November 28, 2018

From: Xiaoming Zhao, Professor

Department of Chemistry, Tongji University, Shanghai, 200092, P. R. China

Phone: 86-21-65981376. Fax: 86-21-65981376 (Zhao office); if no answer use 86-15000371864 (Cello Phone).

To: Editor, Journal of Fluorine Chemistry,

Dear Editor of Journal of Fluorine Chemistry,

All changes made according to the revision request were done and highlighted with yellow color in Abstract, MS and SI.

Table 1 in SI were corrected and highlighted with yellow color, as well.

For Editor

Q(1): This Editor can not understand why the authors did not describe the isolated yields for the minor compounds, like 3a', in Table 2 while they are shown in the experimental section.  As pointed out by the third reviewer, the authors are better to discuss about the reaction mechanism because only the experimental results are demonstrated without any scientific discussion.

A(1): the isolated yields for minor compounds 3’ in Table 2 were discussed; and a plausible mechanism was added and discussed; these were also highlighted with yellow color.

Q(2): The authors are also better to check the analytic data carefully because of some errors (for example, no 2J coupling constant cannot be found for **3a** which should be around 25-30 Hz but this Editor can find it in other compounds.  In the case of **3d**, there is "0H" in the 1H NMR data).  If the peak in 19F NMR apepared as a singlet, then please add (s) after the chemical shift.  In "4.1. General" in the experimental, the authors write like "19F NMR spectra were obtained at 565 MHz with 1-Fluoronaphthalene as an internal standard." but only one peak for the product can be seen in the supporting information.  How are the chemical shifts determined without the internal standard?

A(2): **3a** and **3d** were rerun their NMR and their data were added into MS and SI. And we also rerun some 1H and 19F NMR of compounds **3** and **3’** in order to obtain the precise data. In the case of 3d, “0H” was corrected in the 1H NMR data. These results were highlighted by yellow color. The (s) was added after the chemical shift and highlighted by yellow color. The NMR machine is set up CFCl3 as an internal thus it automatically determines the 19F NMR spectra of samples. Under revision of our manuscript, some compounds **3** and **3’** were reported, thus, the 13C NMR, HRMS, IR, and crystal data of the known compounds **3** and **3’** were removed from the MS and SI. All changes were highlighted with yellow color.

Q(3): In the reference section, the authors should delete a space between the first and middle names: so, [1c] should be written as G.A. Wächter, M.C. Davis, A.R. Martin·····.

A(3): the space between the first and middle names was deleted in the reference section and highlighted with yellow color.

For reviewer 1

Q(1): - the orientation of the Selectfluor molecule should be changed. As shown, it appears that the reader is looking up at the molecule from below (the vertical bond from the nitrogen possessing the fluorine should be IN FRONT, not behind as currently shown).

A(1): The orientation of the “Selectflor” were changed and highlighted with yellow color.

Q(2): first paragraph; should be “electron-withdrawing,” not “electro-withdrawing” - second paragraph; “...remains a large unexplored area in the field of fluorine chemistry.” (“field of” is missing) -Section 2. “At the outset” (“the” is missing) - Selectfluor at the bottom of the page is not capitalized - page two, left-hand side; “work-out” should be “workup”d .

A(2): All mistakes were corrected and highlighted with yellow color.

For reviewer 2

Q(1): It is suggested to try using the other pyrazine substrates without amino group or with protection of Nitrogen group.

A(1): “2-(6-phenylpyrazin-2-yl)isoindoline-1,3-dione 1m was tested and no fluorinated products were observed”. These were added in the MS and highlighted with yellow color.

Q(2): Further discussion regarding both of reaction mechanism and selectivity is required.

A(2): a possible mechanism was added and discussed. These were highlighted with yellow color.

Q(3): Selectfluor 2 or 2a?

A(3): Selectfluor is 2a and the mistakes were corrected. These were also highlighted with yellow color.

Q(4): Graphical substrates: The structure of Selectfluor is weird. Bond alignment is required.

A(4): The structure of Selectfluor was changed in graphical substrates and highlighted with yellow color.

Q(5): references: [3] (3e) - (3i) Please delete "3".

A(5): the “3” was deleted in the references and highlighted with yellow color.

For reviewer 3

Q(1): Expansion of substrate scope to cover aryl group bearing strong electron-withdrawing substituents for example NO2 group as well as aliphatic alkyl groups should be performed.

A(1): “6-(4-Nitrophenyl)pyrazin-2-amine 1n” and “the substrate 1l with an aliphatic group” were tested and the results were added in Table 2. These were highlighted with yellow color.

Q(2): Would the 6-phenylpyrazin-2-ol derivatives undergo similar fluorination under standard reaction conditions described in the present work? The authors should have made an attempt to investigate this.

A(2): 6-methylpyrazin-2-ol was tested and no fluorinated products were observed. These results were added in MS and highlighted with yellow color.

Q(3): For the benefits of general readers, suggested reaction mechanism should be provided and discussed in order to shed some lights on the role of Ag(I) salts since no reaction was observed in the absence of Ag(I) catalyst.

A(21): “the possible mechanism” was proposed and discussed; these were highlighted as yellow color.

We also corrected some typos in MS and SI and highlighted with yellow color.

Sincerely yours,

Xiaoming Zhao

Professor