# Carla C C R De Carvalho

List of Publications by Year
in descending order

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|---|---|---|---|
| 93 papers | 4,636 citations | 136740 32 h-index | 106150 65 g-index |
| 93 all docs | 93 docs citations | 93 times ranked | 6204 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Bioaugmentation and biostimulation strategies to improve the effectiveness of bioremediation processes. Biodegradation, 2011, 22, 231-241. | 1.5 | 615 |
| 2 | The Various Roles of Fatty Acids. Molecules, 2018, 23, 2583. | 1.7 | 403 |
| 3 | Carvone: Why and how should one bother to produce this terpene. Food Chemistry, 2006, 95, 413-422. | 4.2 | 323 |
| 4 | Enzymatic and whole cell catalysis: Finding new strategies for old processes. Biotechnology Advances, 2011, 29, 75-83. | 6.0 | 268 |
| 5 | Marine Biofilms: A Successful Microbial Strategy With Economic Implications. Frontiers in Marine Science, 2018, 5, . | 1.2 | 214 |
| 6 | Biotransformation of terpenes. Biotechnology Advances, 2006, 24, 134-142. | 6.0 | 211 |
| 7 | Whole cell biocatalysts: essential workers from Nature to the industry. Microbial Biotechnology, 2017, 10, 250-263. | 2.0 | 181 |
| 8 | Fluorometric determination of ethidium bromide efflux kinetics in Escherichia coli. Journal of Biological Engineering, 2009, 3, 18. | 2.0 | 164 |
| 9 | Production of Metabolites as Bacterial Responses to the Marine Environment. Marine Drugs, 2010, 8, 705-727. | 2.2 | 158 |
| 10 | The remarkable Rhodococcus erythropolis. Applied Microbiology and Biotechnology, 2005, 67, 715-726. | 1.7 | 122 |
| 11 | Cell wall adaptations of planktonic and biofilm Rhodococcus erythropolis cells to growth on C5 to C16 n-alkane hydrocarbons. Applied Microbiology and Biotechnology, 2009, 82, 311-320. | 1.7 | 109 |
| 12 | Adaptation of Rhodococcus erythropolis cells for growth and bioremediation under extreme conditions. Research in Microbiology, 2012, 163, 125-136. | 1.0 | 90 |
| 13 | Carotenoids in Aquatic Ecosystems and Aquaculture: A Colorful Business with Implications for Human Health. Frontiers in Marine Science, 0, 4, . | 1.2 | 88 |
| 14 | Biofilms: Recent Developments on an Old Battle. Recent Patents on Biotechnology, 2007, 1, 49-57. | 0.4 | 79 |
| 15 | Degradation of hydrocarbons and alcohols at different temperatures and salinities by Rhodococcus erythropolis DCL14. FEMS Microbiology Ecology, 2005, 51, 389-399. | 1.3 | 66 |
| 16 | Burkholderia puraquae sp. nov., a novel species of the Burkholderia cepacia complex isolated from hospital settings and agricultural soils. International Journal of Systematic and Evolutionary Microbiology, 2018, 68, 14-20. | 0.8 | 66 |
| 17 | Adaptation of Rhodococcus erythropolis DCL14 to growth on n-alkanes, alcohols and terpenes. Applied Microbiology and Biotechnology, 2005, 67, 383-388. | 1.7 | 63 |
| 18 | Mycobacterium sp.,Rhodococcus erythropolis, andPseudomonas putida behavior in the presence of organic solvents. Microscopy Research and Technique, 2004, 64, 215-222. | 1.2 | 55 |

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|---|---|---|---|
| 19 | Phenotypic Modifications in Staphylococcus aureus Cells Exposed to High Concentrations of Vancomycin and Teicoplanin. Frontiers in Microbiology, 2016, 7, 13. | 1.5 | 51 |
| 20 | Burkholderia cenocepacia Phenotypic Clonal Variation during a 3.5-Year Colonization in the Lungs of a Cystic Fibrosis Patient. Infection and Immunity, 2011, 79, 2950-2960. | 1.0 | 47 |
| 21 | Membrane transport systems and the biodegradation potential and pathogenicity of genus Rhodococcus. Frontiers in Physiology, 2014, 5, 133. | 1.3 | 47 |
| 22 | Adaptation of Rhodococcus erythropolis cells to high concentrations of toluene. Applied Microbiology and Biotechnology, 2007, 76, 1423-1430. | 1.7 | 46 |
| 23 | Dietary Carotenoids Regulate Astaxanthin Content of Copepods and Modulate Their Susceptibility to UV Light and Copper Toxicity. Marine Drugs, 2012, 10, 998-1018. | 2.2 | 43 |
| 24 | Maintenance of cell viability in the biotransformation of (âˆ’)-carveol with whole cells of Rhodococcus erythropolis. Journal of Molecular Catalysis B: Enzymatic, 2002, 19-20, 389-398. | 1.8 | 40 |
| 25 | Rapid adaptation of Rhodococcus erythropolis cells to salt stress by synthesizing polyunsaturated fatty acids. Applied Microbiology and Biotechnology, 2014, 98, 5599-606. | 1.7 | 40 |
| 26 | Sitosterol bioconversion with resting cells in liquid polymer based systems. Bioresource Technology, 2009, 100, 4050-4053. | 4.8 | 39 |
| 27 | Effect of carbon sources on lipid accumulation in Rhodococcus cells. Biochemical Engineering Journal, 2015, 94, 100-105. | 1.8 | 38 |
| 28 | Cell adaptation to solvent, substrate and product: a successful strategy to overcome product inhibition in a bioconversion system. Applied Microbiology and Biotechnology, 2005, 69, 268-275. | 1.7 | 37 |
| 29 | Fatty Acids as a Tool to Understand Microbial Diversity and Their Role in Food Webs of Mediterranean Temporary Ponds. Molecules, 2014, 19, 5570-5598. | 1.7 | 37 |
| 30 | Extraordinary soluteâ€stress tolerance contributes to the environmental tenacity of mycobacteria. Environmental Microbiology Reports, 2015, 7, 746-764. | 1.0 | 37 |
| 31 | Steroid bioconversion: Towards green processes. Food and Bioproducts Processing, 2010, 88, 12-20. | 1.8 | 36 |
| 32 | Siderophores as Ã¢â‚¬Å“Trojan HorsesÃ¢â‚¬Â• tackling multidrug resistance?. Frontiers in Microbiology, 2014, 5, 290. | 1.5 | 36 |
| 33 | Biofilms: Microbial Strategies for Surviving UV Exposure. Advances in Experimental Medicine and Biology, 2017, 996, 233-239. | 0.8 | 34 |
| 34 | Preventing biofilm formation: promoting cell separation with terpenes. FEMS Microbiology Ecology, 2007, 61, 406-413. | 1.3 | 33 |
| 35 | Behaviour of Mycobacterium sp. NRRL B-3805 whole cells in aqueous, organic-aqueous and organic media studied by fluorescence microscopy. Applied Microbiology and Biotechnology, 2004, 64, 695-701. | 1.7 | 32 |
| 36 | Assessment of three-dimensional biofilm structure using an optical microscope. BioTechniques, 2007, 42, 616-620. | 0.8 | 30 |

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|---|---|---|---|
| 37 | Lipids of Prokaryotic Origin at the Base of Marine Food Webs. Marine Drugs, 2012, 10, 2698-2714. | 2.2 | 30 |
| 38 | Production and Recovery of Limonene-1,2-Diol and Simultaneous Resolution of a Diastereomeric Mixture of Limonene-1,2-Epoxide with whole Cells ofRhodococcus ErythropolisDCL14. Biocatalysis and Biotransformation, 2000, 18, 223-235. | 1.1 | 28 |
| 39 | Influence of reactor configuration on the production of carvone from carveol by whole cells of Rhodococcus erythropolis DCL14. Journal of Molecular Catalysis B: Enzymatic, 2002, 19-20, 377-387. | 1.8 | 27 |
| 40 | Solvent toxicity in organic-aqueous systems analysed by multivariate analysis. Bioprocess and Biosystems Engineering, 2004, 26, 361-375. | 1.7 | 26 |
| 41 | Antibacterial properties of the extract of Abelmoschus esculentus. Biotechnology and Bioprocess Engineering, 2011, 16, 971-977. | 1.4 | 26 |
| 42 | The multidrug resistance transporters CgTpo1_1 and CgTpo1_2 play a role in virulence and biofilm formation in the human pathogenCandida glabrata. Cellular Microbiology, 2017, 19, e12686. | 1.1 | 26 |
| 43 | Decoding the ocean's microbiological secrets for marine enzyme biodiscovery. FEMS Microbiology Letters, 2019, 366, . | 0.7 | 26 |
| 44 | Towards the bio-production of trans-carveol and carvone from limonene: induction after cell growth on limonene and toluene. Tetrahedron: Asymmetry, 2003, 14, 3925-3931. | 1.8 | 25 |
| 45 | Principal Components Analysis as a Tool to Summarise Biotransformation Data: Influence on Cells of Solvent Type and Phase Ratio. Biocatalysis and Biotransformation, 2003, 21, 305-314. | 1.1 | 24 |
| 46 | Multi-Enzyme Systems in Flow Chemistry. Processes, 2021, 9, 225. | 1.3 | 22 |
| 47 | A new NDT technique based on bacterial cells to detect micro surface defects. NDT and E International, 2014, 63, 43-49. | 1.7 | 21 |
| 48 | Chrysotile as a support for the immobilisation of Mycobacterium sp. NRRL B-3805 cells for the bioconversion of Î²-sitosterol in an organicâ€“aqueous two-liquid phase system. Journal of Molecular Catalysis B: Enzymatic, 2005, 32, 61-65. | 1.8 | 20 |
| 49 | Adaptive response of Rhodococcus opacus PWD4 to salt and phenolic stress on the level of mycolic acids. AMB Express, 2016, 6, 66. | 1.4 | 20 |
| 50 | Recent Achievements on Siderophore Production and Application. Recent Patents on Biotechnology, 2011, 5, 183-198. | 0.4 | 17 |
| 51 | Mycobacterial Response to Organic Solvents and Possible Implications on Cross-Resistance With Antimicrobial Agents. Frontiers in Microbiology, 2018, 9, 961. | 1.5 | 17 |
| 52 | Biofilms: New Ideas for An Old Problem. Recent Patents on Biotechnology, 2012, 6, 13-22. | 0.4 | 16 |
| 53 | Adaptation of Cupriavidus necator to conditions favoring polyhydroxyalkanoate production. Journal of Biotechnology, 2013, 164, 309-317. | 1.9 | 16 |
| 54 | Rhodococcus erythropoliscells adapt their fatty acid composition during biofilm formation on metallic and non-metallic surfaces. FEMS Microbiology Ecology, 2015, 91, fiv135. | 1.3 | 15 |

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| 55 | Principal component analysis applied to bacterial cell behaviour in the presence of organic solvents. Biocatalysis and Biotransformation, 2004, 22, 203-214. | 1.1 | 14 |
| 56 | A simple method to observe organic solvent drops with a standard optical microscope. Microscopy Research and Technique, 2003, 60, 465-466. | 1.2 | 13 |
| 57 | Bacterial diversity assessed by cultivation-based techniques shows predominance ofStaphylococccusspecies on coins collected in Lisbon and Casablanca. FEMS Microbiology Ecology, 2014, 88, 26-37. | 1.3 | 13 |
| 58 | Cultivationâ€based strategies to find efficient marine biocatalysts. Biotechnology Journal, 2017, 12, 1700036. | 1.8 | 13 |
| 59 | Ancient Procedures for the High-Tech World: Health Benefits and Antimicrobial Compounds from the Mediterranean Empires. Open Biotechnology Journal, 2008, 2, 235-246. | 0.6 | 13 |
| 60 | On the feasibility of the microscale approach for a multistep biotransformation: sitosterol side chain cleavage. Journal of Chemical Technology and Biotechnology, 2007, 82, 856-863. | 1.6 | 12 |
| 61 | Tumour metastasis as an adaptation of tumour cells to fulfil their phosphorus requirements. Medical Hypotheses, 2012, 78, 664-667. | 0.8 | 12 |
| 62 | Production and Purification of Therapeutic Enzymes. Advances in Experimental Medicine and Biology, 2019, 1148, 1-24. | 0.8 | 12 |
| 63 | Edible flowers of Helichrysum italicum: Composition, nutritive value, and bioactivities. Food Research International, 2022, 157, 111399. | 2.9 | 11 |
| 64 | Scalingâ€up of complex wholeâ€cell bioconversions in conventional and nonâ€conventional media. Biotechnology and Bioengineering, 2010, 106, 619-626. | 1.7 | 10 |
| 65 | Adaptation of Rhodococcus to Organic Solvents. Microbiology Monographs, 2010, , 109-131. | 0.3 | 10 |
| 66 | Phenotypic Adaptations Help Rhodococcus erythropolis Cells during the Degradation of Paraffin Wax. Biotechnology Journal, 2019, 14, e1800598. | 1.8 | 10 |
| 67 | Integral Analysis of Liquid-Hot-Water Pretreatment of Wheat Straw: Evaluation of the Production of Sugars, Degradation Products, and Lignin. Sustainability, 2022, 14, 362. | 1.6 | 10 |
| 68 | Modelling the biokinetic resolution of diastereomers present in unequal initial amounts. Tetrahedron: Asymmetry, 2002, 13, 1637-1643. | 1.8 | 9 |
| 69 | A simple imaging method for biomass determination. Journal of Microbiological Methods, 2005, 60, 135-140. | 0.7 | 8 |
| 70 | Anchoring high-throughput screening methods to scale-up bioproduction of siderophores. Process Biochemistry, 2012, 47, 416-421. | 1.8 | 8 |
| 71 | Degradation of hydrocarbons and alcohols byRhodococcus erythropolisDCL14: A comparison in scale performance. Biocatalysis and Biotransformation, 2007, 25, 144-150. | 1.1 | 7 |
| 72 | Green Solvents for Biocatalysis. , 2012, , 121-146. | | 7 |

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| 73 | Adaptation of Rhodococcus to Organic Solvents. Microbiology Monographs, 2019, , 103-135. | 0.3 | 7 |
| 74 | Process Development for Benzyl Alcohol Production by Whole-Cell Biocatalysis in Stirred and Packed Bed Reactors. Microorganisms, 2022, 10, 966. | 1.6 | 7 |
| 75 | Biotransformations. , 2011, , 451-460. | | 5 |
| 76 | Mycobacterium vaccae Adaptation to Disinfectants and Hand Sanitisers, and Evaluation of Cross-Tolerance with Antimicrobials. Antibiotics, 2020, 9, 544. | 1.5 | 5 |
| 77 | Impact of PrsA on membrane lipid composition during daptomycin-resistance-mediated Î²-lactam sensitization in clinical MRSA strains. Journal of Antimicrobial Chemotherapy, 2021, 77, 135-147. | 1.3 | 5 |
| 78 | Nova TÃ©cnica de END Baseada em CÃ©lulas Bacterianas para DetecÃ§Ã£o de Micro e Nano Defeitos Superficiais. Soldagem E Inspecao, 2015, 20, 253-259. | 0.6 | 4 |
| 79 | Developments in micro- and nano-defects detection using bacterial cells. NDT and E International, 2016, 78, 20-28. | 1.7 | 4 |
| 80 | Using Biotechnology to Solve Engineering Problems: Non-Destructive Testing of Microfabrication Components. Materials, 2017, 10, 788. | 1.3 | 4 |
| 81 | Determining transaminase activity in bacterial libraries by time-lapse imaging. Chemical Communications, 2019, 55, 13538-13541. | 2.2 | 4 |
| 82 | Ï‰-Transaminase-Mediated Asymmetric Synthesis of (S)-1-(4-Trifluoromethylphenyl)Ethylamine. Catalysts, 2021, 11, 307. | 1.6 | 4 |
| 83 | Detection of mcr-1 Gene in Undefined Vibrio Species Isolated from Clams. Microorganisms, 2022, 10, 394. | 1.6 | 4 |
| 84 | Surface discontinuity detection using bacterial suspensions. Welding in the World, Le Soudage Dans Le Monde, 2015, 59, 723-730. | 1.3 | 3 |
| 85 | Fungi in Fermentation and Biotransformation Systems. Fungal Biology, 2016, , 525-541. | 0.3 | 3 |
| 86 | Optimization of Multiparameters for Increased Yields of Cytochrome B5 in Bioreactors. Molecules, 2021, 26, 4148. | 1.7 | 2 |
| 87 | Biocatalysis of Steroids with Mycobacterium sp. in Aqueous and Organic Media. Methods in Molecular Biology, 2017, 1645, 313-320. | 0.4 | 1 |
| 88 | Biotransformations. , 2017, , 574-585. | | 1 |
| 89 | Marine exopolysaccharides provide protection in extreme environments. , 2019, , 95-110. | | 1 |
| 90 | Degradation of toluene and xylene by Rhodococcus cells. Journal of Biotechnology, 2007, 131, S101. | 1.9 | 0 |

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|---|---|---|---|
| 91 | Lab-scale bioproduction of siderophores. Journal of Biotechnology, 2010, 150, 424-424. | 1.9 | 0 |
| 92 | Process intensification platforms for application in bioengineering. , 2011, , . | | 0 |
| 93 | Nondestructive testing in microfabrication using bacteria. CiÃªncia & Tecnologia Dos Materiais, 2017, 29, e262-e264. | 0.5 | 0 |