UV spectroscopy of gas phase proteins

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UV spectroscopy of a variety of trapped anions ranging from the amino-acid to the entire protein was performed by means of photoinduced electron detachment. It is shown that photoinduced electron detachment spectroscopy overcomes the current limitations of photofragmentation and extends the range of UV spectroscopy of trapped species to very large systems.[3-4] The influence of a negative charge on the optical spectrum of aromatic amino-acids is discussed.[1-2]

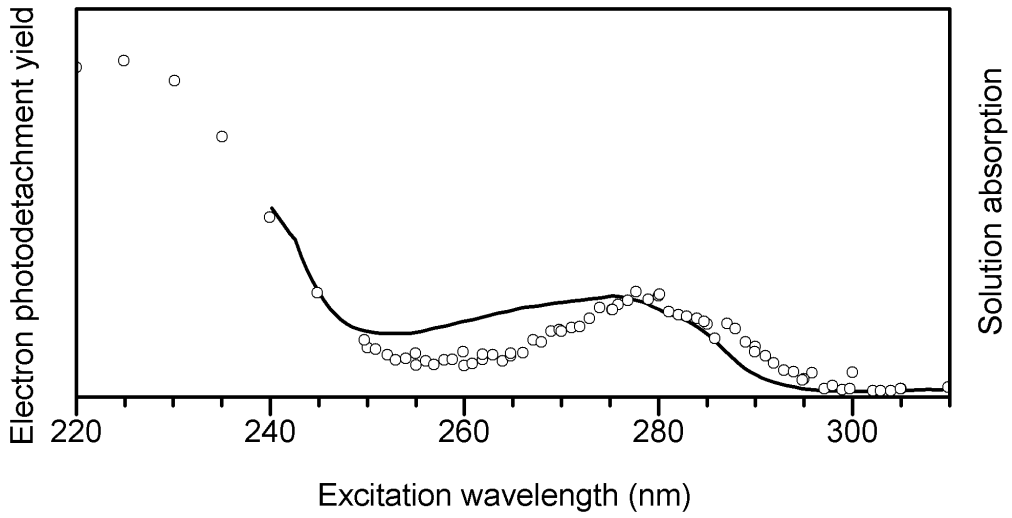

Fig. UV spectroscopy of Ubiquitin protein. (open circles: electron photodetachment in the gas phase; full line: absorption in solution)

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[2] I. Compagnon, A.-R. Allouche, F. Bertorelle, R. Antoine, P. Dugourd, *PCCP* **2010**, *12*, 3399.
[3] L. Joly, R. Antoine, M. Broyer, J. Lemoine, P. Dugourd, *J. Phys. Chem A* **2008**, *112*, 898.
[4] B. Bellina, I. Compagnon, L. Joly, F. Albrieux, A. R. Allouche, F. Bertorelle, J. Lemoine, R. Antoine, P. Dugourd, *IJMS, submitted* **2010**.