



**Top-down proteomics:  
detailed protein characterisation using ETD**

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The development of new dissociation methods coupled with ion/ion reactions represents an exciting new area in mass spectrometry. Electron transfer dissociation (ETD) and ion/ion reactions allow the dissociation and study of larger ions in mass spectrometers, because one can fragment multiply charged ions of large polypeptides and manipulate the charge states of the resulting fragment ions. Such techniques enable to study larger polypeptides and even proteins which makes it easier to put modifications and alternative splice forms into biological context. This contribution will discuss the significant contribution of ETD technique leading to improved discovery of modifications.