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【642】Gas-phase photodetachment and photodissociation rates of dAMP−in cryogenic 16-pole wire trap

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The gas-phase photophysics of complex biomolecules enable us to understand the intrinsic structural and functional properties without solvent influence. The photodetachment and photodissociation of deprotonated 2'-deoxyadenosine-5'-monophosphate anion (dAMP−), a monomer of DNA, contribute to its intrinsic photoresponse, fragmentation channels, and the associated lifetimes. We report on the status of photodetachment and photodissociation measurements of dAMP−with UV laser light as a function of wavelength from 210 - 280 nm. The study is carried out by confining the anions generated from electrospray ionization, in a cryogenic 16-pole wire trap maintained at 2.9 K by buffer-gas collision.

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