

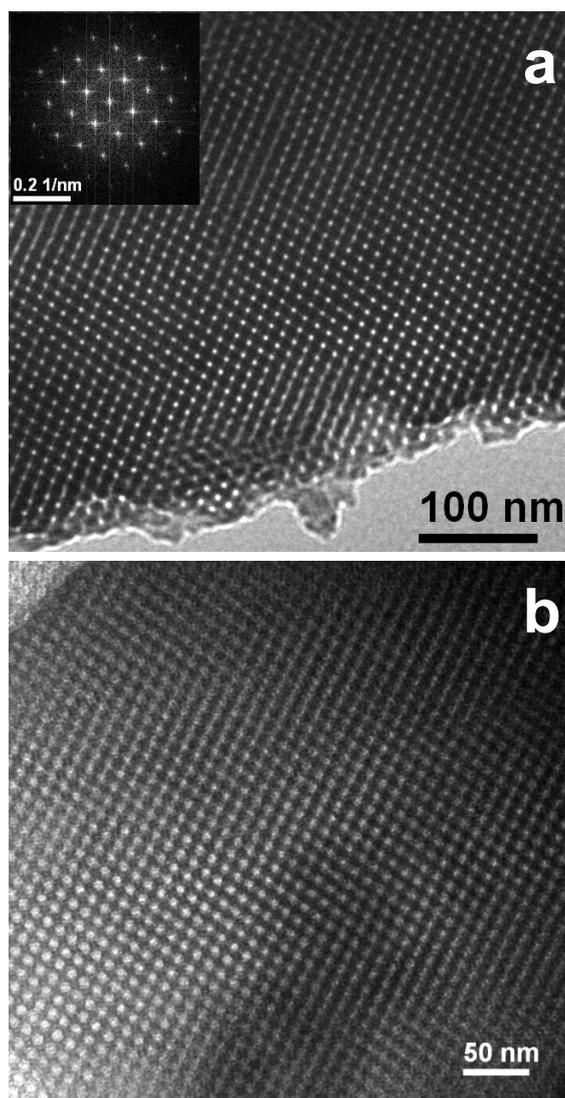
Supporting Information

Highly ordered acid functionalized SBA-15: Novel organocatalyst for preparation of Xanthenes

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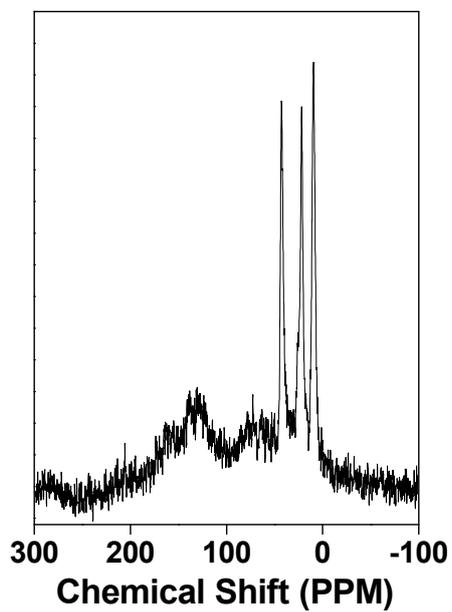
Supporting Information

Figure S1



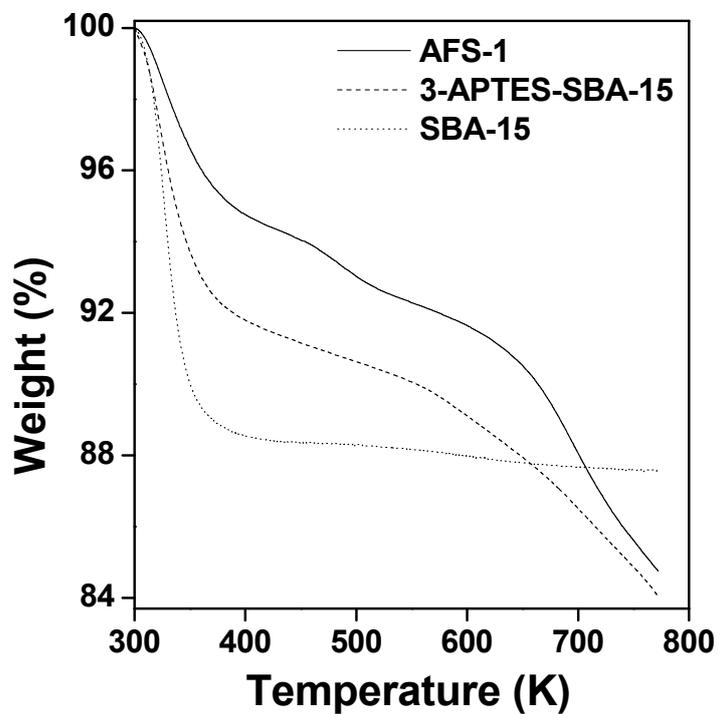
TEM image of SBA-15 (a) and AFS-1 (b)

Figure S2



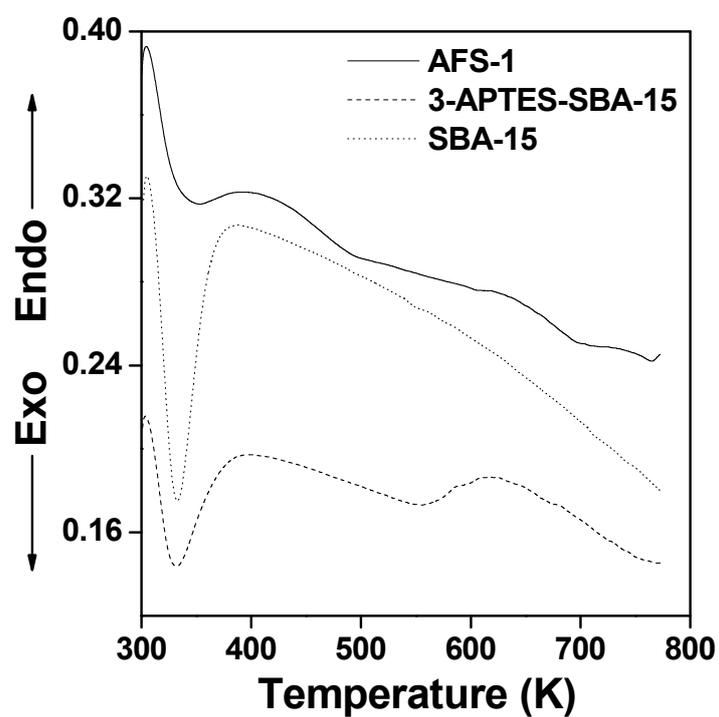
^{13}C MAS NMR spectra of AFS-1

Figure S3



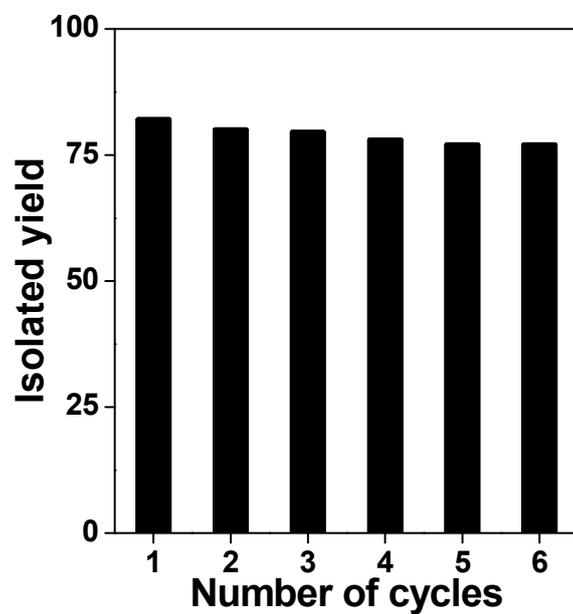
TG plots of SBA-15, 3-APTES functionalized SBA-15 and AFS-1

Figure S4



DTA plots of SBA-15, 3-APTES functionalized SBA-15 and AFS-1

Figure S5



Recycling efficiency of AFS-1

¹H and ¹³C NMR chemical shifts for different xanthene derivatives reported in the Table 1.

14-(4-Nitrophenyl)-14*H*-dibenzo [*a*, *j*] xanthene(Table 1, entry 1): ¹H NMR (300 MHz, CDCl₃) δ 8.33 (2H, d, J=9MHz), 7.99 (2H, d, J=9MHz), 7.78-7.75 (4H, t), 7.67 (2H, d, J=9MHz), 7.45-7.40 (2H, t), 7.36-7.31 (2H, t), 7.15-7.11 (4H, d, J=12MHz); ¹³C NMR (300 MHz, CDCl₃) δ 153.47, 151.09, 139.85, 134.66, 130.53, 129.91, 128.95, 127.83, 126.58, 126.45, 124.26, 123.67, 117.89, 109.64.

14-(4-Hydroxyphenyl)-14*H*-dibenzo [*a*, *j*] xanthene(Table 1, entry 2): ¹H NMR (300 MHz, CDCl₃) δ 7.82-7.74 (6H, m), 7.69-7.66 (2H, d, J=9MHz), 7.46-7.41 (2H, t), 7.36-7.31 (2H, t), 7.17-7.11 (6H, m), 6.97-6.94 (2H, d, J=9MHz); ¹³C NMR (300 MHz, CDCl₃) δ 162.20, 153.46, 134.72, 132.95, 129.98, 129.55, 129.05, 127.88, 126.64, 126.51, 123.74, 117.91, 116.24, 109.70.

14-(4-Chlorophenyl)-14*H*-dibenzo [*a*, *j*] xanthene(Table 1, entry 3): ¹H NMR (300 MHz, CDCl₃) δ 7.81-7.74 (7H, m), 7.69-7.66 (2H, d, J=9MHz), 7.51-7.41 (4H, m), 7.17 (4H, d, J=9MHz); ¹³C NMR (300 MHz, CDCl₃) δ 153.62, 141.47, 134.81, 134.62, 131.25, 130.03, 129.67, 129.09, 127.95, 126.69, 126.58, 123.77, 118.03, 109.77.

14-(4-Bromophenyl)-14*H*-dibenzo [*a*, *j*] xanthene(Table 1, entry 4): ¹H NMR (300 MHz, CDCl₃) δ 7.98-7.62 (11H, m), 7.52-7.46 (2H, m), 7.20 (4H, d, J=15MHz); ¹³C NMR (300 MHz, CDCl₃) δ 153.52, 134.91, 134.71, 132.56, 131.19, 130.22, 139.94, 129.0, 127.86, 126.59, 126.48, 123.68, 117.94, 109.67.

14-(4-Methylphenyl)-14*H*-dibenzo [*a*, *j*] xanthene(Table 1, entry 5): ¹H NMR (300 MHz, CDCl₃) δ 7.82-7.75 (7H, m), 7.70 (2H, d, J=9MHz), 7.49-7.45 (2H, t), 7.15 (5H, d, J=3MHz); ¹³C NMR (300 MHz, CDCl₃) δ 153.60, 146.19, 134.74, 133.99, 130.23, 129.91, 129.0, 127.86, 126.50, 123.65, 117.97, 109.67.