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Corrigendum

Corrigendum to "A novel pyrrolidinium ionic liquid with 1,1,2,2-tetrafluoro-2-(1,1,2,2-tetrafluoroethoxy)ethanesulfonate anion as a recyclable reaction medium and efficient catalyst for Friedel–Crafts alkylations of indoles with nitroalkenes" [J. Fluorine Chem. 130 (2009) 394–398]

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The authors regret that there were two mistakes in the article. The corrections are listed below. We apologize for any inconvenience caused to those concerned.

1. The corrected name of $HCF_2CF_2CF_2CF_2OCF_2CF_2SO_3^-$ is "1,1,2,2-tetrafluoro-2-(1,1,2,2,3,3,4,4-octafluorobutoxy)ethanesulfonate". Therefore, "1,1,2,2-tetrafluoro-2-(1,1,2,2-tetrafluoroethoxy)ethanesulfonate" in the article should be changed to "1,1,2,2-tetrafluoro-2-(1,1,2,2,3,3,4,4-octafluorobutoxy)ethanesulfonate".
2. The missing parts for the synthesis of $HCF_2CF_2CF_2CF_2OCF_2CF_2SO_3Na$ and $HCF_2CF_2CF_2CF_2OCF_2CF_2SO_3H$ should be added to the experimental section as follows.

   To a stirred solution of 1,1,2,2-tetrafluoro-2-(1,1,2,2,3,3,4,4-octafluorobutoxy)ethanesulfonyl fluoride (120 g, 0.3 mol) in ethanol (100 ml), the solution of sodium hydroxide (24 g, 0.6 mol) in water (100 ml) was added slowly at room temperature. Then the mixture was refluxed for 2 h. Removing the solvent under reduced pressure gave a solid. The solid was dissolved in ethyl acetate (200 ml) and the solution was warmed to reflux. After filtration, the solution was concentrated to give $HCF_2CF_2CF_2CF_2OCF_2CF_2SO_3Na$ as a white solid (121 g, 96%). ^1H NMR (CD_3OD, 300 MHz) δ 6.71 (tt, J = 50.2, 5.0 Hz, 1H); ^{19}F NMR (CD_3OD, 282 MHz) δ −83.45 to −83.69 (m, 2F), −84.97 to −85.24 (m, 2F), −119.60 (s, 2F), −129.00 (s, 2F), −132.00 (s, 2F), −140.05 (d, J = 50.2 Hz, 2F); IR (film) (cm^{-1}): 3537, 1651, 1257, 1163, 1243, 1077, 986; MS (ESI): 396.9, $[anion]^-$; Anal. Calcd for $C_6HF_{12}O_4SNa$: C, 17.15; H, 0.24. Found: C, 16.68; H, <0.3.

   $HCF_2CF_2CF_2CF_2OCF_2CF_2SO_3Na$ (4.2 g, 10 mmol) was dissolved in concentrated H_2SO_4 (15 ml) and stirred at 100 °C for 3 h. $HCF_2CF_2CF_2CF_2OCF_2CF_2SO_3H$ was isolated by vacuum distillation (3.02 g, 76% yield). bp. 116 °C (80 Pa); ^1H NMR (CD_3OD, 300 MHz) δ 6.60 (tt, J = 50.6, 5.7 Hz, 1H); ^{19}F NMR (CD_3OD, 282 MHz) δ −83.50 to −83.65 (m, 2F), −84.98 to −85.22 (m, 2F), −119.62 (s, 2F), −128.92 to 129.05 (m, 2F), −131.88 to 132.08 (m, 2F), −139.88 to 140.22 (m, 2F); IR (film) (cm^{-1}): 3000 (br), 1405, 1349, 1199, 914; MS (ESI): 396.9, $[anion]^-$; Anal. Calcd for $C_6H_2F_{12}O_4S$: C, 18.10; H, 0.51. Found: C, 18.15; H, 0.62.

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