

Journal Research/Review Articles:

1. SHAKIR, H.A., MAHMOOD, R., IRFAN, M., DEEBA, F., JAVED, I. AND QAZI, J.I., 2019. Protease production from *Bacillus safensis* in submerged fermentation using response surface methodology. *Revista Mexicana de Ingenieria Quimica*, **18**(1): 375-385
2. NAWAL, G., IRFAN, M., ASHFAQ, S. AND SHAKIR, H.A., 2019. An overview of bacterial lipases and their enormous applications. *Punjab Univ. J. Zool.*, **34**(1): 61-71. <http://dx.doi.org/10.17582/journal.pujz/2019.34.1.61.71>
3. KHAN, R., ALI, S., MUMTAZ, S., ANDLEEB, S., HAQ, M.-UL., TAHIR, H.M., KHAN, M.K. A., KHAN, M. A., SHAKIR, H. A., 2019. Toxicological effects of toxic metals (cadmium and mercury) on blood and the thyroid gland and pharmacological intervention by vitamin C in rabbits. *Environmental Science and Pollution Research*. **26**: 16727–16741 <https://doi.org/10.1007/s11356-019-04886-9>
4. MUMTAZ, S., ALI, S., KHAN, R., ANDLEEB, S., HAQ, M.-UL., KHAN, M.A., SHAKIR, H.A., 2019 The protective role of ascorbic acid in the hepatotoxicity of cadmium and mercury in rabbits. *Environmental Science and Pollution Research*, **26**:14087–14096
5. ALI, S., HUSSAIN, S., KHAN, R., MUMTAZ, S., ASHRAF, N., ANDLEEB, S., SHAKIR, H.A., TAHIR, H.M., KHAN, M.K.A. AND ULHAG, M., 2019. Renal toxicity of heavy metals (cadmium and mercury) and their amelioration with ascorbic acid in rabbits. *Environmental Science and Pollution Research*, <https://doi.org/10.1007/s11356-018-3819-8>
6. TABSSUM, F., IRFAN, M., SHAKIR, H.A. AND QAZI, J.I., 2018. RSM based optimization of nutritional conditions for cellulase mediated Saccharification by *Bacillus cereus*. *Journal of Biological Engineering*, **12**: 7 <https://doi.org/10.1186/s13036-018-0097-4>.
7. GHANZANFAR, M., IRFAN, M., TABSSUM, F. AND SHAKIR, H.A., 2018. Effect of different pretreatment conditions on *Saccharum spontaneum* for cellulase production by *B. subtilis* K-18 through Box-Bhenken Design. *Iran. J. Sci. Technol. Trans Sci.*, **42**: 313–320 [https://doi.org/10.1007/s40995-017-0463-y\(01](https://doi.org/10.1007/s40995-017-0463-y(01)
8. FATIMA, N., IRFAN, M., SHAKIR, H.A. AND QAZI, J.I., 2018. Dilute sulphuric acid pretreatment optimization of cotton stalk for cellulase production through Box-Bhenken design. *Punjab Univ. J. Zool.*, **33**(1): 77-85. <http://dx.doi.org/10.17582/pujz/2018.33.1.77.85>
9. REHMAN, H., MIRZA, S., HASAN, M., ALI, Q., SHAKIR, H.A. AND YASIR, M., 2018. Repellent potential of three medicinal plant extracts against *Tribolium castaneum* (Coleoptera: Tenebrionidae). *Punjab Univ. J. Zool.*, **33**(2): 121-126. <http://dx.doi.org/10.17582/pujz/2018.33.2.121>
10. KHAN, M., MARYAM, A., SHAKIR, H.A., QAZI, J.I., AND LI, Y., 2018. Baohuoside I Inhibits Benzo(a)Pyrene-Induced Metastasis in A549 Lung Cancer Cells by Modulating STAT3 and EMT. *Pakistan J. Zool.*, **50**(6): 2357-2365. DOI: <http://dx.doi.org/10.17582/journal.pjz/2018.50.6.2357.2365>

11. ALI, W., KARIM, A., IRFAN, M., SHAKIR, H.A., MUSTAFA, G., SHAFIQUE, Z. AND ANWAR, I., 2018. Study of induce histological and biochemical alterations in *Hypophthalmichthyes molitrix* after acute exposure to deltamethrin. *Punjab Univ. J. Zool.*, 33(2): 127-132. <http://dx.doi.org/10.17582/pujz/2018.33.2.127.132>
12. MIRZA, S.S., QAMER, H.M. SHAKIR, H.A. AND AKRAM, R.S., 2018. Trend towards weaning process of infants visiting OPD pediatrics unit: An institutional based study. *Punjab Univ. J. Zool.*, 33(2): 139-144. <http://dx.doi.org/10.17582/journal.pujz/2018.33.2.139.144>
13. ALI, S., NELOFER, R., ANDLEEB, S., BAIQ, S., SHAKIR, H. A. AND QAIZI, J.I., 2018. Biosynthesis and optimization of bacitracin by mutant *Bacillus licheniformis* using submerged fermentation. *Indian Journal of Biotechnology*, 17: 251-260
14. ANJUM, A., IRFAN, M., TABBSUM, F., SHAKIR, H.A. AND QAIZI, J.I., 2017. Optimization of sulphuric acid pre-treatment of Acacia saw dust through box-bhenken design for cellulase production by *B. Subtilis*. *Adv. Life Sci.* 5(1): 19 -24
15. ARSHAD, M., IRFAN, M., ASAD-UR-REHMAN, NADEEM, M., HUMA, Z., SHAKIR, H.A. AND SYED, Q., 2017. Optimization of medium and substrate for CMCcase production by *Bacillus subtilis*-BS06 in submerged fermentation and its application in saccharification. *Punjab Univ. J. Zool.*, 32(2): 179-188.
16. KIRAN, R., RIAZ, A., IRFAN, M. AND SHAKIR, H.A., 2017. An overview of pre-treatment methods used for bioconversion of lignocellulosic biomasses into valuable products. *Punjab Univ. J. Zool.*, 32(2): 283-294.
17. ABIDI, A.S.Z., SHAKIR, H.A., ALI, S.S. AND QAIZI, J.I., 2017. Preliminary screening of some plants of Punjab, Pakistan for Phytochemicals. *Biologia (Pakistan)*. 63(2): 179-191.
18. ARSHAD, F., IRFAN, M., SHAKIR, H.A., TABBSUM, F. AND QAIZI, J.I., 2017. Optimization of dilute sulphuric acid pretreatment of peanut shells through Box- Bhenken design for cellulase production by *Bacillus subtilis* K-18. *Punjab Univ. J. Zool.*, 32(1): 81-90.
19. IRFAN, M., MUSHTAQ, Q., TABSSUM, F., SHAKIR, H.A. AND QAIZI, J.A., 2017. Carboxymethyl cellulose production optimization from newly isolated thermophilic *Bacillus subtilis* K-18 for saccharification using response surface methodology. *AMB Expr.*, 7: 29 DOI 10.1186/s13568-017-0331-3
20. AROOJ, A., IRFAN, M., TABSSUM, F., SHAKIR, H.A., QAIZI, J.I., 2017. Effect of dilute sulphuric acid pretreatment on cellulose production by *Bacillus subtilis* (K-18) through response surface methodology. *Proceedings of the Pakistan Academy of Science: B. Life and Environmental Sciences*, 54(1): 11-20.
21. TABASSUM, F., IRFAN, M., SHAKIR, H.A., QAIZI, J.I., 2017. Statistical optimization for deconstruction of Poplar substrate by dilute sulphuric acid for bioethanol production. *Green Chemistry Letters and Reviews*, 10(2): 69-79.
22. IQBAL, S., IRFAN, M., SHAKIR, H.A., TABBSUM, F. AND QAIZI, J.I., 2017. Effect of alkali treatment (NaOH) of eucalyptus leaves for hypercellulase production by *Bacillus subtilis* through submerge fermentation. *Punjab Univ. J. Zool.*, 32(1): 25-34

23. IQBAL, S., IRFAN, M., TABBSUM, F., SHAKIR, H.A. AND QAZI, J.I., 2017. Application of box-behnken design for optimization of different pretreatment conditions for cellulose production. *Journal of Northeast Agricultural University*, **24**(3): 51-59
24. KHALID, S., IRFAN, M., SHAKIR, H.A. AND QAZI, J.I., 2017. Endoglucanase producing potential of *Bacillus* species isolated from the gut of *Labeo rohita*. *Journal of Marine Science & Technology*, **25**(5): 581-587
25. SHAKIR, H.A., QAZI, J.I., IRFAN, M. AND ALI, S., 2016. Alteration in biochemical response of Indian major carp *Labeo rohita* exposed to urban effluents discharged in the river Ravi, Pakistan. *Biologia (Pakistan)*, **62**(2): 219-227.
26. IRFAN, M., NADEEM, M., SYED, Q., SHAKIR, H.A. AND QAZI, J.I., 2016. Study on some properties of calcium-dependent α -amylase from *Bacillus subtilis* through submerged fermentation of wheat bran. *Chem. Biochem. Eng. Q.*, **30**(4): 429-437.
27. KARIM, A., ALI, W., AHMAD, N., IRFAN, M. AND SHAKIR, H.A., 2016. Histological and biochemical study of liver of silver carp (*Hypophthalmichthys molitrix*) after acute exposure to pyrethoride (deltamethrin). *Punjab Univ. J. Zool.*, **31**(2): 229-236.
28. MANZOOR, M., MA, R., SHAKIR, H.A., TABSSUM, F. AND QAZI, J.I., 2016. Microalgal-bacterial consortium: a cost effective approach of wastewater treatment in Pakistan. *Punjab Univ. J. Zool.*, **31**(2): 307-320.
29. ALI, S., NASREEN, S., SAFEER, S., ANDLEEB, S., EJAZ, M. AND SHAKIR, H.A., 2016. Medicinal plants as therapeutic agents for cancer treatment. *Punjab Univ. J. Zool.*, **31**(2): 295-305.
30. DEEBA, F., SHAKIR, H.A., IRFAN, M. AND QAZI, J.I., 2016. Chitinase production in organisms: a review. *Punjab Univ. J. Zool.*, **31**(1): 101-106
31. MAJEED, H.S., IRFAN, M., SHAKIR, H.A. AND QAZI, J.I., 2016. Filter paper activity producing potential of *Aeromonas* Species isolated from the gut of *Labeo rohita*. *Pakistan J. Zool.*, **48**(5): 1317-1323.
32. SIDDIQUE, S., SHAKIR, H.A., QAZI, J.I. AND IRFAN, M., 2016. Screening of some agri-wastes for economical cultivation of *Candida tropicalis*. *Punjab Univ. J. Zool.*, **31**(1): 31-37
33. IRFAN, M., ASGHAR, U., NADEEM, M., SHAKIR, H.A., QAZI, J.I., NELOFER, R. AND SYED, Q., 2016. Process optimization for endoglucanase production by in submerged fermentation. *Hacettepe J. Biol. Chem.*, **44**(1): 87-93.
34. IRFAN, M., ASGHAR, U., NADEEM, M., NELOFER, Q.S., SHAKIR, H.A. AND QAZI, J.I., 2016. Statistical optimization of saccharification of alkali pretreated wheat straw for bioethanol production. *Waste and Biomass Valorization*, **7**(6): 1389-1396 DOI: 10.1007/s12649-016-9540-2
35. ANJUM, A., MANZOOR, M., MANZOOR, N. AND SHAKIR, H.A., 2015. Prevalence of anemia during pregnancy in district Faisalabad, Pakistan. *Punjab Univ. J. Zool.*, **30**(1): 15-20.

36. BATOOL, N., SHAKIR, H.A. AND QAZI, J.I., 2015. Comparative growth potential of different *Bacillus* species on fruit peels. *Punjab Univ. J. Zool.*, **30**(1): 25-29.
37. SHAKIR, H.A., QAZI, J.I., CHAUDHRY, A.S. AND ALI, S., 2015. Metal bioaccumulation levels in different organs of three edible fish species from the river Ravi, Pakistan. *International Journal of Aquatic Biology*, **3**(3): 135-148.
38. SHAKIR, H.A., MEHMOOD, R. AND QAZI, J.I., 2015. Optimization of cellulolytic potential of bacteria isolated from gut contents of *Catla catla* captured from river Ravi. *Biologia (Pakistan)*, **61**(1): 139-144
39. HUSSAIN, A., SHAKIR, H.A., ALI, S. AND QAZI, J.I., 2015. Growth coefficient and fecundity of *Chitala chitala* (Osteoglossiforms: Notopteridae) from the river Ravi, Pakistan. *J. Anim. Plant Sci.*, **25**(2): 401-405
40. SHAKIR, H.A., QAZI, J.I. AND CHAUDHRY, A.S., 2015. Assessing human health risk of metal accumulations in a wild carp fish from selected sites of a river loaded with municipal and industrial wastes. *International Journal of Environmental Research*, **9**(2): 545-552.
41. SHAKIR, H.A., QAZI, J.I., CHAUDHRY, A.S. AND ALI, S., 2014. Metal accumulation patterns in livers of major carps from anthropologically affected segment of the river ravi, Pakistan. *International Journal of Advanced Research in Biological Sciences*. **1**(6): 261-268
42. SHAKIR, H.A., SHAKEEL, S., MALIK, J., IDREES, J., AKRAM, S. AND QAZI, J.I., 2014. Impacts of dams on fish populations and potential mitigative measures: a review. *Punjab Univ. J. Zool.*, **29**(2): 97-111.
43. IBRAHIM, A., NADEEM, M., SHAKIR, H.A. AND QAZI, J.I., 2014. Potential of cellulolytic bacteria for ethanol production from agri-food wastes. *Punjab Univ. J. Zool.*, **29**(2): 69-76.
44. SHAKIR, H.A., QAZI, J.I. AND CHAUDHRY, A.S., 2014. Examining muscles of *Cirrhinus mrigala* for biochemical parameters as a bio-indicator of water pollution by municipal and industrial effluents into river Ravi, Pakistan. *International Aquatic Research*. **6**: 221-228. DOI 10.1007/s40071-014-0082-6
45. SHAKIR, H.A., SHAZADI, K., QAZI, J.I. AND HUSSAIN, A., 2014. Planktonic diversity in gut contents of *Labeo rohita* from Ravi, Pakistan reflecting urban loads on the river. *Biologia (Pakistan)*, **60**(1): 87-92.
46. HUSSAIN, A., QAZI, J.I. AND SHAKIR, H.A., 2014. Implication of molasses as electron donor for biological sulphate reduction. *American Journal of Environmental Engineering*, **4**(1): 7-10.
47. SHAKIR, H.A., QAZI, J.I. AND CHAUDHRY, A.S., 2014. Fatty acid profiles of freshwater *Catla catla* fish harvested from upstream and downstream locations of river Ravi, Pakistan. *Advances in Animal Biosciences*, **5**(1): 172
48. HUSSAIN, A., SHAKIR, H.A. AND QAZI, J.I., 2014. Anaerobic biodegradation of sulphate employing animal manure as a cost effective growth substrate. *The Journal of Animal and Plant Sciences*, **24**(3): 913-918.
49. HUSSAIN, A., ALI, S., SHAKIR, H.A., QAZI, J.I., ALI, K. AND NADEEMULLAH. 2014. Prevalence of *Escherichia coli* in milk and different milk products sold under market conditions at Lahore. *Scientific Journal of Animal Science* 3 (1): 22-26.

50. SHAKIR, H.A., QAZI, J.I., CHAUDHRY, A.S., HUSSAIN, A. AND ALI, S., 2013. Nutritional comparison of three fish species co-cultured in an earthen pond. *Biologia (Pakistan)*, **59**(2): 353-358.
51. SHAKIR, H.A., QAZI, J.I. AND CHAUDHRY, A.S., 2013. Monitoring the impact of urban effluents on minerals contents of water and sediments of four sites of the river Ravi, Pakistan. *Environ. Monit. Assess.*, **185**(12): 9705-15.DOI 10.1007/s10661-013-3284-2
52. HUSSAIN, A., QAZI, J.I., ALI, S., SHAKIR, H.A. AND NADEEMULLAH., 2013. Health imperilments in workers of a cutlery industrial complex from Pakistan: A preliminary survey. *Biologia (Pakistan)*, **59**(1): 43-50.
53. SHAKIR, H.A., SHAKEEL, S. AND QAZI, J.I., 2013 Bioremediation of some frequently encountered non essential heavy metals: a review. *Punjab Univ. J. Zool.*, **28**(1): 45-54.
54. SHAKIR, H.A. AND QAZI, J.I., 2013. Impact of industrial and municipal discharges on growth coefficient and condition factor of major carps from Lahore stretch of Ravi. *The Journal of Animal and Plant Sciences*, **23**(1): 167-173.
55. KHAN, A.M., IQBAL, A., SHAKIR, H.A. AND AYUB, M., 2013. Evaluation of spawning efficacy of ovatide for carp breeding in Pakistan. *Punjab Univ. J. Zool.*, **28**(2): 77-81.
56. SHAKIR, H.A., CHAUDHRY, A.S. AND QAZI, J.I., 2013. Impact of anthropogenic activities on physico-chemical parameters of water and mineral uptake in *Catla catla* from river Ravi, Pakistan. *Environ. Monit. Assess.*, **185**(3): 2833–2842 DOI 10.1007/s10661-012-2753-3.
57. QAZI, J.I., NADIR, S. AND SHAKIR, H.A., 2012. Solid state fermentation of fish feed with amylase producing bacteria. *Punjab Univ. J. Zool.*, **27**(1): 1-7.
58. QULANDER, S.F., NAYYER, A.Q., ALI, S., AND SHAKIR, H.A., 2012 Lipid profile in smoking employees of University of Azad Jammu and Kashmir Muzaffarabad. *Punjab Univ. J. Zool.*, **27**(2): 79-82.
59. FAROOQ, M., NAYYER, A.Q., ALI, S. AND SHAKIR, H.A., 2012. Relationship between body mass index and blood pressure in female college students of Paniola, Rawalakot (Azad Jammu and Kashmir). *Punjab Univ. J. Zool.*, **27**(1): 33-38.
60. MUSTAFA, M. I., CHAUDHRY, A.S. AND SHAKIR, H.A., 2012. Effect of different levels and frequency of concentrate feeding on growth performance and carcass characteristics of Texel cross lambs. *Advances in Animal Biosciences*, **3**(1): 162.
61. SHAKIR, H.A., QAZI, J.I. AND CHAUDHRY, AS., 2012. Effects of anthropogenic activities on some biochemical parameters of *Catla catla*, from the river Ravi, Pakistan. *Advances in Animal Biosciences*, **3**(1): 099.
62. QAZI, J.I., MUMTAZ, S. AND SHAKIR, H.A., 2011. Improving fish feed by yeast solid state fermentation. *Punjab Univ. J. Zool.*, **26**(1): 21-29.
63. PERVEEN, A., ANDLEEB, S., ALI, S., AZIZ, F. AND SHAKIR, H.A., 2011. Study of antibiotic resistance in locally isolated bacterial and fungal strains. *Punjab Univ. J. Zool.*, **26**(2): 115-126.

64. KHAN, A.M., AHMED, Z., SHAKIR, H.A. AND CHATTHA, A.M., 2011. Status of *Ctenopharyngodon idella* in freshwaters of Punjab, Pakistan. *Punjab Univ. J. Zool.*, **26**(2): 75-81
65. KHAN, A.M., MUSTAFA, S., SHAKIR, H.A. AND HUSSAIN, A., 2011. Biochemical analysis of locally available fish feed ingredients in Lahore, Pakistan. *Punjab Univ. J. Zool.*, **26**(1): 45-52.
66. SIDDIQUE, S., NAYYER, A., ALI, S. AND SHAKIR, H.A., 2010. Assessment of T3, T4 and TSH of Goitrous female population at Banjosa, Azad Jammu and Kashmir. *Punjab Univ. J. Zool.*, **25**(1-2): 37-48.
67. SHAKIR, H.A., QAIZI, J.I., HUSSAIN, A. AND ALI, S., 2010. Growth coefficient and condition factor of three carp species reared under semi-intensive culture, Pakistan, *Punjab Univ. J. Zool.*, **25**(1-2): 13-20.
68. HUSSAIN, A., QAIZI, J.I., SHAKIR, H. A., MIRZA, M.R. AND NAYYER, A.Q., 2009. Length-weight relationship, meristic and morphometric study of *Clarias naziri* from the river indus, Pakistan, *Punjab Univ. J. Zool.*, **24**(1-2): 14-25.
69. KHAN, A.M., SHAKIR, H.A., KHAN, M.N., ABID, M. AND MIRZA, M.R., 2008. Ichthyofaunal survey of some fresh water reservoirs in Punjab. *J. Anim. Pl. Sci.* **18**(4): 151-154.
70. SHAKIR, H.A., 2008. Meristic and morphometric study of *Sperata sarwari* from mangla lake, Pakistan, *Punjab Univ. J. Zool.* **23**(1-2): 09-18.
71. SHAKIR, H. A., MIRZA, M. R., KHAN, A. M. AND ABID, M., 2008. Weight length and condition factor relationship of *Sperata sarwari* (Singhari) from Mangla Lake, Pakistan. *J. Anim. Pl. Sci.* **18**(4): 158-160.
72. KHAN, A. M., SHAKIR, H. A., ASHRAF, M. AND AHMAD, Z. 2006. Induced spawning of *Labeo rohita* using synthetic hormones. *Punjab Univ. J. Zool.* **21**(1-2): 67-72
73. SHAKIR, H. A., KHAN, A. M. AND ABID, M., 2006. The prevalence of cestode infection in a freshwater catfish, *Sperata sarwari*. *Punjab Univ. J. Zool.* **21**(1-2): 41-47

Book

SHAKIR, H.A. AND QAIZI, J.I. 2013. *Metals, fatty acids and gut bacteria of fishes from river Ravi, Lahore*. Lambert Academic publishing GmbH & Co. KG.ISSN: 978-3-659-48351-6

Journal Articles (Submitted for evaluation)

1. Shakir, H.A., Qazi, J.I., Chaudhry, A.S. and Ali, S., 2016. Metals' bioaccumulation levels and health risk assessment for consumption of fish from river Ravi, Pakistan Submitted for evaluation).
2. Shakir, H.A., Qazi, J.I., Chaudhry, A.S. and Ali, S., 2016. Bioaccumulation of metals in fishes' scales – A reliable non-lethal assessor of food security. (Submitted for evaluation).

3. Shakir, H.A. and Qazi, J.I. 2016. Alteration in biochemical response of Indian major carp Labeo rohita exposed to urban effluents discharged in river Ravi, Pakistan (Submitted for evaluation).
4. Shakir, H.A., Chaudhry, A.S. and Qazi, J.I. 2016. Urban pollutants affect proximate composition and fatty acid profiles of three carp species from river Ravi, Pakistan *Food Chemistry*, (Submitted for evaluation).
5. Shakir, H.A., Chaudhry, A.S. and Qazi, J.I. 2016. Seasonal variations in proximate and fatty acid composition of muscles of *Cirrhinus mrigala*, *Labeo rohita* and *Catla catla* from a selected site of river Ravi, Pakistan. *Food Chemistry*, (Submitted for evaluation)

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