

# School of Biotechnology

## Devi Ahilya Vishwavidyalaya, Indore

### Book Chapters

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| 1.  | Ratnaparkhe et al (2023) Genomic Designing for Abiotic Stress Tolerant Soybean. Book Chapter in C. Kole (ed.) Genomic Designing for Abiotic Stress Resistant Oilseed Crops, <a href="https://doi.org/10.1007/978-3-030-90044-1_1">https://doi.org/10.1007/978-3-030-90044-1_1</a> , Springer Nature Switzerland |
| 2.  | RS Tomar, P Raikala, A Jajoo (2022) book chapterRole of UV- B in regulating performance of Photosystem I and II" edited book titled "UV-B Radiation and Crop Growth" (89109181), Springer Nature, Singapore (In press)  |
| 3.  | Tiwari, R. and Kumar, A. (2020) Starch Phosphorylase: Biochemical and Biotechnological Perspectives. A chapter in Theory and Applications of Microbiology and Biotechnology. Book Publisher International, Hooghly, India.  |
| 4.  | S Tomar, B Singh and A Jajoo (2019) Effects of organic pollutants on photosynthesis. Book Chapter, Publisher John Wiley, UK, pp 1-26.   |
| 5.  | S Mathur, P Raikalal, A Jajoo (2019) Physiological effects of various abiotic stresses on wheat. Book Chapter in the Book "Wheat Production in Changing environment" Springer Publishers, pp 31-62.   |
| 6.  | M Patidar, A Nighojkar, S Nighojkar and A Kumar (2019) Purification and Characterization of Pectin Methyl esterase Produced in Solid State Fermentation by Aspergillus tubingensis. Book Chapter, Publisher Hooghly, India.   |
| 7.  | M Sharma and A Kumar (2019) Xylanase: An Overview. Book Chapter, Publisher Hooghly, India.  |
| 8.  | S Tomar, B Singh, A Jajoo (2019) Effects of organic pollutants on photosynthesis. Book Chapter, Publisher John Wiley, UK. In Press.   |
| 9.  | S Mathur, P Raikalal, A Jajoo (2019) Physiological effects of various abiotic stresses on wheat. Book Chapter, Springer Publishers. In Press.   |
| 10. | Introduction to Biofuels Production. A chapter in Advances in Biofuel Production (A. Kumar, S. Garg, Eds.). Garg, S. and Kumar, A. Nova Science Publishers Inc., New York, USA. pp. 1-15, 2019 (ISBN: 978-1-53614-671-4).   |
| 11. | Importance of Cellulosic Bioethanol and Pre-treatment Methods for Separating Lignin from Lignocellulosic Biomass. A chapter in Advances in Biofuel Production (A. Kumar, S. Garg, Eds.). Bhagwat, S. and Kumar, A. Nova Science Publishers Inc., New York, USA. pp. 17-40, 2019 (ISBN: 978-1-53614-671-4).      |
| 12. | Hexose Fermentation for Ethanol Production. A chapter in Advances in Biofuel Production (A. Kumar, S. Garg, Eds.). Bhagwat, S. and Kumar, A. Nova Science Publishers Inc., New York, USA. pp. 41-53, 2019 (ISBN: 978-1-53614-671-4).  |
| 13. | Biofuel Production from Pentose Sugars. A chapter in Advances in Biofuel Production (A. Kumar, S. Garg, Eds.). Chordia, N. and Kumar, A. Nova Science Publishers Inc., New York, USA. pp. 55-   |

|     |   |
|-----|---|
|     | 79, 2019 (ISBN: 978-1-53614-671-4).   |
| 14. | Parmar HS(2018).Insights into the plant insulin, In: Recent progress in medicinal plants, Metabolic disorders Diabetes Part-II/ Vol 46. Stadium Press LLC, USA  |
| 15. | Introduction to Polymerase Chain Reaction. A chapter in Applications of Polymerase Chain Reaction (S. Garg, Ed.). Garg, S. and Kumar, A. Arcler Press, Canada, 2018 (ISBN: 978-1773611235).   |
| 16. | Industrial Enzymes: A Brief Review. A chapter in Commercially Important Enzymes (S. Garg, Ed.). Garg, S. and Kumar, A. Delve Publishing, Canada, 2018 (ISBN: 978-1773611198).   |
| 17. | The Basics of Biofuels Production. A chapter in Current Scenario in Biofuels Production (S. Garg, Ed.). Garg, S. and Kumar, A. Delve Publishing, Canada, 2018 (ISBN: 978-1773611228).   |
| 18. | Basic Aspects of Plant Host Parasite Relationship. A chapter in Plant Host Parasite Relationship (S. Garg, Ed.). Garg, S., Chordia, N. and Kumar, A. Delve Publishing, Canada, 2018 (ISBN: 978-1773611211).   |
| 19. | Secondary Metabolites: Natural Antimicrobial agents. A chapter in Secondary Metabolites: Natural Antimicrobial Agents (S. Garg, Ed.). Garg, S. and Kumar, A. Delve Publishing, Canada, 2018 (ISBN: 978-1773611204).   |
| 20. | Hatina J, Parmar HS, Kripnerova M, Hepburn A, Heer R(2017). Urothelial carcinoma stem cells - current concepts, controversies and methods, In Eurothelial Carcinoma: Methods and protocols(Ed.Schulz WA, Hoffmann M, Niegisch G). Springer Science, NY, USA2017 pp 121-136.   |
| 21. | Neurodegenerative and Neuropsychiatric Disorders: Present Clinical Drug Research and Future Perspectives. A chapter in Frontiers in CNS Drug Discovery (Prof. Atta-ur-Rahman, FRS and Dr. M. Iqbal Choudhary, Eds). Garg, S., Chordia, N. and Kumar, A. Bentham Science Publishers, Vol. 3, pp. 72-145, 2017 (Invited Chapter) (DOI: 10.2174/97816810844351170301; eISBN: 978-1681084435, 2017; ISBN: 978-1681084442; ISSN: 2542-5056 (Print); ISSN: 1879-6613 (Online)). |
| 22. | In silico approaches for determination of anti-infective drug targets. A Chapter in Frontiers in Anti-infective Drug Discovery (Prof. Atta-Ur-Rahman, FRS and Dr. M. Iqbal Choudhary, Eds). Chordia, N. and Kumar, A. Bentham Science Publishers, Vol. 5, pp. 150-193, 2017 (Invited Chapter) (DOI: 10.2174/97816810829121170501; eISBN: 978-1681082912, 2017; ISBN: 978-1681082929; ISSN: 2451-9162 (Print); ISSN: 1879-663X (Online)).                                  |
| 23. | Plant Tissue Culture: History and Basics. A chapter in Plant Tissue Culture: Basic and Applied (S. Garg, Ed.). Kumar, A. Delve Publishing LLC, Canada, 2017 (ISBN: 978-1680957631).   |
| 24. | Botany: Introduction and Basics. A chapter in Botany: An introduction to plant biology (S. Garg, Ed.). Kumar, A. Delve Publishing LLC, Canada, pp. 1-8, 2017 (ISBN: 978-1680957532).  |
| 25. | Bacterial resistance against antibiotics. A chapter in Drug Resistance in Bacteria, Fungi, Malaria and Cancer (A. Sajid, G. Arora and V.C. Kalia, Eds.). Kumar, A. and Chordia, N. Springer Integrative Biotechnology Series, pp. 171-192, 2017 (Invited Chapter) (ISBN 978-3319486833).  |

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| 26. | Regulation of gene expression. A chapter in Synthetic Biology- Advances in Molecular Biology and Medicine (Robert A. Myers, Ed.). Kumar, A., Garg, S. and Garg, N. Wiley-VCH Verlag GmbH & Co KGaA press, Weinheim, Germany, Vol 1, pp. 61-119, 2015 (Invited Chapter) (ISBN: 978-3527334827).                                    |
| 27. | In Silico PCR Primer Designing and Validation. A chapter in Methods in Molecular Biology (N.J. Clifton, Ed.). Kumar, A. and Chordia, N. Humana Press, USA, Vol. 1275, pp. 143-151, 2015 (Invited Chapter).  |
| 28. | Microbial Associated Phytoremediation Technology for Management of Oil Sludge: Phytoremediation for oil sludge management. A Chapter in Uncovering New Methods for Ecosystem Management Through Bioremediation (Shivom Singh Rathore, Ed.). Kumar, A. and Dhote, M. IGI Global Publishers, USA, pp. 1-28, 2015 (Invited Chapter). |
| 29. | Next Generation Sequencing Technologies: Relevance in Post Genomic Era. A chapter in Emerging Technologies of the 21st Century (A.K. Roy, Ed.). Kumar, A. and Tyagi, S. New India Publishing Agency, New Delhi, India, pp. 41-59, 2014 (Invited Chapter).   |
| 30. | Relevance of Biological Databases in Post Genomic Era. A chapter in Emerging Technologies of the 21st Century (A.K. Roy, Ed.). Kumar, A. and Chordia, N. New India Publishing Agency, New Delhi, India, pp. 533-547, 2014 (Invited Chapter).  |
| 31. | Regulation of gene expression. A chapter in RNA Regulation (Robert A. Myers, Ed.). Kumar, A., Garg, S. and Garg, N. Wiley-VCH Verlag GmbH & Co KGaA press, Weinheim, Germany, Vol 1, pp. 285-343, 2014 (Invited Chapter).   |
| 32. | Regulation of gene expression. A chapter in Epigenetic Regulation and Epigenomics. Kumar, A., Garg, S. and Garg, N. Wiley-VCH Verlag GmbH & Co KGaA press, Weinheim, Germany, pp. 191-249, 2012 (Invited Chapter).  |
| 33. | Plant Transformation Technologies. A chapter in Plant Genetic Transformation and Molecular Markers (Ashwini Kumar, Ed.). Yadav, S., Garg, N., Garg, S. and Kumar, A. Pointer publishers, Jaipur, India, pp. 1-32, 2010 (Invited Chapter).   |
| 34. | Molecular markers for improvement of quality traits in crops. A chapter in Plant Genetic Transformation and Molecular Markers (Ashwini Kumar, Ed.). Yadav, S., Garg, N., Garg, S. and Kumar, A. Pointer publishers, Jaipur, India, pp. 199-232, 2010 (Invited Chapter).   |
| 35. | Kar A, Panda S, Parmar HS. (2009). Some plant extracts may prove to be thyrotoxic and peroxidative in nature, In: Molecular and Physiological Aspects of Toxicology(Ed. Shah K). 1st edition, MahilaMahavidyalaya Banaras Hindu University, Varanasi, India. ISBN# 81-85403-09-2, pp. 1-17.                                       |
| 36. | Immobilization of Enzymes and Biotechnological Perspectives. A chapter in Biotechnological Applications. (S.K. Mishra and P. Champagne, Eds.). Kumar, A. and Garg, S. I K International Pvt Ltd, New Delhi, India, pp. 39-52, 2009 (Invited Chapter).   |
| 37. | Proteomics studies to understand the molecular basis of stress tolerance in plants. A chapter in Plant Genomics and Bioinformatics (G.P. Rao, C.V. Wagner, R.K. Singh and M.L. Sharma, Eds.). Kumar, A., Rathore, R.S., Singh, R.K. and Garg, S. Studium Press LLC, Texas, USA, pp. 271-  |

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|-----|--|
|     | 301, 2008 (Invited Chapter).   |
| 38. | Enzyme Purification. A Chapter in Enzymology being prepared by NISCAIR, CSIR, New Delhi. Kumar, A. and Garg, N. e-book, 2008 (Invited Chapter) ( <a href="http://hdl.handle.net/123456789/735">http://hdl.handle.net/123456789/735</a> ).                        |
| 39. | Regulation of Gene Expression. A Chapter in Encyclopedia of Molecular Cell Biology & Molecular Medicine (Robert A. Meyers, Ed.). Kumar, A. Wiley-VCH Verlag GmbH & Co. KGaA press, Weinheim , Germany, 2nd Edition, Vol 12, pp. 23-65, 2005 (Invited Chapter).   |
| 40. | DNA replication. A Chapter in Animal Biotechnology (A.K. Srivastava & Associates, Eds.). Srivastava, A.K. and Kumar, A. Oxford & IBH Press, New Delhi, India, pp. 57-69, 2005 (Invited Chapter).   |
| 41. | Regulation of starch biosynthesis in leaves of higher plants. A chapter in Advances in Frontier Areas of Plant Biochemistry (R. Singh and S.K. Sawhney, Eds.). Sanwal, G.G. and Kumar, A. Prentice Hall of India Pvt. Ltd., New Delhi, India, pp. 147-167, 1988. |