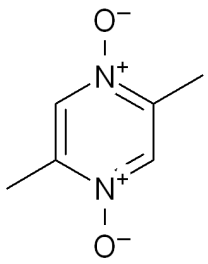
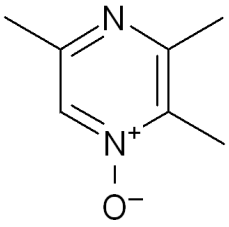
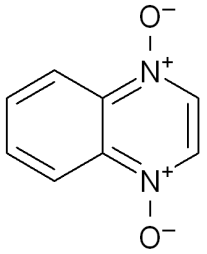
Analytical data for synthesized products



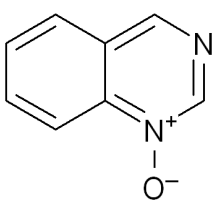
2,6-Dimethylpyrazine-1,4-dioxide was isolated as a white solid. ^{1}H NMR (400 MHz, DMSO-d_6): δ = 2.26 (s, 6H, CH_3), 8.50 (s, 2H, CH). ^{13}C NMR (100 MHz, DMSO-d_6): δ = 14.3, 135.3, 144.4.



2,3,5,-Trimethylpyrazine-1-oxide was isolated as a brown liquid. ^{1}H NMR (400 MHz, DMSO-d_6): δ = 2.30–2.48 (m, 9H, CH_3), 8.31 (s, 1H, CH). ^{13}C NMR (100 MHz, DMSO-d_6): δ = 21.0, 22.4, 22.5, 143.3, 152.6, 153.3, 155.1.

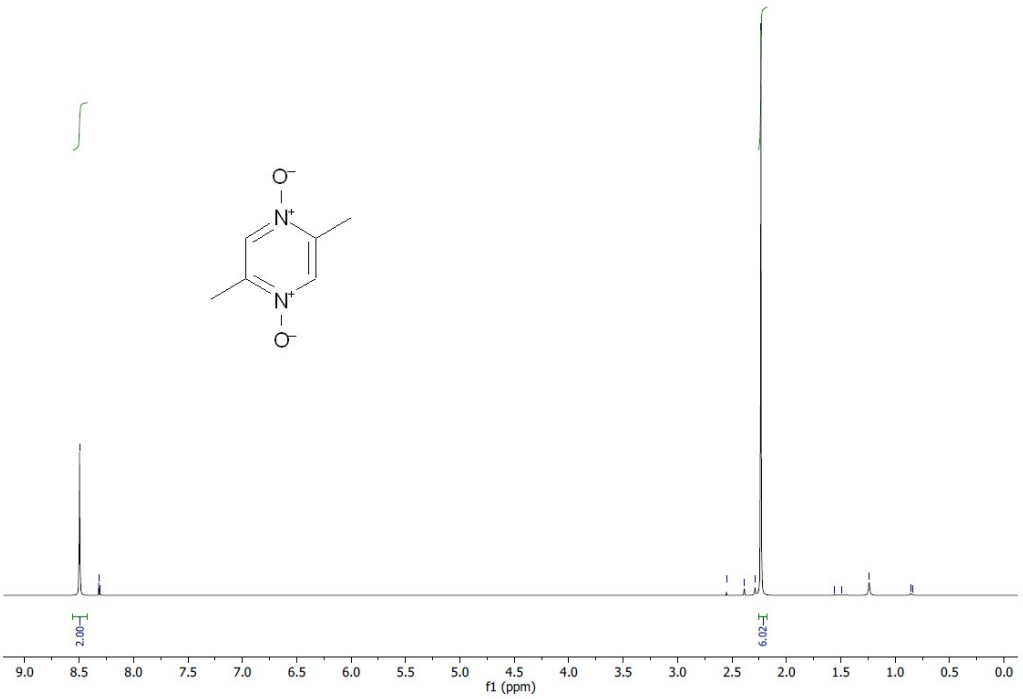


Quinoxaline-1,4-dioxide was isolated as an orange solid. ^{1}H NMR (400 MHz, DMSO-d_6): δ = 7.95–8.05 (m, 2H, CH), 8.43–8.52 (m, 2H, CH), 8.54 (s, 2H, CH). ^{13}C NMR (100 MHz, CCl_3D): δ = 120.6, 130.4, 132.2, 138.6.

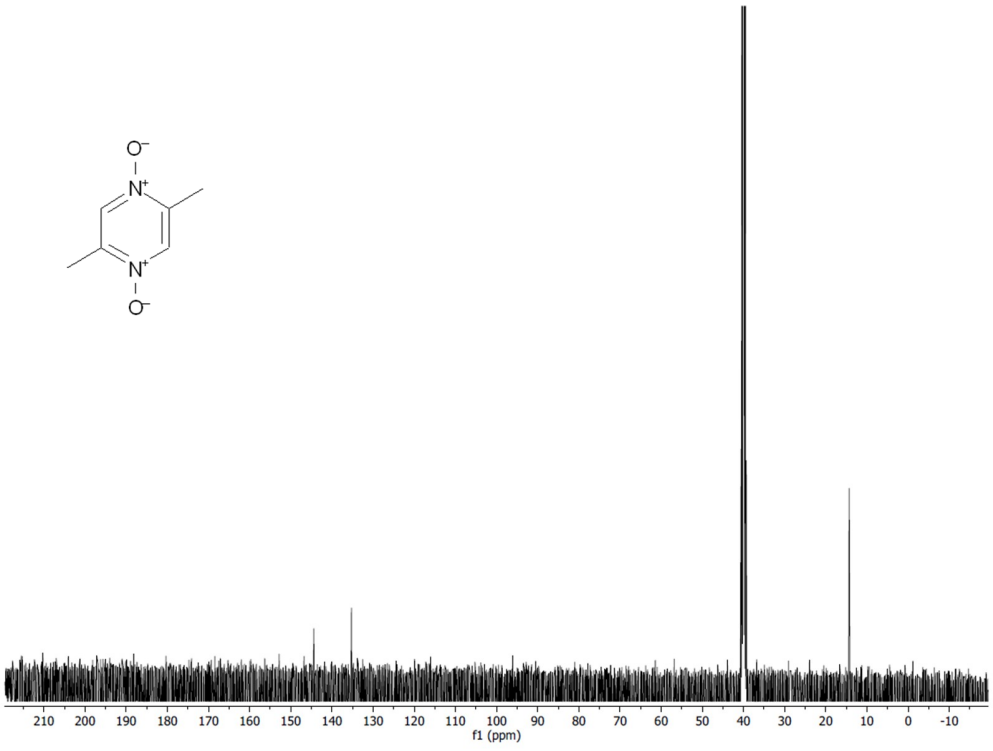


Quinazoline-1-oxide was isolated as a white solid. ^{1}H NMR (400 MHz, DMSO-d_6): δ = 7.89–7.95 (dd, *J* = 7.9, 7.2 Hz, 1H, CH), 8.07–8.14 (dd, *J* = 8.1, 7.8 Hz, 1H, CH), 8.30 (d, *J* = 8.2 Hz, 1H, CH), 8.47 (d, *J* = 8.7, 1H, CH), 9.14 (s, 1H, CH), 9.31 (s, 1H, CH). ^{13}C NMR (100 MHz, DMSO-d_6): δ = 118.3, 128.6, 130.7, 135.4, 143.4, 147.4.

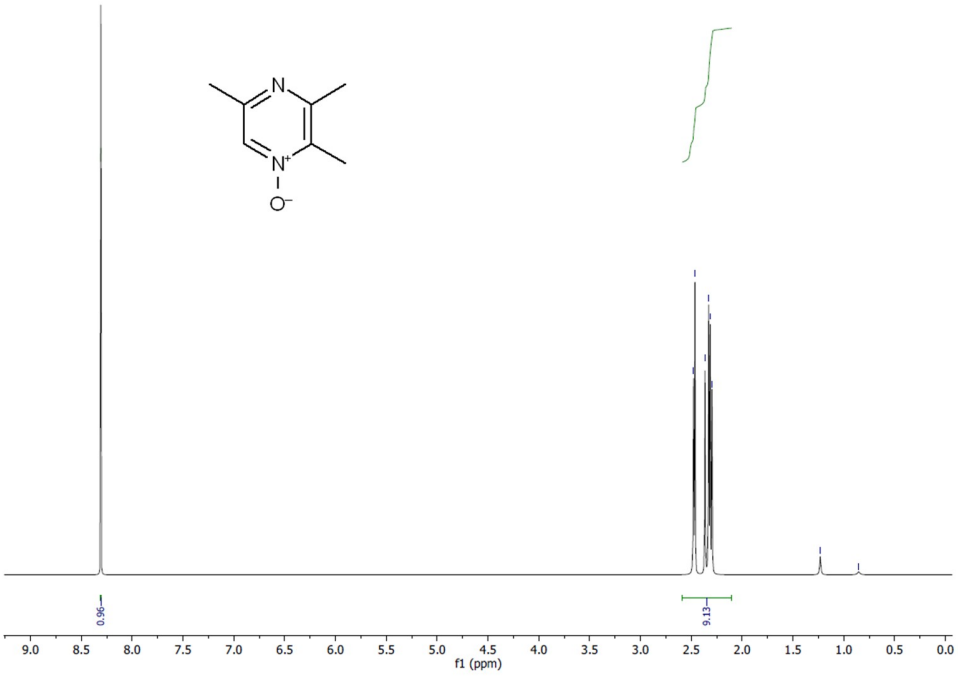
2,6-Dimethylpyrazine-1,4-dioxide ^{1}H NMR 400 MHz, DMSO-d_6



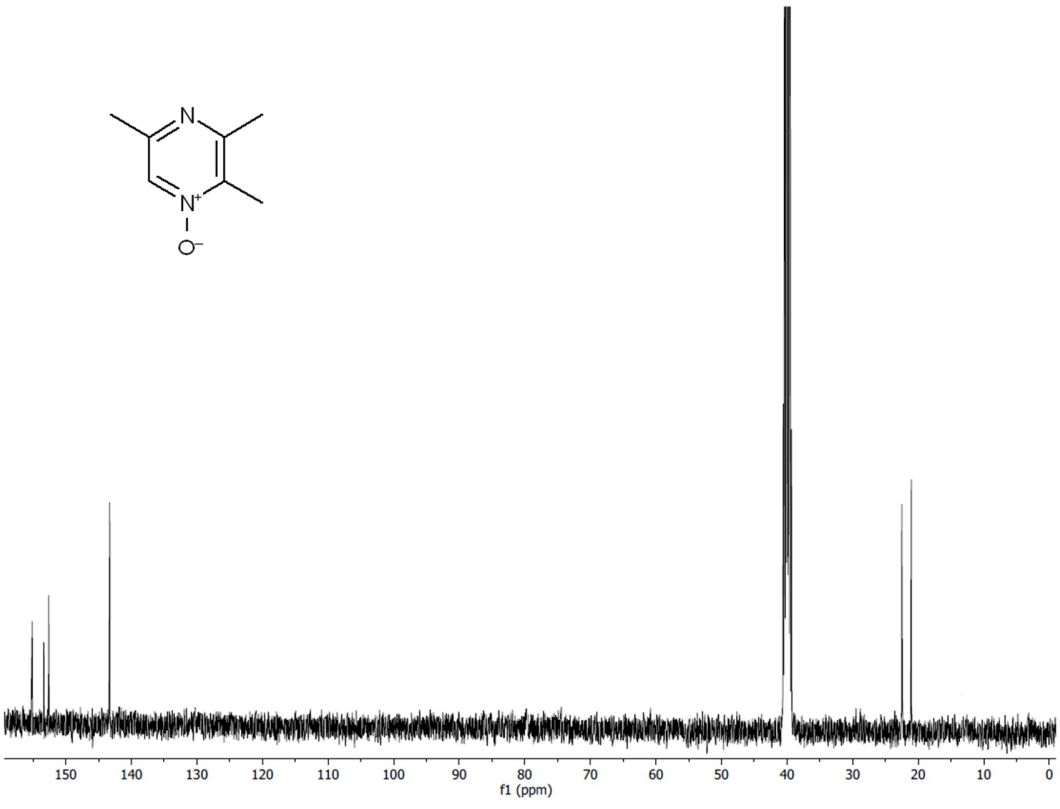
2,6-Dimethylpyrazine-1,4-dioxide ^{13}C NMR 100 MHz, DMSO-d_6



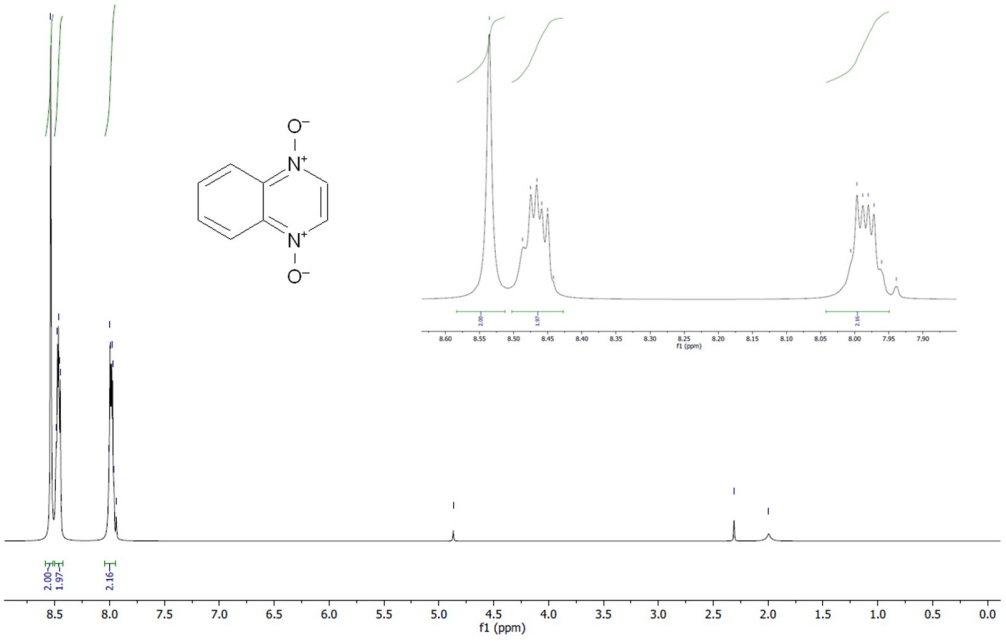
2,3,5,-Trimethylpyrazine-1-oxide ^{1}H NMR 400 MHz, DMSO-d_6



2,3,5,-Trimethylpyrazine-1-oxide ^{13}C NMR 100 MHz, DMSO-d_6

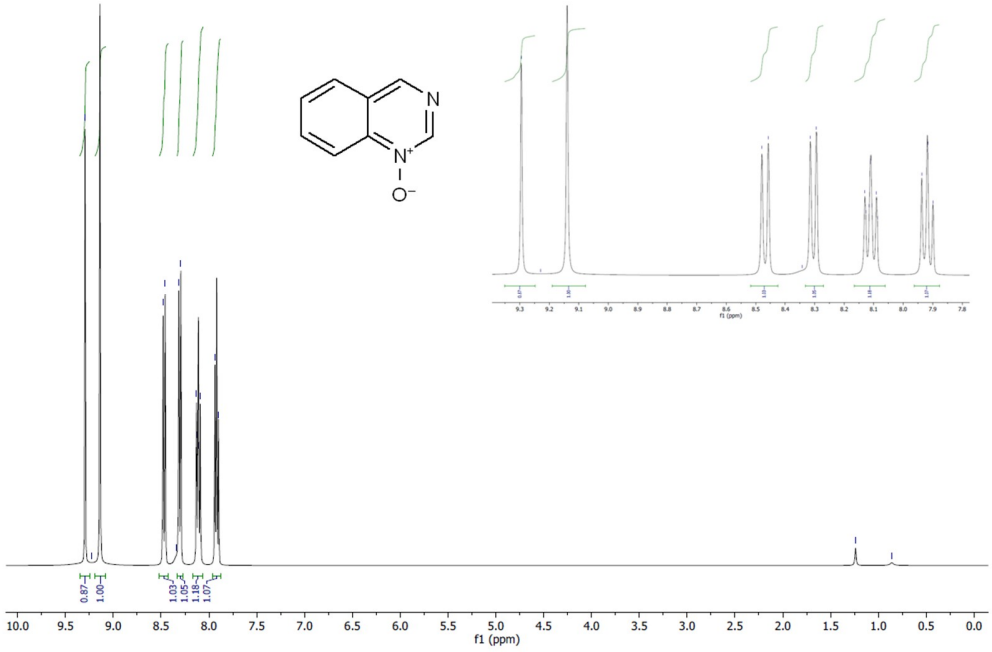


Quinoxaline-1,4-dioxide ^{1}H NMR 400 MHz, DMSO-d_6



Quinoxaline-1,4-dioxide ^{13}C NMR 100 MHz, CCl_3D

Quinazoline-1-oxide ^{1}H NMR 400 MHz, DMSO-d_6



Quinazoline-1-oxide ^{13}C NMR 100 MHz, DMSO-d_6