CONSTRUCTION OF QUATERNARY CARBON CENTER BY THE REACTION OF AZA-quinone methide mediated carbocation intermediate

Yukiko Karuo, Shintaro Dosei, Minori Sakamoto, Atsushi Tarui, Kazuyuki Sato, Kentaro Kawai, and Masaaki Omote*

Faculty of Pharmaceutical Sciences, Setsunan University
45-1, Nagaotoge-cho, Hirakata, Osaka 573-0101, Japan
E-mail: omote@pharm.setsunan.ac.jp

Supporting Information

1H and 13C NMR Charts…………………………………………………………………….. S2-S11
$^1$H and $^{13}$C NMR Charts

$N$-(2-(1-hydroxy-1-methylethyl)phenyl)-4-methylbenzenesulfonamide (1)
N-(2-(1H-indole-3-yl)-1-methylethyl)phenyl)-4-methylbenzenesulfonamide (3a)
N-(2-((1H-5-methoxy-indole-3-yl)-1-methylethyl)phenyl)-4-methylbenzenesulfonamide (3b)
N-(2-(1H-5-iodo-indole-3-yl)-1-methylethyl)phenyl)-4-methylbenzenesulfonamide (3c)

**1H NMR Spectra**

- **Peaks at**: 6.00, 2.97, 2.93, 2.09, 2.06, 2.03, 1.01, 1.01, 0.98, 0.95, 0.87
- **Assignments**:
  - 6.00 ppm: 1H-5-iodo-indole-3-yl
  - 2.97 ppm: 1H-5-iodo-indole-3-yl
  - 2.93 ppm: 1H-5-iodo-indole-3-yl
  - 2.09 ppm: 1H-5-iodo-indole-3-yl
  - 2.06 ppm: 1H-5-iodo-indole-3-yl
  - 2.03 ppm: 1H-5-iodo-indole-3-yl
  - 1.01 ppm: 1H-5-iodo-indole-3-yl

**13C NMR Spectra**

- **Peaks at**: 190.0, 180.0, 170.0, 160.0, 150.0, 140.0, 130.0, 120.0, 110.0, 100.0, 90.0, 80.0, 70.0, 60.0, 50.0, 40.0, 30.0, 20.0, 10.0, 0.0
- **Assignments**:
  - 190.0 ppm: C-1
  - 180.0 ppm: C-2
  - 170.0 ppm: C-3
  - 160.0 ppm: C-4
  - 150.0 ppm: C-5
  - 140.0 ppm: C-6
  - 130.0 ppm: C-7
  - 120.0 ppm: C-8
  - 110.0 ppm: C-9
  - 100.0 ppm: C-10
  - 90.0 ppm: C-11
  - 80.0 ppm: C-12
  - 70.0 ppm: C-13
  - 60.0 ppm: C-14
  - 50.0 ppm: C-15
  - 40.0 ppm: C-16
  - 30.0 ppm: C-17
  - 20.0 ppm: C-18
  - 10.0 ppm: C-19
  - 0.0 ppm: C-20
$N$-(2-$((1\text{H}-5\text{-methoxycarbonyl}\text{-indole-3-yl})-1\text{-methylethyl})\text{phenyl})$-4-methylbenzenesulfonamide (3d)
N-(2-(1-(1H-5-nitro-indole-3-yl)-1-methylethyl)phenyl)-4-methylbenzenesulfonamide (3e)
N-(2-(1-(1-methyl-indole-3-yl)-1-methylethyl)phenyl)-4-methylbenzenesulfonamide (3f)
$N$-(2-(1-(5-methoxy-2-methyl-indole-3-yl)-1-methylethyl)phenyl)-4-methylbenzenesulfonamide (3g)
$N$-(2-((1-(3-methyl-indole-2-vl)-1-methylethyl)phenyl)-4-methylbenzenesulfonamide (3h)

![Chemical Structure Image]
N-(2-(1-methylethenyl)phenyl)-4-methylbenzenesulfonamide (5)