Dr Harinder Singh: PI

List of Publications and Patents

Representative Patents

1. **Abdul Rehman, Parul Katiyar and Harinder Singh. Process of modifying starch with infrared radiation with or without melted/unmelted citric acid. Application No.(Patentability report positive and under process).**
2. **Harinder Singh, Atul Mangal, BS Chordiya & Biplab Kr. Sarkar: I-UV- Light Box: Intelligent UV-Light Box/Equipment to Disinfect Corona Virus, Bacteria, Virus. Application No.202011020635 A. Filing Date 15/05/2020.**
3. **Aditya Ganesh, Arijit Dutta Gupta, Harinder Singh, Mandavi Goswami :A Novel Method for preparing Octenyl Succinic Anhydride (OSA) modified Starch. Application No: 202011038429. Filing Date: 2020-09-05.**
4. **Harinder Singh, SB Choridya, BS Sarkar(2020). IBP- Nebulizer: intelligent nebulizer for bronchitis patients. AUS2020103517. Grant Date:13 Jan 2021.**
5. **Manoj Kumar Gupta, Harinder Singh, Parul Katiyar (2022). I-UV- Light Box: modified version of UV- sanitizers. Indian Patent Application No 20221108006 on 16 May 2022.**

Publications

Papers on Gum Ghatti

1. **Ayushi Singh, Nilanjal Misra, K.P. Rawat, Vipul Amar, Sangeeta Negi, Avneet Kaur, Harinder Singh(2024). Recapitulating the physicochemical and functional characteristics of gum ghatti and its myriad applications in the food industry, Food Hydrocolloids, Volume 158.**

Research/Review Papers

1. **Arijit Dutta Gupta, Sangeeta Negi, Vivek Bhaduaria, Bhawana Bharti, Sweety Swami, Yu Tian, Andreas Blennow, Harinder Singh (2023). Modification of Sorghum Starch by Propylene Oxide and Application in Texturing of Cookies. Starch-Stärke Volume 75, Issue 7-8. https://doi.org/10.1002/star.202300027.(IF=2.8)**
2. **Arijit Dutta Gupta, Nikhil Kirti, Parul Katiyar, Harinder Singh (2023). A critical review on three-dimensional cellulose-based aerogels: synthesis, physico-chemical characterizations and applications as adsorbents for heavy metals removal from water. Cellulose 30, 3397–3427. http://dx.doi.org/10.1007/s10570-023-05129-4. (IF=6)**
3. **Bhavnita Dhillon, Navdeep Singh Sodhi, Shruti Puri, Zakir Showkat Khan, Harinder Singh, Mohmad Sayeed Bhat (2023). Effect of processing conditions on the functional properties of starches during formulation of quick-cooking brown rice. Journal of Food and Humanity,**

Volume 1, December 2023, Pages 626-633. https://doi.org/10.1016/j.foohum.2023.07.004. Scopus Journal.

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7. Harinder Singh, Andreas Blennow, Arijit Dutta Gupta, Parvinder Kaur, Bhavinta Dhillon, Navdeep Singh Sodhi, Praveen Kumar Dubey (2022). Pulsed light, pulsed electric field and cold plasma modification of starches: Technological advancements and effects on functional properties. Journal of Food Measurement and Characterization, 16, pages 4092–4109 https://doi.org/10.1007/s11694-022-01487-y.(IF=2.3).
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9. Umrav Singh, Manoj Kumar Gupta, Harinder Singh (2022). Extraction of Cellulose Nanocrystals from Banana Fibres by Steam Explosion. Indian Journal of Fibre and Textile Research, 48, 2. http://op.niscair.res.in/index.php/IJFTR/article/view/64801. Scopus
10. Sangya Jaiswal, Arpita Bansirar, Avinash Singh, Harinder Singh, Uttam Chavan (2022). Diversity in grain and wax characteristics of twelve cultivars of Indian sorghum. Materials Today Proceedings, 57, 1933-1937. https://doi.org/10.1016/j.matpr.2022.03.041.Scopus
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Book Chapters

1. **Deepshikha Singh, Rajdeep Mukherjee, Harinder Singh, Ankur Gaur, Shabih Ul Hasan,(2021). Effect of Pseudo-Homogeneous Concentration Based Kinetics on Hybrid Reactive Distillation Columns for Selectivity Engineering. Computer Aided Chemical Engineering, Elsevier, Editor(s): Metin Türkay, Rafiqul Gani. Volume 50, Pages 313-318. ISSN 1570-7946, ISBN 9780323885065, https://doi.org/10.1016/B978-0-323-88506-5.50050-4.**

2. **R.K.Gond, M.K.Gupta, Harinder Singh, Sanjay Mavinkere Rangappa, Suchart Siengchin(2022). Extraction and Properties of Cellulose for Polymer Composites. Biodegradable Polymers, Blends and Composites, Woodhead Publishing Company, an Imprint of Elsevier, pp 59-80.**