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Side-chain effects on the structures of protonated amino acid dimers: A gas-phase infrared spectroscopy study

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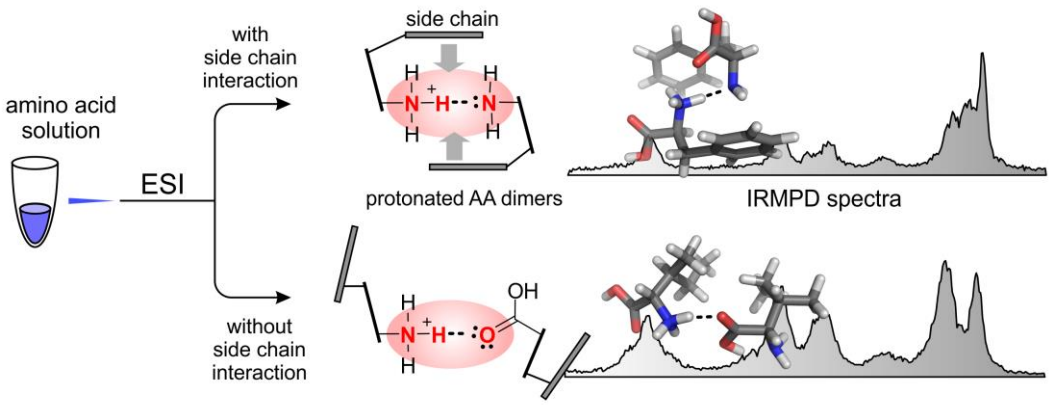
Graphical abstract



Highlights

Mass/charge as well as ion mobility selected protonated amino acid dimers are investigated

IRMPD spectra and collision cross sections are recorded

Ab initio calculations are performed

The structures of the protonated amino acid dimers are assigned

The structures depend on the nature of the side chain