# Chemical Science

# CORRECTION

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## Correction: Spectroscopic observation of twocenter three-electron bonded (hemi-bonded) structures of $(H_2S)_n^+$ clusters in the gas phase

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Correction for 'Spectroscopic observation of two-center three-electron bonded (hemi-bonded) structures of  $(H_2S)_n^+$  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.<sup>1-6</sup> They observed transient absorption due to the  $\sigma^*-\sigma$  electronic transition in solution. Moreover, they observed the transient absorptions of the hemibonds of sulfa with a variety of counter atoms as well as those of N–N and I–I hemi-bonds.<sup>7-11</sup> The electronic spectrum of  $(H_2S)_2^+$  in aqueous solution was also reported by Asmus, though detailed structural information is difficult to extract from the broadened electronic transition.<sup>3</sup>

The S–S hemi-bond in gas phase molecules was first reported using mass spectrometry.<sup>5</sup> 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.<sup>12</sup> Very recently, infrared Stark spectroscopy was applied to Cl–NH<sub>3</sub> in He droplets,<sup>13</sup> 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.<sup>14</sup>

Theoretical calculations of the S–S hemi-bond were first performed by Clark for  $(H_2S)_2^+$ , <sup>15</sup> and the series of his study has been extended to a variety of hemi-bonded systems.<sup>16–18</sup>

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

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