

Supporting Information

Rapid Identification of Molecular Changes in Tulsi (*Ocimum sanctum* Linn) Upon Ageing Using Leaf Spray Ionization Mass Spectrometry

Depanjan Sarkar, Amitava Srimany and T. Pradeep*

DST Unit of Nanoscience (DST UNS), Department of Chemistry, Indian Institute of Technology Madras, Chennai 600036, India.



Figure S1. Five different categories of Tulsi leaves: (from left to right) tender leaf (TL), young leaf (YL), mature leaf (ML), old leaf (OL) and dried leaf (DL).



Figure S2. Experimental set-up for the leaf spray ionization showing the Tulsi leaf connected with a clip and held in front of atmospheric inlet of the mass spectrometer.

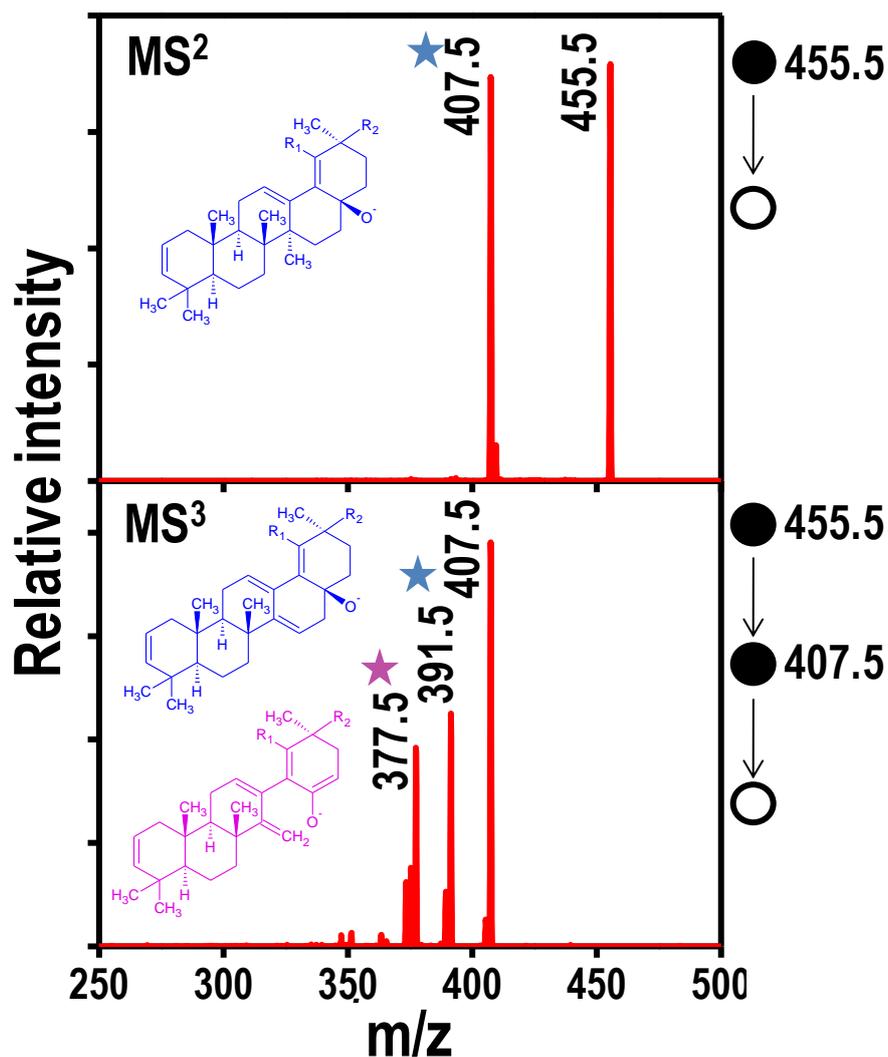


Figure S3. Tandem mass spectra for the peak at m/z 455.5. Possible structures of fragment ions at m/z 407.5, m/z 391.5 and m/z 377.5 have been incorporated. When $R_1=H$ and $R_2=CH_3$, the structures are coming from oleanolic acid fragmentations and when $R_1=CH_3$ and $R_2=H$, the structures are coming from ursolic acid fragmentations. Right side schematics show the parent ions from which fragmentations have been done.

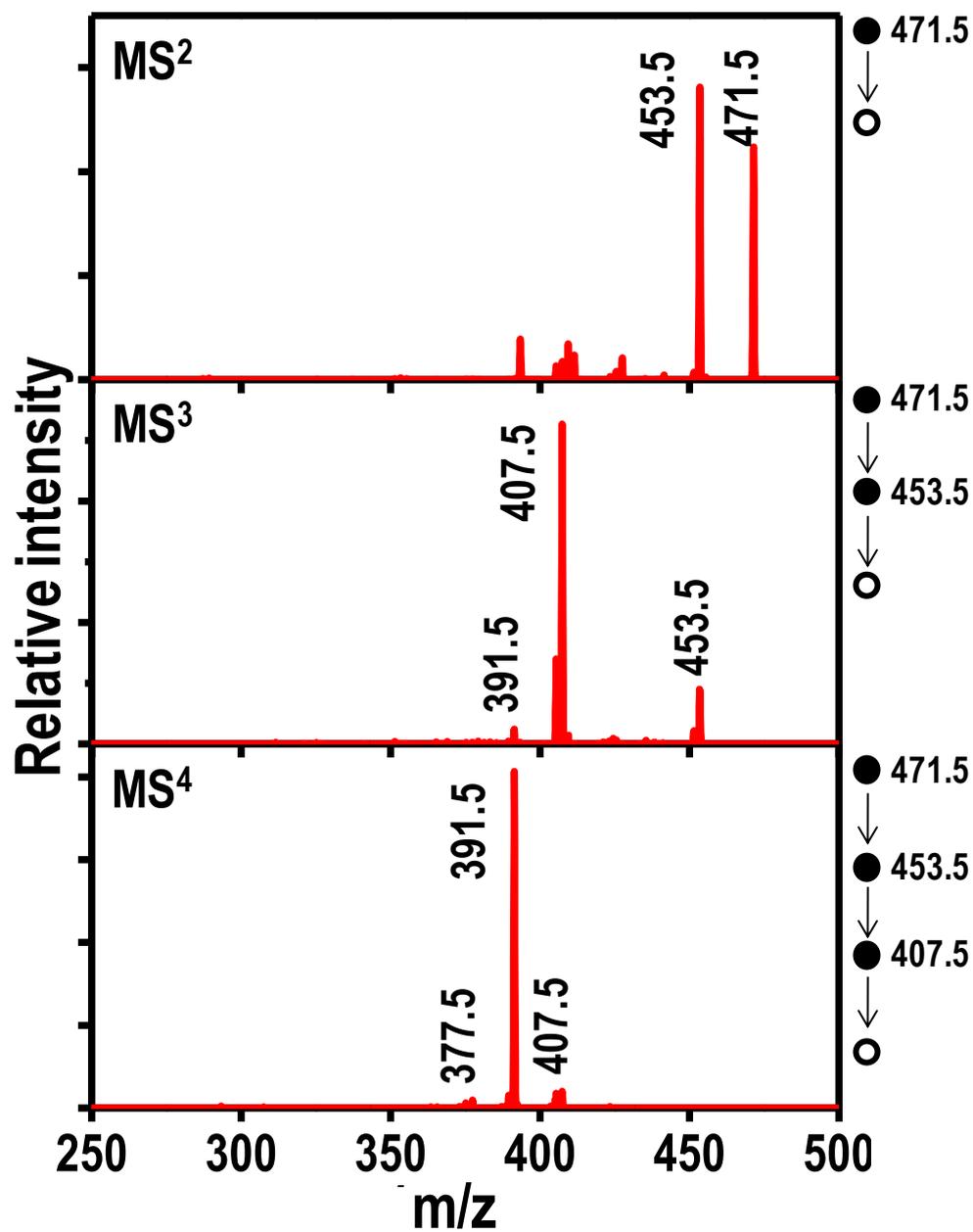


Figure S4. Tandem mass spectra for the peak at m/z 471.5. Right side schematics show the parent ions from which fragmentations have been done.

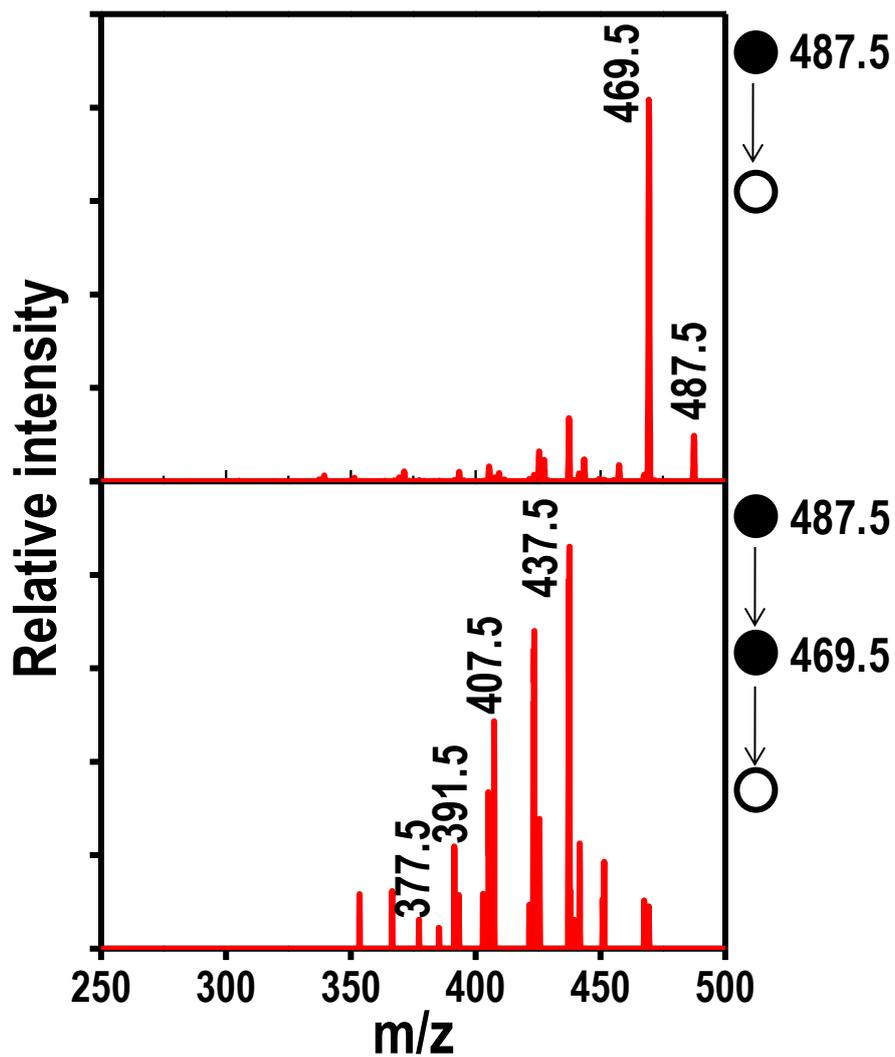


Figure S5. Tandem mass spectra for the peak at m/z 487.5. Right side schematics show the parent ions from which fragmentations have been done.

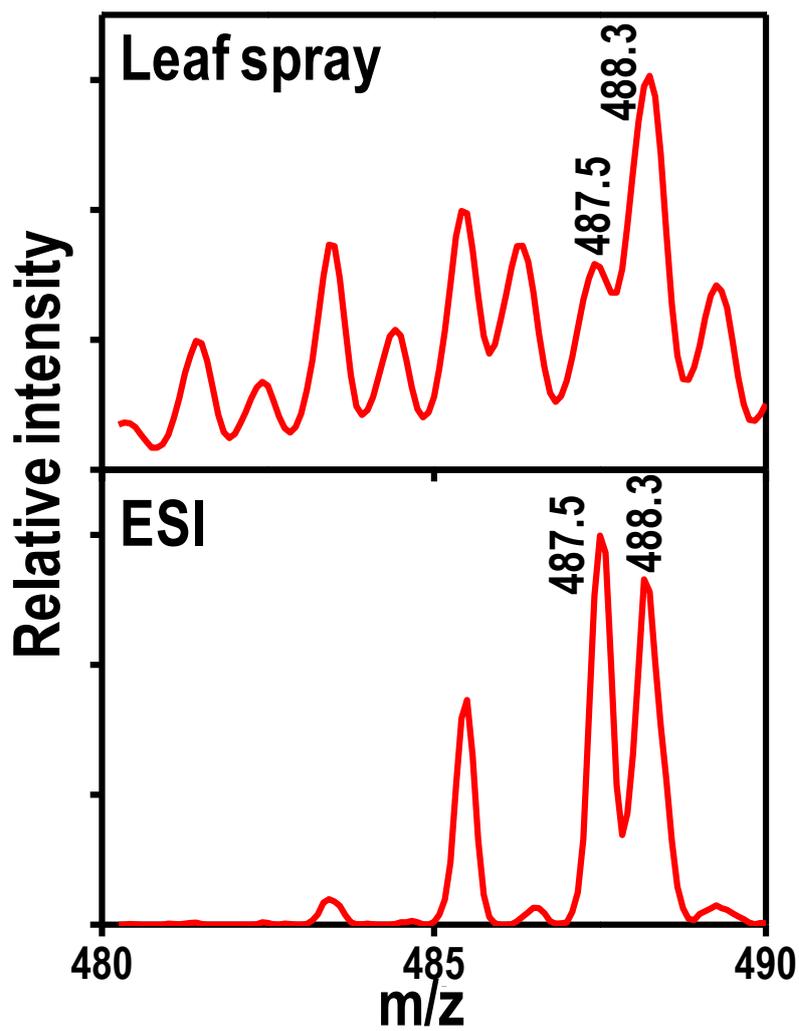


Figure S6. Expanded view of leaf spray (top) and ESI (bottom) spectra near the region at m/z 487.5.

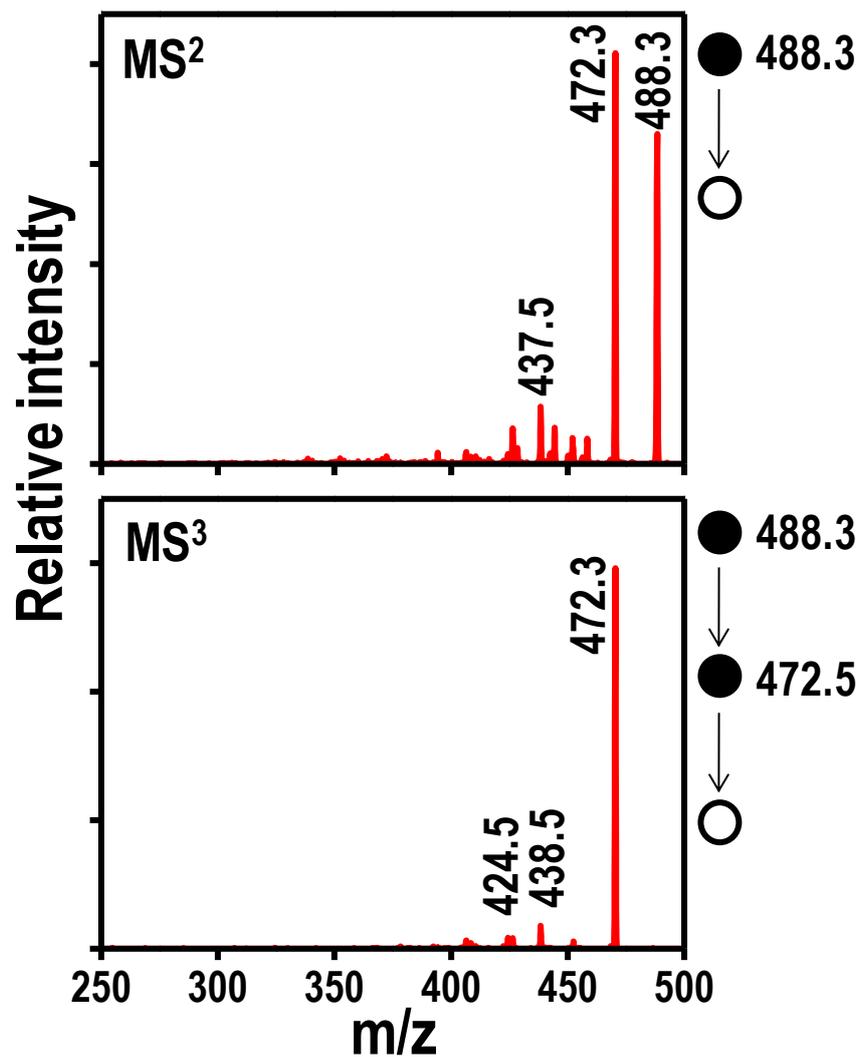


Figure S7. Tandem mass spectra for the peak at m/z 488.3. Right side schematics show the parent ions from which fragmentations have been done.