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Waste Biomass of Mango, Jackfruit, Jamun and Amaltash Seed Flour for their Food Nutritional and Mineral property

Abstract:

Seeds biomasses of plants unique that stores all the necessary ingredients to support the embryo of the plant during germination. In this study, we evaluated morphology, texture, composition and nutritional properties of the seed flour of Mango, Jackfruit, Jamun and Amaltash by various sophisticate instruments such as Field Emission Scanning Electron Microscope (FESEM), Energy Dispersive X-ray Spectroscopy (EDX), CHNS/O analyser, X- Ray Diffraction (XRD) and Fourier Transform Infrared spectroscopy (FTIR). Mango and jackfruits are spherical (~2-6μm) in morphology and that contains several functional groups (wave-number 3343 cm-1of O-H vibration), 2920 cm-1 and 2156 cm-1 are corresponding to the C-H aliphatic stretching vibration, 1627 and 1728 cm-1 is attributing to the stretching band of the carboxyl double bond from carboxyl functional group. All seed flour were analysed by EDX for nutritional elements like carbohydrates, proteins, lignin, fat, cellulose, fibre, antibacterial and minerals elements, these nutrients are beneficial for various applications in the food industry and pharmaceutical industry.

Biography

Dr. Dan Bahadur Pal is currently working as an Assistant Professor, Department of Chemical Engineering, Harcourt Butler Technical University, Uttar Pradesh India. He received his M. Tech in 2011 and Ph.D. in 2017, in the field of Chemical Engineering from Indian Institute of Technology (BHU) Varanasi, Uttar Pradesh, India. He completed his doctorate degree in the field of nanotechnology and catalysis. These nanofibers have very promising potential to provide benefits to nanotechnologies, energy, environment, catalysts, sensors etc. Dr. Pal has more than 81 publications in journals of international repute, six books and thirty book chapters. His research interest is nanotechnology, catalysis, energy and environment and waste management with a special focus in developing process and materials by using waste as raw materials. He also prefers to work on bio-waste processing and value addition.