

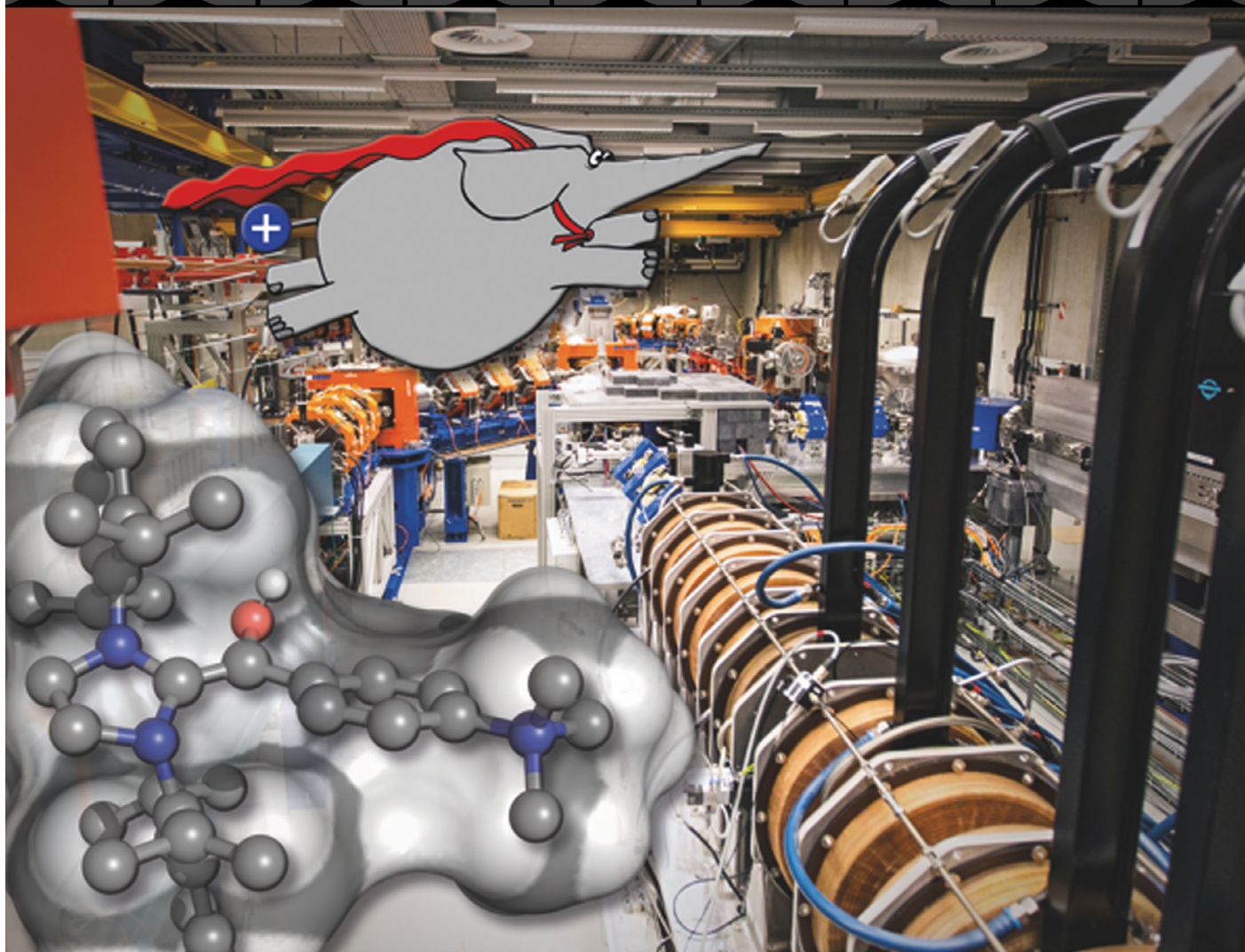
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Cover Feature:

M. Breugst, A. J. H. M. Meijer, M. Schäfer, A. Berkessel et al.
Breslow Intermediates (Amino Enols) and Their Keto Tautomers:
First Gas-Phase Characterization by IR Ion Spectroscopy



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COVER PICTURE

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**Breslow Intermediates (Amino Enols)
and Their Keto Tautomers: First Gas-
Phase Characterization by IR Ion
Spectroscopy**



Breslow Intermediates are of pivotal importance for chemical and biological Umpolung reactions catalyzed by N-heterocyclic carbenes (NHCs). In the sense of John B. Fenn (NP 2002), attachment of a charge tag to these “molecular elephants” provides them with “electrospray wings”, and for the first time allows their gas-phase structural characterization by infrared multiple photon dissociation (IRMPD) spectroscopy. The enol-ketone tautomerism of a number of NHC-aldehyde combinations, crucial for their chemical reactivity, have been determined in the gas-phase and interpreted by DFT calculations. More information can be found in the Full Paper by M. Breugst, A. J. H. M. Meijer, M. Schäfer, A. Berkessel, et al. (DOI: 10.1002/chem.202003454).