Supplementary Material

Selective oxidation of 5-hydroxymethy furfural into 2,5-formaldehyde furan over Cu-acetonitrile complex

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Figure s1 (a) MS of DFF

![Diagram of molecular structure and mass spectrum]
Figure s1. The mass spectra of DFF and 5-HMF

Figure s2. (a) $^1$H NMR of 5-HMF

$^1$H NMR (400 MHz, CDCl$_3$) δ 9.56 (s, 1H), 7.21 (d, $J = 3.5$ Hz, 1H), 6.51 (d, $J = 3.5$ Hz, 1H), 4.71 (s, 2H), 2.73 (s, 1H).
**Figure s2 (b) $^{13}$C NMR of 5-HMF**

$^{13}$C NMR (101 MHz, CDCl3) $\delta$ 177.39 (s), 160.42 (s), 152.12 (s), 122.68 (s), 109.88 (s), 57.62 (s).

**Figure s2 (c) $^1$H NMR of DFF**

$^1$H NMR (400 MHz, CD$_3$CN) $\delta$ 9.71 (m, 1H), 7.39 (m, 1H).

$^1$HNMR(400 MHz, CD$_3$CN)$\delta$ 9.71(m, 1H), 7.39(m, 1H)
Figure s2 (d) $^{13}$C NMR of DFF

$^{13}$C NMR (101 MHz, CD$_3$CN) $\delta$ 178.88 (d, $J = 198.3$ Hz), 154.11 (s), 122.81 (m)

$^{13}$CNMR(101 MHz, CD$_3$CN)δ 178.88(d, $J=198.3$ Hz), 154.11(s), 122.81(m)

**Figure s2.** The NMR spectra of DFF and 5-HMF