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Correction: Spectroscopic observation of two-center three-electron bonded (hemi-bonded) structures of $(\text{H}_2\text{S})_n^+$ clusters in the gas phase

Dandan Wang and Asuka Fujii *Correction for 'Spectroscopic observation of two-center three-electron bonded (hemi-bonded) structures of $(\text{H}_2\text{S})_n^+$ clusters in the gas phase' by Dandan Wang *et al.*, *Chem. Sci.*, 2017, 8, 2667–2670.

The authors regret that some important references were omitted from the original article. These references are presented herein.

The experimental observation of the sulfur–sulfur hemi-bond was pioneered by Asmus and coworkers.^{1–6} They observed transient absorption due to the $\sigma^*-\sigma$ electronic transition in solution. Moreover, they observed the transient absorptions of the hemi-bonds of sulfa with a variety of counter atoms as well as those of N–N and I–I hemi-bonds.^{7–11} The electronic spectrum of $(\text{H}_2\text{S})_2^+$ in aqueous solution was also reported by Asmus, though detailed structural information is difficult to extract from the broadened electronic transition.³

The S–S hemi-bond in gas phase molecules was first reported using mass spectrometry.⁵ The stable dimer cation formation of bis(isopropyl)sulfide was observed and hemi-bond formation was proposed on the basis of the fragmentation pattern. Gas phase dimerization equilibrium measurement of dimethyl sulfide cations has also suggested formation of the S–S hemi-bond.¹² Very recently, infrared Stark spectroscopy was applied to Cl–NH₃ in He droplets,¹³ and hemi-bond formation was concluded by the shift of the NH stretch and dipole moment measurements. This result is consistent with the prediction by high level computation of similar systems.¹⁴

Theoretical calculations of the S–S hemi-bond were first performed by Clark for $(\text{H}_2\text{S})_2^+$,¹⁵ and the series of his study has been extended to a variety of hemi-bonded systems.^{16–18}

The Royal Society of Chemistry apologises for these errors and any consequent inconvenience to authors and readers.

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