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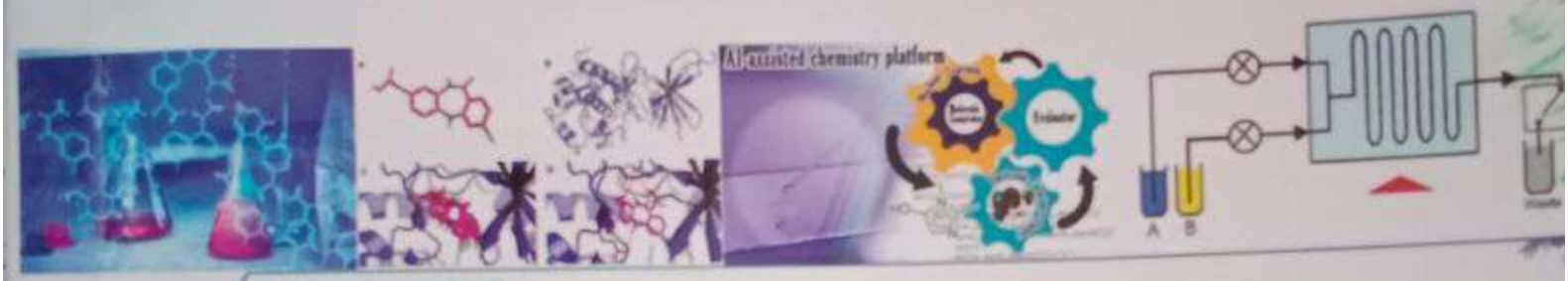

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Qualitative analysis of absorption of APAP and ASA by Oryza sativa plants

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Absorption of Physiologically active Organic molecules like drugs in plants lead to multilevel biochemical combination with phyto-chemicals which further generates series of physiological changes in plants. Quantitative analysis of absorption of drugs by plants is very important aspect to study the biological fate of absorbed drugs in plants. Qualitative analysis is helpful to characterize the bio organic conjugate of drugs, Detoxification process and precursor activity of ingested drugs. Quantitative analysis of absorbed drugs by plants was manifested by spectro analytic techniques like FTIR, H^1-NMR and Mass spectroscopy. The experiment was performed with *Oryza sativa L.* plants in hydroponic culturing method for short duration and exposure of high concentration of APAP (Acetyl Para Amino Phenol) and ASA (Acetyl Salicylic Acid). *Oryza sativa L.* absorbs and metabolizes the drugs APAP and ASA. Extracts of *Oryza sativa L.* plants (which were treated with APAP and ASA hydroponically) were analyzed spectroscopically. The traces of APAP and ASA were detected in these extracts along with unknown metabolites of these drugs. The reports showed that drugs were absorbed by plants degraded into fragments and these fragments combined with phytochemicals to form bio-conjugates. The analytical data was not prominent to suggest any precursor activity of these drugs in the plant.