

ELECTRONIC SUPPLEMENTARY MATERIAL

Direct analysis of plant tissue was carried out by directing the spray towards a seed of a poison hemlock (*Conium maculatum*) plant. The base peak observed is for the alkaloid γ -coniceine ($m/z = 126$). The spectrum obtained is in perfect agreement with the one previously investigated using this method.¹ This initial result is a promising application to analyze plants for drug screening and alkaloid content in the field, an application that has been long desired. This would find use in forensic, botanical and pharmaceutical applications.

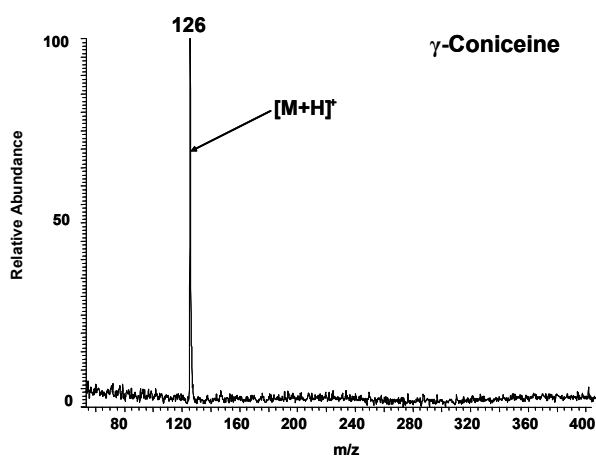


Figure A1. DESI-MS of a *C. maculatum* seed

The figure below shows the application of the analysis described in the text to the anilide pesticide alachlor under similar conditions. The chlorine isotopic signature is clearly observed in the mass spectrum.

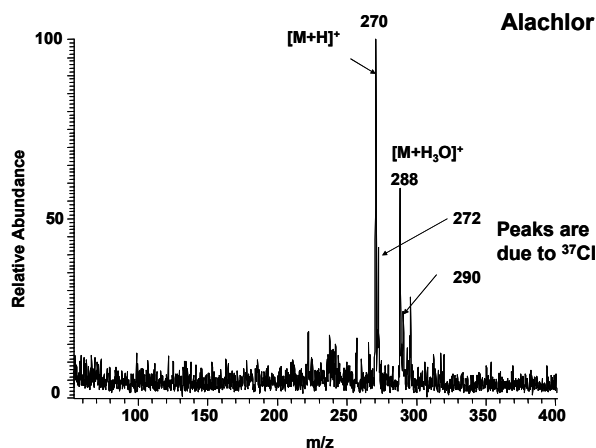


Figure A2. DESI-MS of 10 ng of alachlor deposited on a corn leaf.

(1) Talaty, N.; Takats, Z.; Cooks, R. G.; *Analyst* 2005, **130**, 1624.