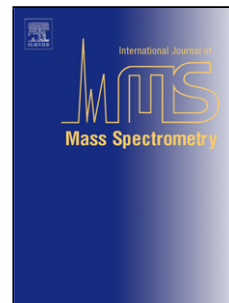


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Dehydration reactions of protonated dipeptides containing asparagine or glutamine investigated by infrared ion spectroscopy

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Highlights

- Product ions from water loss from protonated dipeptides containing Asn or Gln structurally identified
- AsnAla, AlaAsn and AlaGln eliminate H₂O from C-terminus forming b₂-sequence ions with oxazolone or diketopiperazine structure
- GlnAla eliminates H₂O from Gln side chain, forming an imino-prolynyl fragment ion
- Comprehensive molecular structure map for small-molecule loss from peptides investigated

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