

## Supplementary data

### 1-methyl-3-(2-(sulfooxy)ethyl)-1H-imidazol-3-ium chloride as a New and Green Ionic Liquid Catalyst for One-Pot Synthesis of Dihydropyrimidinones under Solvent-Free Condition

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#### Selected spectral data:

*5-acetyl-6-methyl-4-p-tolyl-3,4-dihydropyrimidin-2(1H)-one* (Table 2, Entry 3): mp 231-232 °C. FTIR (KBr): 3289, 3100 (NH), 1700, 1617 (C=O), 1235 (C-N) cm<sup>-1</sup>. <sup>1</sup>H NMR (400 MHz, DMSO-d<sub>6</sub>): δ= 9.13 (s, 1H, NH), 7.76 (s, 1H, NH), 7.13 (m, 4H, Ar-H), 5.2 (s, 1H, C-H), 2.26 (s, 3H, CH<sub>3</sub>), 2.08 (s, 3H, CH<sub>3</sub>). <sup>13</sup>C NMR (100 MHz, DMSO-d<sub>6</sub>): δ: 194, 152, 148, 141, 136, 130, 129.9, 129.5, 126, 110, 54, 30, 21, 19.

*5-acetyl-4-(4-chlorophenyl)-6-methyl-3,4-dihydropyrimidin-2(1H)-one* (Table 2, Entry 5): mp 223-224 °C. FTIR (KBr): 3290, 3095 (NH), 1700, 1618 (C=O), 1236 (C-N) cm<sup>-1</sup>. <sup>1</sup>H NMR: (400 MHz, DMSO-d<sub>6</sub>): δ= 9.22 (s, 1H, NH), 7.85 (s, 1H, NH), 7.38-7.40 (d, 2H, Ar-H), 7.24-7.26 (d, 2H, Ar-H), 5.2 (s, 1H, C-H), 2.28 (s, 3H, CH<sub>3</sub>), 2.14 (s, 3H, CH<sub>3</sub>). <sup>13</sup>C NMR (100 MHz, DMSO-d<sub>6</sub>): δ: 194, 152, 148, 143, 132, 128.9, 128.7, 109, 53, 30, 19.

*5-acetyl-6-methyl-4-(4-nitrophenyl)-3,4-dihydropyrimidin-2(1H)-one* (Table 2, Entry 6): mp 223(dec) °C. FTIR (KBr): 3241, 3116 (NH), 1727, 1645 (C=O), 1222 (C-N) cm<sup>-1</sup>. <sup>1</sup>H NMR: (400 MHz, DMSO-d<sub>6</sub>): δ= 9.32 (s, 1H, NH), 7.97 (s, 1H, NH), 8.19-8.21 (d, 2H, Ar-H), 7.49-7.51 (d, 2H, Ar-H), 5.38 (s, 1H, C-H), 2.31 (s, 3H, CH<sub>3</sub>), 2.18 (s, 3H, CH<sub>3</sub>). <sup>13</sup>C NMR (100 MHz, DMSO-d<sub>6</sub>): δ: 194, 152.4, 152, 149, 128, 124, 109, 53, 31, 19.

*Ethyl-6-methyl-2-oxo-4-phenyl-1,2,3,4-tetrahydropyrimidine-5-carboxylate* (Table 2, Entry 8) : mp 203-205 °C. FTIR (KBr): 3250, 3045 (NH), 1706, 1608 (C=O), 1237 (C-N) cm<sup>-1</sup>. <sup>1</sup>H NMR: (400 MHz, DMSO-d<sub>6</sub>): δ= 9.2 (s, 1H, NH), 7.75 (s, 1H, NH), 7.23-7.34 (m, 5H, Ar-H), 5.14 (s, 1H, C-H), 3.98 (q, 2H, CH<sub>2</sub>), 2.25 (s, 3H, CH<sub>3</sub>), 1.09 (t, 3H, CH<sub>3</sub>). <sup>13</sup>C NMR (100 MHz, DMSO-d<sub>6</sub>): δ: 165, 152, 148, 144, 128, 127, 126, 99, 59, 54, 17.78, 17, 14.

*Ethyl-4-(4-chlorophenyl)-6-methyl-2-oxo-1,2,3,4-tetrahydropyrimidine-5-carboxylate* (Table 2, Entry 12): mp 211-213 °C. FTIR (KBr): 3230, 3125 (NH), 1731, 1638 (C=O), 1228 (C-N) cm<sup>-1</sup>. <sup>1</sup>H NMR: (400 MHz, DMSO-d<sub>6</sub>): δ= 9.15 (s, 1H, NH), 7.63 (s, 1H, NH), 7.32-7.35 (d, 2H, Ar-H), 7.16-7.18 (d, 2H, Ar-H), 5.19 (s, 1H, C-H), 3.8 (q, 2H, CH<sub>2</sub>), 2.21 (s, 3H, CH<sub>3</sub>), 1.11 (t, 3H, CH<sub>3</sub>). <sup>13</sup>C NMR (100 MHz, DMSO-d<sub>6</sub>): δ: 167, 151, 147, 144, 128, 127, 126, 110, 61, 54, 17.78, 17, 14.