

References:

1. Abdi, N. M., & Fredrick, K. (2005). Contribution of 16S rRNA nucleotides forming the 30S subunit A and P sites to translation in *Escherichia coli. RNA*, 11(11), 1624-1632. doi, 10.1261/rna.2118105
2. Abid, S., Abdula, A. M., Al Marjani, M., & Abdulhameed, Q. (2019). Synthesis, antimicrobial, antioxidant and docking study of some novel 3, 5-disubstituted-4, 5-dihydro-1H-pyrazoles incorporating imine moiety. *Egyptian Journal of Chemistry*, 62(4), 739-749. doi, 10.21608/ejchem.2018.5804.1498
3. Adams, F. C. (2019). X-Ray Absorption and Diffraction | Overview. In Worsfold, P., Poole, C., Townshend, A, & Miró, M. (eds.), *Encyclopedia of Analytical Science (Ed. 3rd)*, (pp. 391-403). Academic Press. doi, 10.1016/B978-0-12-409547-2.14263-5
4. Adeleke, R., Nwangburuka, C., & Oboirien, B. (2017). Origins, roles and fate of organic acids in soils: A review. *South African Journal of Botany*, 108, 393-406. doi, 10.1016/j.sajb.2016.09.002
5. Adenipekun, C. O., & Lawal, R. (2012). Uses of mushrooms in bioremediation: A review. *Biotechnology and Molecular Biology Reviews*, 7(3), 62-68. doi: 10.5897/BMBR12.006
6. Ahemad, M. (2015). Enhancing phytoremediation of chromium-stressed soils through plant-growth-promoting bacteria. *Journal of Genetic Engineering and Biotechnology*, 13(1), 51-58. doi, 10.1016/j.jgeb.2015.02.001
7. Ahemad, M. (2019). Remediation of metalliferous soils through the heavy metal resistant plant growth promoting bacteria: Paradigms and prospects. *Arabian Journal of Chemistry*, 12(7), 1365-1377. doi, 10.1016/j.arabjc.2014.11.020
8. Ahmed, E., & Holmström, S. J. (2014). Siderophores in environmental research: roles and applications. *Microbial biotechnology*, 7(3), 196-208. doi, 10.1111/1751-7915.12117
9. Aishah, R. M., Shamshuddin, J., Fauziah, C. I., Arifin, A., & Panhwar, Q. A. (2019). Using Plant Species for Phytoremediation of Highly Weathered Soils Contaminated with Zinc and Copper with Application of Sewage Sludge. *BioResources*, 14(4), 8701-8727.
10. Akbarpour Nesheli, M., Asgarani, E., & Dabbagh, R. (2018). Biosorption potential of Cr (VI) by *Kocuria* sp. ASB107, a radio-resistant bacterium isolated from Ramsar, Iran. *Chemistry and Ecology*, 34(2), 163-176. doi, 10.1080/02757540.2017.1399126
11. Alam, M. Z., & Ahmad, S. (2012). Toxic chromate reduction by resistant and sensitive bacteria isolated from tannery effluent contaminated soil. *Annals of microbiology*, 62(1), 113-121. doi, 10.1007/s13213-011-0235-4

12. Ali, S., Zeng, F., Qiu, B., Cai, S., Qiu, L., Wu, F., & Zhang, G. (2011). Interactive effects of aluminium and chromium stresses on the uptake of nutrients and the metals in barley. *Soil Science and Plant Nutrition*, 57(1), 68-79. doi. 10.1080/00380768.2010.549444
13. Altschul, S. F., Gish, W., Miller, W., Myers, E. W., & Lipman, D. J. (1990). Basic local alignment search tool. *Journal of molecular biology*, 215(3), 403-410. doi, 10.1016/S0022-2836(05)80360-2
14. Andersson, S., & Nilsson, S. I. (2001). Influence of pH and temperature on microbial activity, substrate availability of soil-solution bacteria and leaching of dissolved organic carbon in a mor humus. *Soil Biology and Biochemistry*, 33(9), 1181-1191. doi, 10.1016/S0038-0717(01)00022-0
15. Andrews J. M. (2001). Determination of minimum inhibitory concentrations. *The Journal of antimicrobial chemotherapy*, 48 Suppl 1, 5–16. doi, 10.1093/jac/48.suppl_1.5
16. APHA (1975). Standard Methods for the Examination of Water and Wastewater. *APHA (Ed 14th)*. Washington, D.C.
17. APHA (American Public Health Association), Eaton, A.D., American Water Works Association, & Water Environment Federation. (2005). *Standard Methods for the Examination of Water and Wastewater, (Ed 21st)*. American Public Health Association (APHA), Washington, D.C.
18. APHA (American Public Health Association), Rice, E.W., Baird, R.B., & Eaton, A.D. (2017). *Standard Methods for the Examination of Water and Wastewater, (Ed 23rd)*. American Public Health Association (APHA), Washington, D.C.
19. APHA (American Public Health Association), Rice, E.W., Baird, R.B., Eaton, A.D., & Clesceri L.S. (2012). *Standard Methods for the Examination of Water and Wastewater, (Ed 22nd)*. American Public Health Association (APHA), Washington, D.C.
20. Arshad, M., Saleem, M., & Hussain, S. (2007). Perspectives of bacterial ACC deaminase in phytoremediation. *TRENDS in Biotechnology*, 25(8), 356-362. doi, 10.1016/j.tibtech.2007.05.005
21. ASTM (AMERICAN SOCIETY FOR TESTING AND MATERIALS). (1976). Water. *ASTM Annual Book of Standards, D1589-60*, pp. 373. American Soc. Testing & Materials, Philadelphia, Pa.
22. ASTM (AMERICAN SOCIETY FOR TESTING AND MATERIALS). (1995). Standard test methods for chemical oxygen demand (dichromate oxygen demand) of water. *ASTM Annual Book of Standards, D1252-95*. American Soc. Testing & Materials, Philadelphia, Pa.
23. Atieno, N. R., Owuor, O. P., & Omwoyo, O. (2013). Heavy metal and associated antibiotic resistance of fecal coliforms, fecal streptococci and pathogens isolated from wastewaters of abattoirs in Nairobi, Kenya. *Journal of Applied Biosciences*, 64, 4858-4866. doi, 10.4314/jab.v64i1.88476
24. Atlas, R. M. (1993). *Handbook of Microbiological Media*, Parks, L. (ed.) CRC Press.

25. Average Ultraviolet Index for Kolkata. Retrieved 7 December 2020.
26. Ayangbenro, A. S., & Babalola, O. O. (2017). A new strategy for heavy metal polluted environments: a review of microbial biosorbents. *International journal of environmental research and public health*, 14(1), 94. doi, 10.3390/ijerph14010094
27. Ayangbenro, A. S., & Babalola, O. O. (2017). A new strategy for heavy metal polluted environments: a review of microbial biosorbents. *International journal of environmental research and public health*, 14(1), 94. doi, 10.3390/ijerph14010094
28. Aziz, H. A., Adlan, M. N., & Ariffin, K. S. (2008). Heavy metals (Cd, Pb, Zn, Ni, Cu and Cr (III)) removal from water in Malaysia: post treatment by high quality limestone. *Bioresource technology*, 99(6), 1578-1583. doi, 10.1016/j.biortech.2007.04.007
29. Badri, D. V., & Vivanco, J. M. (2009a). Regulation and function of root exudates. *Plant, cell & environment*, 32(6), 666-681. doi, 10.1111/j.1365-3040.2009.01926.x
30. Badri, D. V., Weir, T. L., Van der Lelie, D., & Vivanco, J. M. (2009). Rhizosphere chemical dialogues: plant–microbe interactions. *Current opinion in biotechnology*, 20(6), 642-650. doi, 10.1016/j.copbio.2009.09.014
31. Baird, R., & Bridgewater, L. (2017). *Standard methods for the examination of water and wastewater*. American Public Health Association, APHA (Ed 14th). Washington, D.C.
32. Bais, H. P., Weir, T. L., Perry, L. G., Gilroy, S., & Vivanco, J. M. (2006). The role of root exudates in rhizosphere interactions with plants and other organisms. *Annual Review of Plant Biology*, 57, 233-266. doi, 10.1146/annurev.arplant.57.032905.105159
33. Balows A. (2003). *Manual of clinical microbiology* (Ed. 8th, Vol. 2) Balows A. (chief ed) P. R. Murray, E. J. Baron, J. H. Jorgenson, M. A. Pfaller, & R. H. Yolken, (volume eds.). American Society for Microbiology (ASM) Press, Washington, D.C.
34. Banerjee, A., Jhariya, M..K., Yadav, D. K., & Raj, A. (2018). Micro-remediation of Metals: A New Frontier in Bioremediation. In: Hussain C. (ed.), *Handbook of Environmental Materials Management*. Springer, Cham. doi, 10.1007/978-3-319-58538-3_10-1
35. Bartholomew, J. W., & Mittwer, T. (1952). The gram stain. *Bacteriological reviews*, 16(1), 1.
36. Bauer, A. W., Kirby, W. M., Sherris, J. C., & Turck, M. (1966). Antibiotic susceptibility testing by a standardized single disk method. *American journal of clinical pathology*, 45(4), 493–496.
37. Benizri, E., & Kidd, P. S. (2018). The role of the rhizosphere and microbes associated with hyperaccumulator plants in metal accumulation. In Van der Ent, A., Echevarria, G., Baker, A., & Morel, J. (eds.) *Agromining: Farming for metals* (pp. 157-188). Springer, Cham. doi, 10.1007/978-3-319-61899-9_9
38. Bergey, D. H., & Holt, J. G. (2000). *Bergey's manual of determinative bacteriology* (Ed.. 9th). Williams & Wilkins, Lippincott, Philadelphia.

39. Bhattacharya, A. K., Mandal, S. N., & Das, S. K. (2006). Bioaccumulation of chromium and cadmium in commercially edible fishes of Gangetic West Bengal. *Trends in Applied Science Research*, 1, 511-517. doi, 10.3923/tasr.2006.511.517
40. Bhattacharyya, R. N., & Basu, P. S. (1992). Bioproduction of indole acetic acid by a Rhizobium sp. from root nodules of a leguminous climber, *Psophocarpus tetragonolobus* DC. *Indian journal of experimental biology*, 30(7), 632-635.
41. Bhattacharyya, R., Das, S., Basu, S., (2015). Bioproduction of indole acetic acid by a Rhizobium sp. In heavy metal stress condition. *Journal of the botanical society of Bengal*. 69, 141-146.
42. Bhattacharyya, R., Das, S., Bhattacharya, R., Chatterjee, M., & Dey, A. (2017). Rhizobial exopolysaccharides: a novel biopolymer for legume-rhizobia symbiosis and environmental monitoring. In Zaidi, A., Khan, M., & Musarrat, J. (eds.), *Microbes for legume improvement* (pp. 119-133). Springer, Cham. doi, 10.1007/978-3-319-59174-2_5
43. Binkley, D., & Fisher, R. F. (2012). *Ecology and management of forest soils*. Oxford: Wiley-Blackwell.
44. Branco, R., Chung, A. P., Johnston, T., Gurel, V., Morais, P., & Zhitkovich, A. (2008). The chromate-inducible chrBACF operon from the transposable element TnOtChr confers resistance to chromium (VI) and superoxide. *Journal of bacteriology*, 190(21), 6996-7003. doi, 10.1128/JB.00289-08
45. Braud, A., Hannauer, M., Mislin, G. L., & Schalk, I. J. (2009a). The *Pseudomonas aeruginosa* pyochelin-iron uptake pathway and its metal specificity. *Journal of bacteriology*, 191(11), 3517-3525. doi, 10.1128/JB.00010-09
46. Brink, B. (2013). Urease Test Protocol. *American Society for Microbiology Microbe Library*.
47. Brugger, S. D., Baumberger, C., Jost, M., Jenni, W., Brugger, U., & Mühlmann, K. (2012). Automated counting of bacterial colony forming units on agar plates. *PloS one*, 7(3), e33695. doi, 10.1371/journal.pone.0033695.
48. Brumovský, M., Oborná, J., Lacina, P., Hegedüs, M., Sracek, O., Kolařík, J., ... & Filip, J. (2020). Sulfidated nano-scale zerovalent iron is able to effectively reduce in situ hexavalent chromium in a contaminated aquifer. *Journal of Hazardous Materials*, 405, 124665. doi, 10.1016/j.jhazmat.2020.124665
49. Buchan, D. W., Minneci, F., Nugent, T. C., Bryson, K., & Jones, D. T. (2013). Scalable web services for the PSIPRED Protein Analysis Workbench. *Nucleic acids research*, 41(W1), W349-W357. doi, 10.1093/nar/gkt381
50. Buerkert, A., Joergensen, R. G., Ludwig, B., & Schlecht, E. (2012). Nutrient and carbon fluxes in terrestrial agro-ecosystems. In Marschner, P. (Ed.) *Mineral Nutrition of Higher Plants (Ed. 3rd)*, (pp. 473-482). Academic Press. doi, 10.1016/B978-0-12-384905-2.00018-2

51. Cabrol, L., Quéméneur, M., & Misson, B. (2017). Inhibitory effects of sodium azide on microbial growth in experimental resuspension of marine sediment. *Journal of microbiological methods*, 133, 62-65. doi, 10.1016/j.mimet.2016.12.021.
52. Camargo, F. A. O., Bento, F. M., Okeke, B. C., & Frankenberger, W. T. (2004). Hexavalent chromium reduction by an actinomycete, *Arthrobacter crystallopoietes* ES 32. *Biological trace element research*, 97(2), 183-194. doi, 10.1385/BTER:97:2:183
53. Casida Jr, L. E., Klein, D. A., & Santoro, T. (1964). Soil dehydrogenase activity. *Soil science*, 98(6), 371-376.
54. Cefalu, W. T., & Hu, F. B. (2004). Role of chromium in human health and in diabetes. *Diabetes care*, 27(11), 2741-2751. doi, 10.2337/diacare.27.11.2741
55. Cervantes-Ramírez, L. T., Ramírez-López, M., Mussali-Galante, P., Ortiz-Hernández, M., Sánchez-Salinas, E., & Tovar-Sánchez, E. (2018). Heavy metal biomagnification and genotoxic damage in two trophic levels exposed to mine tailings: a network theory approach. *Revista chilena de historia natural*, 91,6. doi, 10.1186/s40693-018-0076-7
56. Chakraborty, S. (2015). Environmental sustainability in wastewater treatment by phytoremediation With *Pistia stratiotes* L. (Water Lettuce) in East Kolkata Wetland. *International Journal of Bio-Resource, Environment and Agricultural Sciences*. 1(4), 132-139.
57. Channarayappa, C., & Biradar, D. P. (2018). Plant Mineral Nutrients. In *Soil Basics, Management and Rhizosphere Engineering for Sustainable Agriculture*. CRC Press, Taylor and Francis group, New York.
58. Channarayappa, C., & Biradar, D. P. (2018). *Soil Basics, Management and Rhizosphere Engineering for Sustainable Agriculture*. CRC Press, Taylor & Francis Group, United Kingdom. doi: 10.1201/9781351044271
59. **Chatterjee, C.**, Bhattacharyya, R., & Sarkar Biswas S., (2018). Characterize heavy metal tolerant rhizospheric sewage bacteria isolated from Tolly nullah (with special emphasis on strain *Microbacterium radiodurans* K12016). *International Journal of Engineering Science and Mathematics*.7, 84-95.
60. Chattopadhyay, B., Datta, S., Chatterjee, A., & Mukhopadhyay, S. K. (2000). The environmental impact of waste chromium of tannery agglomerates in the east Calcutta wetland ecosystem. *journal of the society of leather technologists and chemists*, 84(2), 94-100.
61. Chaudhuri, S. R., Mukherjee, I., Ghosh, D., & Thakur, A. R. (2012). East Kolkata wetland: a multifunctional niche of international importance. *OnLine Journal of Biological Sciences*, 12(2), 80-88. doi, 10.3844/ojbsci.2012.80.88
62. Chellaiah, E. R. (2018). Cadmium (heavy metals) bioremediation by *Pseudomonas aeruginosa*: a minireview. *Applied water science*, 8(6), 1-10. doi, 10.1007/s13201-018-0796-5

63. Chen, J., Li, J., Zhang, H., Shi, W., & Liu, Y. (2019). Bacterial Heavy-Metal and Antibiotic Resistance Genes in a Copper Tailing Dam Area in Northern China. *Frontiers in microbiology*, 10, 1916. doi, 10.3389/fmicb.2019.01916
64. Chen, V. B., Arendall, W. B., Headd, J. J., Keedy, D. A., Immormino, R. M., Kapral, G. J., ... & Richardson, D. C. (2010). MolProbity: all-atom structure validation for macromolecular crystallography. *Acta Crystallographica Section D: Biological Crystallography*, 66(1), 12-21. doi, 10.1107/S0907444909042073
65. Chen, X. H., Koumoutsi, A., Scholz, R., Schneider, K., Vater, J., Süssmuth, R., et al. (2009). Genome analysis of *Bacillus amyloliquefaciens* FZB42 reveals its potential for biocontrol of plant pathogens. *Journal of Biotechnology*, 140, 27–37. doi, 10.1016/j.jbiotec.2008.10.011
66. Cherif-Silini, H., Silini, A., Ghoul, M., Yahiaoui, B., & Arif, F. (2013). Solubilization of phosphate by the Bacillus under salt stress and in the presence of osmoprotectant compounds. *African Journal of Microbiology Research*, 7(37), 4562-4571. doi, 10.5897/2013.5696
67. Christensen, W. B. (1946). Urea decomposition as a means of differentiating *Proteus* and paracolon cultures from each other and from *Salmonella* and *Shigella* types. *Journal of bacteriology*, 52(4), 461. doi, 10.1128/JB.52.4.461-466.1946
68. Clark, W. M., & Lubs, H. A. (1915). The differentiation of bacteria of the colonaerogenes family by the use of indicators. *The Journal of Infectious Diseases*. 17, 160-173. doi, jstor.org/stable/30083493
69. Cooper, K. E. (1955). Theory of antibiotic inhibition zones in agar media. *Nature*, 176(4480), 510-511. doi, 10.1038/176510b0
70. Dahlheimer, S. R., Neal, C. R., & Fein, J. B. (2007). Potential mobilization of platinum-group elements by siderophores in surface environments. *Environmental science & technology*, 41(3), 870-875. doi, 10.1021/es0614666
71. Dale, S. E., Doherty-Kirby, A., Lajoie, G., & Heinrichs, D. E. (2004). Role of siderophore biosynthesis in virulence of *Staphylococcus aureus*: identification and characterization of genes involved in production of a siderophore. *Infection and immunity*, 72(1), 29-37. doi, 10.1128/IAI.72.1.29-37.2004
72. Dang, H., & Jiao, N. (2014). Perspectives on the microbial carbon pump with special reference to microbial respiration and ecosystem efficiency in large estuarine systems. *Biogeosciences*, 11(14), 3887-3898. doi, 10.5194/bg-11-3887-2014
73. Dartnell, L. R., Roberts, T. A., Moore, G., Ward, J. M., & Muller, J. P. (2013). Fluorescence characterization of clinically-important bacteria. *PLoS One*, 8(9), e75270. doi, 10.1371/journal.pone.0075270
74. Devi, R. (2011). Bioremediation of tannery effluent by *Aspergillus flavus*. *Pollution Research*, 6(4), 141-8.

75. Dey, S., & Paul, A. K. (2013). Evaluation of in vitro reduction of hexavalent chromium by cell-free extract of *Arthrobacter* sp. SUK 1201. *Microbiology Research Journal International*, 325-338. doi, 10.9734/BMRJ/2013/3726
76. Dey, S., Pandit, B., & Paul, A. K. (2014). Reduction of hexavalent chromium by viable cells of chromium resistant bacteria isolated from chromite mining environment. *Journal of Mining*, 2014. 941341. doi, doi.org/10.1155/2014/941341
77. Dey, S., Pandit, B., & Paul, A. K. (2014). Reduction of hexavalent chromium by viable cells of chromium resistant bacteria isolated from chromite mining environment. *Journal of Mining*, 2014, 941341. doi.10.1155/2014/941341
78. Dey, U., Chatterjee, S., & Mondal, N. K. (2016). Isolation and characterization of arsenic-resistant bacteria and possible application in bioremediation. *Biotechnology reports*, 10, 1-7. doi: 10.1016/j.btre.2016.02.002
79. Dlugokencky, E., & Houweling, S. (2003). Methane. In Holton, J. R. (ed.) *Encyclopedia of Atmospheric Sciences*, (pp. 1286-1294). Academic Press. doi, 10.1016/B0-12-227090-8/00223-2
80. Dolla, A., Fu, R., Brumlik, M. J., & Voordouw, G. (1992). Nucleotide sequence of dcrA, a *Desulfovibrio vulgaris* Hildenborough chemoreceptor gene, and its expression in *Escherichia coli*. *Journal of bacteriology*, 174(6), 1726-1733. doi, 10.1128/jb.174.6.1726-1733.1992
81. Doyle, R. J., Matthews, T. H., & Streips, U. N. (1980). Chemical basis for selectivity of metal ions by the *Bacillus subtilis* cell wall. *Journal of bacteriology*, 143(1), 471-480.
82. Ehrlich, H. L. (1997). Microbes and metals. *Applied microbiology and biotechnology*, 48(6), 687-692. doi, 10.1007/s002530051116
83. Elangovan, R., Abhipsa, S., Rohit, B., Ligy, P., & Chandraraj, K. (2006). Reduction of Cr (VI) by a *Bacillus* sp. *Biotechnology Letters*, 28(4), 247-252. doi, 10.1007/s10529-005-5526-z
84. El-Sayed, S. W., Akhkha, A., El-Naggar, M. Y., & Elbadry, M. (2014). In vitro antagonistic activity, plant growth promoting traits and phylogenetic affiliation of rhizobacteria associated with wild plants grown in arid soil. *Frontiers in Microbiology*, 5, 651. doi, 10.3389/fmicb.2014.00651
85. Enebe, M. C., & Babalola, O. O. (2019). The impact of microbes in the orchestration of plants' resistance to biotic stress: a disease management approach. *Applied microbiology and biotechnology*, 103(1), 9-25. doi, 10.1007/s00253-018-9433-3
86. EPA (Environmental Protection Agency), U.S. (1975). *Standard Methods for the Examination of Water and Wastewater (Method 422B, 1975, Ed 14th)*, pp. 443. EPA 600_4_79_020, U.S. Environmental Protection Agency, Washington, D.C.

87. EPA (Environmental Protection Agency), U.S. (1984). *Health assessment document for chromium (1984a)*: Research Triangle Park, NC: Environmental Assessment and Criteria Office, EPA 600/8-83-014F, U.S. Environmental Protection Agency, Washington, D.C.
88. EPA (Environmental Protection Agency), U.S. (1984). *Health Effects Assessment for Hexavalent Chromium (1984 Final)*: EPA/540/1-86/019 (NTIS PB86134301), U.S. Environmental Protection Agency, Washington, D.C.
89. Ericsson, H. M. (1971). International collaborative study on antibiotic sensitivity testing, acta path. *Microbiologica Scandinavica, Sect. B.*, 217, 11-90.
90. Ericsson, H. M., & Sherris, J. C. (1971). Antibiotic sensitivity testing. Report of an international collaborative study. *Acta pathologica et microbiologica scandinavica*, (Suppl. 217).
91. Esther, J., Sukla, L. B., Pradhan, N., & Panda, S. (2015). Fe (III) reduction strategies of dissimilatory iron reducing bacteria. *Korean Journal of Chemical Engineering*. 32, 1–14 (2015). doi, 10.1007/s11814-014-0286-x
92. Extremes of Temperature & Rainfall for Indian Stations (Yearly report). *India Meteorological Department*. December 2016. (pp. M237). Archived from the original document on 5 February 2020. Retrieved 2 March 2020.
93. Fomina, M., & Gadd, G. M. (2014). Biosorption: current perspectives on concept, definition and application. *Bioresource technology*, 160, 3-14. doi, 10.1016/j.biortech.2013.12.102
94. Gadd, G. M. (2010). Metals, minerals and microbes: geomicrobiology and bioremediation. *Microbiology*, 156(3), 609-643. doi, 10.1099/mic.0.037143-0
95. Gall, J. E., Boyd, R. S., Rajakaruna, N. (2015). Transfer of heavy metals through terrestrial food webs: a review. *Environmental Monitoring and Assessment*, 187(4), 201. doi, 10.1007/s10661-015-4436-3
96. Garbisu, C., Alkorta, I., Llama, M. J., & Serra, J. L. (1998). Aerobic chromate reduction by *Bacillus subtilis*. *Biodegradation*, 9(2), 133-141. doi, 10.1023/A:1008358816529
97. Geisler, J. G. (2019). 2, 4 dinitrophenol as medicine. *Cells*, 8(3), 280. doi, 10.3390/cells8030280
98. Gerba, C. P. (2005). Waste Disposal on Land | Liquid. In Daniel, H. (ed.), *Encyclopedia of Soils in the Environment*. (pp. 238-247). Elsevier. doi, 10.1016/B0-12-348530-4/00124-7
99. Giri, A. K., & Patel, R. K. (2011). Toxicity and bioaccumulation potential of Cr (VI) and Hg (II) on differential concentration by *Eichhornia crassipes* in hydroponic culture. *Water Science and Technology*, 63(5), 899-907. doi, 10.2166/wst.2011.268
100. Glick, B. R. (2012). Plant growth-promoting bacteria: mechanisms and applications. *Scientifica*, 2012. doi, 10.6064/2012/963401

101. Glick, B. R., & Bashan, Y. (1997). Genetic manipulation of plant growth-promoting bacteria to enhance biocontrol of phytopathogens. *Biotechnology advances*, 15(2), 353-378. doi, 10.1016/S0734-9750(97)00004-9
102. Gopal, M., & Gupta, A. (2019). Building plant microbiome vault: a future biotechnological resource. *Symbiosis*, 77(1), 1-8. doi, 10.1007/s13199-018-0574-z
103. Gopalakrishnan, S., Sathya, A., Vijayabharathi, R., Varshney, R. K., & Gowda, C. L. L., & Krishnamurthy, L. (2015). *Plant growth promoting rhizobia: challenges and opportunities*, 3, 355-377. doi, <https://doi.org/10.1007/s13205-014-0241-x>
104. Gordon, S. A., & Weber, R. P. (1951). Colorimetric estimation of indoleacetic acid. *Plant physiology*, 26(1), 192-197. doi, 10.1104/pp.26.1.192
105. Goto, F., & Anraku, Y. (1974). Transport of Sugars and Amino Acids in Bacteria: IX. Studies on the Active Transport Reaction in Sodium Azide-and 2, 4-Dinitrophenol-sensitive Mutants of *Escherichia coli*. *The Journal of Biochemistry*, 75(2), 243-251. doi, 10.1093/oxfordjournals.jbchem.a130391
106. Gouglias, C., Clark, J. M., & Shaw, L. J. (2014). The role of soil microbes in the global carbon cycle: tracking the below-ground microbial processing of plant-derived carbon for manipulating carbon dynamics in agricultural systems. *Journal of the Science of Food and Agriculture*, 94(12), 2362-2371. doi, 10.1002/jsfa.6577
107. Goyal, D., Yadav, A., Prasad, M., Singh, T. B., Shrivastav, P., Ali, A., ... & Mishra, S. (2020). Effect of Heavy Metals on Plant Growth: An Overview. *Contaminants in Agriculture*, 79-101. doi, 10.1007/978-3-030-41552-5_4
108. Gray, N. F. (2010). *Water technology: an introduction for environmental scientists and engineers (Ed. 3rd)*. IWA Publishing.
109. Gray, N. F. (1999) *Water technology: an introduction for environmental scientists and engineers*. (pp. 473-474). Hodder Headline Group, London, UK.
110. Gunatilake, S. K. (2015). Methods of removing heavy metals from industrial wastewater. *Journal of Multidisciplinary Engineering Science Studies*, 1(1), 12–18.
111. Gupta M. K., Kiran, K., Amita, S., & Shikha, G. (2014). Bioremediation of heavy metal polluted environment using resistant bacteria. *Journal of Environmental Research and Development*, 8(4), 883-889.
112. Gupta, K., Chatterjee, C., & Gupta, B. (2012). Isolation and characterization of heavy metal tolerant Gram-positive bacteria with bioremedial properties from municipal waste rich soil of Kestopur canal (Kolkata), West Bengal, India. *Biologia*, 67(5), 827-836. doi, 10.2478/s11756-012-0099-5
113. Gupta, P., & Diwan, B. (2017). Bacterial exopolysaccharide mediated heavy metal removal: a review on biosynthesis, mechanism and remediation strategies. *Biotechnology Reports*, 13, 58-71. doi, 10.1016/j.btre.2016.12.006

114. Hadad, H. R., Maine, M. A., Mufarrege, M. M., Del Sastre, M. V., & Di Luca, G. A. (2011). Bioaccumulation kinetics and toxic effects of Cr, Ni and Zn on *Eichhornia crassipes*. *Journal of hazardous materials*, 190(1-3), 1016-1022. doi, 10.1016/j.jhazmat.2011.04.044
115. Han, R., Li, F., Liu, T., Li, X., Wu, Y., Wang, Y., & Chen, D. (2016). Effects of incubation conditions on Cr (VI) reduction by c-type cytochromes in intact *Shewanella oneidensis* MR-1 cells. *Frontiers in microbiology*, 7, 746. doi: 10.3389/fmicb.2016.00746
116. Hansda, A., Kumar, V., Anshumali, A., & Usmani, Z. (2014). Phytoremediation of heavy metals contaminated soil using plant growth promoting rhizobacteria (PGPR): A current perspective. *Recent Research in Science and Technology*, 6(1), 131-134.
117. Harada, K., Tsuneyama, K., Sudo, Y., Masuda, S., & Nakanuma, Y. (2001). Molecular identification of bacterial 16S ribosomal RNA gene in liver tissue of primary biliary cirrhosis: is *Propionibacterium acnes* involved in granuloma formation?. *Hepatology*, 33(3), 530-536. doi: 10.1053/jhep.2001.22653. PMID: 11230731
118. Hasegawa, P. M., Bressan, R. A., Zhu, J. K., & Bohnert, H. J. (2000). Plant cellular and molecular responses to high salinity. *Annual review of plant biology*, 51(1), 463-499. doi, 10.1146/annurev.arplant.51.1.463
119. He, M., Li, X., Guo, L., Miller, S. J., Rensing, C., & Wang, G. (2010). Characterization and genomic analysis of chromate resistant and reducing *Bacillus cereus* strain SJ1. *BMC microbiology*, 10(1), 1-10. doi, 10.1186/1471-2180-10-221
120. He, Y., Gong, Y., Su, Y., Zhang, Y., & Zhou, X. (2019). Bioremediation of Cr (VI) contaminated groundwater by *Geobacter sulfurreducens*: Environmental factors and electron transfer flow studies. *Chemosphere*, 221, 793-801. doi, 10.1016/j.chemosphere.2019.01.039
121. Hemme, C. L., Green, S. J., Rishishwar, L., Prakash, O., Pettenato, A., Chakraborty, R., ... & Zhou, J. (2016). Lateral gene transfer in a heavy metal-contaminated-groundwater microbial community. *MBio*, 7(2), e02234-15. doi: 10.1128/mBio.02234-15.
122. Hobot, J.A. (2015). Bacterial Ultrastructure. In Tang, Y. W., Sussman, M., Liu, D., Poxton, I., & Schwartzman, J (eds.), *Molecular Medical Microbiology* (Ed. 2nd). (pp. 7-32). Academic Press. doi, 10.1016/B978-0-12-397169-2.00002-0
123. Hossain, M. A., Piyatida, P., da Silva, J. A. T., & Fujita, M. (2012). Molecular mechanism of heavy metal toxicity and tolerance in plants: central role of glutathione in detoxification of reactive oxygen species and methylglyoxal and in heavy metal chelation. *Journal of Botany*, 2012. doi, 10.1155/2012/872875
124. Hu, Z. & Grasso, D. (2005). WATER ANALYSIS | Chemical Oxygen Demand. In Worsfold, P., Townshend, A., & Poole, C. (eds.), *Encyclopaedia of Analytical Science*, Ed. 2nd, (pp. 325-330). Elsevier. doi, 10.1016/B0-12-369397-7/00663-4
125. Hubbs, A., Porter, D. W., Mercer, R., Castranova, V., Sargent, L., & Sriram, S. (2013). Nanoparticulates. In Haschek, W. M., Rousseaux, C. G., Wallig, M. A., Bolon, B., &

- Ochoa, R. (eds.), *Haschek and Rousseaux's handbook of toxicologic pathology* (Ed. 3rd), (pp. 1373-1419). Academic Press. doi, 10.1016/B978-0-12-415759-0.00043-1
126. Hunt, K. A., Flynn, J. M., Naranjo, B., Shikhare, I. D., & Gralnick, J. A. (2010). Substrate-level phosphorylation is the primary source of energy conservation during anaerobic respiration of *Shewanella oneidensis* strain MR-1. *Journal of bacteriology*, 192(13), 3345-3351. doi, 10.1128/JB.00090-10
127. Hussain, F., & Mustafa, G. (1995). Ecological studies on some pasture plants in relation to animal use found in Nasirabad Valley, Hunza, Pakistan. *Pakistan Journal of Plant Sciences*, 1(2), 263-272.
128. Ianieva, O.D., (2009). Heavy Metal Resistance Mechanisms in Bacteria. *Mikrobiolohichnyj zhurnal (Kiev, Ukraine: 1993)*, 71(6),54-65.
129. Idris, E. E., Iglesias, D. J., Talon, M., & Borrius, R. (2007). Tryptophan-dependent production of indole-3-acetic acid (IAA) affects level of plant growth promotion by *Bacillus amyloliquefaciens* FZB42. *Molecular plant-microbe interactions*, 20(6), 619-626. doi, 10.1094/MPMI-20-6-0619
130. Igiri, B. E., Okoduwa, S. I., Idoko, G. O., Akabuogu, E. P., Adeyi, A. O., & Ejiofor, I. K. (2018). Toxicity and bioremediation of heavy metals contaminated ecosystem from tannery wastewater: a review. *Journal of toxicology*, 2018, 2568038. doi,10.1155/2018/2568038
131. Ilangumaran, G., & Smith, D. L. (2017). Plant growth promoting rhizobacteria in amelioration of salinity stress: a systems biology perspective. *Frontiers in Plant Science*, 8, 1768. doi, 10.3389/fpls.2017.01768
132. Indoria, A. K., Sharma, K. L., & Reddy, K. S. (2020). Hydraulic properties of soil under warming climate. In Prasad, V.M.N., & Pietrzykowski, M., *Climate Change and Soil Interactions* (pp. 473-508). Elsevier. doi, 10.1016/B978-0-12-818032-7.00018-7
133. Islam, E. U., Yang, X. E., He, Z. L., & Mahmood, Q. (2007). Assessing potential dietary toxicity of heavy metals in selected vegetables and food crops. *Journal of Zhejiang University. Science. B*, 8(1), 1–13. doi, 10.1631/jzus.2007.B0001
134. Itoh, M., Nakamura, M., Suzuki, T., Kawai, K., Horitsu, H., & Takamizawa, K. (1995). Mechanism of chromium (VI) toxicity in *Escherichia coli*: is hydrogen peroxide essential in Cr(VI) toxicity?. *Journal of biochemistry*, 117(4), 780–786. doi, 10.1093/oxfordjournals.jbchem.a124776
135. Jacoby, R., Peukert, M., Succurro, A., Koprivova, A., & Kopriva, S. (2017). The role of soil microorganisms in plant mineral nutrition—current knowledge and future directions. *Frontiers in plant science*, 8, 1617. doi, 10.3389/fpls.2017.01617

136. Jalal, M. A., & van der Helm, D. (1991). Isolation and spectroscopic identification of fungal siderophores. In Winklemann, G. (ed.), *Handbook of microbial iron chelates*, (pp. 235-269). Pergamon Press, Oxford.
137. Jiang, X., & Li, M. (2020). Ecological safety hazards of wastewater. In Ren, H., & Zhang, X., *High-Risk Pollutants in Wastewater*, 101-123. Elsevier. doi, 10.1016/B978-0-12-816448-8.00005-8
138. Johncy-Rani, M., Hemambika, B., Hemapriya, J., & Rajeshkannan, V. (2010). Comparative assessment of heavy metal removal by immobilized and dead bacterial cells: a biosorption approach. *Global Journal of Environmental Research*, 4(1), 23-30.
139. Jorgensen, J. H., Pfaffer, M. A., & Carroll, K. C. (2015). *Manual of clinical microbiology* (Ed. 11th, Vol. 1) Jorgensen, J. H., & Pfaffer, M. A. (eds. in chief) Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S., & Warnock., D.W. (volume eds.). American Society of Microbiology. doi, repository.fue.edu.eg/xmlui/handle/123456789/1852
140. Kamika, I., & Momba, M. N. (2013). Assessing the resistance and bioremediation ability of selected bacterial and protozoan species to heavy metals in metal-rich industrial wastewater. *BMC microbiology*, 13(1), 1-14. doi, 10.1186/1471-2180-13-28
141. Kang, S. Y., Lee, J. U., & Kim, K. W. (2007). Biosorption of Cr (III) and Cr (VI) onto the cell surface of *Pseudomonas aeruginosa*. *Biochemical Engineering Journal*, 36(1), 54-58. doi, 10.1016/j.bej.2006.06.005
142. Kanmani, P., Aravind, J., & Preston, D. (2012). Remediation of chromium contaminants using bacteria. *International Journal of Environmental Science and Technology*, 9(1), 183-193. doi, 10.1007/s13762-011-0013-7
143. Kapahi, M., & Sachdeva, S. (2019). Bioremediation options for heavy metal pollution. *Journal of Health and Pollution*, 9(24), 191203. doi, 10.5696/2156-9614-9.24.191203
144. Kaushik, P., Rawat, N., Mathur, M., Raghuvanshi, P., Bhatnagar, P., Swarnkar, H., & Flora, S. (2012). Arsenic hyper-tolerance in four *Microbacterium* species isolated from soil contaminated with textile effluent. *Toxicology international*, 19(2), 188-194. doi, 10.4103/0971-6580.97221.
145. Kelly, J. J., & Tate III, R. L. (1998). *Effects of heavy metal contamination and remediation on soil microbial communities in the vicinity of a zinc smelter* (Vol. 27, No. 3), (pp. 609-617). American Society of Agronomy, Crop Science Society of America, and Soil Science Society of America. doi, 10.2134/jeq1998.00472425002700030019x.
146. Kimura, M., (1980). A simple method for estimating evolutionary rate of base substitutions through comparative studies of nucleotide sequences. *Journal of Molecular Evolution*, 16, 111-120.

147. King, E. O., Ward, M. K., & Raney, D. E. (1954). Two simple media for the demonstration of pyocyanin and fluorescin. *The Journal of laboratory and clinical medicine*, 44(2), 301-307.
148. Kloepper, J. W., Leong, J., Teintze, M., & Schroth, M. N. (1980). Enhanced plant growth by siderophores produced by plant growth-promoting rhizobacteria. *Nature*, 286(5776), 885-886. doi, 10.1038/286885a0
149. Kloepper, J. W., Zablotowicz, R. M., Tipping, E. M., & Lifshitz, R. (1991). The rhizosphere and plant growth. In DL Keister and PB Cregan (eds.) *Plant growth promotion mediated by bacterial rhizosphere colonizers*, (pp 15-24). Kluwer Academic Publishers, Dordrecht.
150. Krieg, N.R., & Padgett, P.G. (2011). 3 - Phenotypic and Physiological Characterization Methods. In Rainey, F., & Oren, A. (eds.), *Methods in Microbiology* (Vol 35), (pp. 15-60). Academic Press.
151. Kroner, R. C., Longbottom, J. E., Gorman, R.A. (1976). A Comparison of Various Reagents Proposed for Use in the Winkler Procedure for Dissolved Oxygen. *PHS Water Pollution Surveillance System Applications and Development, Report #12*, Water Quality Section, Basic Data Branch (July 1964).
152. Kumar, R. (2010, November). Integrated management planning for East Kolkata Wetlands. In Kumar, R., & Kundu, N. (eds.), *East Kolkata Wetlands*, 1, 7-15.
153. Kumar, S., Stecher, G., Li, M., Knyaz, C., & Tamura, K. (2018). MEGA X: molecular evolutionary genetics analysis across computing platforms. *Molecular biology and evolution*, 35(6), 1547-1549. doi, 10.1093/molbev/msy096
154. Laskowski, R.A., Swindells, M.B., (2011). LigPlot+: multiple ligand-protein interaction diagrams for drug discovery. *Journal of Chemical Information and Modelling*, 51, 2778-2786. doi, 10.1021/ci200227u
155. Lauber, C. L., Hamady, M., Knight, R., & Fierer, N. (2009). Pyrosequencing-based assessment of soil pH as a predictor of soil bacterial community structure at the continental scale. *Applied and environmental microbiology*, 75(15), 5111-5120. doi, 10.1128/AEM.00335-09
156. Learman, D. R., Ahmad, Z., Brookshier, A., Henson, M. W., Hewitt, V., Lis, A., ... & Kourtev, P. S. (2019). Comparative genomics of 16 *Microbacterium* spp. that tolerate multiple heavy metals and antibiotics. *PeerJ*, 6, e6258. doi, 10.7717/peerj.6258
157. Lee, K. Y., Bosch, J., & Meckenstock, R. U. (2012). Use of metal-reducing bacteria for bioremediation of soil contaminated with mixed organic and inorganic pollutants. *Environmental Geochemistry and Health*, 34(1), 135-142. doi, 10.1007/s10653-011-9406-2
158. Leverve, X., Sibille, B., Devin, A., Piquet, M. A., Espié, P., & Rigoulet, M. (1998). Oxidative phosphorylation in intact hepatocytes: quantitative characterization of the

- mechanisms of change in efficiency and cellular consequences. In *Bioenergetics of the Cell: Quantitative Aspects; Molecular and cellular biochemistry*, 184(pp. 53-65). Springer, Boston, MA. doi, 10.1007/978-1-4615-5653-4_5
159. Li, D., Liu, S. (2019). Water Quality Monitoring in Aquaculture. In Li, D., Liu, S. (eds.), *Water Quality Monitoring and Management*, (pp. 303-328). Academic Press. doi, 10.1016/B978-0-12-811330-1.00012-0
160. Little, D. J., Bamford, N. C., Podrovskaya, V., Robinson, H., Nitz, M., & Howell, P. L. (2014a). Structural basis for the de-N-acetylation of poly- β -1,6-N-acetyl-D-glucosamine in Gram-positive bacteria. *Journal of Biological Chemistry*, 289, 35907–35917. doi, 10.1074/jbc.M114.611400
161. Little, D. J., Li, G., Ing, C., DiFrancesco, B. R., Bamford, N. C., Robinson, H., ... & Howell, P. L. (2014b). Modification and periplasmic translocation of the biofilm exopolysaccharide poly- β -1, 6-N-acetyl-d-glucosamine. *Proceedings of the National Academy of Sciences*, 111(30), 11013-11018. doi, 10.1073/pnas.1406388111
162. Liu, Y. G., Xu, W. H., Zeng, G. M., Li, X., & Gao, H. (2006). Cr (VI) reduction by *Bacillus* sp. isolated from chromium landfill. *Process Biochemistry*, 41(9), 1981-1986. doi,10.1016/j.procbio.2006.04.020
163. Loper, J. E. & Ishimaru, C. A. (1991). In Keister, D. L.& Cregan, P. B. (eds.), *The Rhizosphere and Plant Growth*, (pp 253–261). Kluwer Academic Publishers, Dordrecht.
164. Lopez, A., Lazaro, N., Priego, J. M., & Marques, A. M. (2000). Effect of pH on the biosorption of nickel and other heavy metals by *Pseudomonas fluorescens* 4F39. *Journal of Industrial Microbiology and biotechnology*, 24(2), 146-151. doi, 10.1038/sj.jim.2900793
165. Louden, B. C., Haarmann, D., & Lynne, A. M. (2011). Use of blue agar CAS assay for siderophore detection. *Journal of microbiology & biology education: Journal of Microbiology and Biology Education*, 12(1), 51-53. doi, 10.1128/jmbe.v12i1.249
166. Lowry, O.H., Rosenbrough, N.J., Farr, A.L., & Randall, R.J., (1951). Protein measurement with the folin phenol reagent, *Journal of Biological Chemistry*, 193:265-275.
167. Mac Faddin, J. F. (1985). *Media for isolation-cultivation-identification-maintenance of medical bacteria* (Vol. 1). Williams & Wilkins.
168. Madeira, F., Park, Y. M., Lee, J., Buso, N., Gur, T., Madhusoodanan, N., ... & Lopez, R. (2019). The EMBL-EBI search and sequence analysis tools APIs in 2019. *Nucleic acids research*, 47(W1), W636-W641. doi, 10.1093/nar/gkz268
169. Madeira, F., Park, Y. M., Lee, J., Buso, N., Gur, T., Madhusoodanan, N., ... & Lopez, R. (2019). The EMBL-EBI search and sequence analysis tools APIs in 2019. *Nucleic acids research*, 47(W1), W636-W641.
170. Marschner, H. (1995). *Mineral Nutrition of Higher Plants*. Academic Press, San Diego, CA.

171. Matzanke, B. F. (1991). Structures, coordination chemistry and functions of microbial iron chelates. In Winkelmann, G., *Handbook of microbial iron chelates*, (pp. 15-64). CRC Press, Boca Raton, FL, USA.
172. Maugeri, G., Lychko, I., Sobral, R., & Roque, A. C. (2019). Identification and antibiotic-susceptibility profiling of infectious bacterial agents: a review of current and future trends. *Biotechnology journal*, 14(1), e1700750. doi, 10.1002/biot.201700750
173. Mawji, E., Gledhill, M., Milton, J. A., Tarran, G. A., Ussher, S., Thompson, A., ... & Achterberg, E. P. (2008). Hydroxamate siderophores: occurrence and importance in the Atlantic Ocean. *Environmental science & technology*, 42(23), 8675-8680. doi, 10.1021/es801884r
174. Menzies, A. C. (1960). A study of atomic absorption spectroscopy. *Analytical Chemistry*, 32(8), 898-904. doi, 10.1021/ac60164a001
175. Merdy, P., Gharbi, L. T., & Lucas, Y. (2009). Pb, Cu and Cr interactions with soil: sorption experiments and modelling. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, 347(1-3), 192-199. doi, 10.1016/j.colsurfa.2009.04.004
176. Mickelson, M. N. (1974). Effect of uncoupling agents and respiratory inhibitors on the growth of *Streptococcus agalactiae*. *Journal of bacteriology*, 120(2), 733-740. doi, 10.1128/JB.120.2.733-740.1974
177. Mishra, J., Singh, R., & Arora, N. K. (2017). Alleviation of heavy metal stress in plants and remediation of soil by rhizosphere microorganisms. *Frontiers in Microbiology*, 8: 1706. doi, 10.3389/fmicb.2017.01706
178. Mishra, J., Singh, R., & Arora, N. K. (2017). Alleviation of heavy metal stress in plants and remediation of soil by rhizosphere microorganisms. *Frontiers in Microbiology*, 8: 1706. doi, 10.3389/fmicb.2017.01706
179. Mishra, R., Sinha, V., Kannan, A., & Upreti, R. K. (2012). Reduction of chromium-VI by chromium resistant lactobacilli: a prospective bacterium for bioremediation. *Toxicology international*, 19(1), 25. doi, 10.4103/0971-6580.94512
180. Mishra, V. K., & Tripathi, B. D. (2009). Accumulation of chromium and zinc from aqueous solutions using water hyacinth (*Eichhornia crassipes*). *Journal of Hazardous Materials*, 164(2-3), 1059-1063. doi, 10.1016/j.jhazmat.2008.09.020
181. Montague, C. L., Behra, R., Bosma, T. N., Genoni, G. P., & Güttinger, H. (2001). Complex dynamics of adaptation in a nonaxenic *Microcystis* culture: 2. Computer simulation of dinitrophenol effects. *Ecotoxicology and environmental safety*, 48(3), 241-254. doi, 10.1006/eesa.2000.2023
182. Monthly mean duration of Sun Shine (hours) at different locations in India. *Daily Normals of Global & Diffuse Radiation (1971–2000)*. India Meteorological Department.

- December 2016. p. M-3. Archived from the original document on 5 February 2020. Retrieved 2 March 2020.
183. Mueller, J. H., & Hinton, J. (1941). A protein-free medium for primary isolation of the *Gonococcus* and *Meningococcus*. *proceedings of the Society for Experimental Biology and Medicine*, 48(1), 330-333. doi, 10.3181/00379727-48-13311
184. Naeem, S., Bunker, D.E., Hector, A., Loreau, M. & perrings, C. (2009). Introduction: the ecological and social implications of changing biodiversity. An overview of a decade of biodiversity and ecosystem functioning research. In Naeem, S., Bunker, D.E., Hector, A., Loreau, M. & perrings, C. (eds.), *Biodiversity, Ecosystem Functioning, and Human Wellbeing: An Ecological and Economic Perspective*, (pp. 3-13). Oxford University Press. New York.
185. Nageswaran, N., Ramteke, P.W., Verma, O.P., Pande, A (2012). Antibiotic susceptibility and heavy metal tolerance pattern of *Serratia marcescens* isolated from soil and water. *Journal of Bioremediation and Biodegradation*, 3(7). 158
186. National Committee for Clinical Laboratory Standards. (2000). *Methods for Dilution Antimicrobial Susceptibility Tests for Bacteria that grow aerobically (Ed. 5th)*, Approved Standard: M7-A5, Clinical and Laboratory Standard Institute. Wayne, Pa.
187. National Committee for Clinical Laboratory Standards. (2018). *Methods for Dilution Antimicrobial Susceptibility Tests for Bacteria that grow aerobically (Ed. 11th)*, Approved Standard: M07, Clinical and Laboratory Standard Institute. Wayne, Pa.
188. Naz, A., Chowdhury, A., & Mishra, B. K. (2021). An Insight into Microbial Remediation of Hexavalent Chromium from Contaminated Water. In Kumar, M., Snow, D., Honda R., & Mukherjee, S. (eds.), *Contaminants in Drinking and Wastewater Sources* (pp. 209-224). Springer Transactions in Civil and Environmental Engineering, Springer, Singapore. doi, 10.1007/978-981-15-4599-3_9
189. Ndreddy Aka, R. J., & Babalola, O. O. (2016). Effect of bacterial inoculation of strains of *Pseudomonas aeruginosa*, *Alcaligenes faecalis* and *Bacillus subtilis* on germination, growth and heavy metal (Cd, Cr, and Ni) uptake of *Brassica juncea*. *International journal of phytoremediation*, 18(2), 200-209. doi, 10.1080/15226514.2015.1073671
190. Normals Data: Kolkata/Alipore - India Latitude: 22.53°N Longitude: 88.33°E Height: 6 (m). *Japan Meteorological Agency*. Archived from the original on 2 March 2020. Retrieved 2 March 2020.
191. Novotnik, B., Zorz, J., Bryant, S., & Strous, M. (2019). The effect of dissimilatory manganese reduction on lactate fermentation and microbial community assembly. *Frontiers in microbiology*, 10, 1007. doi, 10.3389/fmicb.2019.01007

192. Oktari, A., Supriatin, Y, Kamal, M. & Syafrullah, H. (2017). The Bacterial Endospore Stain on Schaeffer Fulton using Variation of Methylene Blue Solution. *Journal of Physics: Conference Series*. 812. 012066. doi, 10.1088/1742-6596/812/1/012066
193. Oliveira, H. (2012). Chromium as an environmental pollutant: insights on induced plant toxicity. *Journal of Botany* 2012 (375843), 1–8. doi,10.1155/2012/375843
194. Oves, M., Khan, M. S., & Zaidi, A. (2013). Chromium reducing and plant growth promoting novel strain *Pseudomonas aeruginosa* OSG41 enhance chickpea growth in chromium amended soils. *European journal of soil biology*, 56, 72-83. doi: 10.1016/j.ejsobi.2013.02.002
195. Özer, A., & Özer, D. (2003). Comparative study of the biosorption of Pb (II), Ni (II) and Cr (VI) ions onto *S. cerevisiae*: determination of biosorption heats. *Journal of hazardous materials*, 100(1-3), 219-229. doi: 10.1016/S0304-3894(03)00109-2
196. Pandey, S., Ghosh, P. K., Ghosh, S., De, T. K., Maity T. K. (2013). Role of heavy metal resistant *Ochrobactrum* sp. and *Bacillus* spp. strains in bioremediation of a rice cultivar and their PGPR like activities. *Journal of Microbiology*, 51, 11–17. doi,10.1007/s12275-013-2330-7
197. Pardo, R., Herguedas, M., Barrado, E., & Vega, M. (2003). Biosorption of cadmium, copper, lead and zinc by inactive biomass of *Pseudomonas putida*. *Analytical and bioanalytical chemistry*, 376(1), 26-32. doi, 10.1007/s00216-003-1843-z
198. Passalacqua, K. D., Charbonneau, M. E., & O'riordan, M. X. (2016). Bacterial metabolism shapes the host-pathogen interface. *Virulence Mechanisms of Bacterial Pathogens*, 15-41. doi, 10.1128/microbiolspec.VMBF-0027-2015
199. Patel, H., Vashi, R.T. (2015). Characterization of Textile Wastewater. In Patel, H., Vashi, R.T. (eds.), *Characterization and Treatment of Textile Wastewater*, (pp. 21-71). Elsevier. doi, 10.1016/B978-0-12-802326-6.00002-2.
200. Patra, M., Bhowmik, N., Bandopadhyay, B., & Sharma, A. (2004). Comparison of mercury, lead and arsenic with respect to genotoxic effects on plant systems and the development of genetic tolerance. *Environmental and Experimental Botany*, 52, 199–223. doi, 10.1016/j.envexpbot.2004.02.009
201. Pelczar, M. J. (2007). *Fundamentals of Microbiology*. UI Press, Jakarta.
202. Perrin, D. D. (1979). *Stability Constants: Part B*. IUPAC, Pergamon, Turkey.
203. Pettine, M., Campanella, L., & Millero, F. J. (2002). Reduction of hexavalent chromium by H₂O₂ in acidic solutions. *Environmental science & technology*, 36(5), 901-907. doi, 10.1021/es010086b
204. Powell, P. E., Cline, G. R., Reid, C. P. P., & Szaniszlo, P. J. (1980). Occurrence of hydroxamate siderophore iron chelators in soils. *Nature*, 287(5785), 833-834. doi, 10.1038/287833a0

205. Prain, D. (1963). *Bengal Plants (I&II)*. Botanical Survey of India (ed.), Calcutta. India.
206. Prescott, C. E. (2005). Decomposition and mineralization of nutrients from litter and humus. In *Nutrient acquisition by plants* (pp. 15-41). Springer, Berlin, Heidelberg. doi, 10.1007/3-540-27675-0_2
207. Pümpel, T., & Paknikar, K. M. (2001). Bioremediation technologies for metal-containing wastewaters using metabolically active microorganisms. *Advances in applied microbiology*, 48, 135–169. doi, 10.1016/s0065-2164(01)48002-6
208. Queirolo, F., Stegen, S., Restovic, M., Paz, M., Ostapczuk, P., Schwuger, M. J., & Muñoz, L. (2000). Total arsenic, lead, and cadmium levels in vegetables cultivated at the Andean villages of northern Chile. *The Science of the total environment*, 255(1-3), 75–84. doi, 10.1016/s0048-9697(00)00450-2
209. Rajkumar, M., Ae, N., Prasad, M. N. V., & Freitas, H. (2010). Potential of siderophore-producing bacteria for improving heavy metal phytoextraction. *Trends in biotechnology*, 28(3), 142-149. doi, 10.1016/j.tibtech.2009.12.002
210. RayChaudhuri, S., Mukherjee, I., Ghosh, D., & Thakur, A. R. (2012). East Kolkata wetland: a multifunctional niche of international importance. *OnLine Journal of Biological Sciences*, 12(2), 80-88.
211. Reichard, P. U., Kretzschmar, R., & Kraemer, S. M. (2007). Dissolution mechanisms of goethite in the presence of siderophores and organic acids. *Geochimica et Cosmochimica Acta*, 71(23), 5635-5650. doi, 10.1016/j.gca.2006.12.022
212. Reiner, K. (2010). Catalase test protocol. *American Society for Microbiology Microbe Library*, 1-6.
213. Renella, G., Landi, L., & Nannipieri, P. (2004). Degradation of low molecular weight organic acids complexed with heavy metals in soil. *Geoderma*, 122(2-4), 311-315. doi, 10.1016/j.geoderma.2004.01.018
214. Renshaw, J. C., Robson, G. D., Trinci, A. P., Wiebe, M. G., Livens, F. R., Collison, D., & Taylor, R. J. (2002). Fungal siderophores: structures, functions and applications. *Mycological Research*, 106(10), 1123-1142. doi, 10.1017/S0953756202006548
215. Rinke-Appel, J. U. T. T. A., Jünke, N., Osswald, M. O. N. I. K. A., & Brimacombe, R. I. C. H. A. R. D. (1995). The ribosomal environment of tRNA: crosslinks to rRNA from positions 8 and 20: 1 in the central fold of tRNA located at the A, P, or E site. *RNA*, 1(10), 1018-1028.
216. Rinke-Appel, J., Jünke, N., Brimacombe, R., Lavrik, I., Dokudovskaya, S., Dontsova, O., & Bogdanov, A. (1994). Contacts between 16S ribosomal RNA and mRNA, within the spacer region separating the AUG initiator codon and the Shine-Dalgarno sequence; a site-

- directed cross-linking study. *Nucleic acids research*, 22(15), 3018-3025. doi, 10.1093/nar/22.15.3018
217. Roane, T. M. (1999). Lead resistance in two bacterial isolates from heavy metal-contaminated soils. *Microbial ecology*, 37(3), 218-224. doi, 10.1007/s002489900145
218. Rose, S. B., & Miller, R. E. (1939). Studies with the agar cup-plate method: I. A standardized agar cup-plate technique. *Journal of bacteriology*, 38(5), 525-537. doi, 10.1128/jb.38.5.525-537.1939
219. Rosenberg, E., & Zilber-Rosenberg, I. (2016). Microbes drive evolution of animals and plants: the hologenome concept. *MBio*, 7(2), e01395-e01315. doi, 10.1128/mBio.01395-15
220. Rozeboom, H. J., Bjerkan, T. M., Kalk, K. H., Ertesvåg, H., Holtan, S., Aachmann, F. L., ... & Dijkstra, B. W. (2008). Structural and mutational characterization of the catalytic A-module of the mannuronan C-5-epimerase AlgE4 from Azotobacter vinelandii. *Journal of Biological Chemistry*, 283(35), 23819-23828. doi, 10.1074/jbc.M804119200
221. Rózycki, H., & Strzelczyk, E. (1986). Organic acids production by Streptomyces spp. isolated from soil, rhizosphere and mycorrhizosphere of pine (*Pinus sylvestris* L.). *Plant and soil*, 96(3), 337-345. doi, 10.1007/BF02375138
222. Rustigian, R., & Stuart, C. A. (1941). Decomposition of urea by Proteus. *Proceedings of the Society for Experimental Biology and Medicine*, 47(1), 108-112. doi, 10.3181/00379727-47-13054
223. Saad, E. M., Sun, J., Chen, S., Borkiewicz, O. J., Zhu, M., Duckworth, O. W., & Tang, Y. (2017). Siderophore and organic acid promoted dissolution and transformation of Cr (III)-Fe (III)-(oxy) hydroxides. *Environmental science & technology*, 51(6), 3223-3232. doi, 10.1021/acs.est.6b05408
224. Saharan, B. S., & Nehra, V. (2011). Plant growth promoting rhizobacteria: a critical review. *Life Sciences and Medicine Research*, 21(1), 30.
225. Sanchez-Hachair, A., & Hofmann, A. (2018). Hexavalent chromium quantification in solution: comparing direct UV-visible spectrometry with 1, 5-diphenylcarbazide colorimetry. *Comptes Rendus Chimie*, 21(9), 890-896. doi, 10.1016/j.crci.2018.05.002
226. Sanjay, M. S., Sudarsanam, D., Raj, G. A., & Baskar, K. (2020). Isolation and identification of chromium reducing bacteria from tannery effluent. *Journal of King Saud University-Science*, 32(1), 265-271. doi, 10.1016/j.jksus.2018.05.001
227. Sanyal, T., Kaviraj, A., & Saha, S. (2017). Toxicity and bioaccumulation of chromium in some freshwater fish. *Human and Ecological Risk Assessment: An International Journal*, 23(7), 1655-1667. doi: 10.1080/10807039.2017.1336425

228. Sarathambal, C., Khankhane, P. J., Gharde, Y., Kumar, B., Varun, M., & Arun, S. (2017). The effect of plant growth-promoting rhizobacteria on the growth, physiology, and Cd uptake of *Arundo donax* L. *International journal of phytoremediation*, 19(4), 360-370.
229. Sarkar, A., Sar, P., & Islam, E. (2015). Hexavalent chromium reduction by *Microbacterium oleivorans* A1: a possible mechanism of chromate-detoxification and-bioremediation. *Recent patents on biotechnology*, 9(2), 116-129
230. Sau, G. B., Chatterjee, S., & Mukherjee, S. K. (2010). Chromate reduction by cell-free extract of *Bacillus firmus* KUCr1. *Polish Journal of Microbiology*, 59(3), 185-190.
231. Schachtman, D. P., Reid, R. J., & Ayling, S. M. (1998). Phosphorus Uptake by Plants: From Soil to Cell. *Plant Physiology*, 116 (2), 447-453. doi, 10.1104/pp.116.2.447
232. SchachtmanDP, R. (1998). AylingS M. *Phosphorusuptake byplants: Fromsoiltocell. PlantPhysiol*, 116, 447G-453.
233. Schalk, I. J., Hannauer, M., & Braud, A. (2011). New roles for bacterial siderophores in metal transport and tolerance. *Environmental microbiology*, 13(11), 2844-2854. doi, 10.1111/j.1462-2920.2011.02556.x
234. Schwyn, B., & Neilands, J. B. (1987). Universal chemical assay for the detection and determination of siderophores. *Analytical biochemistry*, 160(1), 47-56. doi, 10.1016/0003-2697(87)90612-9
235. Seneviratne, M., Seneviratne, G., Madawala, H., & Vithanage, M. (2017). Role of rhizospheric microbes in heavy metal uptake by plants. In Singh J. S., & Seneviratne G. (eds.), *Agro-Environmental Sustainability: Managing Environmental Pollution*, vol. 2, (pp. 147-163). Springer, Cham.
236. Sessitsch, A., Kuffner, M., Kidd, P., Vangronsveld, J., Wenzel, W. W., Fallmann, K., & Puschenreiter, M. (2013). The role of plant-associated bacteria in the mobilization and phytoextraction of trace elements in contaminated soils. *Soil Biology and Biochemistry*, 60, 182-194. doi, 10.1016/j.soilbio.2013.01.012
237. Shanker, A. K., Cervantes, C., Loza-Tavera, H., & Avudainayagam, S. (2005). Chromium toxicity in plants. *Environment international*, 31(5), 739-753. doi, 10.1016/j.envint.2005.02.003
238. Sharma, A., Kapoor, D., Wang, J., Shahzad, B., Kumar, V., Bali, A. S., ... & Yan, D. (2020). Chromium bioaccumulation and its impacts on plants: an overview. *Plants*, 9(1), 100. doi, 10.3390/plants9010100
239. Shen, H., & Wang, Y. T. (1993). Characterization of enzymatic reduction of hexavalent chromium by *Escherichia coli* ATCC 33456. *Applied and Environmental Microbiology*, 59(11), 3771-3777.
240. Sherbet, G.V. (1978). *The Biophysical characterisation of the cell surface*. (pp. 414). Academic press, London.

241. Shrivastava, R., Upreti, R. K., Seth, P. K., & Chaturvedi, U. C. (2002). Effects of chromium on the immune system. *FEMS Immunology & Medical Microbiology*, 34(1), 1-7. doi, 10.1111/j.1574-695X.2002.tb00596.x
242. Shukla, K. P., Sharma, S., Singh, N. K., & Singh, V. (2012). Deciphering rhizosphere soil system for strains having plant growth promoting and bioremediation traits. *Agricultural Research*, 1(3), 251-257. doi, 10.1007/s40003-012-0028-4
243. Sigmon, J. (2008). The starch hydrolysis test. *American society for microbiology Microbe Library*
244. Singh, R., Dong, H., Liu, D., Zhao, L., Marts, A. R., Farquhar, E., ... & Briggs, B. R. (2015). Reduction of hexavalent chromium by the thermophilic methanogen *Methanothermobacter thermautotrophicus*. *Geochimica et cosmochimica acta*, 148, 442-456. doi, org/10.1016/j.gca.2014.10.012
245. Singh, R., Gautam, N., Mishra, A., & Gupta, R. (2011). Heavy metals and living systems: An overview. *Indian journal of pharmacology*, 43(3), 246-253. doi,10.4103/0253-7613.81505
246. Spaepen, S., Vanderleyden, J., & Remans, R. (2007). Indole-3-acetic acid in microbial and microorganism-plant signaling. *FEMS microbiology reviews*, 31(4), 425-448. doi, 10.1111/j.1574-6976.2007.00072.x
247. Spain, A., & Alm, E. (2003). Implications of microbial heavy metal tolerance in the environment. *Reviews in Undergraduate Research*, 2, 1–6.
248. Sparling, G. P., McLay, C. D. A., Tang, C., & Raphael, C. (1999). Effect of short-term legume residue decomposition on soil acidity. *Soil Research*, 37(3), 561-574. doi, 10.1071/S98104
249. Speight, J. G. (2018). Mechanisms of Transformation. In Speight. J.G. (ed.), *Reaction Mechanisms in Environmental Engineering*. (pp. 337-384). Butterworth-Heinemann. doi, 10.1016/B978-0-12-804422-3.00010-9
250. Stambulská, U. Y., Bayliak, M. M., & Lushchak, V. I. (2018). Chromium (VI) toxicity in legume plants: modulation effects of rhizobial symbiosis. *BioMed research international*, 2018, 8031213. doi, 10.1155/2018/8031213
251. Station: Calcutta (Alipur) Climatological (Yearly report). *Climatological Normals 1981–2010. India Meteorological Department*. January 2015. pp. 161–162. Archived from the original document on 5 February 2020. Retrieved 2 March 2020.
252. Station: Calcutta (Dum Dum) Climatological (Yearly report). *Climatological Normals 1981–2010. India Meteorological Department*. January 2015. Archived from the original (PDF) on 5 February 2020. Retrieved 10 January 2021.

253. Stefanis, C., Alexopoulos, A., Voidarou, C., Vavias, S., & Bezirtzoglou, E. (2013). Principal methods for isolation and identification of soil microbial communities. *Folia microbiologica*, 58(1), 61-68. doi, 10.1007/s12223-012-0179-5
254. Stovall, W. D., & Nichols, M. S. (1918). The methyl red and Voges-Proskauer reactions with special reference to routine water analysis. *The Journal of Infectious Diseases*, 229-239. Retrieved January 3, 2021, from <http://www.jstor.org/stable/30084308>
255. Su, C. Q., Li, L. Q., Yang, Z. H., Chai, L. Y., Qi, L. I. A. O., Yan, S. H. I., & Li, J. W. (2019). Cr (VI) reduction in chromium-contaminated soil by indigenous microorganisms under aerobic condition. *Transactions of Nonferrous Metals Society of China*, 29(6), 1304-1311. doi, 10.1016/S1003-6326(19)65037-5
256. Sudarshan, M., Ram, S. S., Majumdar, S., Maity, J. P., Ray, J. G., & Chakraborty, A. (2011). Energy-dispersive X-ray fluorescence—A tool for interdisciplinary research. *Pramana*, 76(2), 241-247. doi, 10.1007/s12043-011-0030-6
257. Sundararao, W. V. B. (1963). Phosphate dissolving organisms in the soil and rhizosphere. *Indian. Jour. of Agr. Sci.*, 33, 272-278.
258. Susilowati, D. N., Riyanti, E. I., Setyowati, M., & Mulya, K. (2018, August). Indole-3-acetic acid producing bacteria and its application on the growth of rice. In *AIP Conference Proceedings (Vol. 2002, No. 1, p. 020016)*. AIP Publishing LLC. doi, 10.1063/1.5050112
259. Swift, M. J., Heal, O. W., Anderson, J. M., & Anderson, J. M. (1979). *Decomposition in terrestrial ecosystems*. Blackwell Scientific Publications, Oxford, UK.
260. Sytar, O., Kumar, A., Latowski, D., Kuczynska, P., Strzałka, K., & Prasad, M. N. V. (2013). Heavy metal-induced oxidative damage, defense reactions, and detoxification mechanisms in plants. *Acta physiologiae plantarum*, 35(4), 985-999. doi, 10.1007/s11738-012-1169-6
261. Tamura, K., Stecher G., Peterson, D., Filipski A., Kumar, S., (2013). MEGA6: Molecular Evolutionary Genetics Analysis version 6.0, *Molecular Biology and Evolution*, 30, 2725-2729.
262. Tille, P. M., & Forbes, B. A. (2014). *Bailey & Scott's diagnostic microbiology* (13th Ed.). Elsevier, St. Louis, Missouri.
263. Tiwari, S., Dixit, S., & Verma, N. (2007). An effective means of biofiltration of heavy metal contaminated water bodies using aquatic weed Eichhornia crassipes. *Environmental monitoring and assessment*, 129(1-3), 253–256. doi, 10.1007/s10661-006-9358-7
264. Trapp, S., & Matthies, M. (1995). Generic one-compartment model for uptake of organic chemicals by foliar vegetation. *Environmental science & technology*, 29(9), 2333-2338. doi, org/10.1021/es00009a027

265. Tripathi, M. K., & Singh, V. B. (2016). Microstructure and properties of Si₃N₄ and TiN nano-particles reinforced electrodeposited functional Ni-Fe matrix nanocomposite. *Journal of The Electrochemical Society*, 163(8), D453-D461. doi, 10.1149/2.1171608jes
266. Tripathi, M. K., Chaudhary, B., Sarkar, S. K., Singh, S. R., Bhandari, H. R., & Mahapatra, B. S. (2013). Performance of sunnhemp (*Crotalaria juncea* L.) as a summer season (pre-monsoon) crop for fibre. *Journal of Agricultural Science*, 5(3), 236-242. doi, 10.5539/jas.v5n3p236
267. Turnau, K., & Kottke, I. (2005). Fungal activity as determined by microscale methods with special emphasis on interactions with heavy metals. In Dighton J., & and J. F. White (eds.), *Mycology series (The Fungal Community: Its Organisation and Role in the Ecosystem, Ed. 23)*, (pp. 287–305). White (Boca Raton: CRC Press).
268. United States, Food and Drug Administration. (1998). *Bacteriological Analytical Manual (Ed. 8th)*. Gaithersburg, MD, AOAC International (1998/A).
269. Upadhyay, N., Vishwakarma, K., Singh, J., Mishra, M., Kumar, V., Rani, R., ... & Sharma, S. (2017). Tolerance and reduction of chromium (VI) by *Bacillus* sp. MNU16 isolated from contaminated coal mining soil. *Frontiers in plant science*, 8, 778. doi, 10.3389/fpls.2017.00778
270. Urrutia, M. M. (1997). General bacterial sorption processes. *Biosorbents for metal ions*, 39-66. doi, 10.1016/j.cej.2005.09.023
271. US EPA (United State Environmental Protection Agency). (1984a). *Health assessment document for chromium, Chapter 6.4, 1.* (Final report No. EPA600/8-83-014F). U.S. Environmental Protection Agency, Research Triangle Park, NC, United States.
272. Valverde, A., González-Tirante, M., Medina-Sierra, M., Santa-Regina, I., García-Sánchez, A., & Igual, J. M. (2011). Diversity and community structure of culturable arsenic-resistant bacteria across a soil arsenic gradient at an abandoned tungsten-tin mining area. *Chemosphere*, 85(1), 129-134. doi, 10.1016/j.chemosphere.2011.06.025
273. Vargas García, M. C., Suárez Estrella, F., López, M. J., Guisado, G., & Moreno, J. (2010). Bioremediation of heavy metals with microbial isolates. In *14th Ramiran International Conference of the Fao Escorena Network on the Recycling of Agricultural, Municipal and Industrial Residues in Agriculture* (Vol. 13).
274. Verma, S., & Kuila, A. (2019). Bioremediation of heavy metals by microbial process. *Environmental Technology & Innovation*, 14, 100369. doi, org/10.1016/j.eti.2019.100369
275. Vicziany, M., Chattopadhyay, D., & Bhattacharyya, S. (2017). Food from Sewage: Fish from the East Kolkata Wetlands and the Limits of Traditional Knowledge, *South Asia: Journal of South Asian Studies*, 40:3, 619-644, doi, 10.1080/00856401.2017.1341038

276. Voges, O., & Proskauer, B. (1898). Beitrag zur Ernährungsphysiologie und zur Differentialdiagnose der Bakterien der hämorrhagischen Septicämie. *Zeitschrift für Hygiene und Infektionskrankheiten*, 28(1), 20-32. doi, 10.1007/BF02285362
277. W.H.O. (2000). *Air quality guidelines (Ed. 2nd)*, Chapter 6.4, 1. Regional Office for Copenhagen, Denmark, Europe.
278. Wallace, A. C., Laskowski, R. A., & Thornton, J. M. (1995). LIGPLOT: a program to generate schematic diagrams of protein-ligand interactions. *Protein engineering, design and selection*, 8(2), 127-134. doi, 10.1093/protein/8.2.127
279. Wang S.W. (2016). Bioaccumulation and Biomonitoring. In Blasco J., Chapman P., Campana O., & Hampel, M. (eds.), *Marine ecotoxicology: Current knowledge and future issues*, (pp. 99-119). Elsevier, Academic Press, New York.
280. Wang, D., Boukhalfa, H., Ware, D. S., Reimus, P. W., Daligault, H. E., Gleasner, C. D., ... & Li, P. E. (2015). Genome sequence of a chromium-reducing strain, *Bacillus cereus* S612. *Genome announcements*, 3(6). doi, 10.1128/genomeA.01392-15
281. Wang, D., Boukhalfa, H., Ware, D. S., Reimus, P. W., Daligault, H. E., Gleasner, C. D., ... & Li, P. E. (2015). Genome sequence of a chromium-reducing strain, *Bacillus cereus* S612. *Genome announcements*, 3(6), e01392-15. doi, 10.1128/genomeA.01392-15
282. Wang, E. T. (2019). History of Rhizobial Taxonomy. In Wang, E.T., Tian, C.F., Chen, W.F., Young, J.P.W., & Chen, W.X. (eds.), *Ecology and Evolution of Rhizobia* (pp. 23-39). Springer, Singapore. doi, 10.1007/978-981-32-9555-1
283. Wang, Y. T., & Shen, H. (1995). Bacterial reduction of hexavalent chromium. *Journal of industrial microbiology and biotechnology*, 14(2), 159-163. doi, 10.1007/BF01569898
284. Wani, P. A., & Khan, M. S. (2010). *Bacillus* species enhance growth parameters of chickpea (*Cicer arietinum* L.) in chromium stressed soils. *Food and chemical toxicology: an international journal published for the British Industrial Biological Research Association*, 48(11), 3262–3267. doi, 10.1016/j.fct.2010.08.035
285. Weatherbase entry for Kolkata. Carty and Associates LLC. Retrieved 26 April 2006.
286. Webb, B., & Sali, A. (2016). Comparative Protein Structure Modeling Using MODELLER. *Current protocols in bioinformatics*, 54, 5.6.1–5.6.37. doi, 10.1002/cpb1.3
287. Weddle, C. L., & Jenkins, D. (1971). The viability and activity of activated sludge. *Water Research*, 5(8), 621-640. doi, 10.1016/0043-1354(71)90117-5
288. Wehr, H. M., & Frank, J. H. (2004). Standard methods for the microbiological examination of dairy products. *Public Health Assoc., Washington, DC*. doi, 10, 9780875530024.
289. Whipps, J. M. (1990). Carbon utilization. In Lynch, J. M. (ed.), *The Rhizosphere*, (pp. 59-97). Wiley-Interscience, Chichester, UK.

290. Whitfield, G. B., Marmont, L. S., & Howell, P. L. (2015). Enzymatic modifications of exopolysaccharides enhance bacterial persistence. *Frontiers in microbiology*, 6, 471. doi, 10.3389/fmicb.2015.00471
291. WHO (World Health Organization). (2000). *Air quality guidelines for Europe*. Copenhagen: WHO Regional Office for Europe. doi: apps.who.int/iris/handle/10665/107335
292. WHO (World Health Organization). (2003) *Chlorpyrifos in drinking-water*. [Background document for preparation of WHO Guidelines for drinking-water quality. Geneva] World Health Organization (WHO/SDE/WSH/03.04/87).
293. WHO (World Health Organization). (2008) *Guidelines for drinking-water quality: (1st & 2nd Eds: addenda; 3rd Ed: Recommendations), Potable water – standards, Water – standards. Water quality – standards & Guidelines. Vol. 1*. ISBN 978 92 4 154761 1 (WEB version) World Health Organization (NLM classification: WA 675; Geneva 2008).
294. WHO, G. (2011). Guidelines for drinking-water quality. *World Health Organization*, 216, 303-304.
295. Wolińska, A., & Stępniewska, Z. (2012). Dehydrogenase Activity in the Soil Environment. In Canuto, R. A. (ed.), *Dehydrogenases*, (pp. 183-210). INTECH Publisher.
296. Wood, R. L., Jensen, T., Wadsworth, C., Clement, M., Nagpal, P., & Pitt, W. G. (2020). Analysis of identification method for bacterial species and antibiotic resistance genes using optical data from DNA oligomers. *Frontiers in microbiology*, 11, 257. doi, 10.3389/fmicb.2020.00257
297. Wu, Q., Wang, S., Thangavel, P., Li, Q., Zheng, H., Bai, J., & Qiu, R. (2011). Phytostabilization potential of *Jatropha curcas* L. in polymetallic acid mine tailings. *International Journal of phytoremediation*, 13(8), 788-804. doi, 10.1080/15226514.2010.525562
298. Wuana, R. A., & Okieimen, F. E. (2011). Heavy metals in contaminated soils: a review of sources, chemistry, risks and best available strategies for remediation. *International Scholarly Research Notices*, 2011. doi, 10.5402/2011/402647
299. Wyszkowski, M., & Radziemska, M. (2009). The effect of chromium content in soil on the concentration of some mineral elements in plants. *Fresenius Environmental Bulletin*, 18(7), 1039-1045.
300. Xiao, W., Ye, X., Yang, X., Zhu, Z., Sun, C., Zhang, Q., & Xu, P. (2017). Isolation and characterization of chromium (VI)-reducing *Bacillus* sp. FY1 and *Arthrobacter* sp. WZ2 and their bioremediation potential. *Bioremediation Journal*, 21(2), 100-108. doi, 10.1080/10889868.2017.1282939
301. Xu, M., da Silva, E. B., Gao, P., Liao, R., Wu, J., Ma, J., ... & Long, L. (2020). Biochar impact on chromium accumulation by rice through Fe microbial-induced redox

- transformation. *Journal of hazardous materials*, 388, 121807. doi: 10.1016/j.jhazmat.2019.121807
302. Yamina, B., Tahar, B., & Marie Laure, F. (2012). Isolation and screening of heavy metal resistant bacteria from wastewater: a study of heavy metal co-resistance and antibiotics resistance. *Water Science and Technology*, 66(10), 2041-2048. doi, 10.2166/wst.2012.355.
303. Yan, F., Schubert, S., & Mengel, K. (1996). Soil pH increase due to biological decarboxylation of organic anions. *Soil Biology and Biochemistry*, 28(4-5), 617-624. doi, 10.1016/0038-0717(95)00180-8
304. Yang, T., Chen, M. L., & Wang, J. H. (2015). Genetic and chemical modification of cells for selective separation and analysis of heavy metals of biological or environmental significance. *TrAC Trends in Analytical Chemistry*, 66, 90-102. doi: 10.1016/j.trac.2014.11.016
305. Yee, N., & Fein, J. (2001). Cd adsorption onto bacterial surfaces: a universal adsorption edge?. *Geochimica et Cosmochimica Acta*, 65(13), 2037-2042. doi, 10.1016/S0016-7037(01)00587-7
306. Yilmaz, E. I. (2003). Metal tolerance and biosorption capacity of *Bacillus circulans* strain EB1. *Research in microbiology*, 154(6), 409-415. doi, 10.1016/S0923-2508(03)00116-5
307. Yu, X., Ai, C., Xin, L., & Zhou, G. (2011). The siderophore-producing bacterium, *Bacillus subtilis* CAS15, has a biocontrol effect on Fusarium wilt and promotes the growth of pepper. *European Journal of Soil Biology*, 47(2), 138-145. doi, 10.1016/j.ejsobi.2010.11.001
308. Zakaria, Z. A., Mat Jais, A. M., Mastura, M., Mat Jusoh, S. H., Mohamed, A. M., Rofiee, M. S., & Sulaiman, M. R. (2007). In vitro antistaphylococcal activity of the extracts of several neglected plants in Malaysia. *International Journal of Pharmacology*, 3(5), 428-431. doi, 10.3923/ijp.2007.428.431
309. Zayed, A., Gowthaman, S., & Terry, N. (1998). *Phytoaccumulation of trace elements by wetland plants: I. Duckweed* (Vol. 27, No. 3, pp. 715-721). American Society of Agronomy, Crop Science Society of America, and Soil Science Society of America. doi, 10.2134/jeq1998.00472425002700030032x
310. Zhang, H. K., Lu, H., Wang, J., Zhou, J. T., & Sui, M. (2014). Cr (VI) reduction and Cr (III) immobilization by Acinetobacter sp. HK-1 with the assistance of a novel quinone/graphene oxide composite. *Environmental science & technology*, 48(21), 12876-12885. doi, 10.1021/es5039084
311. Zhang, R., Zhou, Z., Wu, W., Lin, C. C., Tsui, P. H., & Wu, S. (2018). An improved fuzzy connectedness method for automatic three-dimensional liver vessel segmentation in CT images. *Journal of healthcare engineering*, 2018, 8031213. doi, 10.1155/2018/8031213

312. Zhang, W., Zhu, H. H., Yuan, M., Yao, Q., Tang, R., Lin, M., ... & Chen, M. (2010). *Microbacterium radiodurans* sp. nov., a UV radiation-resistant bacterium isolated from soil. *International journal of systematic and evolutionary microbiology*, 60(11), 2665-2670. doi, 10.1099/ijss.0.017400-0
313. Zhang, Z., Schwartz, S., Wagner, L., & Miller, W. (2000). A greedy algorithm for aligning DNA sequences. *Journal of Computational biology*, 7(1-2), 203-214. doi, 10.1089/10665270050081478
314. Zhu, Y., Yan, J., Xia, L., Zhang, X., & Luo, L. (2019). Mechanisms of Cr (VI) reduction by *Bacillus* sp. CRB-1, a novel Cr (VI)-reducing bacterium isolated from tannery activated sludge. *Ecotoxicology and environmental safety*, 186, 109792. doi: 10.1016/j.ecoenv.2019.109792
315. Zouboulis, A. I., Loukidou, M. X., & Matis, K. A. (2004). Biosorption of toxic metals from aqueous solutions by bacteria strains isolated from metal-polluted soils. *Process biochemistry*, 39(8), 909-916. doi, 10.1016/S0032-9592(03)00200-0