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Contents

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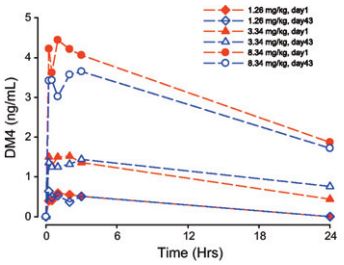
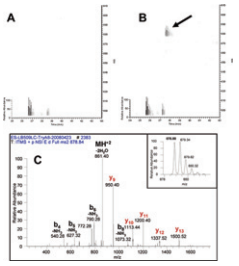
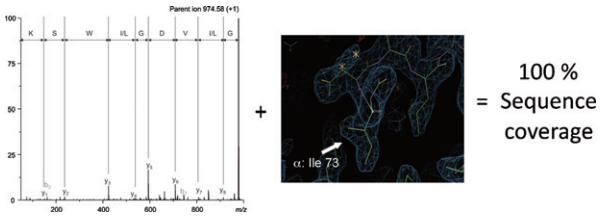
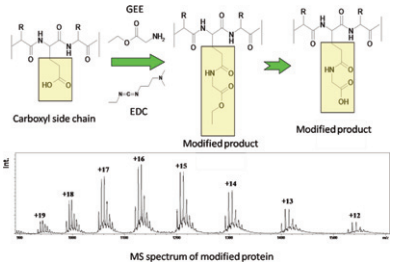


Biopolymers

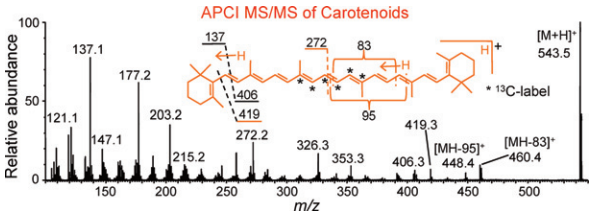
Proteins





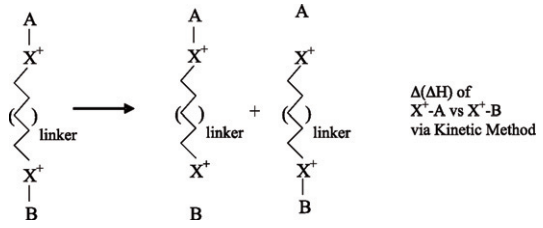


Natural Products

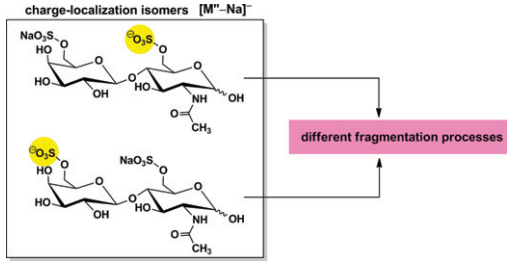


▶ Carotenoids form $[M+H]^+$ and $M^{-\bullet}$ during positive and negative ion APCI, respectively. ▶ Positive and negative ion APCI MS/MS provide complementary structural information. ▶ APCI MS/MS of 12 carotenoids was used to identify characteristic fragment ions. ▶ Isomeric lutein and zeaxanthin could be differentiated by using APCI MS/MS. ▶ Isomeric lycopene, α-, β- and γ -carotene could be differentiated by APCI MS/MS.

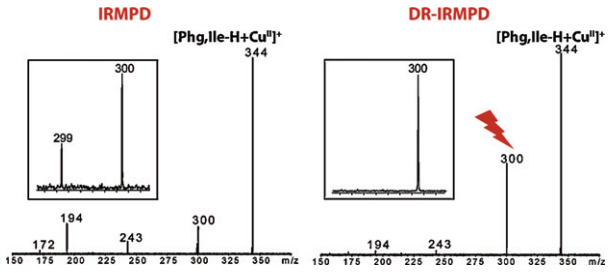
Mechanisms



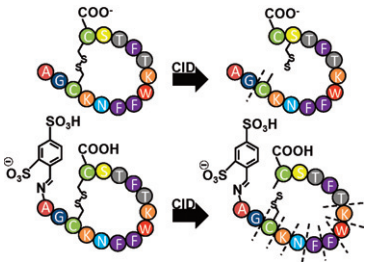
▶ Modification of the kinetic method uses competitive dissociation at two different places. ▶ Binding order of seven crown ethers to alkylammonium and N-methyl-alkylammonium is obtained. ▶ Binding trends explained in terms of crown cavity size and polarizability.



▶ Charge-localization isomers possible for a dibasic acid negative precursor ion. ▶ Unusual migration of sulfate anion from a sugar unit to the next unit. ▶ Usefulness of accurate mass measurement to determine the fragmentation path.



▶ Dissociation of $[Cu^{II},(Phg,AA_1,AA_2\text{-}H)]^+$ quaternary complexes involving phenylglycine yield enan-tioselective reduction process. ▶ Kinetic shift has an important role on reduction extent. ▶ Role of high proton affinity aminioacids on the enantioselective reduction is consistent with zwitterion formation. ▶ Double resonance–IRMPD is very useful for mechanism elucidation.



Instrumentation