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CORRECTION TO "REGIOSELECTIVE INTRODUCTION OF SUBSTITUENTS TO THE *MESO*-POSITION OF PYRROMETHENONE DERIVATIVE – APPLICATION TO THE SYNTHESIS OF STERICALLY FIXED PHYTOCHROME CHROMOPHORE ANCHORED TO THE C15 *MESO*-POSITION": HETEROCYCLES, 2015, 90, 883: DOI: 10.3987/COM-14-S(K)97

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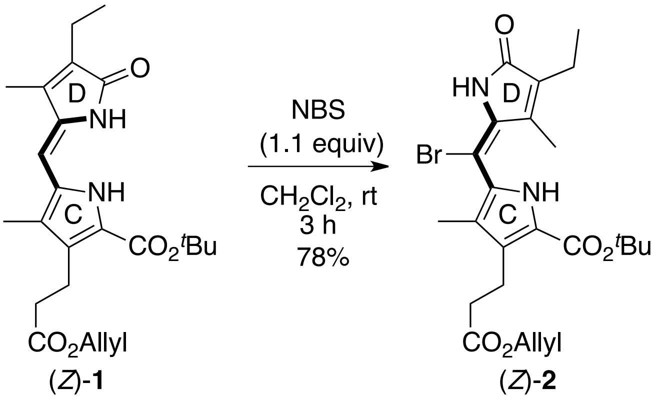
The continuous study toward the synthesis of *meso*-anchored sterically fixed tetrapyrrole chromophores has revealed that the bromination of (*Z*)-pyrromethenone derivative (*Z*)-**1** to the corresponding *meso*-brominated product (*E*)-**2** could not be reproduced anymore. Recent investigations by two of the authors (T.S. and Y.U.) confirm that the bromination reaction of (*E*)-**1** or (*Z*)-**1** by NBS selectively afforded (*Z*)-**2**, respectively, whose analytical data were identical with the data previously assigned not to (*Z*)-**2** but (*E*)-**2**. The stereochemistry of the obtained *meso*-brominated pyrromethenone was unambiguously determined to be *Z* by X-ray crystallographic analysis of its single crystal. CCDC 1553479 ((*Z*)-**2**) contains the supplementary crystallographic data. Therefore, the reported data of (*Z*)-**2** and (*E*)-**2** in ref. 7 and ref. 8 were opposite each other, respectively. Furthermore, the stereochemistry of the product **3** by the substitution reaction of the obtained (*Z*)-**2** with butylmagnesium bromide was also confirmed to be *E*, that is consistent with the reported assignment, by X-ray crystallographic analysis (CCDC 1553480). The other conclusions of our paper are not affected by this correction. A future publication will report a further study on the substitution reactions. Two of the authors (T.S. and Y.U.) thank Mr. Nobuhiko Ohashi for his experimental works on the present substitution reactions, and are also grateful to Dr. Yoko Sakata for X-ray crystallographic analysis of (*Z*)-**2** and **3**.

The followings are the points of corrections:

Page 883, Abstract: "retaining the stereochemistry of the olefinic carbon skeleton" and "regardless of the stereochemistry of the starting brominated pyrromethenones" should be removed.

Page 885, *l*.3-5: "Regioselectively brominated product at the *meso*-position, (*Z*)-**2**, was obtained in 79% yield.[7] In the case of (*Z*)-**1**,[3a] bromination with NBS also afforded regioselectively *meso*-brominated pyrromethenone derivative (*E*)-**2** in 82% yield.[8] " should be changed to "Regioselectively brominated product at the *meso*-position, (*Z*)-**2**, was obtained in 79% yield.[8] In the case of (*Z*)-**1**,[3a] bromination with NBS also afforded regioselectively *meso*-brominated pyrromethenone derivative (*Z*)-**2** in 78% yield.”.

Page 885: The second equation of the reaction of (*Z*)-**1** should be replaced by an equation shown below.



Page 886, *l*.7-11: “In the reaction of (*E*)-**2** with *n*-BuMgBr and CH_2=CHMgBr, products **3** and **4** with *E* stereochemistries, which are same products as those from (*Z*)-**2**, were surprisingly produced, respectively (Entries 3 and 5).[9,10] One possible elucidation of these phenomena is shown in Scheme 2. That is, electrostatic repulsion between two N-MgBr bonds in **B** induced rotation around the C15–C16 axis followed by elimination of a bromide anion via **C** to afford (*E*)-products, **3** or **4**.” should be removed.

Page 886, Table 1: (*E*)-**2** in the equation and the data of Entries 3 and 5 should be removed.

Page 887: Scheme 2 should be removed.

Page 889-890: Ref. 7 should be removed.

Page 890, Ref. 8: “(*E*)-**2**” should be changed to “(*Z*)-**2**”.

Page 890, Ref. 9 “The ^{1}H and ^{13}C NMR spectra of the butylated compounds obtained from (*Z*)-**2** and (*E*)-**2** were identical each other.” should be removed.

Page 891, Ref. 10 “The ^{1}H and ^{13}C NMR spectra of the vinylated compounds obtained from (*Z*)-**2** and (*E*)-**2** were identical each other.” should be removed.