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RESEARCH FOCUS

Development, Design and up scaling & optimization of improved green technologies for processing of bioactive materials from medicinal and aromatic plants, Studies on supercritical fluid extraction and other modern extraction techniques, Biomass & cellulose value addition for textile fibre and other applications. Mentoring Start-up projects under Start up India and State mission. Preparation of Techno economic feasibility and project reports for prospective entrepreneurs

EDUCATION:

Sr. No.	Institution	Degree Awarded	Year	Field of study
01.	L.D.College of Engineering, Ahmedabad (Gujarat University)	Bachelor of Engineering	2003	Chemical Engineering
02.	Beant College of Engineering & Technology, Gurdaspur (IK Gujral Punjab Technical University)	Master of Technology	2020	Chemical Engineering

PROFESSIONAL CAREER

Sr. No.	Company/ Institution	Position	From (Month)	To (Month)
1.	CSIR- Institute of Himalayan Bioresource Technology Palampur	Principal Scientist	April, 2019	Till date
2.	CSIR- Institute of Himalayan Bioresource Technology Palampur	Senior Scientist	April, 2015	April, 2019
3.	CSIR- Institute of Himalayan Bioresource Technology Palampur	Scientist	April, 2011	April, 2015

4. CSIR- Institute of Himalayan Bioresource Technology Palampur	Junior Scientist	April, 2008	April, 2011
5. M/s Johnson & Johnson Ltd. , Baddi	Production Engineer	October, 2007	March, 2008
6. M/s Wipro Consumer care and Lightning Ltd.,Baddi	Process & Production Engineer	June, 2006	Sept, 2007
7. M/s Ayush Herbs Pvt. Ltd., Nagrota Bagwan	Marketing executive	April, 2005	May, 2006

AWARDS:

- Got prestigious **“Ultra International Team Award “as a core team member of Mission Aroma”** team of the CSIR-Institute of Himalayan Bioresource Technology (IHBT), Palampur, for promoting cultivation and processing of aromatic crop. This was done to improve the production of essential oils in India and enhancing the income of large number of farmers. The award comprises of a citation and cash prize of **Rs one lakh**. The award was given during the International Congress & Expo- 2018, organised by the Essential Oil Association of India in Bengaluru.
- Got the **“Certificate of merit” as team member for prestigious CSIR technology award in life sciences 2021** for developing rebaudioside-A rich cultivar of ‘Him stevia’, advanced agro-technology with 28% yield improvement, and green process technology for converting dry leaf into stevia glycosides powder with a purity of more than 95%. **CSIR Technology Awards seek to foster and encourage multi-disciplinary in-house team efforts and external interaction for technology development, transfer and commercialization**

RESEARCH PUBLICATION: 10 with average impact factor 2.6

PATENT: 1 Granted and 05 filed

HUMAN RESOURCE DEVELOPMENT:

- B.Tech Chemical engineer students have been trained in lab
- Jigyassa student lectures and online training
- Skill development training and lectures

PROJECT PROFILE : Project funded from DST, DBT, DSIR, HIMCOST, CSIR, Industry sponsors& consultancy projects , Startup projects have been successfully completed and some are ongoing

List of completed and on going projects

Sr. No.	Title of Project	Duration	Total Cost in lakhs	Funding Agency
1.	Design & development of mobile essential oil extraction units	2007-12	67.00	CSIR Rural Development Activity
2.	Processing of Stevia leaves for production of Steviol glycosides	2010-13	30.00	Consultancy Project with M/s CV Raman College of Engineering, Bhubaneswar, Orissa
3.	Design & Improvement of processes for extraction of herbal products	2007-12	200.00	In-house Project (CSIR Sponsored)
4.	Establishment of high altitude Biology (CeHAB)	2013-17	21.97	CSIR Supra institutional project
5.	Processes and Products from Himalayan Region and their toxicological evaluation (PROMOTE)	2013-17	11.21	CSIR Supra institutional project
6.	Introduction, Adaptation and Value addition of important Medicinal & Aromatic plants in trans- Himalayan region	2014-17	34.48	DST SEED CODER
7.	Development, adoption of green technology for commercial production of tea catechins and its formulations	19 th April, 2016-19 th April, 2018	116.00	DBT-BIRAC BIPP
8.	Design development of technology transfer for production of tea catechins from green tea leaf to M/s Indco serve, Tamil Nadu	2016-21	25.00	Technology transfer Industry sponsored
9.	CSIR Aroma Mission	2017-20	7968.25	CSIR
10.	Commercial Scale Production of Tea Catechin from Green Tea Leaves, Development of Formulations as Nutraceuticals and their Human Intervention Studies	7 th Dec 2018-6 th Dec 2021	689.13	DBT- BIRAC BIPP
11.	Cultivation and processing of aromatic crops for socio-economic development in rural areas of Himachal Pradesh	4 th March 2018-3 rd March, 2020	7.00	HIMCOST, HP
12.	Creation of Common Research and Technology Development Hubs (CRTDHs) in SECTOR- Affordable Health under Bio	30 th June, 2017 to 30 th June, 2020	81.86	DSIR

13.	Transfer of technology for tea wines and RTD Tea	26 th July,2019-25 th July, 2026	10.00	Technology transfer Industry sponsored
14.	Consultancy under CORE support program DST for S&T Interventions	12 th June, 2020 to 11 th June, 2022	5.564	Consultancy Project The society for technology & development , Mandi, HP
15.	Processing technology for extraction of Steviol glycosides	22 nd March, 2018-31 st March, 2023	30.00	Technology transfer Industry sponsored
16.	Process for extraction& stabilization of natural colors and their application in food and cosmetics	3 rd March, 2020 to 3 rd March 2026	8.00	Technology transfer Industry sponsored (M/s Nano Tech Chemical Brothers Pvt. Ltd., Chandigarh Road, Ludhiana Pb
17.	Formulation of Stevia liquid drops	2 nd January, 2019 to 1 st Jan 2020	5.00	Technology transfer Industry sponsored (M/s Agri natural India, Ludhiana,Pb
18.	Technology for tea catechins and theaflavins production from tea leaves	07 th July 2014 to 6 th July, 2018	12.00	Technology transfer Industry sponsored (M/s Baijnath Pharmaceutical P. Ltd., Paprola

PUBLICATION LIST

1. Yadav SC, Yadav SK, **Sharma Mohit** and Singh Bikram (2011) Development of antidiabetic nanomedicine from stevioside Journal of Biomedical nanotechnology 7(1): 54-55 10.1166/jbn.2011.1198 (IF- 5.068)
2. Barwala Indu, Sood Anil, **Sharma Mohit**, Singh Bikram and Yadava Subhash C. (2013). Development of stevioside Pluronic-F-68 copolymer based PLA-nanoparticles as an antidiabetic nanomedicine. *Colloids and Surfaces B: Biointerfaces* 101: 510-516 (IF- 3.973)
3. Piar Chand, Arun Kumar Shil, **Mohit Sharma** and Yogesh B. Pakade (2014) Improved adsorption of Cd²⁺ ions from aqueous solution using chemically modified apple pomace: mechanism, kinetics and thermodynamics study International Biodeterioation and Biodegradation Volume 90, Pages 8–16 doi: 10.1016/j.ibiod.2013.10.028 (IF- 3.824)
4. Piar Chand, **Mohit Sharma** and Yogesh B. Pakade (2014) Potential of apple juice industry waste for chromium removal from aqueous solution: kinetics, isotherm and thermodyanamics studies. Indian Journal of Chemical Technology (IF-0.6)

5. Saurabh Sharma, **Mohit Sharma**, Rakesh Rana (2014) Growth and yield of natural-sweetener plant stevia as affected by pinching Indian Journal of Plant Physiology Volume 19, Issue 2, Page 119-126 **(IF-0.8)**
6. G. D. Kiran Babu, Shudh Kirti Dolma, **Mohit Sharma** & S. G. Eswara Reddy (2018) Chemical composition of essential oil and oleoresins of *Zingiber officinale* and toxicity of extracts/essential oil against diamondback moth (*Plutella xylostella*) Toxin reviews Received 30 Jan 2018, Accepted 17 Jun 2018, Published online: 23 Jul 2018 **(IF-3.840)**
7. Anuja Bhardwaj, Piar Chand, Yogesh. P. Pakade, Robin Joshi & **Mohit Sharma (2019)** Kinetic and equilibrium studies on adsorption of cadmium from aqueous solution using *Aesculus Indica* seed shell Indian Journal of Chemical Technology, 26, 2019 pp 146-152 **(IF -0.6)**
8. Rakesh Kumar, Saurabh Sharma, Shivani Sharma, **Mohit Sharma** & Neeraj Kumar (2018) Influence of flower to water ratio and distillation time of damask rose (*Rosa damascena* Mill.) flowers on essential oil content and composition in the western Himalayas, Journal of Essential Oil Research, 30:5, 353-359, DOI:10.1080/10412905.2018.1473814 **(IF-1.233)**
9. Swati Walia, Arti Rana, Ashok Singh, **Mohit Sharma**, S.G. Eswara Reddy & Rakesh Kumar (2018) Influence of Harvesting Time on Essential Oil Content, Chemical Composition and Pesticidal Activity of *Artemisia maritima* Growing Wild in the Cold Desert Region of Western Himalayas Journal of essential oil research Pages: 1-12 **(IF- 1.233)**
10. Shivani Puri, Sarthak Sharma, Avnesh Kumari, **Mohit Sharma** and Upendra Sharma (2020) Isolation, characterization and preparation of cellulose nanocrystals from cowdung Waste valorization Biomass Conversion and Biorefinery. doi.org/10.1007/s13399-020-01119-9 **(IF-4.9)**

PATENTS:

1. Bhushan S, Gupta S, Babu GD, Sharma M, Ahuja PS Method and apparatus for the separation of seeds from fruit pulp/slurry/pomace WO 2013069028
2. Development of low-calorie Herbal Mouth Freshener (Mukhwas) using Himalayan herbs" Patent filing number is granted 0049NF2020
3. An efficient process for extraction of volatile compounds from *Valeriana jatamansi* Jones" Patent filing number is granted 0049NF2020

4. An eco-friendly process for isolation of fibers from plant species and product thereof (IP 2020110344404)
5. Single process for sequential extraction of products from green tea leaves (Patent No. 0044 NF2020(Indian patent filing under progress)
6. Parthenium nanomaterials as additives in cementitious materials and its product thereof Patent filed Ref. No. 0087NF2021