Supporting Information

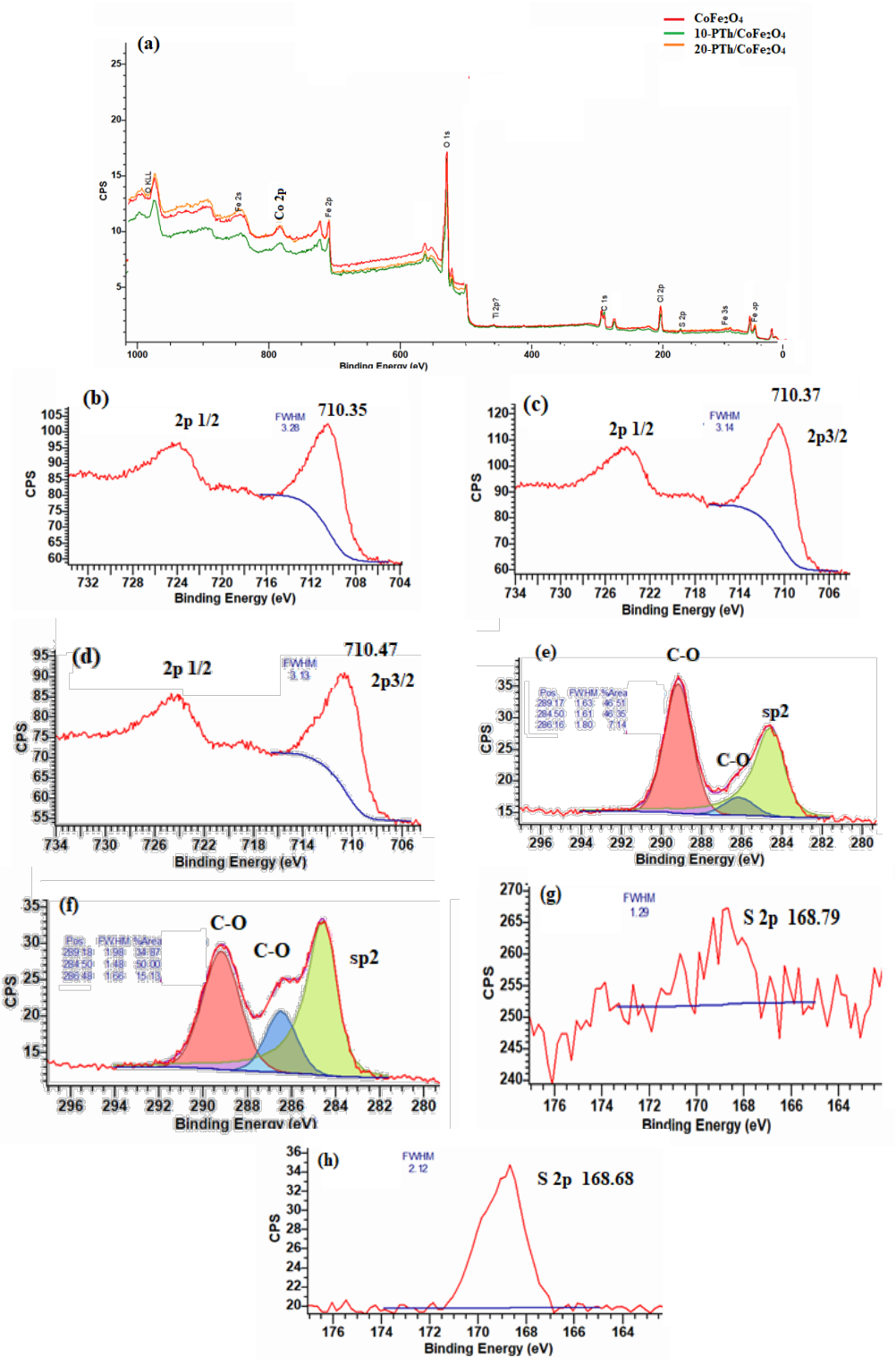

Figure S1 (a) XPS survey spectrum of $CoFe_2O_4$ and PTh/$CoFe_2O_4$, high resolution spectra of (b) Fe 2p in $CoFe_2O_4$, (c) Fe 2p in 10-PTh/$CoFe_2O_4$, (d) Fe 2p in 20-PTh/$CoFe_2O_4$, (e) C 1s in 10-PTh/$CoFe_2O_4$, (f) C 1s in 20-PTh/ $CoFe_2O_4$, (g) S 2p in 10-PTh/ $CoFe_2O_4$, (h) S 2p in 20-PTh/ $CoFe_2O_4$

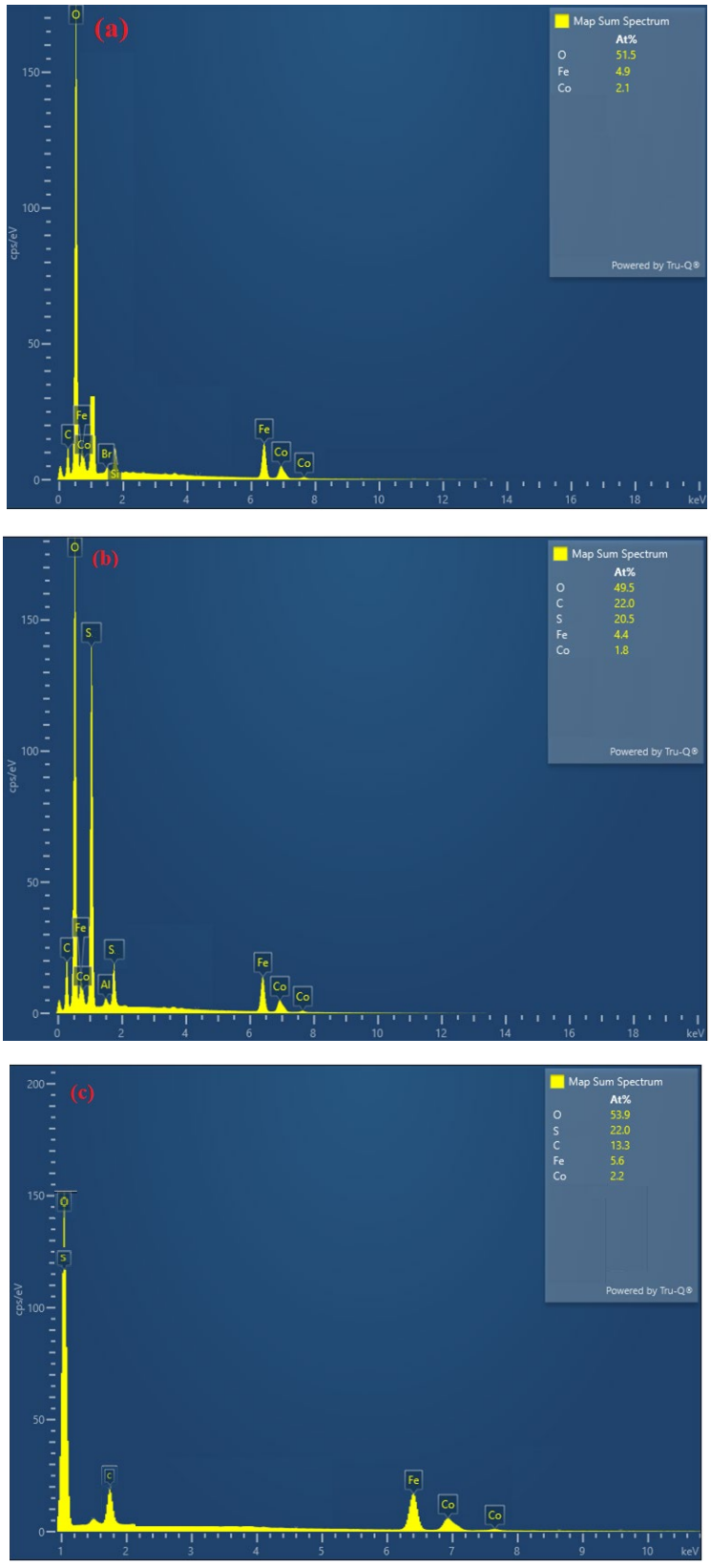

Figure S2 Elemental mapping of (a) $CoFe_2O_4$ (b) 10-PTh/$CoFe_2O_4$, (c) 20-PTh/$CoFe_2O_4$