

Preliminary Study on elementary composition in White rice, parboiled rice and Brown rice by using EDXRF

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Recently health awareness was increased in human beings, based on their health conditions they are choosing different types of food grains for their sustainability. 18 rice samples were collected in local market in the state of Andhra Pradesh, India and analyzed for 12 essential, non-essential and toxic elements by using Energy Dispersive X-ray Fluorescence (EDXRF). The elemental profile of Na, Ca, P, Mg, Zn, Cu, Ni, Fe, Mn, Cr, As, and Pb have been identified in white, para boiled and brown rice. The potential human health risk assessment was conducted by considering estimated weekly intake (EWI) of toxic metals from eating rice and compared calculated values with provisional tolerable weekly intake (PTWI). The present work aims to compare the element composition of white rice, parboiled rice and brown rice. Comparing these 3 types the brown rice exhibit high elemental composition more than the RDA (Recommended Daily Allowable) values followed by Parboiled and white rice. Results will be highlighted at the time of presentation.



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