The upper temperature for life â€“ where do we draw the line?. Trends in Microbiology, 2004, 12, 58-60. | 7.7 | 63 |
| 65 | Identification of Eukaryotic Open Reading Frames in Metagenomic cDNA Libraries Made from Environmental Samples. Applied and Environmental Microbiology, 2006, 72, 135-143. | 3.1 | 63 |
| 66 | Cyanobacteria drive community composition and functionality in rockâ€“soil interface communities. Molecular Ecology, 2015, 24, 812-821. | 3.9 | 63 |
| 67 | Microbial genomes â€“ the untapped resource. Trends in Biotechnology, 2000, 18, 14-16. | 9.3 | 62 |
| 68 | Halovivax asiaticus gen. nov., sp. nov., a novel extremely halophilic archaeon isolated from Inner Mongolia, China. International Journal of Systematic and Evolutionary Microbiology, 2006, 56, 765-770. | 1.7 | 61 |
| 69 | A novel thermostable nitrilase superfamily amidase from Geobacillus pallidus showing acyl transfer activity. Applied Microbiology and Biotechnology, 2007, 75, 801-811. | 3.6 | 61 |
| 70 | Comparative Metagenomic Analysis Reveals Mechanisms for Stress Response in Hypoliths from Extreme Hyperarid Deserts. Genome Biology and Evolution, 2016, 8, 2737-2747. | 2.5 | 61 |
| 71 | Distribution and abiotic influences on hypolithic microbial communities in an Antarctic Dry Valley. Polar Biology, 2011, 34, 307-311. | 1.2 | 60 |
| 72 | Namib Desert Soil Microbial Community Diversity, Assembly, and Function Along a Natural Xeric Gradient. Microbial Ecology, 2018, 75, 193-203. | 2.8 | 60 |

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| 73 | Hyperstabilization of a thermophilic esterase by multipoint covalent attachment. Enzyme and Microbial Technology, 1995, 17, 366-372. | 3.2 | 59 |
| 74 | Bacterial community analysis of Indonesian hot springs. FEMS Microbiology Letters, 2001, 200, 103-109. | 1.8 | 59 |
| 75 | Hypolithic microbial communities of quartz rocks from Miers Valley, McMurdo Dry Valleys, Antarctica. Polar Biology, 2011, 34, 1657-1668. | 1.2 | 58 |
| 76 | Biotechnology of the Archaea. Trends in Biotechnology, 1992, 10, 315-323. | 9.3 | 56 |
| 77 | Nitrile biotransformations using free and immobilized cells of a thermophilic Bacillus spp.. Enzyme and Microbial Technology, 2000, 26, 368-373. | 3.2 | 56 |
| 78 | Gracilibacillus orientalis sp. nov., a novel moderately halophilic bacterium isolated from a salt lake in Inner Mongolia, China. International Journal of Systematic and Evolutionary Microbiology, 2006, 56, 599-604. | 1.7 | 56 |
| 79 | Halopiger xanaduensis gen. nov., sp. nov., an extremely halophilic archaeon isolated from saline Lake Shangmatala in Inner Mongolia, China. International Journal of Systematic and Evolutionary Microbiology, 2007, 57, 1402-1407. | 1.7 | 56 |
| 80 | Meta-pathway degradation of phenolics by thermophilic Bacilli. Enzyme and Microbial Technology, 1998, 23, 462-468. | 3.2 | 55 |
| 81 | Physical ecology of hypolithic communities in the central Namib Desert: The role of fog, rain, rock habitat, and light. Journal of Geophysical Research G: Biogeosciences, 2013, 118, 1451-1460. | 3.0 | 54 |
| 82 | Phylogeny, classification and metagenomic bioprospecting of microbial acetyl xylan esterases. Enzyme and Microbial Technology, 2016, 93-94, 79-91. | 3.2 | 54 |
| 83 | Soil nutritional status and biogeography influence rhizosphere microbial communities associated with the invasive tree Acacia dealbata. Scientific Reports, 2017, 7, 6472. | 3.3 | 54 |
| 84 | Caldalkalibacillus thermarum gen. nov., sp. nov., a novel alkalithermophilic bacterium from a hot spring in China. International Journal of Systematic and Evolutionary Microbiology, 2006, 56, 1217-1221. | 1.7 | 53 |
| 85 | The Gut Microbiomes of Two Pachysoma MacLeay Desert Dung Beetle Species (Coleoptera:) Tj ETQq1 1 0.784314 rgBT /Overlock 10 | 2.5 | 53 |
| 86 | Extracellular Î±-amylase from Thermus filiformis Ork A2: purification and biochemical characterization. Extremophiles, 1998, 2, 23-32. | 2.3 | 52 |
| 87 | Dissimilatory sulfate reduction in hypersaline coastal pans: Activity across a salinity gradient. Geochimica Et Cosmochimica Acta, 2007, 71, 5102-5116. | 3.9 | 52 |
| 88 | Metagenomic gene discovery: How far have we moved into novel sequence space?. Biotechnology Journal, 2009, 4, 1671-1683. | 3.5 | 52 |
| 89 | Water regime history drives responses of soil Namib Desert microbial communities to wetting events. Scientific Reports, 2015, 5, 12263. | 3.3 | 52 |
| 90 | Molecular characterisation of a novel thermophilic nitrile hydratase. BBA - Proteins and Proteomics, 1999, 1431, 249-260. | 2.1 | 51 |

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| 91 | Differences in Bacterial Diversity, Composition and Function due to Long-Term Agriculture in Soils in the Eastern Free State of South Africa. Diversity, 2019, 11, 61. | 1.7 | 50 |
| 92 | Novel thermophilic bacteria producing nitrile-degrading enzymes. Microbiology (United Kingdom), 1997, 143, 2313-2320. | 1.8 | 49 |
| 93 | 16ÂS rDNA primers and the unbiased assessment of thermophile diversity. Biochemical Society Transactions, 2004, 32, 218-221. | 3.4 | 49 |
| 94 | Bacterial and archaeal diversity in two hot spring microbial mats from the geothermal region of Tengchong, China. Extremophiles, 2012, 16, 607-618. | 2.3 | 49 |
| 95 | Biogeography of bacterial communities in hot springs: a focus on the actinobacteria. Extremophiles, 2012, 16, 669-679. | 2.3 | 49 |
| 96 | LEA Proteins and the Evolution of the WHy Domain. Applied and Environmental Microbiology, 2018, 84, . | 3.1 | 48 |
| 97 | Protection of Antarctic microbial communities Ã¢â‚¬â€œ Ã¢â‚¬Ëœout of sight, out of mindÃ¢â‚¬â„¢. Frontiers in Microbiology, 2015, 6, 151. | 3.5 | 47 |
| 98 | Bacillus chagannorensis sp. nov., a moderate halophile from a soda lake in Inner Mongolia, China. International Journal of Systematic and Evolutionary Microbiology, 2007, 57, 2084-2088. | 1.7 | 46 |
| 99 | Degradation of low rank coal by Trichoderma atroviride ES11. Journal of Industrial Microbiology and Biotechnology, 2007, 34, 625-631. | 3.0 | 46 |
| 100 | A novel, extremely alkaliphilic and cold-active esterase from Antarctic desert soil. Extremophiles, 2012, 16, 79-86. | 2.3 | 46 |
| 101 | Namib Desert dune/interdune transects exhibit habitat-specific edaphic bacterial communities. Frontiers in Microbiology, 2015, 6, 845. | 3.5 | 46 |
| 102 | The Functional Potential of the Rhizospheric Microbiome of an Invasive Tree Species, Acacia dealbata. Microbial Ecology, 2019, 77, 191-200. | 2.8 | 46 |
| 103 | Bacterial diversity in the rhizosphere of Proteaceae species. Environmental Microbiology, 2005, 7, 1755-1768. | 3.8 | 45 |
| 104 | Developments in nitrile and amide biotransformation processes. Trends in Biotechnology, 2010, 28, 561-569. | 9.3 | 45 |
| 105 | Cold stress affects antioxidative response and accumulation of medicinally important withanolides in Withania somnifera (L.) Dunal. Industrial Crops and Products, 2015, 74, 1008-1016. | 5.2 | 45 |
| 106 | Halostagnicola larsenii gen. nov., sp. nov., an extremely halophilic archaeon from a saline lake in Inner Mongolia, China. International Journal of Systematic and Evolutionary Microbiology, 2006, 56, 1519-1524. | 1.7 | 45 |
| 107 | Uracil-DNA glycosylase activities in hyperthermophilic micro-organisms. FEMS Microbiology Letters, 1996, 143, 267-271. | 1.8 | 44 |
| 108 | Understanding physiological responses to preâ€treatment inhibitors in ethanologenic fermentations. Biotechnology Journal, 2012, 7, 1169-1181. | 3.5 | 44 |

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| 109 | Thermostable nitrilase catalysed production of nicotinic acid from 3-cyanopyridine. Enzyme and Microbial Technology, 1999, 25, 718-724. | 3.2 | 43 |
| 110 | Immobilization of functionally unstable catechol-2,3-dioxygenase greatly improves operational stability. Enzyme and Microbial Technology, 2000, 26, 568-573. | 3.2 | 43 |
| 111 | Aquisalibacillus elongatus gen. nov., sp. nov., a moderately halophilic bacterium of the family Bacillaceae isolated from a saline lake. International Journal of Systematic and Evolutionary Microbiology, 2008, 58, 1922-1926. | 1.7 | 43 |
| 112 | Engineering pyruvate decarboxylase-mediated ethanol production in the thermophilic host Geobacillus thermoglucosidasius. Applied Microbiology and Biotechnology, 2014, 98, 1247-1259. | 3.6 | 43 |
| 113 | Molecular analysis of the nitrile catabolism operon of the thermophile Bacillus pallidus RAPc8. Biochimica Et Biophysica Acta - General Subjects, 2005, 1725, 35-46. | 2.4 | 42 |
| 114 | Genetic tool development underpins recent advances in thermophilic wholeâ€cell biocatalysts. Microbial Biotechnology, 2011, 4, 438-448. | 4.2 | 42 |
| 115 | Diel-scale temporal dynamics recorded for bacterial groups in Namib Desert soil. Scientific Reports, 2017, 7, 40189. | 3.3 | 42 |
| 116 | Biotic interactions are an unexpected yet critical control on the complexity of an abiotically driven polar ecosystem. Communications Biology, 2019, 2, 62. | 4.4 | 42 |
| 117 | Microbial community structure stability, a key parameter in monitoring the development of constructed wetland mesocosms during start-up. Research in Microbiology, 2012, 163, 28-35. | 2.1 | 41 |
| 118 | The spatial structures of hypolithic communities in the Dry Valleys of East Antarctica. Polar Biology, 2014, 37, 1823-1833. | 1.2 | 41 |
| 119 | Specific Microbial Communities Associate with the Rhizosphere of Welwitschia mirabilis, a Living Fossil. PLoS ONE, 2016, 11, e0153353. | 2.5 | 41 |
| 120 | Biodegradation of high-concentration isopropanol by a solvent-tolerant thermophile, Bacillus pallidus. Extremophiles, 2002, 6, 319-323. | 2.3 | 39 |
| 121 | Purification and partial characterization of a novel thermophilic carboxylesterase with high mesophilic specific activity. Enzyme and Microbial Technology, 1995, 17, 816-825. | 3.2 | 38 |
| 122 | Salsuginibacillus kocurii gen. nov., sp. nov., a moderately halophilic bacterium from soda-lake sediment. International Journal of Systematic and Evolutionary Microbiology, 2007, 57, 2381-2386. | 1.7 | 38 |
| 123 | Comparative investigations on thermostable pyrimidine nucleoside phosphorylases from Geobacillus thermoglucosidasius and Thermus thermophilus. Journal of Molecular Catalysis B: Enzymatic, 2012, 84, 27-34. | 1.8 | 38 |
| 124 | Hydrogen-Oxidizing Bacteria Are Abundant in Desert Soils and Strongly Stimulated by Hydration. MSystems, 2020, 5, . | 3.8 | 38 |
| 125 | CO-dependent hydrogen production by the facultative anaerobe Parageobacillus thermoglucosidasius. Microbial Cell Factories, 2018, 17, 108. | 4.0 | 37 |
| 126 | Nutrient Acquisition, Rather Than Stress Response Over Diel Cycles, Drives Microbial Transcription in a Hyper-Arid Namib Desert Soil. Frontiers in Microbiology, 2019, 10, 1054. | 3.5 | 37 |

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| 127 | Comparative analysis of the Geobacillus hemicellulose utilization locus reveals a highly variable target for improved hemicellulolysis. BMC Genomics, 2014, 15, 836. | 2.8 | 36 |
| 128 | Cyanobacteria and Alphaproteobacteria May Facilitate Cooperative Interactions in Niche Communities. Frontiers in Microbiology, 2017, 8, 2099. | 3.5 | 36 |
| 129 | Dissemination and survival of non-indigenous bacterial genomes in pristine Antarctic environments. Extremophiles, 2005, 9, 385-389. | 2.3 | 34 |
| 130 | Contrasting assembly processes in a bacterial metacommunity along a desiccation gradient. Frontiers in Microbiology, 2014, 5, 668. | 3.5 | 34 |
| 131 | Subtractive hybridization magnetic bead capture: A new technique for the recovery of fullâ€length ORFs from the metagenome. Biotechnology Journal, 2007, 2, 36-40. | 3.5 | 33 |
| 132 | Halorubrum kocurii sp. nov., an archaeon isolated from a saline lake. International Journal of Systematic and Evolutionary Microbiology, 2008, 58, 2031-2035. | 1.7 | 33 |
| 133 | Acrolein in Wine: Importance of 3-Hydroxypropionaldehyde and Derivatives in Production and Detection. Journal of Agricultural and Food Chemistry, 2010, 58, 3243-3250. | 5.2 | 33 |
| 134 | Flashy flagella: flagellin modification is relatively common and highly versatile among the Enterobacteriaceae. BMC Genomics, 2016, 17, 377. | 2.8 | 33 |
| 135 | Namib Desert primary productivity is driven by cryptic microbial community N-fixation. Scientific Reports, 2018, 8, 6921. | 3.3 | 33 |
| 136 | Temporal shifts of fungal communities in the rhizosphere and on tubers in potato fields. Fungal Biology, 2018, 122, 928-934. | 2.5 | 33 |
| 137 | The effect of the particulate phase on coal biosolubilisation mediated by Trichoderma atroviride in a slurry bioreactor. Fuel Processing Technology, 2008, 89, 123-130. | 7.2 | 32 |
| 138 | The genome of the Antarctic polyextremophileNesterenkoniasp. AN1 reveals adaptive strategies for survival under multiple stress conditions. FEMS Microbiology Ecology, 2016, 92, fiw032. | 2.7 | 32 |
| 139 | Detecting human bacterial contamination in Antarctic soils. Polar Biology, 2000, 23, 644-650. | 1.2 | 31 |
| 140 | Metagenomics, gene discovery and the ideal biocatalyst. Biochemical Society Transactions, 2004, 32, 298-302. | 3.4 | 31 |
| 141 | Aquisalimonas asiatica gen. nov., sp. nov., a moderately halophilic bacterium isolated from an alkaline, saline lake in Inner Mongolia, China. International Journal of Systematic and Evolutionary Microbiology, 2007, 57, 1137-1142. | 1.7 | 31 |
| 142 | Unique Aliphatic Amidase from a Psychrotrophic and Haloalkaliphilic Nesterenkonia Isolate. Applied and Environmental Microbiology, 2011, 77, 3696-3702. | 3.1 | 31 |
| 143 | Habitat heterogeneity and connectivity shape microbial communities in South American peatlands. Scientific Reports, 2016, 6, 25712. | 3.3 | 31 |
| 144 | Halorubrum luteum sp. nov., isolated from Lake Chagannor, Inner Mongolia, China. International Journal of Systematic and Evolutionary Microbiology, 2008, 58, 1705-1708. | 1.7 | 30 |

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| 145 | Genome sequence of temperate bacteriophage Psymv2 from Antarctic Dry Valley soil isolate Psychrobacter sp. MV2. Extremophiles, 2012, 16, 715-726. | 2.3 | 30 |
| 146 | Namib Desert edaphic bacterial, fungal and archaeal communities assemble through deterministic processes but are influenced by different abiotic parameters. Extremophiles, 2017, 21, 381-392. | 2.3 | 30 |
| 147 | The Phosphoglycerate Kinase and glsyceraldehyde-3-phosphate Dehydrogenase Genes from the Thermophilic Archaeon Sulfolobus Solfataricus Overlap by 8-bp. Isolation, Sequencing of the Genes and Expression in Escherichia coli. FEBS Journal, 1995, 233, 800-808. | 0.2 | 29 |
| 148 | PCR-based detection of non-indigenous microorganisms in â€˜pristineâ€™ environments. Journal of Microbiological Methods, 2003, 53, 157-164. | 1.6 | 29 |
| 149 | Genetic diversity of soil invertebrates corroborates timing estimates for past collapses of the West Antarctic Ice Sheet. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 22293-22302. | 7.1 | 29 |
| 150 | Structure of an aliphatic amidase fromGeobacillus pallidusRAPc8. Acta Crystallographica Section D: Biological Crystallography, 2007, 63, 1048-1058. | 2.5 | 28 |
| 151 | Bleaching response of corals and their Symbiodinium communities in southern Africa. Marine Biology, 2009, 156, 2049-2062. | 1.5 | 28 |
| 152 | The Mechanism of the Amidases. Journal of Biological Chemistry, 2013, 288, 28514-28523. | 3.4 | 28 |
| 153 | Genetic signatures indicate widespread antibiotic resistance and phage infection in microbial communities of the McMurdo Dry Valleys, East Antarctica. Polar Biology, 2015, 38, 919-925. | 1.2 | 28 |
| 154 | Natrinema ejinorense sp. nov., isolated from a saline lake in Inner Mongolia, China. International Journal of Systematic and Evolutionary Microbiology, 2006, 56, 2683-2687. | 1.7 | 27 |
| 155 | Cryptic microbial communities in Antarctic deserts. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 19749-19750. | 7.1 | 27 |
| 156 | Phenolic removal processes in biological sand filters, sand columns and microcosms. Bioresource Technology, 2012, 119, 262-269. | 9.6 | 27 |
| 157 | Antarctic psychrophiles: models for understanding the molecular basis of survival at low temperature and responses to climate change. Biodiversity, 2012, 13, 249-256. | 1.1 | 27 |
| 158 | The properties of immobilized caldolysin, a thermostable protease from an extreme thermophile. Biotechnology and Bioengineering, 1982, 24, 2053-2061. | 3.3 | 26 |
| 159 | Isolation and partial characterization of a novel thermostable carboxylesterase from a thermophilic Bacillus. Enzyme and Microbial Technology, 1991, 13, 158-163. | 3.2 | 26 |
| 160 | Halorubrum orientale sp. nov., a halophilic archaeon isolated from Lake Ejinor, Inner Mongolia, China. International Journal of Systematic and Evolutionary Microbiology, 2006, 56, 2559-2563. | 1.7 | 26 |
| 161 | Improving the production of a thermostable amidase through optimising IPTG induction in a highly dense culture of recombinant Escherichia coli. Biochemical Engineering Journal, 2010, 52, 19-24. | 3.6 | 26 |
| 162 | Understanding and protecting the world's biodiversity: The role and legacy of the SCAR programme â€œEvolution and Biodiversity in the Antarcticâ€• Marine Genomics, 2012, 8, 3-8. | 1.1 | 26 |

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| 163 | Evidence of variability in the structure and recruitment of rhizospheric and endophytic bacterial communities associated with arable sweet sorghum (Sorghum bicolor (L) Moench). Plant and Soil, 2013, 372, 265-278. | 3.7 | 26 |
| 164 | Trophic Selective Pressures Organize the Composition of Endolithic Microbial Communities From Global Deserts. Frontiers in Microbiology, 2019, 10, 2952. | 3.5 | 26 |
| 165 | Halovivax ruber sp. nov., an extremely halophilic archaeon isolated from Lake Xilinhot, Inner Mongolia, China. International Journal of Systematic and Evolutionary Microbiology, 2007, 57, 1024-1027. | 1.7 | 25 |
| 166 | Unique Microbial Phylotypes in Namib Desert Dune and Gravel Plain Fairy Circle Soils. Applied and Environmental Microbiology, 2016, 82, 4592-4601. | 3.1 | 25 |
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