

List of Publications

In Journals

1. Comparison of proline accumulation in callus and seedlings of two cultivars of *Oryza sativa*. L differing in salt tolerance. Sabu, A. Sheeja, T.E & Padma Nambisan. Indian Journal of Experimental Biology. (33) 139-141 (1995). IF 1.34
2. Extracellular production of L- Glutaminase by an alkalophilic *Beauveria bassiana* BTMF S10 isolated from marine sediment. Keerthi, T.R; Suresh, P.V; Sabu, A and Chandrasekaran, M. World Journal of Microbiology and Biotechnology 15; 751 - 752. (1999). IF 1.65
3. L-glutaminase production by marine *Beauveria bassiana* under Solid State Fermentation. Sabu, A; Keerthi, T.R; Rajeev Kumar, S and Chandrasekaran, M. Process Biochemistry, 35 (7), 705 - 710 (2000). IF 2.497
4. Biopotential of Microbial glutaminases. A. Sabu, M.Chandrasekaran and Ashok Pandey. Chemistry Today, 11/12, 21 - 25. (2000). IF 0.538
5. Solid state fermentation for production of phytase by *Rhizopus oligosporus*. Abdulhameed Sabu, Saradamma Sarita, Ashok Pandey, Barbara Bogar, George Szakacs and Carlos Ricardo Soccol. Journal of Applied Biochemistry and Biotechnology. (102 - 103), 251 - 260 (2002). IF 1.751
6. Synthesis of alpha-amylase by *Aspergillus oryzae* in solid-state fermentation. Febe Francis, A. Sabu, K Madhavan Nampoothiri and Ashok Pandey. Journal of Basic Microbiology. 42 (3), 322-326 (2002). IF 1.438
7. Continuous production of extracellular L- glutaminase by Ca-alginate immobilized marine *Beauveria bassiana*-BTMF S10 in a Packed Bed Reactor. Abdulhameed Sabu, Sukumaran Rajeev Kumar and Muthusamy Chandrasekaran. Journal of Applied Biochemistry and Biotechnology. (102 - 103), 71 - 79 (2002). IF 1.751
8. Microbial production of extra-cellular phytase using polystyrene as inert solid support. Pinky Gautham, A. Sabu, Ashok Pandey, George Szakacs and C R Soccol. Bioresource Technology, 83 (3) 229-233. (2002). IF 5.651
9. Extra-cellular L-glutaminase production by *Zygosaccharomyces rouxii* under solid-state fermentation. Prema Kashyap, A. Sabu, A. Pandey and G. Szakacs. Process Biochemistry, 307-312, 38 (2002). IF 2.497
10. Developments in Biotechnology: Past, Current trends and Future. Rintu Banerjee, Gargi Mukherjee, Ashok Pandey and A. Sabu. Indian Journal of Biotechnology, 1 (1), 9-16 (2002). IF 0.48
11. Sources, Properties and Applications of Microbial Therapeutic Enzymes. A Sabu. Indian Journal of Biotechnology. (2). 334-341. (2003) IF 0.48
12. Production of phytase by *Mucor racemosus* in solid state fermentation. Barbara Bogar, George Szakacs, Ashok Pandey, Sabu Abdulhameed, James C Linden and Robert P Tengerdy. Biotechnology Progress. 19 (2) 312-319 (2003). IF 1.986
13. Use of response surface methodology for optimizing process parameters for the production of α -amylase by *Aspergillus oryzae*, Febe Francis, Abdulhameed Sabu, K. Madhavan Nampoothiri, Sumitra Ramachandran, Sanjoy Ghosh, George Szakacs and Ashok Pandey, Biochemical Engineering Journal, 15 (2), 107-115 (2003). IF 2.892
14. Process optimization for antifungal chitinase production by *Trichoderma harzianum*. K Madhavan Nampoothiri, T V Baiju, C Sandhya, A Sabu, George Szakacs and Ashok Pandey. Process Biochemistry 39 (2004) 1583-1590. IF 2.497
15. Tamarind seed powder and Palm kernel cake: Two novel agro residues for the production of tannase under solid state fermentation by *Aspergillus niger* ATCC 16620. A Sabu, A Pandey, M Jaafar Daud and G Szakacs. Bioresource Technology. 96, 1223-1228 (2005). IF 5.651
16. Purification and characterization of Tannin acyl hydrolase from *Aspergillus niger* ATCC 16620. A Sabu, G. S. Kiran and A Pandey. Food Technology and Biotechnology. 43 (2) 133-138 (2005). IF 0.89
17. Tannase production by *Lactobacillus* sp. ASR-S1 under solid-state fermentation. A. Sabu, C. Augur, C. Swati and A Pandey. Process Biochemistry. 41 (3) 575-580 (2006). IF 2.497

18. Biotransformation of procyanidins by a purified fungal dioxygenase: Identification and characterization of the products using mass spectrometry. Krishnankutty Roopesh, Sylvain Guyot, Abdulhameed Sabu, M. Haridas, Perraud Gaime Isabelle, Sevastianos Roussos and Christopher Augur. *Process Biochemistry*, 45 (6), 904-913, (2010) IF 2.497
19. Synthesis of silver nanoparticles by glycolipid biosurfactant produced from marine *Brevibacterium casei* MSA19. G. Seghal Kiran, A. Sabu, J. Selvin (2010). *Journal of Biotechnology*, 148, 4, 221-225, (2010). IF 2.599
20. Production of fungal biological control agents through solid state fermentation: A case study on *Paecilomyces lilacinus* against root-knot nematodes. D. Brand, C. R Soccol, A. Sabu and S. Roussos. *Micologia Aplicada International*, 22 (1), 31-48 (2010). IF 0.5
21. Dioxygenase from *Aspergillus fumigatus* MC8: Molecular modeling and in silico studies on enzyme-substrate interaction. Roopesh K, Abhilash J, Haridas M, Sabu A, Perraud-Gaime I, Roussos S, Augur C. *Molecular Simulation*;38(2):144-151. (2012) IF 1.25
22. Inverted binding due to a minor structural change in berberine enhances its phospholipase A2 inhibitory effect, D. Naveen Chandra, Abhilash Joseph, G.K. Prasanth, A. Sabu, C. Sadasivan, M. Haridas, *International Journal of Biological Macromolecules* 578-585 (2012) IF 3.671
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24. Derivatives form better Lipoyxygenase inhibitors than Piperine: In vitro and in silico study". Tomy M. J, Sharanya C. S, Dileep K.V, Prasanth S, Sabu A, Sadasivan C and Haridas M. *Chemical Biology & Drug Design* (2014) IF 2.396
25. The Crystal Structure of a lectin from *Butea monosperma*: I sight in to its glycosylation and binding of ligands. J Abhilash, K Geethanandan, S R Bharath, A Sabu, M Haridas. *International Journal of Biological Macro Molecules*, 2014. IF 3.671
26. Cuminaldehyde as a lipoyxygenase inhibitor: In Vitro and In Silico Validation. M. J. Tomy, K. V. Dileep, S. Prasanth, D. S. Preethidan, A. Sabu, C. Sadasivan & M. Haridas. *Applied Biochemistry and Biotechnology*. Part A Enzyme Engineering and Biotechnology. 174 (1) pp 388-397, 2014 IF 1.751
27. Traditional fermentation of Ayurvedic medicine yields higher proinflammatory enzyme inhibition compared to wine-model product, D Naveen Chandra, DS Preethidan, A Sabu, M Haridas. *Frontiers in Life Science* 8 (2), 160-164 (2015) IF 0.933
28. Fermentation in ancient Ayurveda: Its present implications, A Sabu, M Haridas, *Frontiers in Life Science* 8 (4), 324-331 (2015) IF 0.933
29. High benzoic acid production in a grape based Ayurvedic medicinal wine (asava), MJ Tomy, CS Sharanya, A Sabu, MK Haridas, *CURRENT SCIENCE* 111 (11), 1836, (2016) IF 0.843
30. Hesperetin and Naringenin sensitize HER2 positive cancer cells to death by serving as HER2 Tyrosine Kinase inhibitors, BB Chandrika, M Steephan, TRS Kumar, A Sabu, M Haridas, *Life sciences* 160, 47-56 (2016) IF 2.936
31. A Novel, Poly (Ethyl Ethylene Ether) Inhibitor to Trypsin from Marine Cyanobacteria, *Lyngbya confervoides*, A Devi, S Prasanth, E Muruges, KR Haridas, A Sabu, M Haridas, *Applied Biochemistry and Biotechnology* 178 (5), 891-899 (2016). IF 1.751
32. Visiting Ayurvedic Fermentation for Safe Drugs and Drug Leads. A Sabu and M Haridas. *Adv Biotech & Micro* 3(5): AIBM.MS.ID.555620 (2017).
33. Implication of biotransformation of berberine and its derivatives on FtsZ protein: an in silico study. DN Chandra, CS Suresh, GA Kumar, PM Sandeep, A Sabu, M Haridas. *International Journal of Computational Biology and Drug Design* 10 (1), 1-11 (2017) IF 0.69
34. Novel lipoyxygenase inhibitor, 1-ethenoxy-2-methylbenzene, from marine cyanobacteria *Microcoleus chthonoplastes*, S Prasanth, KR Haridas, M Haridas, A Sabu, *Natural product research*, 1-6 (2017). IF 1.828
35. Process optimization for production of a fibrinolytic enzyme from newly isolated marine bacterium *Pseudomonas aeruginosa* KU1, SS Kumar, M Haridas, A Sabu, *Biocatalysis and Agricultural Biotechnology* 14, 33-39 (2018) IF 1.96

36. In vitro Assessment of Selected Benzoic Acid Derivatives as Anti-Inflammatory Compounds, MJ Tomy, CS Sharanya, DK Mahapatra, KI Suresh, A Sabu, M Haridas, NISCAIR-CSIR, India JSIR 77(6) 330-336 (2018) IF 0.557.
37. Production and purification of alkaline protease from *Exiguobacterium indicum* TBG-PICH-001 isolated from soil samples of Pichavaram Estuary (Tamil Nadu). SS Kumar, V Jithin, V Jijeesh, V Gayathri, S Shiburaj, M Haridas, A Sabu NISCAIR-CSIR, India (2018)0 IF 0.1722
38. Designing of enzyme inhibitors based on active site specificity: lessons from methyl gallate and its lipoxygenase inhibitory profile, CS Sharanya, KG Arun, V Vijaytha, A Sabu, M Haridas, Journal of Receptors and Signal Transduction, 38, 3. 256-265 (2018) IF 2.2
39. Biological control of black pepper and ginger pathogens, *Fusarium oxysporum*, *Rhizoctonia solani* and *Phytophthora capsici*, using *Trichoderma* spp, M Mousumi Das, M Haridas, A Sabu, Biocatalysis and Agricultural Biotechnology, 17, 177-183, (2019). IF 1.96
40. Fermentation of Polyherbal Preparations as in Ayurveda: A Novel Protocol for Drug-Lead Discovery. Sharanya C S, Shabeer Ali H, Sabu A and Haridas M; Journal of Natural & Ayurvedic Medicine ISSN: 2578-4986. 3 (3). 2019. DOI: 10.23880/jonam-16000197. IF - 1.57.
41. Chlorpyrifos-degrading cyanobacterium - *Coleofasciculus chthonoplastes* isolated from paddy field; Nimisha P Vijayan, Shabeer H Ali, Haridas Madathilkovilakathu & Sabu Abdulhameed. International Journal of Environmental Studies, (2020) doi.org/10.1080/00207233.2020.1739391. IF- 0.8
42. Process development for the enhanced production of bio-nematicide *Purpureocillium lilacinum* KU8 under solid-state fermentation. Mousumi Das M, Haridas M and Sabu A; Bioresource Technology, 308, pp 123328, (2020) doi: <https://doi.org/10.1016/j.biortech.2020.123328>. IF- 6.7
43. Specific Anti-Obese Synbiotics to Suit Genetically Different Obese Persons. M Haridas and A Sabu. Intervention in Obesity & Diabetes, 03, 05 (2020) Doi: 10.31031/IOD.2020.03.000575
44. Optimization of process parameters for the enhanced production of fibrinolytic enzyme by a newly isolated marine bacterium. M. Anusree, K. Swapna, C. N. Aguilar, A. Sabu. Bioresource Technology Reports. 11, (2020). <https://doi.org/10.1016/j.biteb.2020.100436>
45. Aloe emodin shows high affinity to active site and low affinity to two other sites to result consummately reduced inhibition of lipoxygenase. C.S. Sharanya, K.G. Arun, A.Sabu, M. Haridas. Prostaglandins & Other Lipid Mediators (4, 2020). DOI: <https://doi.org/10.1016/j.prostaglandins.2020.106453>

In Books

1. A novel plate assay system for screening of antimicrobial agents and β -lactamase inhibitors from natural sources, Prasanth S, Shahana Valsan, Ambika Devi, Preethidan D S, Haridas. M, Sabu. A. In Prospects in Bioscience: Addressing the issues, Ed: Sabu Abdulhameed and Anu Augustine, (2012) Springer, ISBN 978-81-322-0809-9
2. Fermentation of Food Processing By-Products. K. Jayachandran, Indu C. Nair, T. S. Swapna, and A. Sabu. In Valorization of Food Processing By-Products, Ed . M Chandrasekaran, , pp 204 -235 (2012), CRC Press, ISBN 9781439848852
3. Salt stress in rice and the biotechnological approaches for inducing tolerance T S Swapna and A Sabu. In Advances in Plant Biotechnology. Ed. P.C. Trivedi. 2009. Panima Publishers
4. Proline accumulation and salt tolerance in rice. Renuka Devi, P.S; Sabu, A; Sheeja, T.E. & Padma Nambisan. In Recent advances in Biotechnological applications of plant tissue and cell culture. G.A. Ravishankar and L.Venkataraman (Ed.). Pp.410-414. (1996). Oxford and IBH publishing co. New Delhi, India.
5. Microbial phytase - A tool for enhanced biological phosphorus removal. K Madhavan Nampoothiri, Kamal Begum, A Sabu, George Szakacs and Ashok Pandey, In proceedings of

- the Indo - Italian workshop on emerging technologies for industrial wastewater and environment. Pp 364 - 370 (2002). NEERI
6. Phytase production under solid-state fermentation. A Sabu, K Madhavan Nampoothiri, P Latha, V Kannan, G Szakacs and A Pandey, In *New Horizons in Biotechnology*, S Roussos et al (Eds). pp 27-34 (2003). Kluwer Academic Publishers, Dordrecht, The Netherlands, ISBN 978-94-017-0203-4
 7. Therapeutic Enzymes. Kesavan Madhavan Nampoothiri, Abdulhameed Sabu, and Ashok Pandey, *Enzyme Technology*, Ashok Pandey, Colin Webb, Carlos Ricardo Soccol and Christian Larroche (Eds). Asiatech Publishers Inc. New Delhi, India. (2004). ISBN 9788187680123
 8. L-glutaminase as a therapeutic enzyme of microbial origin. Abdulhameed Sabu, K Madhavan Nampoothiri and Ashok Pandey, In *Methods in Biotechnology*, Vol. 17: Microbial enzymes and Biotransformation J. L. Barredo (Ed), Humana Press Inc. New Jersey. USA. pp 75-90 (2004), ISBN 978-1-59259-846-5
 9. General aspects of solid-state fermentation. Ashok Pandey, Febe Francis, Abdulhameed Sabu and Carlos Ricardo Soccol. In *Concise encyclopaedia of bioresource technology*. Ashok Pandey (Ed), The Haworth Press, INC. New York, USA. pp 702-708 (2004). ISBN 9788130900704
 10. Microbial Enzymes: Production and Applications. L - Glutaminase. Abdulhameed Sabu. In *Concise encyclopaedia of bioresource technology*. Ashok Pandey (Ed). The Haworth Press, INC. New York, USA. pp 702-708 (2004). ISBN 9788130900704
 11. Polystyrene beads as an inert solid support for the production of tannase with high specific activity under solid state fermentation. Rani M Sebastian, C Augur, T. S. Swapna and A Sabu, In: *Chemistry and Biotechnology of Polyphenols*, (2011). CiBET Publishers, ISBN 978-81-920782-0-5
 12. Polyphenols in plant system. T.S. Swapna & A. Sabu. In: *Chemistry and Biotechnology of Polyphenols*, (2011). CiBET Publishers, ISBN 978-81-920782-0-5
 13. Modelling of tannin acyl hydrolase. Dileep K V, Abhilash Joseph, Sabu A, Sadasivan C and Haridas M. In: *Chemistry and Biotechnology of Polyphenols*, (2011). CiBET Publishers, ISBN 978-81-920782-0-5
 14. Therapeutic Enzymes: L-Glutaminase, N. Vijayan, T.S. Swapna, M. Haridas, A. Sabu, Production, Isolation and Purification of Industrial Products, In: *Current Developments in Biotechnology and Bioengineering*, A Pandey, S Negi, C R Soccol (Eds), Elsevier (2017), ISBN ISBN: 978-0-444-63662-1. pp 233-244
 15. Bioresources: Current status, Pradeep N S, Shiburaj S and Sabu A, In: *Bioresources and Bioprocess in Biotechnology*, Volume 1: Status and Strategies for Exploration, Abdulhameed Sabu, Shiburaj Sugathan and N S Pradeep (Eds), Springer, ISBN 978-981-10-3573-9
 16. Medicinal Plants of India: implications in modern medicine, Nimisha Vijayan, Swapna T S, G. Seghal Kiran, A Sabu, In: *Bioresources and Bioprocess in Biotechnology*, Volume 1: Status and Strategies for Exploration, Abdulhameed Sabu, Shiburaj Sugathan and N S Pradeep (Eds), Springer, ISBN 978-981-10-3573-9 (2017)
 17. Therapeutic enzymes, Swaroop S Kumar and A Sabu, In: *Bioresources and Bioprocess in Biotechnology*, Volume II: *Exploring potential biomolecules*, Shiburaj Sugathan, N S Pradeep Abdulhameed Sabu (Eds) Springer, ISBN 978-981-10-3573-9 (2017)
 18. Probiotics, Swapna T S and A Sabu, In: *Bioresources and Bioprocess in Biotechnology*, Volume II: *Exploring potential biomolecules*, Shiburaj Sugathan, N S Pradeep Abdulhameed Sabu (Eds) Springer, ISBN 978-981-10-3573-9 (2017)
 19. Stilbenes and its derivatives in traditional medicine, Nimisha Vijayan, Madathilkovilakathu Haridas and A Sabu, In: *Bioresources and Bioprocess in Biotechnology*, Volume II: *Exploring potential biomolecules*, Shiburaj Sugathan, N S Pradeep Abdulhameed Sabu (Eds) Springer, ISBN 978-981-10-3573-9 (2017)
 20. Anti-inflammatory herbal molecules, Sharanya CS, Haridas M and Sabu A. In: *Medicinal Plants, Benefit Sharing, Development and Conservation*, KSCSTE-KFRI pp 67-77 (2017)
 21. Coffee Husk: A Potential Agro-Industrial Residue for Bioprocess Swaroop S Kumar, TS Swapna, Abdulhameed Sabu Waste to Wealth 97-109 Springer, Singapore

22. New Features and Properties of Microbial Cellulases Required for Bioconversion of Agro-industrial Wastes Ivanoe Garcia-Galindo, Ricardo Gómez-García, Sócrates Palácios-Ponce, Janeth Ventura, Daniel Boone, Hector A Ruiz, Leonardo Sepúlveda, Abdulhameed Sabu, Cristóbal Noé Aguilar-González 2019/1/1 Enzymes in Food Biotechnology 535-550 Academic Press
23. Tannase and Its Applications in Food Processing SS Kumar, R Sreekumar, A Sabu - Green Bio-processes, 2019 357-381 Springer, Singapore
24. New features and properties of Microbial cellulose required for bioconversion of agro-industrial wastes., Ivano Garcia Galindo, Ricardo Gomez Garcia, Socrates Palacios Ponce, Janeth Ventura, Daniel Boone, Hector A Ruiz, Leonardo Sepulveda, Abdulhameed Sabu, Cristobal Noe Aguilar Gonzalez, In, Enzymes in Food Biotechnology, Mohammed Kuddus (Ed.)p 535, Elsevier Inc (2019)
25. Gallic acid production by *Aspergillus niger* is strongly influenced by substrate concentration. Adrian Garcia-Najera, Lilia Arely Prado- Barragan, Juan C. Contreras-Esquivel, Raul Rodrigues-Herrera, Pedro Aguilar-Zarate, Shiburaj Sugathan, Abdulhameed Sabu and Cristobal N Aguilar. In Advances in Food Bioproducts and Bioprocessing Technologies. Pp 331-345, Monica L Chavez-Gonzalez, Nagamani Balagursamy and Cristobal N. Aguilar (Eds) (2019).
26. Microbial Technology: Advances and Challenges. Cristobal N Aguilar, Ayerim Hernandez-Almanza, Abdulhameed Sabu, Araceli Loredo, Sudheesh Sudhakaran, Desiree Davila-Medina, Thelma K Morales-Martinez, Leonardo Sepulveda-Torre, Shiburaj Sugathan and Jose A Teixeira. In Advances in Food Bioproducts and Bioprocessing Technologies. Pp 3-23, Monica L Chavez-Gonzalez, Nagamani Balagursamy and Cristobal N. Aguilar (Eds) (2019).
27. Microbial caffeinases: Biosynthesis and properties", Erick Peña-Lucio, Mónica Chávez-González, Liliana Londoño-Hernandez, Mayela Govea-Salas, Sabu Abdulhameed and Cristobal Noé Aguilar, In: Microbial and Natural Macromolecules: Synthesis and Applications" Academic Press, Elsevier, USA, (Editors: Dr. Surajit Das and Dr. Hirak R. Dash) (2020).
28. Cyanobacterial degradation of organophosphorus pesticides, Nimisha Vijayan P, Sabu Abdulhameed, In: Valorization of Agro-industrial Residues- Vol 1, Biological Approaches, Zakaria, Zainul Akmar, Boopathy, Ramaraj, Dib, Julian Rafael (Eds.) pp 239-255, Springer Nature ISBN 978-3-030-39136-2 (2020).
29. Recycling and Reuse of Ayurvedic Pharma Industry Wastes, Nikhitha Surendran O, M Haridas and Sabu A, In: Valorization of Agro-industrial Residues- Vol 1, Biological Approaches, Zakaria, Zainul Akmar, Boopathy, Ramaraj, Dib, Julian Rafael (Eds.) pp, 203-217, Springer Nature ISBN 978-3-030-39136-2 (2020).
30. Bioprocessing with cashew apple and its byproducts, Asha P Antony, Swapna K, Sabu A, In: Valorization of Agro-industrial residues- Vol II Non-biological Approaches, Zakaria, Z.A., Aguilar, C.N., Kusumaningtyas, R.D., Parameswaran, B. (Eds.) Springer Nature ISBN, 978-3-030-39207-9 (2020)
31. Agro-processing residues for the production of fungal bio-control agents, Mousumi Das M, Sabu A, In: Valorization of Agro-industrial residues- Vol II Non-biological Approaches, Zakaria, Z.A., Aguilar, C.N., Kusumaningtyas, R.D., Parameswaran, B. (Eds.) Springer Nature ISBN, 978-3-030-39207-9 (2020)

GenBank Submissions - 12

1. MN416235, *Aspergillus niger* KUSR 1, Rakhy S, Sabu Abdulhameed
2. MN416239 *Aspergillus niger* KUSR 3 Rakhy S, Sabu Abdulhameed
3. MN416237 *Aspergillus niger* KUSR 2 Rakhy S, Sabu Abdulhameed
4. KY549671.1: *Purpureocillium lilacinum* strain KU2: Mousumi, D.M., Nikhitha, S.O., Shiburaj, S. and Sabu, A.
5. KY549672.1: *Purpureocillium lilacinum* strain KU3: Nikhitha, S.O., Mousumi, D.M., Nimisha, V.P. and Sabu, A.

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6. KY549673.1: *Purpureocillium lilacinum* strain KU7: Nikhitha,S.O., Mousumi,D.M., Pradeep,N.S., Haridas,M. and Sabu,A.
7. KY549675.1: *Purpureocillium lilacinum* strain KU8: Nikhitha,S.O., Mousumi,D.M., Lekshmi,K.E. and Sabu,A.
8. KY549674.1: *Purpureocillium lilacinum* strain KU9: Mousumi,D.M., Nimisha,V.P., Nikhitha,S.O., Lekshmi,K.E. and Sabu,A.
9. KY563067.1: *Coleofasciculus chthonoplastes* KC1 : Nimisha,V.P., Jeeshma,N.P., Shiburaj,S. and Sabu,A.
10. KY563068.1: *Coleofasciculus chthonoplastes* KC2: Nimisha,V.P., Haridas,M., Pradeep,N.S. and Sabu,A.
11. KX712092.1: *Trichoderma asperellum* strain AFP: Mousumi,D.M., Nikhitha,S., Haridas,M. and Sabu,A.
12. KX712093.1: *Trichoderma asperellum* strain MC1: Nikhitha,S.O., Mousumi,D.M., Haridas,M. and Sabu,A.
13. KX756616.1: *Trichoderma brevicompactum* strain MF1: Mousumi,D.M., Lekshmi,K.E., Neethu,R.S., Nikhitha,S.O., Pradeep,N.S, Shiburaj,S. and Sabu,A.
14. KX756617.1 : *Trichoderma harzianum* strain CH1 : Mousumi,D.M., Nimisha,V.P., Neethu,R.S., Lekshmi,K.E.,Nikhitha,S.O., Pradeep,N.S., Shiburaj,S. and Sabu,A.
15. MH590836, Nimisha Vijayan, P, Haridas M, Shiburaj S, Sabu A,
16. SUB6027146, *Aspergillus aculeatus* KUASN14, MN187974, Antony,A.P., Manikandan, S.K., Sugathan,S. and Abdulhameed,S.
17. SUB6027141 *Penicillium steckii* KUASN12, MN187973, Antony,A.P., Manikandan, S.K., Sugathan,S. and Abdulhameed,S.
18. SUB6027168, *Aspergillus amstelodami*, KUASN16, MN187972, Antony, A.P., Manikandan, S.K., Sugathan,S. and Abdulhameed,S.
19. SUB6027136 *Aspergillus aculeatus*, KUASN11, MN187971, Antony,A.P., Manikandan,S.K., Sugathan,S. and Abdulhameed,S.
20. SUB6027335 *Aspergillus aculeatus*, KUASR21, MN187365, Antony,A.P., Manikandan,S.K., Sugathan,S. and Abdulhameed,S.
21. SUB6027317 *Aspergillus niger* KUASR15, MN187307, Antony,A.P., Manikandan,S.K., Sugathan,S. and Abdulhameed,S.
22. SUB6027312 *Aspergillus aculeatus*, KUASR12, MN187297. Antony,A.P., Manikandan,S.K., Sugathan,S. and Abdulhameed,S.
23. SUB6027304 *Aspergillus pseudonomius*, KUASR10, MN187251, Antony,A.P., Manikandan,S.K., Sugathan,S. and Abdulhameed,S.
24. SUB6027297 *Aspergillus niger*, KUASR4, MN187242. Antony,A.P., Manikandan,S.K., Sugathan,S. and Abdulhameed,S.
25. SUB6027292 *Aspergillus aculeatus*, KUASR3, MN187241, Antony,A.P., Manikandan,S.K., Sugathan,S. and Abdulhameed,S.
26. SUB6027287 *Aspergillus aculeatus*, KUASR2, MN187223, Antony,A.P., Manikandan,S.K., Sugathan,S. and Abdulhameed,S.
27. SUB6027175 *Aspergillus tubingensis*, KUASR1, MN187071, Antony,A.P., Manikandan,S.K., Sugathan,S. and Abdulhameed,S.
28. SUB6027154 *Penicillium sclerotiorum*, KUASN15, MN187045. Antony,A.P., Manikandan,S.K., Sugathan,S. and Abdulhameed,S.
29. SUB6017347 *Serratia sp* , MN186815, Anusree Ramachandran, S. Abdulhameed.
30. SUB6025394, *Aspergillus sp*, MN186834, Anusree Ramachandran, S. Abdulhameed.