

Faculty Profile of Dr. K. Preethi



Dr. K. Preethi
Assistant Professor
Department of Microbial - Biotechnology

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Research Area

- Waste Valorization
- Biopolymers
- Antioxidant studies
- Endophytic Bacteria and Fungal Metabolites

Education & Career

Education

Ph.D.

Subject : Biotechnology

Institution : Bharathiar University , Coimbatore
Affiliated University : Bharathiar University
Year of Award : 2011

SET

Subject : Life Science
Year : 2006

PGDIB

Subject : Bioinformatics
Institution : Bharathiar University, Coimbatore
Affiliated University : Bharathiar University
Year of Award : 2007

M.Phil.,

Subject : Biotechnology
Institution : Bharathidasan University, Tiruchirappalli
Affiliated University : Bharathidasan University
Year of Award : 2005

M.Sc.,

Subject : Environmental Science
Institution : PSG College, Coimbatore, Tamil Nadu
Affiliated University : Bharathiar University
Year of Award : 2000

B.Sc.,

Subject: Microbiology
Institution : Maharaja College for Women, Erode, Tamil Nadu
Affiliated University : Bharathidasan University
Year of Award: 1998

Career

At Bharathiar University (Reverse Order)

Assistant Professor : March 2011 to Till Date

Past Experience

Assistant Professor : June 2007 to February 2011 at Kongu Arts & Science
College, Erode

Lecturer : 2004 to 2007 at Maharaja college for women, Perundurai
Lecturer : 2002 to 2003 at Maharaja college for women, Perundurai

Awards

Membership

Membership in Professional Bodies

Sl. No. : 1

Organization : Association of Microbiologists of India.

Type of Membership : Life member

Period : From 2014 on wards

Sl. No. : 2

Organization : Society of Biological Chemists, India.

Type of Membership : Life member

Period : From 2014 on wards

Membership in Academic Bodies

Sl. No. : 1

Organization : BOS- Periyar University

Type of Membership : Member (External member)

Period : 2019 onwards

Sl. No. : 2

Organization : BOS-Vivekanandha college of Arts and Science for Women

Type of Membership : Subject Expert

Period : 2017 Onwards

Visits

Sl. No. : 1

Countries Vists : Switzerland

Duration of Visit : 10 days

Month and Year : Sep, 2017

Purpose of Visit : Paper Presentation in International conference

Collaborators

Others

Projects

Ongoing Projects

1. RUSA 2.0 BCTRC

Title of the project : Bio prospecting of anticancer compounds from microbial sources

Funding Agency : RUSA 2.0 BCTRC

Amount : Rs. 7.88 Lakhs

Duration : 2020 (ongoing)

Completed Projects

1. UGC XII Plan

Title of the project : Production and characterization of bacterial biosurfactant isolated from oil contaminated soil

Funding Agency : UGC XII Plan

Amount : Rs. 1.00 Lakh

Duration : 2015 – 2016

2. Tamil Nadu State Council for Science and Technology (TNSCST)

Title of the project : Low cost production of single cell proteins from fruit peel waste using *Saccharomyces cerevisiae*

Funding Agency : Tamil Nadu State Council for Science and Technology (TNSCST)

Amount : Rs. 2016 – 2017

Duration : Rs. 10,000/-

3. Tamil Nadu State Council for Science and Technology (TNSCST)

Title of the project : Fermentative approach for bioplastic (PHA) production using sago industry effluent as substrate

Funding Agency : Tamil Nadu State Council for Science and Technology (TNSCST)

Amount : Rs.10,000/-

Duration : 2017-2018

4. Tamil Nadu State Council for Science and Technology (TNSCST)

Title of the project : Isolation and screening of microbes for degradation of plastic carry-bags

Funding Agency : Tamil Nadu State Council for Science and Technology (TNSCST)

Amount : Rs.10,000/-

Duration : 2017-2018

5. RUSA 2.0 BEICH

Title of the project : Biofertilizer and Aqua feed formulation utilizing Tannery fleshings through microbial fermentation

Funding Agency : RUSA - MHRD

Amount : Rs.8,00,000/-

Duration : 2019-2020

Research Guidance

- [Post-Doc](#)
- [Ph.D.](#)
- [M.Phil.](#)
- [M.Sc.,](#)

ONGOING

1. N.Saranya

2. K.Priyanka

3. S.Koushika

4. K.Gayathri Devi

AWARDED

Sl. No. : 1

Name of the candidate : V.Manonmani

Title of the Thesis : Isolation, Purification and Biological Characterization of

Secondary Metabolite produced by Endophytic Fungus
Curvularia australiensis FC2AP isolated from *Aegle marmelos*
Year : April 2018

Sl. No. : 2

Name of the candidate : Mridul Umesh

Title of the Thesis : Biosynthesis, characterization and degradation studies of polyhydroxyalkanoates produced from fruit peel waste using *Bacillus* species.

Year : May 2018

Sl. No. : 3

Name of the candidate : B.Thazeem

Title of the Thesis : Valorization of delimed bovine tannery fleshing as a fishmeal replacer through fermentation by *Lactobacillus plantarum* in formulated diets for two major Indian carps, rohu (*Labeo rohita*) and tilapia (*Oreochromis mossambicus*)

Year : October 2018

Sl. No. : 4

Name of the candidate : S.Vanaraj

Title of the Thesis : Biogenic synthesis, Characterization and Evaluation of Quercetin Conjugated Gold Nanoparticles from *Clitoria ternatea* L. Petal Extract and its Therapeutic Applications

Year : October 2018

Sl. No. : 5

Name of the candidate : P.Satheesh

Title of the Thesis : Production, purification, characterization and biological activity of melanin produced by marine *Streptomyces rochei* and *Streptomyces spinoverrucosus*

Year : April 2019

Sl. No. : 6

Name of the candidate : S. Satishkumar

Title of the Thesis : Synthesis, characterization and in vitro evaluation of zinc and strontium substituted hydroxyapatite powders from *Labeo rohita* scale waste

Year : April 2019

Sl. No. : 7

Name of the candidate : PoornaChandrika.S

Title of the Thesis : Rice mill effluent as a low cost substrate for polyhydroxyalkanoates (PHAs) production by *Acinetobacterjunii* BP25

Year : Feb 2018

Sl. No. : 8

Name of the candidate : D.Sabarinathan

Title of the Thesis : Simultaneous production and characterization of biosurfactant and biopolymer by *Pseudomonas plecoglossicida* BP03 and their applications in biomedical field.

Year : March 2018

Sl. No. : 9

Name of the candidate : N.Lavanya

Title of the Thesis : Bioprospecting of endophytic fungus *Xylaria arbuscula* from *Blumea axillaris* (lam.) Dc. for zinc oxide nanoparticle synthesis and its application studies.

Year : January 2023

Sl. No. : 1

Name of the candidate : Keerthana. K

Title of the Thesis : A Comparative Study on Antioxidant Activity of Five Commonly Edible Fishes from Coimbatore.

Year : April 2013

Sl. No. : 2

Name of the candidate : ShunmugaPiramu. T

Title of the Thesis : Evaluation of Antioxidant and Pharmacological Activities of *Gracilariacorticata* – Marine Macroalgae.

Year : October 2013

Sl. No. : 3

Name of the candidate : MridulUmesh

Title of the Thesis : Production, Optimization and Characterization of Antibacterial

Polyhydroxyalkanoates (Bioplastics) from fruit peel waste using *Bacillus* sp.,
Year : September 2014

Sl. No. : 4

Name of the candidate : Nivethitha. S

Title of the Thesis : Purification and characterization of Bioactive secondary metabolites from *Sargassum wightii* and their bioactivities.

Year : February 2016

Sl. No. : 5

Name of the candidate : Goldy Primo Beryl

Title of the Thesis : Biofertilizing potential of Diverse Feather Composts by Proteolytic *Bacillus mycoides*".

Year : Feb 2, 2018

Sl. No. : 6

Name of the candidate : Priyanka K

Title of the Thesis : Distillery effluent valorization using *Bacillus endophyticus* MTCC 9021 for polyhydroxyalkanoate (PHA) production

Year : Feb 2, 2018

Sl. No. : 7

Name of the candidate : R. Madhumathi

Title of the Thesis : Formulation of biofertilizer using water hyacinth, chicken manure and phosphate solubilizing bacteria and their plant growth studies "

Year : Feb,17,2020

Sl. No. : 1

Name of the candidate : Anusha

Title of the Dissertation : Screening of endophytic fungi for antioxidant activity

Year : 2012

Sl. No. : 2

Name of the candidate : Madhumitha

Title of the Dissertation : Isolation and screening of potential dye decolourizing bacteria from textile dye effluent in Tamil nadu

Year : 2012

Sl. No. : 3

Name of the candidate : Gokila

Title of the Dissertation : Antioxidant activity of pigmented bacteria isolated from dye contaminated soil.

Year : 2012

Sl. No. : 4

Name of the candidate : Sruthi

Title of the Dissertation : Isolation of dye decolourising bacteria from soil and its decolourisation effect on industrial dyes.

Year : 2012

Sl. No. : 5

Name of the candidate : Thazeem.B

Title of the Dissertation : Formulation of aquafeed from tannery solid waste through fermentation using *Lactobacillus plantarum*

Year : 2013

Sl. No. : 6

Name of the candidate : MridulUmesh

Title of the Dissertation : Fermentative utilization of agrowaste for lactic acid production and biosurfactant production by *Lactobacillus plantarum*

Year : 2013

Sl. No. : 7

Name of the candidate : Paranitharan

Title of the Dissertation : Phytochemical analysis , Antioxidant activity and Antibacterial activity of *Sargassum* sp., seaweed

Year : 2013

Sl. No. : 8

Name of the candidate : Dhayalini

Title of the Dissertation : Invitroantioxidant activities of plant extracts from *Solanumxanthocarpum*

Year : 2014

Sl. No. : 9

Name of the candidate : Vineetha

Title of the Dissertation : Water hyacinth : A potential substrate for bioplastic (PHA) producing using *Pseudomonas* sp., isolated from soil

Year : 2014

Sl. No. : 10

Name of the candidate : Shanmugapriya

Title of the Dissertation : Antioxidant and Antimicrobial Evaluation of Bioactive Pigment from *Fusarium* sp Isolated from Stressed Environment.

Year : 2014

Sl. No. : 11

Name of the candidate : Keerthana

Title of the Dissertation : Evaluation of antioxidant potential of bioactive colored metabolite isolated from *Exiguobacterium profundum* BC2-11 and its bioactivities.

Year : 2014

Sl. No. : 12

Name of the candidate : Anand

Title of the Dissertation : Isolation and identification of keratinolytic bacteria from tannery effluent: A study on their biodegradability and dehairing activity

Year : 2015

Sl. No. : 13

Name of the candidate : Vinothini

Title of the Dissertation : Biodecaffeination of Caffeine by bacterial enzyme isolated from coffee husk dumped soil

Year : 2015

Sl. No. : 14

Name of the candidate : Talapathi

Title of the Dissertation : Characterization of dairy effluent and its application in bioremediation process.

Year : 2015

Sl. No. : 15

Name of the candidate : GoldyPrimo Beryl

Title of the Dissertation : Alkaline protease from *Bacillus pumilus*: A study on their biodegradative, dehairing and destaining activity.

Year : 2016

Sl. No. : 16

Name of the candidate : Priyanka

Title of the Dissertation : Biosynthesis and Characterization of SCP from papaya leaves using *Saccharomyces cerevisiae*

Year : 2016

Sl. No. : 17

Name of the candidate : Mahalakshmi

Title of the Dissertation : Fruit peels: A potential substrate for acetic acid production by *Acetobacteraceti*

Year : 2016

Sl. No. : 18

Name of the candidate : Lavanya

Title of the Dissertation : Bioremediation and ecofriendly production of biosurfactants utilizing *Partheniumhistrophorus* substrate

Year : 2016

Sl. No. : 19

Name of the candidate : Venkatesh

Title of the Dissertation : Identification of genetic alteration in ampula of vater and breast cancer patients in Tamil nadu population.

Year : 2016

Sl. No. : 20

Name of the candidate : Nithya

Title of the Dissertation : Biosurfactant production from *Pseudomonas mosselli* (F) and their applications in corrosion studies

Year : 2017

Sl. No. : 21

Name of the candidate : Madhumathi

Title of the Dissertation : Polyhydroxyalkanoate (PHA) production and characterization using *Bacillus pumilus* MTCC 7055

Year : 2017

Sl. No. : 22

Name of the candidate : Surendar

Title of the Dissertation :

Year : 2017

Sl. No. : 23

Name of the candidate : Arunkumar.B

Title of the Dissertation : Diversity status of beneficial microbes associated with

important medicinal plants in Tamil Nadu

Year : 2017

Sl. No. : 24

Name of the candidate : Kaviraj

Title of the Dissertation : Isolation and screening of microbes for degradation of plastic carry bags

Year : 2018

Sl. No. : 25

Name of the candidate : Merlin sobia

Title of the Dissertation : Fermentative approach for bioplastic production using sagoIndustry effluent as a substrate

Year : 2018

Sl. No. : 26

Name of the candidate : Kalaiarasan

Title of the Dissertation : Evaluation of antibacterial and antioxidant activity of synthesized strontium -Hydroxyapatite composites from Labeorohita fish scale waste

Year : 2018

Sl. No. : 27

Name of the candidate : Vignesh

Title of the Dissertation : Biogenic synthesis and characterization of ZnO-Bionanocomposites using Aeglemarmelos L. and its antibiofilm, anticancer activity

Year : 2018

Sl. No. : 28

Name of the candidate : Suchitra

Title of the Dissertation : Duplex PCR based identification of beef and pork from commercial meat samples(DFRL, Mysore)

Year : 2019

Sl. No. : 29

Name of the candidate : Mithra

Title of the Dissertation : Isolation, Characterization and development of triplex PCR format for the detection of important food borne pathogens viz. Salmonella, Staphylococcus aureus and E.coli from diverse sources

Year : 2019

Sl. No. : 30

Name of the candidate : Rampradeep

Title of the Dissertation : Isolation of metal resistant bacteria from coal fly ash-dry and wet sample and its applications in metal degradation studies

Year : 2019

Sl. No. : 31

Name of the candidate : Prasana

Title of the Dissertation : Studies on anti-diabetic and antioxidant properties of Carica papaya leaf extracts

Year : 2019

Research Publication

- [International](#)
- [National](#)
- [Patents](#)
- [Conferences](#)
- [Books/Chapters](#)
- [Database](#)

Reverse Chronological Order

2023

63. Kumaresan Priyanka, Mridul Umesh & Kathirvel Preethi (Jan,2023). [**Banana peels as a cost effective substrate for fungal chitosan synthesis: optimisation and characterization.**](#) *Environmental Technology.*

2022

62. Gayathri Devi Kandasamy, Preethi Kathirvel. (Nov, 2022) **Insights into bacterial endophytic diversity and isolation with a focus on their potential applications -A review.** *Microbiological Research*.
<https://doi.org/10.1016/j.micres.2022.127256>
61. Kumaresan Priyanka, Mridul Umesh, Kathirvel Preethi. (Oct, 2022). **Distillery effluent valorization through cost effective production of polyhydroxyalkanoate: optimization and characterization.** *Biomass Conversion and Biorefinery*. ISSN: 2190-6823.
<https://doi.org/10.1007/s13399-022-03333-z> . (SCOPUS,SCIE), IF- 4.1
- 60.Saranya Nachimuthu, Lavanya Nehru, Preethi Kathirvel. (Sep, 2022) **Biological Liquefaction and Dehairing of Tannery Hides Using Protease Crude Extract from *Bacillus safensis*.** *Biomedical and Biotechnology Research Journal (BBRJ)*, 6(3), 326 (SCOPUS). ISSN:2588-9842
DOI: 10.4103/bbrj.bbrj_96_22 Online link:
<https://www.bmbtrj.org/text.asp?2022/6/3/326/356162>
- 59.Koushika Saravanan, Mridul Umesh, Preethi Kathirvel. (Aug, 2022). **Microbial Polyhydroxyalkanoates (PHA): A Review on Biosynthesis, Properties, Fermentation Strategies and its Prospective Applications for Sustainable Future.** *Journal of Polymers and the Environment*. <https://doi.org/10.1007/s10924-022-02562-7> ISSN: 1572-8919, (SCIE, SCOPUS) IF- 4.7
58. Vanaraj Sekar, Cindhu Balakrishnan, Preethi Kathirvel, Sathiskumar Swamiappan, Mohammed Ali Alshehri, Samy Sayed & Chellasamy Panneerselvam (June,2022). **Ultra-sonication-enhanced green synthesis of silver nanoparticles using *Barleria buxifolia* leaf extract and their possible application.** *Artificial Cells, Nanomedicine, and Biotechnology. An International Journal*. 50:1,177-187. DOI:
<https://doi.org/10.1080/21691401.2022.2084100>). ISSN- 2169-141X (Scopus, SCI) IF- 5.67

2021

- 57.Kaviraj Ramesh, Mridul Umesh and Kathirvel Preethi (July, 2021). **Biodegradation of polypropylene films by *Bacillus paralicheniformis***

and *Lysinibacillus fusiformis* isolated from municipality solid waste contaminated soil. *Research Journal of Chemistry and Environment*. Vol 25 (7). Page No. 71-78 ISSN:0972-0626 DOI: <https://doi.org/10.25303/257rjce7121> (SCI, IF- 0.247)

56. Nehru Lavanya, Vellingiri Manonmani, Nachimuthu Saranya, Rajendran Deepakkumar and Kathirvel Preethi (June, 2021). **Endophytic fungal isolation from *Blumea axillaris*: Identification and biological activity of secondary metabolites.** *Notulae Scientia Biologicae*. Vol 13, (2). ISSN: 2067-3205, DOI: 10.15835/nsd13210953.(Scopus)

55. Goldy Primo Beryl, Basheer Thazeem, Mridul Umesh, Kandasamy Senthilkumar, Manickam Naveen Kumar and Kathirvel Preethi (2021). **Bioconversion of Feather Composts using Proteolytic *Bacillus mycoides* for their Possible Application as Biofertilizer in Agriculture.** *Waste and Biomass Valorization*. 12:6795–6809 <https://doi.org/10.1007/s12649-021-01472-4> (SCI, SCOPUS) IF: 3.575, ISSN-1877-265X

54. [Evaluation of dimer of epicatechin from an endophytic fungus *Curvularia australiensis* FC2AP on acute toxicity levels, anti-inflammatory and anti-cervical cancer activity in animal models,](#)
V.M. Mani, Arockiam Jeyasundar Parimala Gnana Soundari, Balamuralikrishnan Balasubramanian, Sungkwon Park, Utthapon Issara, K. Preethi and Wen-Chao Liu, *Molecules*, 26:654 (2021).

2020

53. [Effective removal of cationic methylene blue dye using Nano-Hydroxyapatite synthesized from fish scale bio-waste,](#)
S. Sathiskumar, G. Sivarasan, S. Vanaraj, D. Sabarinathan, S. Arulmani, P. Vinoth Kumar, K. Preethi, *International Journal of Applied Ceramic Technology*, Vol 18:902-912 (2020).

52. [Characterization and Application of Rhamnolipid from *Pseudomonas plecoglossicida* BPO3,](#)
D.Sabarinathan, S.Vanaraj, S.Sathiskumar, S.Poorna Chandrika, G. Sivarasan,

S.S.Arumugam, K.Preethi, H.Li,Q. Chen,
Letters in Applied Microbiology, 72(3):251-262 (2020).

51. [Isolation of plant growth-promoting Bacillus cereus from soil and its use as a microbial inoculants,](#)

Ann Mary Saebastian, Mridul Umesh, K. Priyanka & K. Preethi,
Arabian Journal for Science and Engineering, 46: 51-161 (2020).

50. [Polyhydroxyalkanoate biosynthesis and characterization from optimized medium utilizing distillery effluent using Bacillus endophyticus MTCC 9021: a statistical approach,](#)

K. Priyanka, Mridul Umesh, B. Thazeem & K. Preethi,
Biocatalysis and Biotransformation, Vol 39:16-29 (2020).

49. [Biotransformation of bovine tannery fleshing into utilizable product with multifunctionalities,](#)

B. Thazeem, Mridul Umesh, V.M. Mani, Goldy Primo Beryl & K. Preethi,
Biocatalysis and Biotransformation ,Vol 39:81-99 (2020).

48. [Recent development in polyhydroxyalkanoate \(PHA\) production -A review,](#)

S. Poorna Chandrika , D. Sabarinathan , M. Katharina, A. Parthiban, K. Preethi, R. Yuvaraj, Hossain.M.Zabed and Xianghui Qi,
Bioresources Technology, Vol 306: 123132 (2020).

47. [Facile synthesis of Cu and CuO nanoparticles from copper scrap using plasma arc discharge method and evaluation of antibacterial activity,](#)

S.B.Tharshana, K.Priyanka, K.Preethi and G.Shanmugavelayudham,
Materials Technology: Advanced Performance Materials , Vol 36:97-104 (2020).

46. [Evaluation of antioxidant property in secondary metabolites isolated from Sargassum wightii collected from Kanyakumari Coastal Region, Tamilnadu,](#)

V.M. Mani, S. Nivethitha, K. Preethi, A.Parimala Gnana Soundari, V.Subha Priya, P.Deepak and M.P.Ayyappa Das,
International Journal of Lifescience and Pharma Research, Vol 10: 60-67 (2020).

45. [Valorization of pineapple peels through single cell protein production using *Saccharomyces cerevisiae* NCDC 364,](#)
Mridul Umesh, B. Thazeem, K. Preethi,
Applied Food Biotechnology, 6(4); 255-263 (2019).
44. [Bioprocess optimization and production of biosurfactant from an unexpected substrate: *Parthenium hysterophorus*,](#)
D. Sabarinathan, S. Poorna chandrika, N. Lavanya, K. Preethi,
Biodegradation, pp 1-10 (2019).
43. [Green synthesis of biocompatible nanostructured hydroxyapatite from *Cirrhinus mrigala* fish scale - A biowaste to biomaterial,](#)
S. Sathiskumar, S. Vanaraj, D. Sabarinathan, S. Bharath, G. Sivarasan, S. Arulmani, K. Preethi, P. Vinothkumar,
Ceramics International, Vol.45, (6), 7804-7810 (2019).
42. [*Aegle marmelos*: A novel low cost substrate for the synthesis of polyhydroxyalkanoate by *Bacillus aerophilus* RSL-7,](#)
S. Poorna chandrika, D. Sabarinathan , Anburajan Parthipan, Arivalagan Pugazhendhi, K.Preethi,
Biocatalysis and Agricultural Biotechnology, 18, 101021 (2019).
41. [Polyhydroxyalkanoate production from statistically optimized media using rice mill effluent as sustainable substrate with an analysis on the biopolymer degradation potential,](#)
S. Poorna chandrika, D. Sabarinathan, Anburajan Parthipan, K. Preethi,
International Journal of Biological Macromolecules, 126,977-986 (2019).
40. [Production of PHB from *Pseudomonas plecoglossicida* and Its Application towards Cancer Detection,](#)
D. Sabarinathan, S. Poorna Chandrika, P. Venkatraman, M. Easwaran, C.S.Sureka and K. Preethi,
Informatics in Medicine Unlocked, 11, 61-67 (2018).
<https://doi.org/10.1016/j.imu.2018.04.009>
39. [Enzymatic and phytochemical analysis of endophytic fungi on *Aegle marmelos* from Western Ghats of Tamilnadu, India,](#)
V.M. Mani, A. Parimala Gnana Soundari and K. Preethi,

International Journal of Pharma and Biosciences, Vol 8, page 1-8 (2018).

38. [Spectroscopic studies, antioxidant and anticancer attributes of diffusible eumelanin produced by marine Streptomyces rochei,](#)

P. Satheesh, S. Shalini Devi, K. Preethi,

Current Trends in Biotechnology and Pharmacy, Vol. 12 (2) 147-158 (2018)

37. [Anthelmintic efficacy of glycolipid biosurfactant produced by Pseudomonas plecoglossicida: an insight from mutant and transgenic forms of Caenorhabditis elegans,](#)

D. Sabarinathan, A. Mohankumar, S. PoornaChandrika., G. Shanmugam, P. Sundararaj & K. Preethi,

Biodegradation, 30:-214 (2018).

36. [Evaluation of antibacterial and antibiofilm activity of synthesized zinc-hydroxyapatite biocomposites from Labeo rohita fish scale waste,](#)

S. Sathiskumar, S. Vanaraj, D. Sabarinathan, & K. Preethi,

Materials Research Express, 5(2) (2017)

35. [Biogenic PHA Nanoparticle Synthesis and Characterization from Bacillus subtilis NCDC0671 Using Orange Peel Based Medium,](#)

MridulUmesh, K. Priyanka, B. Thazeem and K. Preethi

International Journal of Polymeric Materials and Polymeric Biomaterials, 67:996-1004(2017)

34. [Statistical Optimization of process parameters for bio plastic \(PHA\) production by Bacillus subtilis NCDC0671 using orange peel based medium,](#)

MridulUmesh, V.M. Mani, B. Thazeem and K. Preethi,

Iranian Journal of Science and Technology, Transactions A: Science, 42, 1947-1955 (2017).

33. [Anticandidal activity of bioplastic sheets incorporated with neem seed extract,](#)

Mridul Umesh, R. Madhumathi, K. Priyanka, B. Thazeem and K. Preethi,

International Journal of Pharmaceutical Sciences Review and Research, Vol 45(1), 141 -146 (2017).

32. [Alkaline protease from Bacillus pumilus: A study on their biodegradative, dehairing and destaining activity,](#)

- K. Preethi and Goldy Primo Beryl,
International Journal of Pharma and Bio Sciences, 8(2), pp. 896-906 (2017).
31. [New binuclear Ni \(II\) metallates containing ONS chelators: synthesis, characterisation, DNA binding, DNA cleavage, protein binding, antioxidant activity, antimicrobial and in vitro cytotoxicity,](#)
G. Kalaiarasi, R. Jain, H. Puschman, S.P. Chandrika, K. Preethi & R. Prabhakaran,
New Journal of Chemistry, 41(7), 2543-2560 (2017).
30. [Biosynthesis, characterization of silver nanoparticles using quercetin from Clitoria ternateal to enhance toxicity against bacterial biofilm,](#)
S. Vanaraj, B.B. Keerthana, & K. Preethi,
Journal of Inorganic and Organometallic Polymers and Materials, 1-11 (2017).
29. [Bioprocess optimization of PHB homopolymer and copolymer P3 \(HB-co-HV\) by Acinetobacter junii BP25 utilising rice mill effluent as sustainable substrate,](#)
S. Poorna Chandrika, D. Sabarinathan, Anburajan Parthiban and K. Preethi,
Environmental technology, 39(11):1430-1441 (2017).
28. [Fruit peels: A potential substrate for acetic acid production using Acetobacter aceti,](#)
Dr. K. Preethi, G. Maha Lakshmi , Mridul Umesh, K. Priyanka and B. Thazeem,
International Journal of Applied Research, Vol.3 (4): 286 -291 (2018).
27. [Evaluation of rice mill effluent bioremediated by polyhydroxyalkanoate production on the growth of broad bean,](#)
S. Poorna Chandrika, D. Sabarinathan and K. Preethi,
International Journal of Pharma and Biosciences, 8(2): 671-678 (2017).
26. [Production of Single Cell protein and polyhydroxyalkanoate from Carica papaya waste,](#)
Mridul Umesh, K. Priyanka, B. Thazeem and K. Preethi,
Arabian Journal for Science and Engineering, Vol 42 (6): 2362 - 2369 (2017).
25. [Nutritive characterization of delimed bovine tannery fleshings for their possible use as a proteinaceous aqua feed ingredient,](#)

B. Thazeem, K. Preethi, Mridul Umesh and S. Radhakrishnan,
Waste and Biomass Valorization, 9:1289–1301 (2017).

24. [Fabrication of antibacterial bioplastic sheet using orange peel medium and its antagonistic activity against common clinical pathogens,](#)

Mridul Umesh and Dr.K.Preethi,

Research journal of Biotechnology, Vol 12(7): 67 -74 (2017).

23. [Parthenium hysterophorus: low cost substrate for the production of polyhydroxyalkanoates,](#)

S. Poorna Chandrika, D. Sabarinathan and K. Preethi,

Current science, Vol. 112(10): 2106 – 2111 (2017).

22. [Anticancer evaluation of secondary metabolites in Hep - 2 cell lines from Exiguobacterium profundum BC2 - 11,](#)

V.M. Mani and K. Preethi,

Open Access Journal of Microbiology & Biotechnology, 1(1): 1-4 (2016).

21. [Production and characterization of Bio-AuNPs to induce synergistic effect against multidrug resistant bacterial biofilm,](#)

S. Vanaraj, J. Jabastin, S.Sathiskumar and K. Preethi,

Journal of Cluster Science 28, pages 227–244 (2016).

20. [Biodecaffeination of coffee husk using bacterial enzyme from Enterobacter aerogenes isolated from coffee husk dumped soil,](#)

S. Poorna Chandrika , D. Sabarinathan , S.Vinothini and K. Preethi,

International Journal of Multidisciplinary Research and Development, 3(2): 380-383 (2016).

19. [Isolation and identification of keratinolytic bacteria from tannery effluent: A study on their biodegradative and dehairing activity,](#)

K. Preethi, M. Anand and B. Thazeem,

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Sl. No. : 1

Details of Patent : Process for making natural immunogenic melanin-typhoid polysaccharide nanoparticles to be used as vaccine

International/National : National

Year : 2018

Application / Grant Number : 201841021262

Sl. No. : 2

Details of Patent : Purification process for Pheomelanin the culture supernatant of *Streptomyces spinoverrucosus*

International/National : National

Granted Year : 2022 , Patent Number: 387540

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