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Corrigendum

Corrigendum to "Colorimetric signaling of hydrogen sulfide by reduction of a phenylseleno-nitrobenzoxadiazole derivative" [Dyes Pigment 99 (2013) 748–752]

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With the aid of recently published results (L.A. Montoya, et al., J Org Chem 2013;78:6550–6557), we have now found that the signaling event is due to the nucleophilic cleavage of the probe rather than the reduction of nitro group of the NBD function as we originally thought. Owing to our misinterpretation, all of the signaling mechanism in this paper has erroneously been discussed as a reduction that should be corrected to a nucleophilic substitution reaction. As a result the following corrections should be made:

The title is corrected to read:

Colorimetric signaling of hydrogen sulfide by a phenylseleno-nitrobenzoxadiazole derivative.

The first four lines of the abstract are corrected to read:

A new reaction-based probe for the colorimetric signaling of hydrogen sulfide was developed. Nucleophilic displacement of the selenoether group of the probe resulted in pronounced chromogenic signaling in the form of a yellow to pink color change. The transformation was confirmed by ^{1}H NMR spectroscopy.

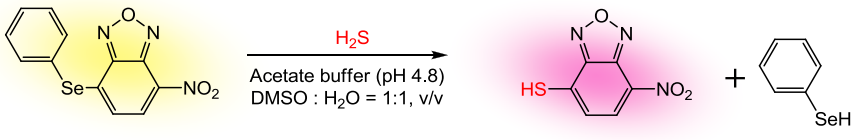
Page 749: Lines 2–11 are corrected to read:

The hydrogen sulfide signaling is based on the nucleophilic displacement of the selenoether group from the probe resulting in a significant change in the absorption profile. Cleavage of the bridging selenoether group by hydrogen sulfide was selective and resulted in a readily discernible colorimetric signal.

Page 750: Column 2, second paragraph, lines 1–2 are corrected to read:

Signaling was due to the cleavage of the selenoether moiety of **3** (Scheme 2).

Scheme 2 is corrected to read:



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Page 751, Column 1, first paragraph, last five lines are corrected to read:

The large difference in the signaling behavior of NBD-based probes **1**-**3** might be due to the different electronic effects of the oxygen, sulfur, and selenium atoms of the bridging ether moiety on the hydrogen sulfide induced cleavage of the bridging ether moiety [38].

Page 752, **Conclusion** is corrected to read:

A new reaction-based hydrogen sulfide signaling probe based on phenylseleno-NBD was investigated. Nucleophilic cleavage of the selenoether group of the phenylseleno-NBD probe by H_2S resulted in selective colorimetric signaling behavior in 50% aqueous DMSO solution. Signaling was not affected by the presence of common anions or metal ions. The designed probe, which is based on the nucleophilic

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cleavage of the selenoether group, could be useful for the construction of selective switching or signaling systems for other important reducing agents.

Reference [38] should be added:

[38] Montoya LA, Pearce TF, Hansen RJ, Zakharov LN, Pluth MD. Development of selective colorimetric probes for hydrogen sulfide based on nucleophilic aromatic substitution. J Org Chem 2013;78:6550–7.