

List of Publications (All are peer reviewed)

A) Research Articles:

1. **Bhatia Ravi Kant**, Bhatia Shashi Kant, Mehta Praveen Kumar, Bhalla Tek Chand. Bench scale production of benzohydroxamic acid using acyl transfer activity of amidase from *Alcaligenes* sp. MTCC 10674. *Journal of Industrial Microbiology and Biotechnology*. 40: 21-27, 2012; doi: 10.1007/s10295-012-1206-x. (**Impact Factor 3.4**). Publisher : Springer; ISSN: 1367-5435 (print version) ISSN: 1476-5535 (electronic version)
2. Bhatia Shashi Kant, Mehta Praveen Kumar, **Bhatia Ravi Kant**, Bhalla Tek Chand. An isobutyronitrile-induced bienzymatic system of *Alcaligenes* sp. MTCC 10674 and its application in the synthesis of α - hydroxyisobutyric acid. *Bioprocess and Bio-system Engineering*. 36: 613-625. 2013. (**Impact Factor 3.2**). Publisher : Springer; ISSN: 1615-7591 (print version) ISSN: 1615-7605 (electronic version) Berlin Germany
3. Bhatia Shashi Kant, Mehta Praveen Kumar, **Bhatia Ravi Kant**, Bhalla Tek Chand. 2014. Purification and characterization of arylacetonitrile-specific nitrilase of *Alcaligenes* sp. MTCC 10675. *Biotechnology and Applied Biochemistry*. 61(4): 459–465, 2014 doi: 10.1002/bab.1192. (**Impact Factor 2.9**). Publisher: Wiley online; ISSN: 1470-8744. New Jersey, United States
4. **Bhatia Ravi Kant**, Bhatia Shashi Kant, Mehta Praveen Kumar, Bhalla Tek Chand. 2013. Production and characterization of acyl transfer activity of amidase from *Alcaligenes* sp. MTCC 10674 for synthesis of hydroxamic acids. *Journal of Microbial and Biochemical Technology*. 5 (1): 001-005 2013 <http://dx.doi.org/10.4172/1948-5948.1000090>. (**Impact Factor 2.5**). Publisher: Longdom Publishing; ISSN: 1948-5948. Brussels Belgium
5. Bhatia Shashi Kant, Kumar Devender, **Bhatia Ravi Kant**, Bhalla Tek Chand. Bench scale production of phenylacetic acid using *Alcaligenes* sp. MTCC 10675. *International Journal of Universal Pharmacy and Biological Sciences*. 2: 16-25, 2013. (**Impact Factor 0.8**) Publisher: Prerna New Delhi; ISSN 2319-8141
6. Mehta Praveen Kumar, Bhatia Shashi Kant, **Bhatia Ravi Kant**, Bhalla Tek Chand. Purification and characterization of a novel thermo-active amidase from *Geobacillus subterraneus* RL-2a. *Extremophiles*. 17: 637-648. 2013 (**Impact Factor 2.4**). Publisher : Springer; ISSN: 1431-0651 (Print) 1433-4909 (Online)

7. Bhatia Shashi Kant, Mehta Praveen Kumar, **Bhatia Ravi Kant**, Bhalla Tek Chand. Simultaneous purification of nitrile hydratase and amidase of *Alcaligenes* sp. MTCC 10674. *3Biotech.* 4: 375-381. 2014. **Publisher:** Springer; (**Impact Factor 2.4**) ISSN: 2190-5738 (electronic version)
8. Bhatia Shashi Kant, Mehta Praveen Kumar, **Bhatia Ravi Kant**, Bhalla Tek Chand. Optimization of arylacetonitrilase production from *Alcaligenes* sp. MTCC 10675 and its application in mandelic acid synthesis. *Applied Microbiology and Biotechnology.* 98(1): 83-94, 2014 (**Impact Factor 4.8**). **Publisher :** Springer; ISSN: 0175-7598 (print version) ISSN: 1432-0614 (electronic version)
9. Mehta Praveen Kumar, Bhatia Shashi Kant, **Bhatia Ravi Kant**, Bhalla Tek Chand. Bench scale production of nicotinic acid using a versatile amide-hydrolysing *Geobacillus subterraneus* RL-2a isolated from thermal spring of Manikaran, India. *Molecular Catalysis B: Enzymatic.* 10: 58-65. (2014) (**Impact Factor 2.8**). **Publisher :** Elsevier; ISSN: 1381-1177
10. **Ravi Kant Bhatia**, Shashi Kant Bhatia, Praveen Kumar Mehta, Tek Chand Bhalla. Biotransformation of nicotinamide to nicotinyl hydroxamic acid at bench scale by amidase acyl transfer activity of *Pseudomonas putida* BR-1. *Molecular Catalysis B; Enzymatic.* 108: 89-95. 2014 (**Impact Factor 2.8**). **Publisher:** Elsevier; ISSN: 1381-1177. Amsterdam, Netherlands
11. **Bhatia Ravi Kant**, Bhatia Shashi Kant, Mehta Praveen Kumar, Bhalla Tek Chand. Bi-substrate kinetic analysis of acyl transfer activity of purified amidase of *Pseudomonas putida* BR-1. *Catalysis Letters* DOI: 10.1007/s10562-014-1467-2. **145:1033-1040**, 2015 (**Impact Factor 3.2**). **Publisher:** Springer; **ISSN: 1011-372X (print version)** **ISSN: 1572-879X (electronic version)**.
12. **Shashi Kant Bhatia**, Ravi Kant Bhatia, Narender Kumar (2015). Stepwise bioprocess for exopolysaccharide production using potato starch as carbon source. *3 Biotech.* DOI 10.1007/s13205-014-0273-2. 3 Biotech. Oct; 5(5): 735–739. 2015 (**Impact factor 2.4**) **Publisher: Springer; ISSN: 2190-5738 (electronic version)**.
13. Mehta Praveen Kumar, Bhatia Shashi Kant, **Bhatia Ravi Kant**, Bhalla Tek Chand (2015). Thermostable amidase catalysed production of isonicotinic acid from isonicotinamide *Process Biochemistry* DOI: 10.1016/j.procbio.2015.05.013. 50: (9)1400-1404 2015, (**Impact Factor 3.8**) **Publisher: Elsevier; ISSN: 1359-5113**.

- 14.** Mehta Praveen Kumar, Bhatia Shashi Kant, **Bhatia Ravi Kant**, Bhalla Tek Chand (2016). Enhanced production of thermostable amidase from *Geobacillus subterraneus* RL-2a MTCC 11502 via optimization of physicochemical parameters using Taguchi DOE methodology. *3Biotech*. DOI :10.1007/s13205-016-0390-1. *3 Biotech*. 6(1): 66:78:. 2016 (**Impact Factor 1.2**) **Publisher:** Springer; (**Impact Factor 2.4**) **ISSN:** 2190-5738 (**electronic version**)
- 15.** **Bhatia Ravi Kant**, Bhatia Shashi Kant, Mehta Praveen Kumar, Bhalla Tek Chand (2015). Bio-statistical enhancement of acyl transfer activity of amidase from *Pseudomonas putida* BR-1 for biotransformation of N-substituted aromatic amides. *Journal of General and Applied Microbiology*. doi 10.2323/jgam.62.90. 62(2):90-97. (**Impact Factor 1.8**). **Publisher:** Center for Academic Publication Japan; **Online ISSN:** 1349-8037 **Print ISSN:** 0022-1260.
- 16.** Rana N, Sepahia D, Sharma V, **Bhatia RK**, Bhatt AK (2016) Isolation and screening of xylan degrading bacteria and optimization of xylanase enzyme produced by XPS-4 under submerged fermentation. *Himachal Pradesh University Journal*. 4: 32-44. **Publisher:** HPU Shimla India; **ISSN:** 2277-1425, **e-ISSN:** 2277-1433.
- 17.** Bhatia RK, Kumar R, Rathour RK, Kumar V, Sharma V, Rana N, Thakur S and Bhatt AK. (2017) Enhancement of Cellulose Degradation Potential of *Bacillus* sp. HCB-21 through Mutagenesis. *Journal of Microbial & Biochemical Technology*. 9: 257-265, 2017. DOI: 10.4172/1948-5948.1000374. (**Impact Factor 2.16**). **Publisher:** Longdom Publishing; **ISSN:** 1948-5948. Brussels Belgium
- 18.** Ahuja V, Rathour RK, **RK Bhatia** and Bhatt AK (2017). Microbial utilization of municipal waste (MSW) for the production of xylitol: A highly valuable product. *Life Science International Research Journal*, 4(1): 56-59.
- 19.** Sharma V, Nadda A, Rana N, **Bhatia RK**, Bhatt AK (2017). Isolation, screening and optimization of extracellular cellulose producing bacterial isolate CPS-7. *Himachal Pradesh University Journal*. 5: 55-67. **Publisher:** HPU Shimla India; **ISSN:** 2277-1425, **e-ISSN:** 2277-1433.
- 20.** Mamta Devi, Shikha Devi, Vaishali Sharma, Nidhi Rana, Ravi Kant Bhatia, Arvind Kumar Bhatt (2019) Synthesis of silver nanoparticles using methanolic fruit extract of Aegle marmelos and their antimicrobial potential against human bacterial pathogens. *Journal of Traditional and Complimentary Medicine*. 10 (1) 158-165. DOI:

21. Rana N, Sharma V, Rathour RK, Ahuja V, **Bhatia RK** and Bhatt AK (2019). Utilization of corn cob waste for xylanase production by newly isolated *Bacillus pumilus* XRL5 and its application in saccharification of lignocellulosic biomass. Trends in Carbohydrate Research 3: 20-32. **Publisher: Association of Carbohydrate Chemists and Technologists, Impact factor 0.52 ISSN: ISSN: 0975-0304.**
22. Sharma V, Rana N, Rathour RK, Ahuja V, Bhatia RK and Bhatt AK (2019). Endoglucanase production by statistical approach and its application in hydrolysis of alkali pretreated wheat straw. Trends in Carbohydrate Research, 4: 35-48. **Publisher: Association of Carbohydrate Chemists and Technologists, Impact factor 0.52 ISSN: 0975-0304.**
23. Kiran, Ranju Kumari Rathour, Ravi Kant Bhatia, Dilbag Singh Rana, Arvind Kumar Bhatt and Nagesh Thakur (2020) Fabrication of nanobiocatalyst by immobilization of Lignin Peroxidase on Graphene Oxide functionalized MnFe₂O₄ nanoparticles for textile dyes bioremediation. *Bioresource Technology*. 317 (2020) 124020. *Bioresource Technology*. **Publisher: Elsevier; Impact factor 9.6 ISSN: ISSN: 0960-8524.**
24. Rauthor RK, **Bhatia RK** and Bhatt AK (2020). Bioremediation of simulated textile effluent by an efficient bio-catalyst purified from novel *Pseudomonas* fluorescence LiP-RL5. Current Chemical Biology. 14 (2) 128-139. DOI : 10.2174/2212796814666200406100247 **Publisher: Bentham Science Impact Factor: 3.6 ISSN: 1872-3136**
25. Ahuja V, Sharma V, Rana N, Rathour RK, Bhatia RK, and Bhatt AK (2020) Enhanced Production of Alkalo-tolerant NADPH Dependent Xylose Reductase from *Emericella* sp. XLT-11 by Statistical Modeling. Trends in Carbohydrate Research. 51-63
26. Parul Suri, Divya Dwivedi, Ranju Kumari Rathaur, Vaishali Sharma, Nidhi Rana, **Ravi Kant Bhatia**, and Arvind Kumar Bhatt (2021) "Enhanced C-5 sugar production from pine needle waste biomass using *Bacillus* sp. XPB-11 mutant and its biotransformation to bioethanol." Biomass Conversion and Biorefinery: 1-10. **Publisher: Elsevier; Impact factor 4.9 ISSN: ISSN: 21906815, 21906823.**

B). Review articles:

1. Nangul A, **Bhatia RK** (2013). Micro-organism: A marvelous source of single cell protein. *Journal of Microbiology, Biotechnology and Food Sciences.* 3 (1): 15-18. 2013
Publisher: Faculty of biotechnology and Food Sciences NITRA Salovakia (Impact factor: 0.38) ISSN 1338-5178
2. Ahuja V, **Bhatia RK**, Bhatt AK (2015). Bioterrorism (life against life): Issue and Challenges. *Himachal Pradesh University Journal.*
3. Bhatia SK, **Bhatia RK**, Yang YH. (2016) Biosynthesis of polyesters and polyamide building blocks using microbial fermentation and biotransformation. *Reviews in Environmental Science and Bio/Technology.* December 2016, Volume 15, 639–663. 2016 **Publisher: Springer; Impact factor 8.1 ISSN: 1569-1705 (printversion) ISSN: 1572-9826 (electronic version)**
4. Bhatia SK, **Bhatia RK**, Yang YH (2017). An overview of microdiesel -A sustainable future source of renewable energy. *Renewable and Sustainable Energy Reviews.* 79: 1078-1090. 2017 **Publisher: Elsevier; Impact factor 14.98 ISSN: ISSN: 1364-0321**
5. Shashi Kant Bhatia, Ravi Kant Bhatia, Yong-Keun Choi, Eunsung Kan, Yun-Gon Kim & Yung-Hun Yang (2018): Biotechnological potential of microbial consortia and future perspectives, *Critical Reviews in Biotechnology,* 15:1-21 2018 DOI: 10.1080/07388551.2018.1471445. **Publisher: Taylor and Francis Group, Impact factor 8.4 ISSN: 0738-8551 (print) 1549-7801 (web)**
6. Rathour R K, Ahuja V, **Bhatia RK**, Bhatt AK (2018). Biobutanol: New Era of Biofuels. *International Journal of Energy Research.* 42 (1) 4532-4545. <https://doi.org/10.1002/er.4180> (Impact Factor 5.2). **Publisher: Wiley online; ISSN: 1099-114x. New Jersey, United States**
7. Shashi Kant Bhatia, Ravi Kant Bhatia, Jong-Min Jeona, Gopal krishnan Kumar, Yung-Hun Yang (2019).Carbon dioxide capture and bioenergy production using biological system – A review. *Renewable and Sustainable Energy Reviews.* 110,143-158 2019, Pages 143-158. **Publisher: Elsevier; Impact factor 14.98 ISSN: ISSN: 1364-0321**
8. Bhatia SK, Japtap SP, Bedekar AA, **Bhatia RK**, Patel AK, Pant D, Banu JR, Rao CV, Kim YJ, Yung-Hun Yang (2020) Recent developments in pretreatment technologies on lignocellulosic biomass: effect of key parameters, technological improvements, and challenges. *Bioresource technology,* 300, 122724. **Publisher: Elsevier; Impact factor 9.6 ISSN: ISSN: 0960-8524.**

- 9.** Bhatia RK, Ramadoss G, Jain AK, Dhiman RK, Bhatia SK, Bhatt AK (2020) Conversion of Waste Biomass into Gaseous Fuel: Present Status and Challenges in India. BioEnergy Research. 13; 1046-1068. <https://doi.org/10.1007/s12155-020-10137-4>. **Impact factor 3.4, Print ISSN 1939-1234 Publisher: Springer Switzerland**
- 10.** Bhatia RK, Ullah S, Hoque HZ, Ahmad I, Yang YH, Bhatt AK, Bhatia SK (2021). Psychrophiles: A source of cold-adapted enzymes for energy efficient biotechnological industrial processes. Journal of Environmental Chemical Engineering. 9: 104607. <https://doi.org/10.1016/j.jece.2020.104607>. **Publisher: Elsevier; Impact factor 5.9 ISSN: 2213-3437**
- 11.** Ravi Kant Bhatia, Deepak Sahuja, Shyam Mundhe and Abhishek Walia (2020) Renewable Energy Products through Bioremediation of Wastewater. Sustainability, 12:7501. **Publisher: MDPI Impact factor 3.2 ISSN 2071-1050**
- 12.** Piyush Babele, Ravi Kant Bhatia, Mahendra Kumar Verma (2020). Carbon Nanotubes: A review on risks assessment, mechanism of toxicity and future directives to prevent health implication. BioCell. **Publisher: Biotech Science; Impact factor 1.3 ISSN: 1667-5746 (online)**
- 13.** Bhatia SK, Bhatia RK, Jeon JM, Pugazhendi A, Awasthi MK, Kumar G, Yang YH (2021) An overview on advancements in biobased transesterification methods for biodiesel production: Oil resources, extraction, biocatalysts, and process intensification technologies. Fuel. <https://doi.org/10.1016/j.fuel.2020.119117>. **Publisher: Elsevier; Impact factor 6.6 ISSN. 0016-2361**
- 14.** Bhatia, S. K., Japtap SP , Bedekar AA, Bhatia, R. K., Ranjendran K, Pugazhendhi, A., Rao CV, Atabani AE, Kumar G, Yang YH (2020) Renewable biohydrogen production from lignocellulosic biomass using fermentation and integration of system with other energy generation technologies. Science of The Total Environment, 141599. **Publisher: Elsevier; Impact factor 7.8 ISSN: 0048-9697**
- 15.** Bhatia, S. K., Mehariya, S., Bhatia, R. K., Kumar, M., Pugazhendhi, A., Awasthi, M. K., ... & Yang, Y. H. (2021). Wastewater based microalgal biorefinery for bioenergy production: Progress and challenges. Science of The Total Environment, 141599. **Publisher: Elsevier; Impact factor 7.8 ISSN: 0048-9697.**
- 27.** Sahuja D, Ghai H, Rathour RK, Kumar P, Bhatt AK & Bhatia RK (2021). Cost-effective production of biocatalysts using inexpensive plant biomass: a review. 3 Biotech, 11(6), 1-21. **Publisher: Springer; (Impact Factor 2.4) ISSN: 2190-5738 (electronic version)**

28. Walia A, Putatunda C, Solanki P, Pathania S, Bhatia SK (2021) Microbial protease – Ubiquitous Enzymes with innumerable uses. *3 Biotech*, 11(6), 34-45.
- Publisher: Springer; (Impact Factor 2.4) ISSN: 2190-5738 (electronic version)**
29. Shashi Kant Bhatia, Akshaya K. Palai, Amit Kumar, **Ravi Kant Bhatia**, Anil Kumar Patel, Vijay Kumar Thakur Yung-Hun Yang, (2021) Trends in renewable energy production employing biomass-based biochar. *Bioresource technology*, 300, 122724. **Publisher: Elsevier; Impact factor 9.6 ISSN: ISSN: 0960-8524.**
30. Shashi Kant Bhatia, Sujit Sadashiv Jagtap, Ashwini Ashok Bedekar, **Ravi Kant Bhatia**, Karthik Rajendran, Arivalagan Pugazhendhi, Christopher V. Rao, A.E. Atabani, Gopalakrishnan Kumar, Yung-Hun Yang (2021) Renewable biohydrogen production from lignocellulosic biomass using fermentation and integration of systems with other energy generation technologies. *Science of the Total Environment* 765 (2021) 144429. **Publisher: Elsevier; Impact factor 7.8 ISSN: 0048-9697.**
31. Vishal Ahuja, Arvind Kumar Bhatt, Vaishali Sharma, Ranju Kumari Rathour, Nidhi Rana, Ravi Kant Bhatia, Sunita Varjani, Manu Kumar, Sara Magdouli, Yung-HunYang , Shashi Kant Bhatia, (2021) Advances in glucosamine production from waste biomass and microbial fermentation technology and its applications. *Biomass Conversion and Biorefinery*. <https://doi.org/10.1007/s13399-021-01968-y>. **Publisher: Elsevier; Impact factor 4.9 ISSN: ISSN: 21906815, 21906823.**

C). Book Chapter:

1. Bhalla TC, Sharma N and **Bhatia RK** (2012) Microbial Degradation of Cyanides and Nitriles. *Microorganisms in Environmental Management*. pp 569-587. **ISBN: 978-94-007-2228-6 (Print) 978-94-007-2229-3 (Online) Berlin Germany**
2. Bhalla TC, Seth A, Sharma N, **Bhatia RK** (2013) Directed evolution of enzymes: Tailoring enzymes for specific purpose. *Emerging Areas in Biotechnology*. **p-65-76.**
3. Bhatia A, Devi M, Ahuja V, **Bhatia RK**, Bhatt AK (2016) Antimicrobial potential of *Aegle marmelos* leaf extract. *Recent Advances in Emerging Technologies*. **pp 1-10.** **ISBN- 978-81-929890-1-3 Guru Granth Sahib World University Fatehgarh Sahib Punjab)**
4. Bhatia SK, **Bhatia RK**, Bhatt AK, Yang YH (2016) Microbial Biodiesel: A Reservoir for Future Fuel. *Micro-organisms: Tools of sustainability (pp. 126-140)* **ISBN- 978-81-211-0950-5. Bishen Singh and Mahendra Pal Singh Dehradun)**

- 5. Bhatia RK**, Bhatia SK, Ahuja V, Bhatt AK (2016) Bacterial Communication: Mechanism, Inhibition and Applications. *Micro-organisms: Tools of sustainability* (pp. 273-287 ISBN- 978-81-211-0950-5. Bishen Singh and Mahendra Pal Singh Dehradun)
- 6. Bhatia RK**, Bhatia SK, Bhalla TC, Bhatt AK (2016) Green Synthesis of Hydroxamic Acid and its Potential Industrial Applications. Microbial Applications Vol.2 - Biomedicine, Agriculture and Industry. ISBN 978-3-319-52668-3 ISBN 978-3-319-52669-0 (eBook) DOI 10.1007/978-3-319-5266 (pp. 169-184).
- 7. Bhatia Ravi Kant**, Thakur Sumita, Sharma Vaishali, Rana Nidhi, Bhatia Shashi Kant, Bhatt Arvind Kumar. **2017.** Biocatalyst Immobilization: A Viable Scientific and Economical Solution for Increased Productivity of Industrial Products. Recent Advances in Biotechnology. **11-44: ISBN 978-93-84863: Shree Publishers & Distributors**
- 8.** Bhatt A.K., **Bhatia R.K.**, Thakur S., Rana N., Sharma V., Rathour R.K. (2018) Fuel from Waste: A Review on Scientific Solution for Waste Management and Environment Conservation. Prospects of Alternative Transportation Fuels pp 205-233. Springer Nature, Singapore. **DOI:** https://doi.org/10.1007/978-981-10-7518-6_10.Springer, Singapore. **Print ISBN** 978-981-10-7517-9
- 9.** Shashi Kant Bhatia, Puneet Wadhwa, **Ravi Kant Bhatia**, Sanjay Kumar Singh Patel, and Yung-Hun Yang (2019) Strategy for Biosynthesis of Polyhydroxyalkonates Polymers/Copolymers and Their Application in Drug Delivery In book: Biotechnological Applications of Polyhydroxyalkanoates DOI: 10.1007/978-981-13-3759-8_2
- 10.** Rathour RK, Mehta S, Sharma P, **Bhatia RK** & Bhatt AK (2021). Seaweed Cultivation and Its Biobusiness Status Around the World. Bioremediation Using Weeds: 151.
- 11.** Joshi M, Putatunda C, Bhatia SK, Walia A, **Bhatia RK** (2021). Side effects of pesticides in plants and their detoxification mechanism. Environmental contamination and climate change. 155-191. **Publisher Nova Publications USA. E-ISBN** 978-1-53619-732-7.
- 12.** Walia A, Putatunda C, Solanki P, Pathania S, Bhatia RK (2021) Co-conversion of algal biomass to biofuel . **Springer Nature.** <https://doi.org/10.1002/9781119793038.ch11>.
Print ISBN:9781119791980 |Online ISBN:9781119793038
- 13.** Walia Abhishek, **Bhatia Ravi Kant**, Chhayanika Kumari (2021) Techniques for improving microbial inoculants as a tool for sustainable development. Microbiological Activity for Soil and Plant Health Management. pp 559-627. **Springer**

- 14.** Shruti Pathania, Preeti Solanki, Chayanika Putatunda, **Ravi Kant Bhatia**, and Abhishek Walia (2021) Adaptation to Cold Environment: The Survival Strategy of Psychrophiles. https://doi.org/10.1007/978-981-16-2625-8_4 Springer Nature.
- 15.** Deepak Sakhija, Hemant Ghai, **Ravi Kant Bhatia**, and Arvind Kumar Bhatt (2021) Management of e-Waste: Technological Challenges and Opportunities. Handbook of Solid Waste Management, https://doi.org/10.1007/978-981-15-7525-9_69-1

D) Books

- 1.** Bhatt AK, Bhatia RK, Bhalla TC (Editors). Basic Techniques for Bioprocess and Bioentrepreneurship. Elsevier (Under Review Process)

E) Patent filed/granted

- 1.** Point care device/kit for detection of kidney stone Ref. no. 201911039935 dated 03-10-2019.