

## CHEMICAL FINGERPRINTING OF BIOACTIVE COMPOUNDS OF *CARICA PAPAYA* LINN (INDIAN VARIETY) SEED OIL

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**ABSTRACT :** *Carica papaya* Linn is commonly known as papaya in English and Papita in Hindi. Papaya is well known for its nutritional and medicinal values throughout the world. The properties of different parts of papaya plant are also well known in traditional system of medicine. Since past few decades medicinal applications of papaya are well considered by research community and used for treatment of various diseases. In this study, we analyzed biochemical constituents of Indian papaya seed oil through GC-MS. The objective of study was to analyze the phytochemical components of *Carica papaya* seed oil using GC-MS. The results of GC-MS analysis revealed the presence of vitamins, terpenes, terpenoids, alkaloids, lactones, esters, aldehydes, ketones, alcohols, amides, ethers and fatty acids in *Carica papaya* seed oil. The results showed that there are total 64 different compounds including L-Ascorbic acid 2,6-dihexadecanoate (12.27%), Limonene (8.57%), cis-methyl-dihydrojasmonate (6.02%), 1-(4-Isopropylphenyl)-2-methylpropyl acetate (5.27%), n-Hexyl-salicylate (4.64%), Linalool (4.60%), Linalil (4.43%),  $\alpha$ -Hexylcinnamaldehyde (4.40%), 2-Tert-butylcyclohexanol (3.41%), 1,2-Dimethylpropyl acetate (3.36%), (E)-12-musk decenone (3.31%), Oxacyclohexadec-(13E)-en-2-one (2.48%) etc. In conclusion, the applications of *Carica papaya* oil by traditional physicians for various diseases are supported by presence of different bioactive compounds. Moreover, isolation and purification of specific bioactive compounds could play potential role in future exploration of novel drugs and food applications.

**Key words :** Papaya, *Carica papaya*, papaya oil, GC-MS, traditional medicine.