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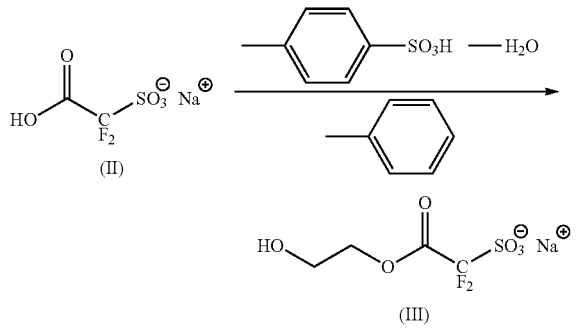


(II)

(III)

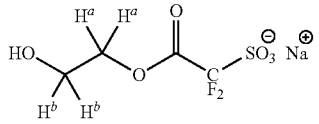
[1144] The obtained compound (III) was analyzed by NMR.

[1145] ^{1}H-NMR (DMSO-d6, 400 MHz): δ (ppm)=4.74-4.83 (t, 1H$_2$OH), 4.18-4.22 (t, 2H, H^a), 3.59-3.64 (q, 2H, H^b)

[1146] ^{19}F-NMR (DMSO-d6, 376 MHz): δ (ppm)=−106.6

[1147] From the results shown above, it was confirmed that the compound (III) had a structure shown below.

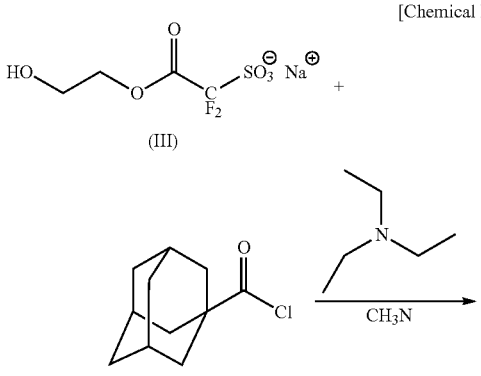
[Chemical Formula 106]



[1148] (ii) Synthesis of Compound (IV)

[1149] To 1.00 g of the compound (III) and 3.00 g of acetonitrile were dropwise added 0.82 g of 1-adamantanecarbonyl chloride and 0.397 g of triethylamine while cooling with ice. Then, the resultant was stirred at room temperature for 20 hours, followed by filtration. The filtrate was concentrated and dried, and dissolved in 30 g of dichloromethane, followed by washing with water three times. Thereafter, the organic phase was concentrated and dried, thereby obtaining 0.82 g of a compound (IV) (yield: 41%).

[Chemical Formula 107]



(III)

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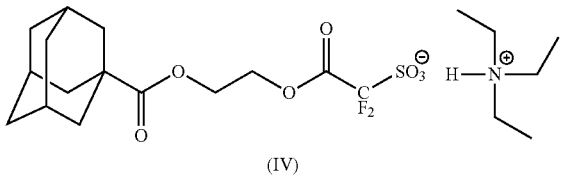


(IV)

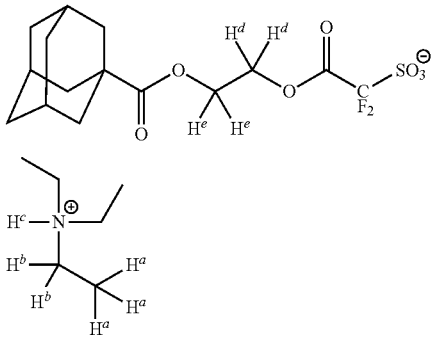
[1150] The obtained compound (IV) was analyzed by NMR.

[1151] ^{1}H-NMR (DMSO-d6, 400 MHz): δ (ppm)=8.81 (s, 1H, H^c), 4.37-4.44 (t, 2H, H^d), 4.17-4.26 (t, 2H, H^c), 3.03-3.15 (q, 6H, H^b), 1.61-1.98 (m, 15H, Adamantane), 1.10-1.24 (t, 9H, H^a)

[1152] ^{19}F-NMR (DMSO-d6, 376 MHz): δ (ppm)=−106.61

[1153] From the results above, it was confirmed that the compound (IV) had a structure shown below.

[Chemical Formula 108]



[1154] (iii) Synthesis of Compound (VI)

[1155] 4 g of the compound (V) was dissolved in 79.8 g of dichloromethane. After confirming that the compound (VI) had dissolved in dichloromethane, 6.87 g of potassium carbonate was added thereto, and 3.42 g of methyl adamantyl bromoacetate was further added. A reaction was effected under reflux for 24 hours, followed by filtration, washing with water, and crystallization with hexane. The resulting powder was dried under reduced pressure, thereby obtaining 3.98 g of an objective compound (VI) (yield: 66%).

[1156] The obtained compound (VI) was analyzed by NMR.

[1157] ^{1}H-NMR (CDCl$_3$, 400 MHz): δ (ppm)=7.83-7.86 (m, 4H, Phenyl), 7.69-7.78 (m, 6H, Phenyl), 7.51 (s, 2H, H^d), 4.46 (s, 2H, H^c), 2.39 (s, 6H, H^a), 2.33 (s, 2H, Adamantane), 2.17 (s, 2H, Adamantane), 1.71-1.98 (m, 11H, Adamantane), 1.68 (s, 3H, H^b), 1.57-1.61 (m, 2H, Adamantane)

[1158] From the results above, it was confirmed that the compound (VI) had a structure shown below.