

Supporting information

Nanostructured Bimetallic Block Copolymers as Precursors to Magnetic FePt

Nanoparticles

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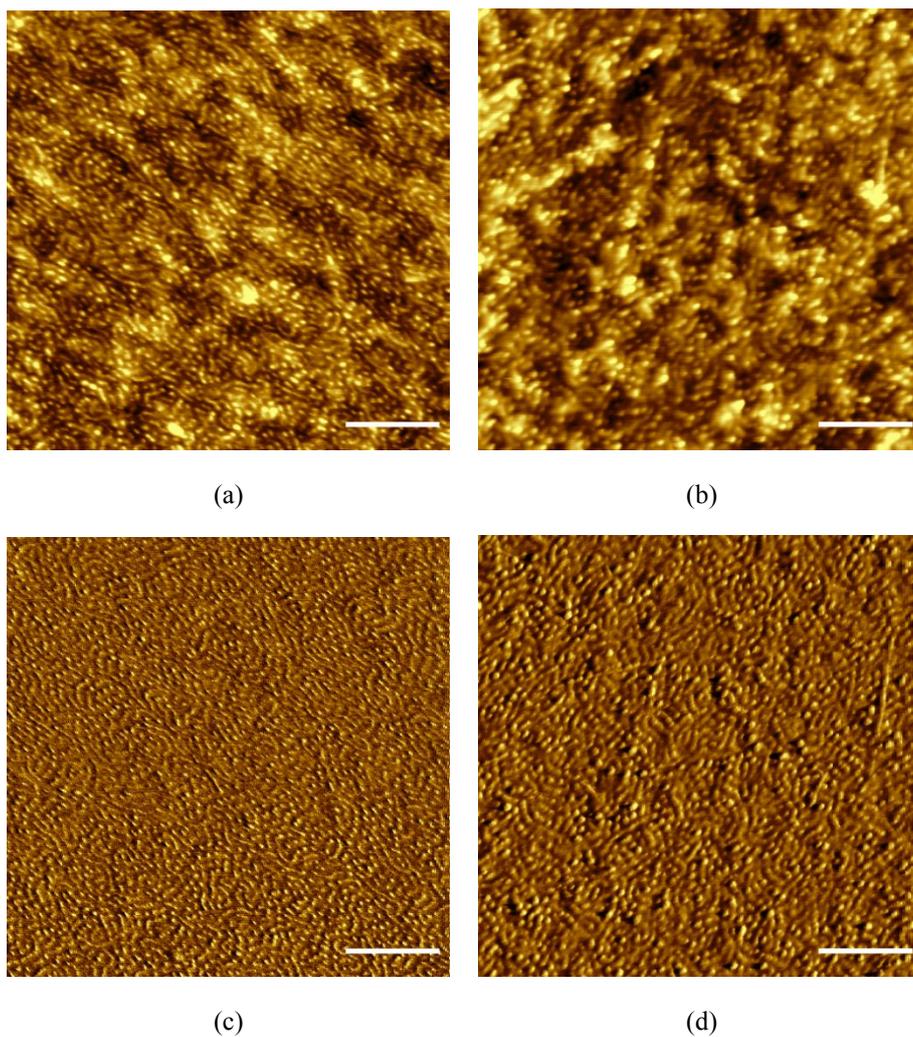


Figure S1. AFM height (top), phase (below) images of **PM2** with (a, c) as-spun and (b, d) 24 h of dioxane exposure on a silicon wafer (scale bar: 400 nm).

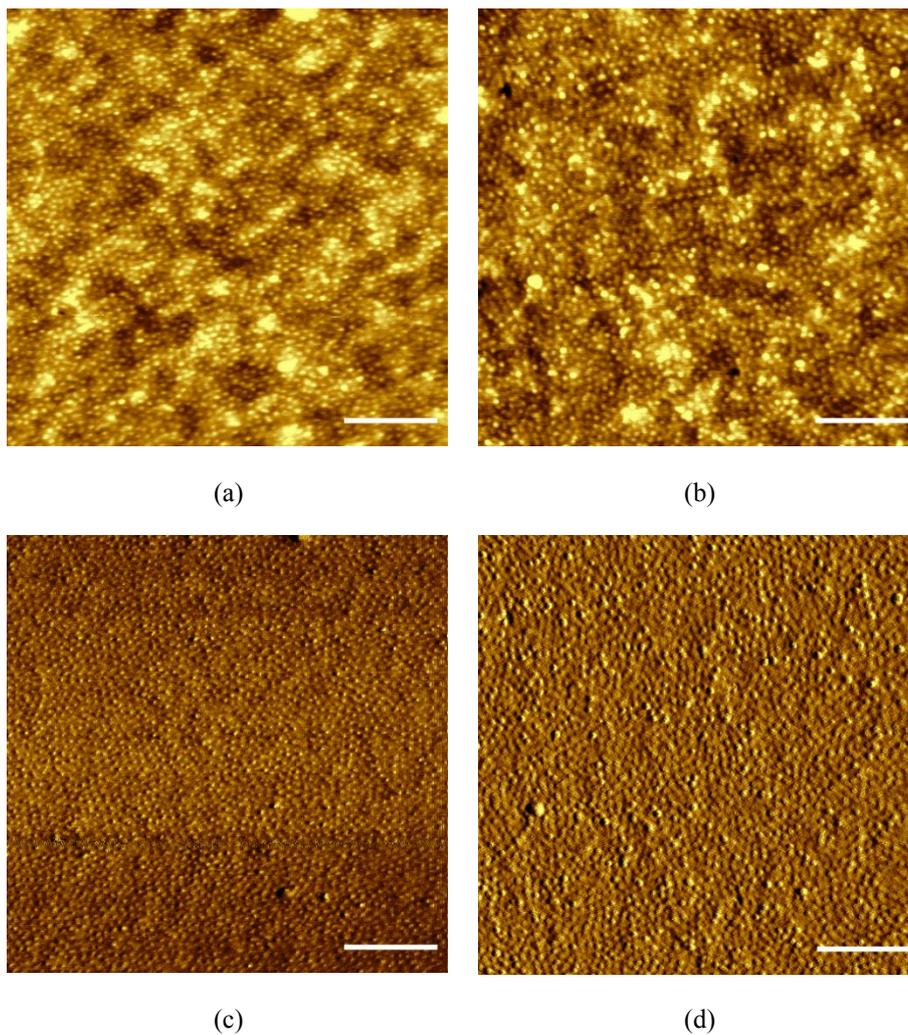


Figure S2. AFM height (top), phase (below) images of **PM3** with (a, c) as-spun and (b, d) 24 h of dioxane exposure on a silicon wafer (scale bar: 400 nm).

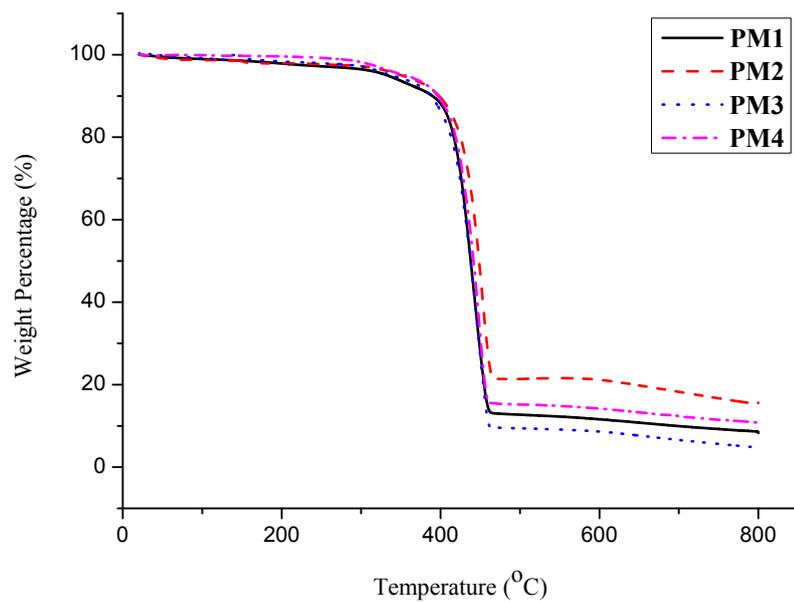
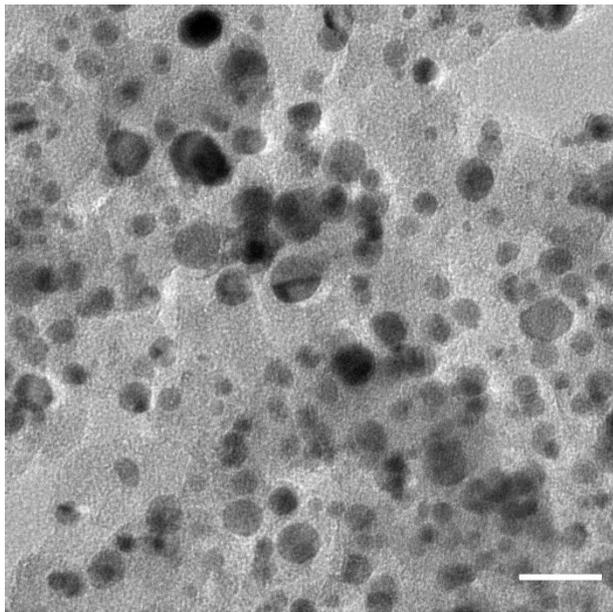
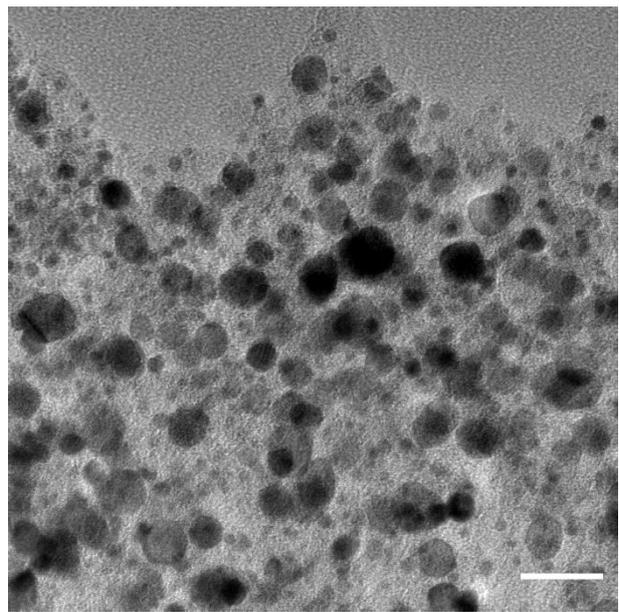


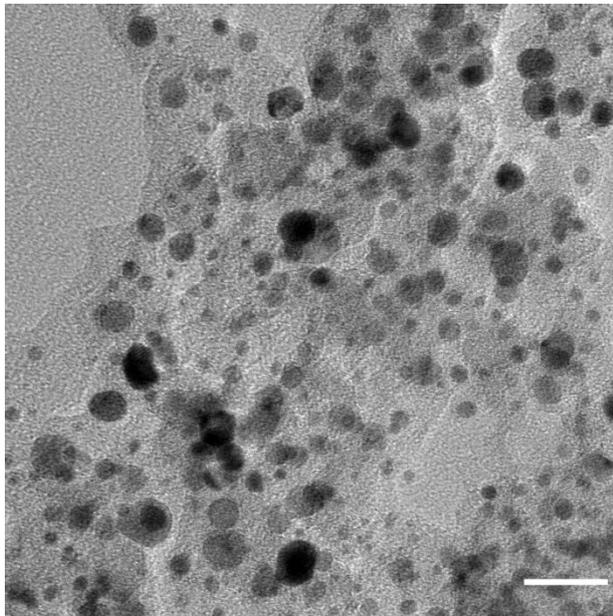
Figure S3. TGA traces of **PM1–PM4** during pyrolysis under a nitrogen atmosphere at 10 °C/min to 800 °C.



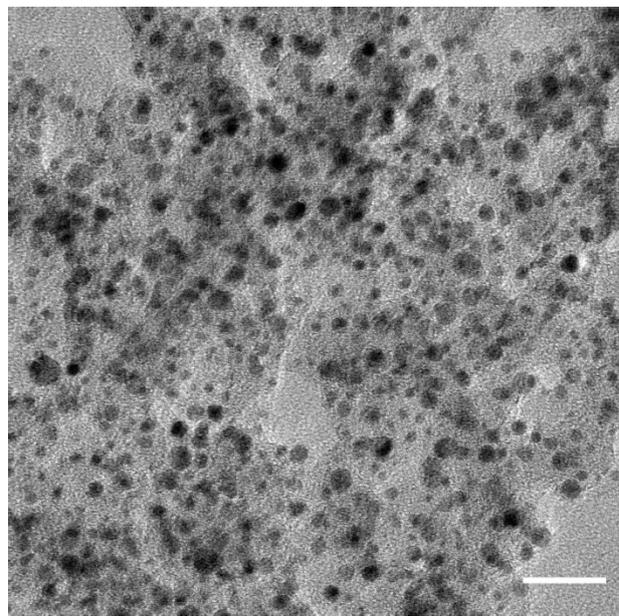
(a)



(b)



(c)



(d)

Figure S4. TEM images of pyrolyzed bulk samples of (a) **PM1**, (b) **PM2**, (c) **PM3** and (d) **PM4** (scale bar = 20 nm).

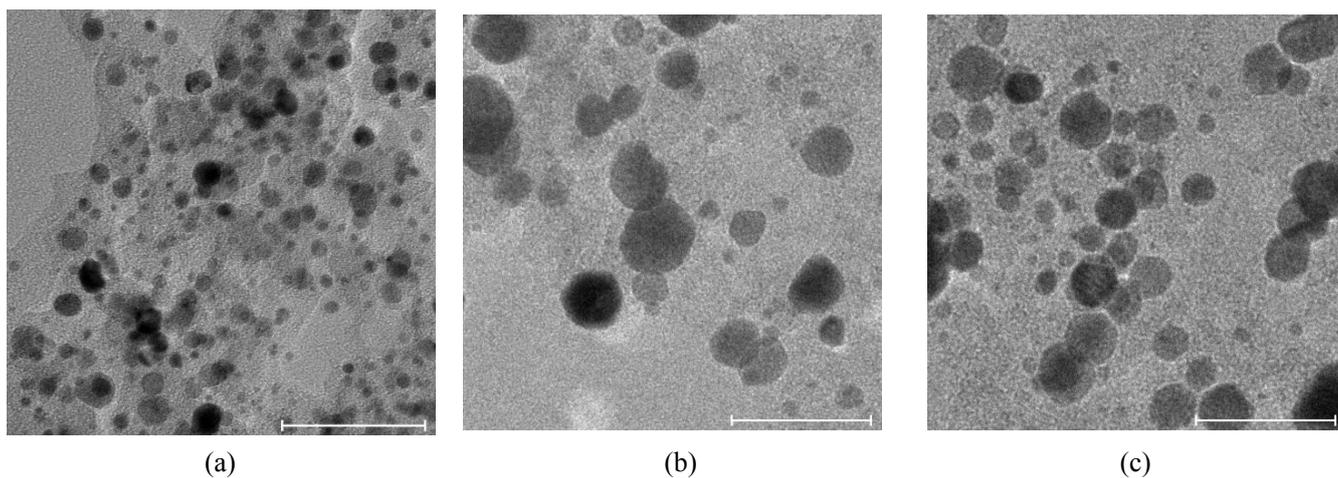


Figure S5. TEM images of pyrolyzed bulk samples of (a) **PM3**, (b) **PM5** and (c) **4** in higher magnification (scale bar = 50 nm).

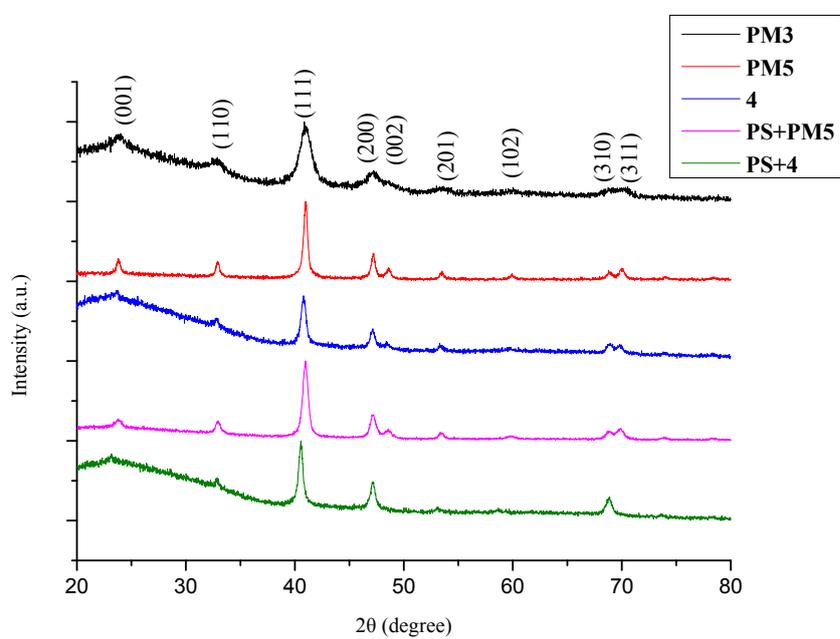


Figure S6. XRD patterns of the pyrolyzed samples of **PM3**, **PM5**, **4**, **PS+PM5** and **PS+4**.

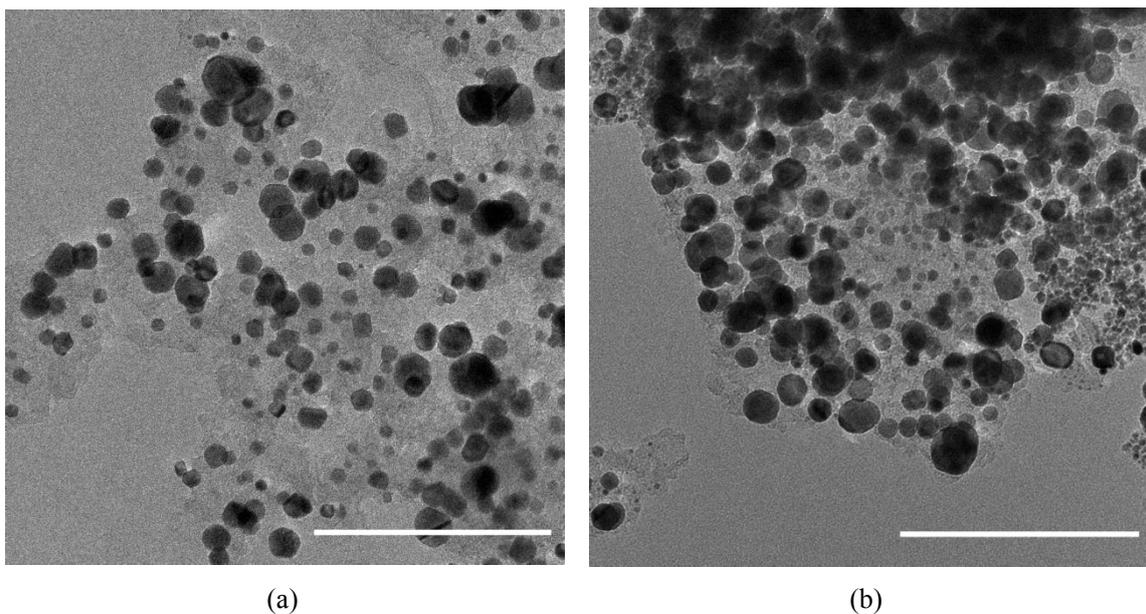


Figure S7. TEM images of pyrolyzed bulk samples of (a) **PS+PM5** and (b) **PS+4** (scale bar = 200 nm).

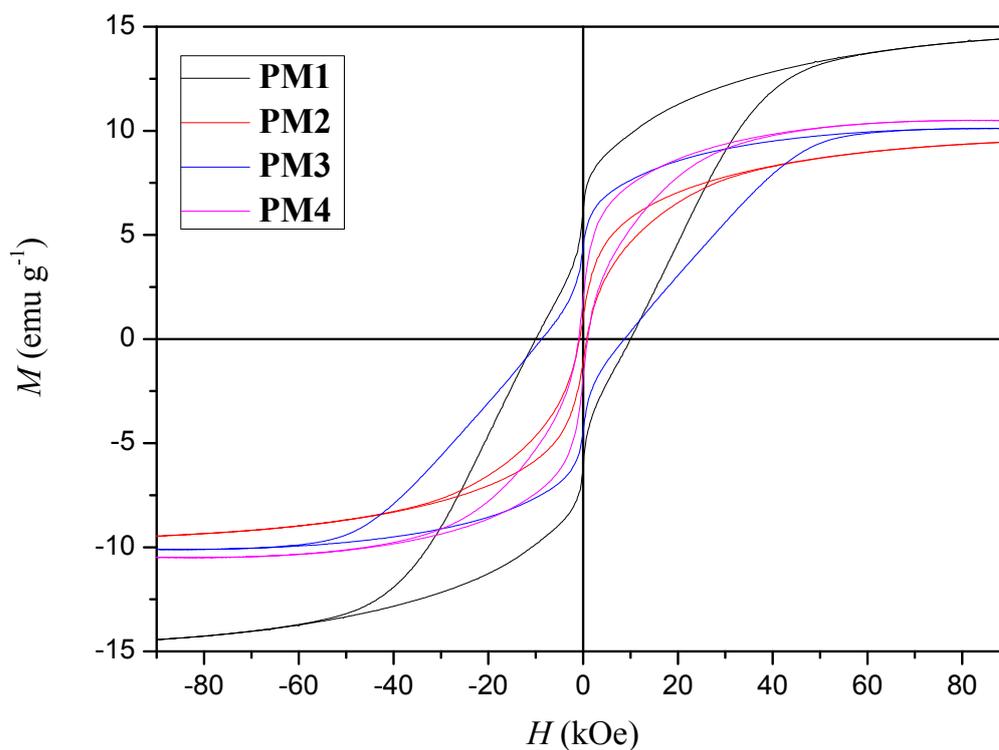


Figure S8. Magnetic hysteresis loops of the NPs from the pyrolyzed samples of **PM1–PM4** measured at 300 K.

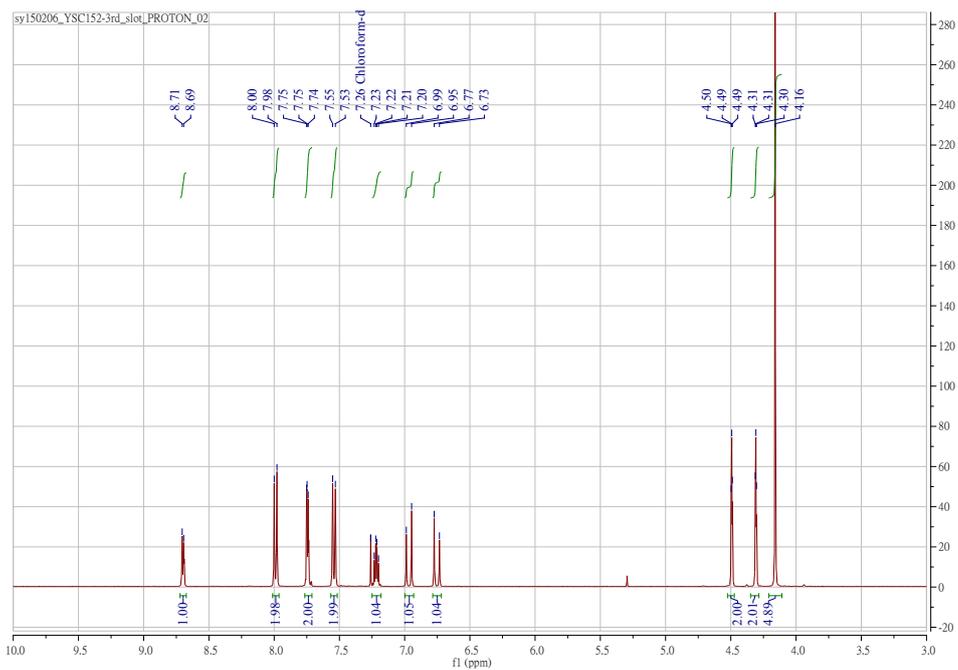


Figure S9. ^1H NMR spectrum of **2** in CDCl_3 .

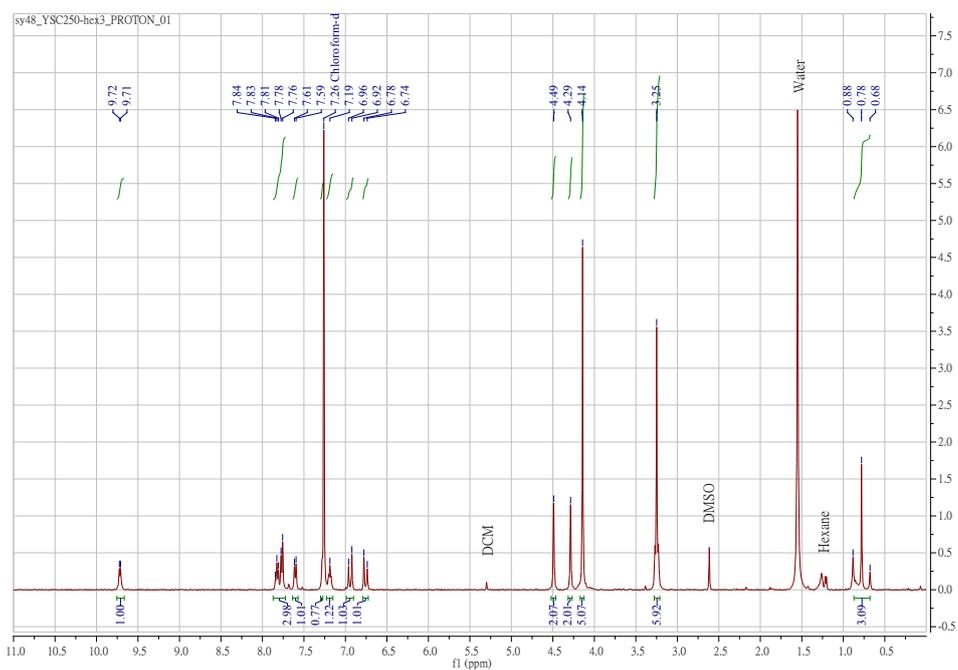


Figure S10. ^1H NMR spectrum of **3** in CDCl_3 .

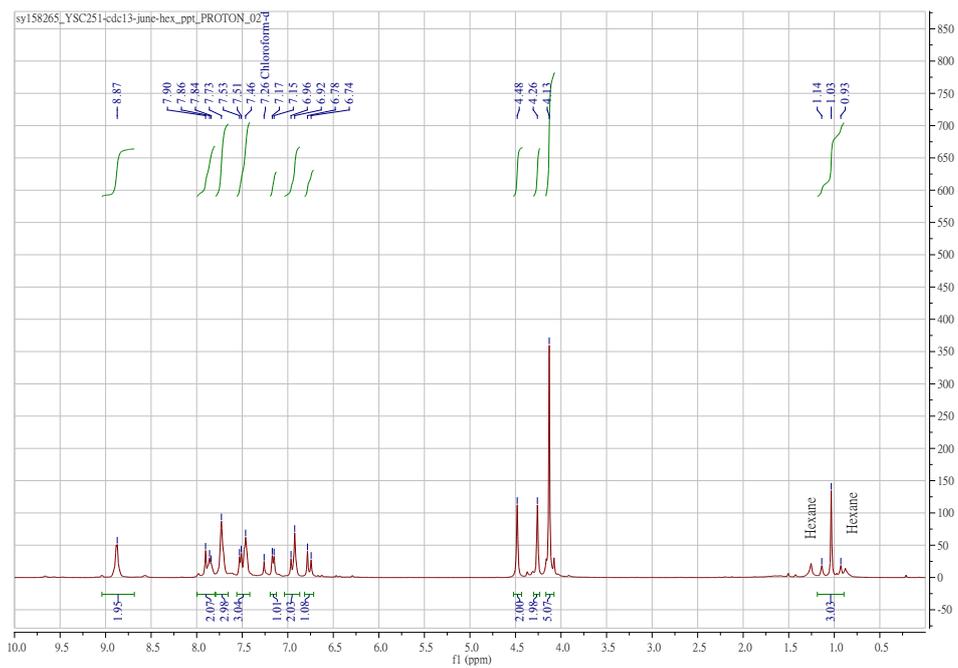


Figure S11. ^1H NMR spectrum of **4** in CDCl_3 .

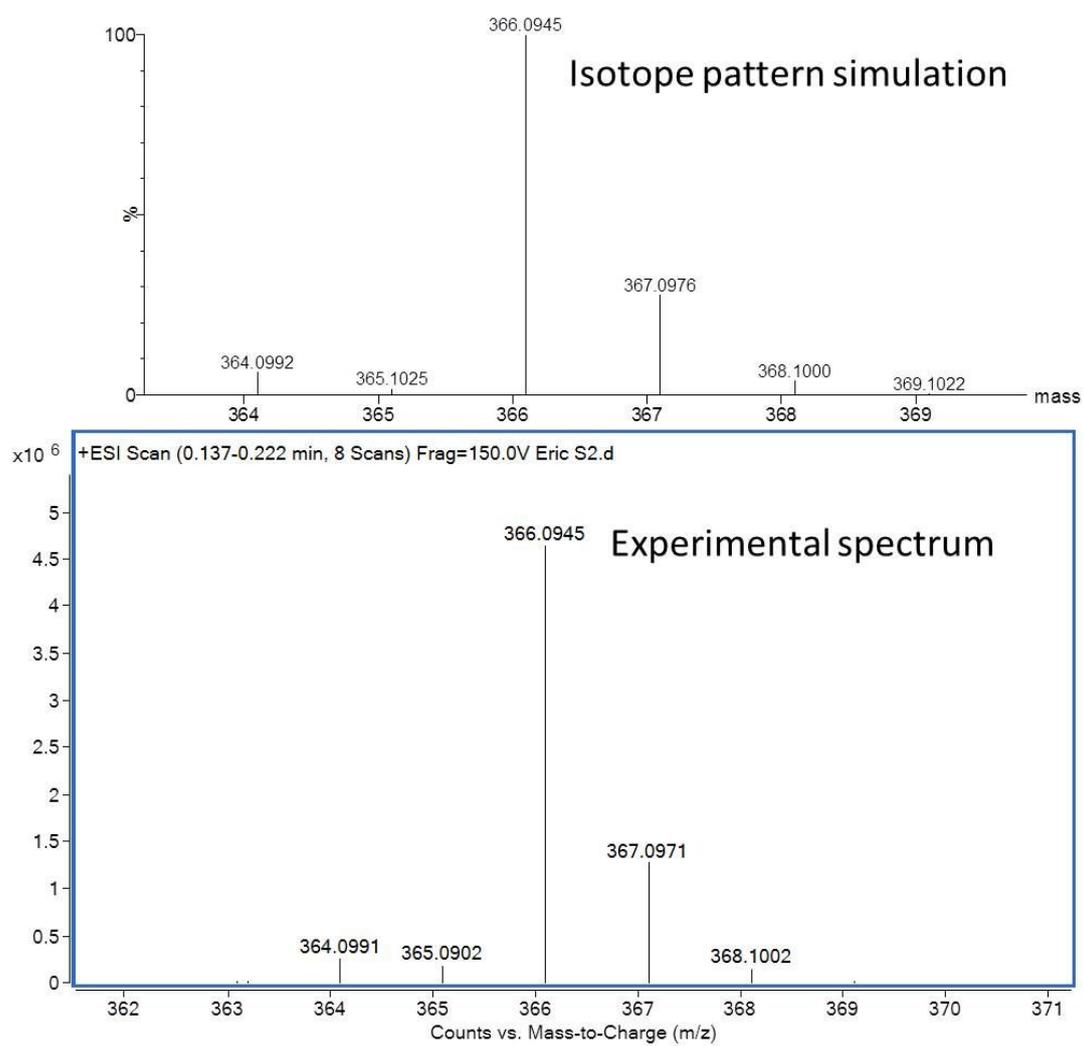


Figure S12. ESI mass spectrum and the isotope pattern simulation data of **2**.

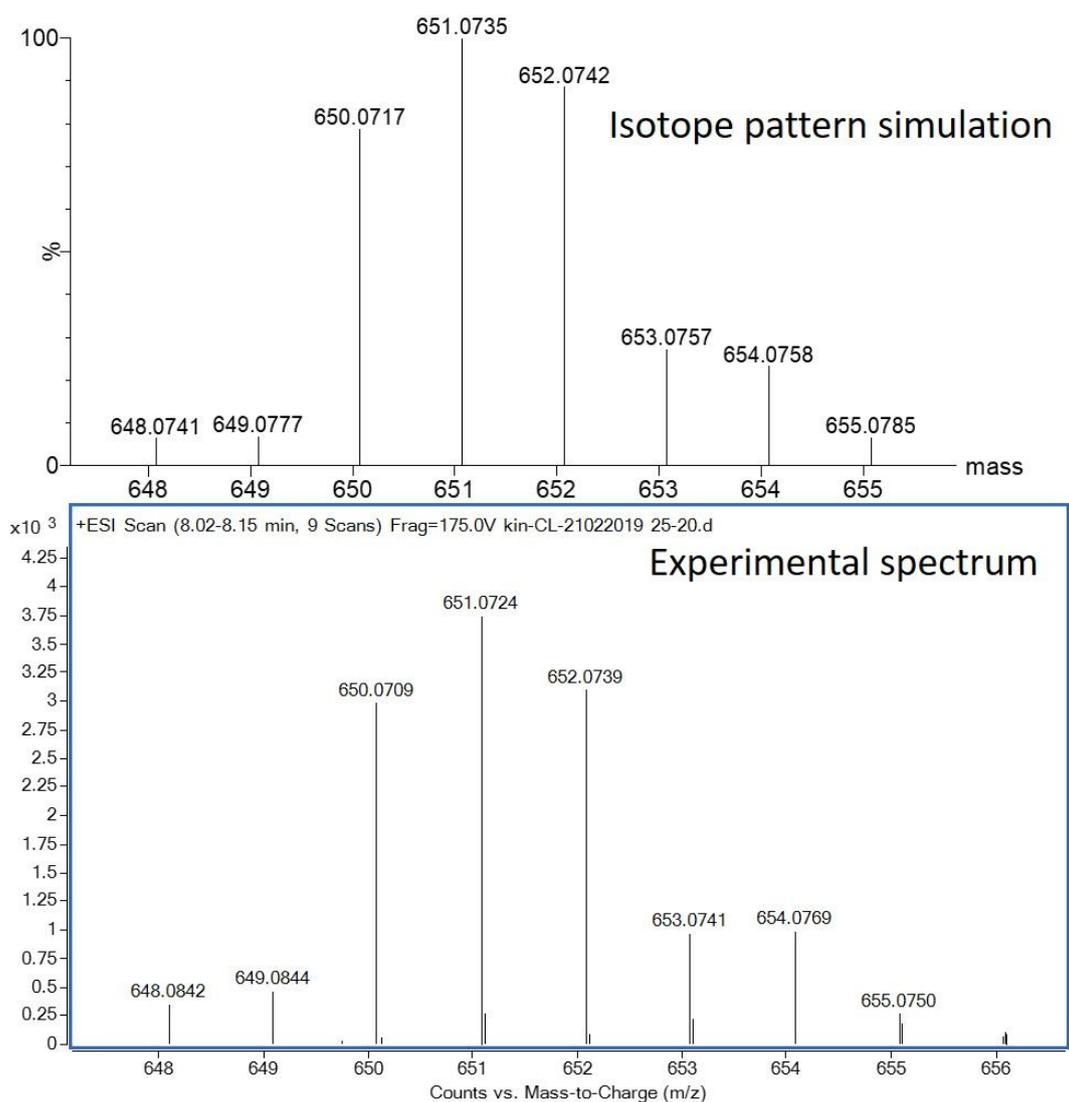


Figure S13. ESI mass spectrum and the isotope pattern simulation data of **3**.

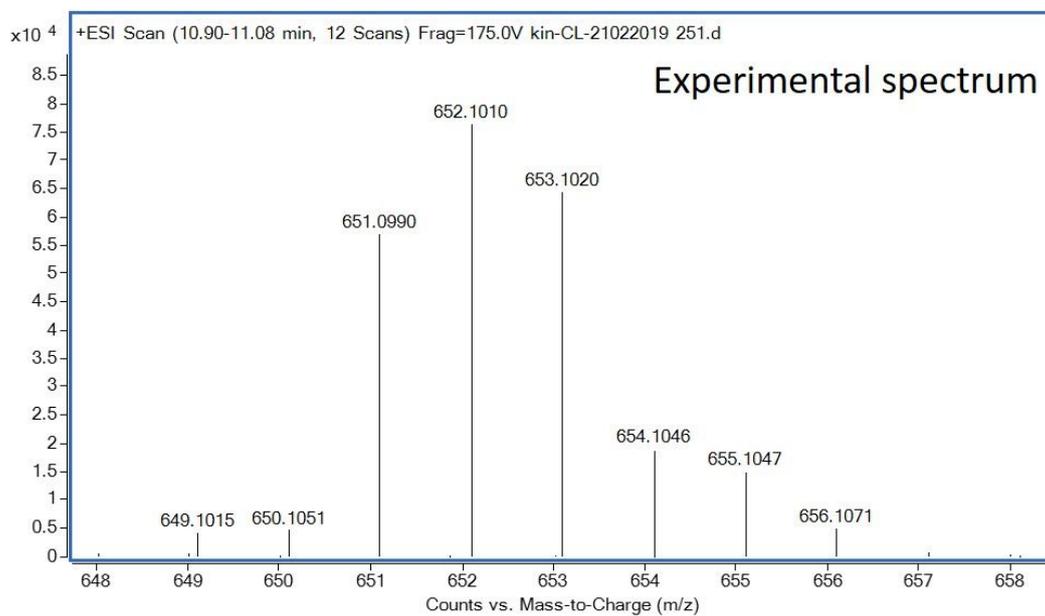
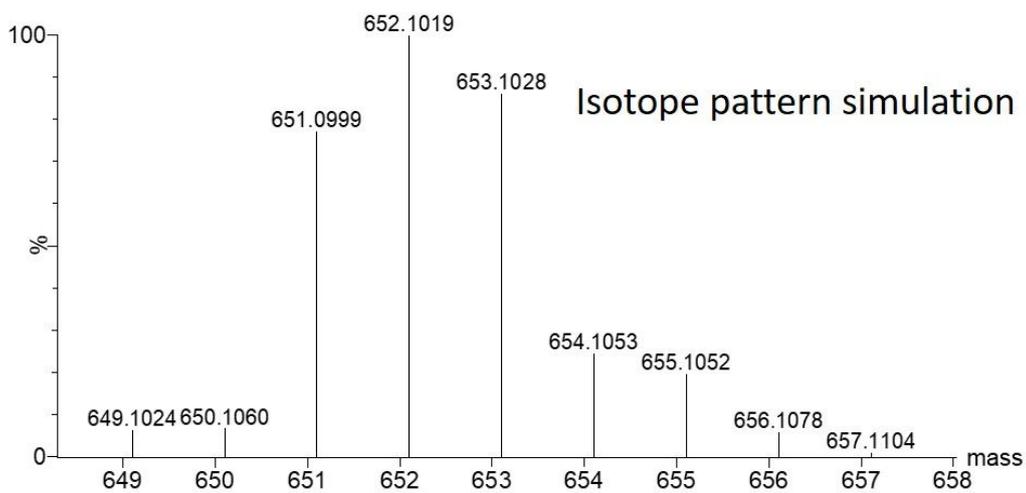


Figure S14. ESI mass spectrum and the isotope pattern simulation data of **4**.

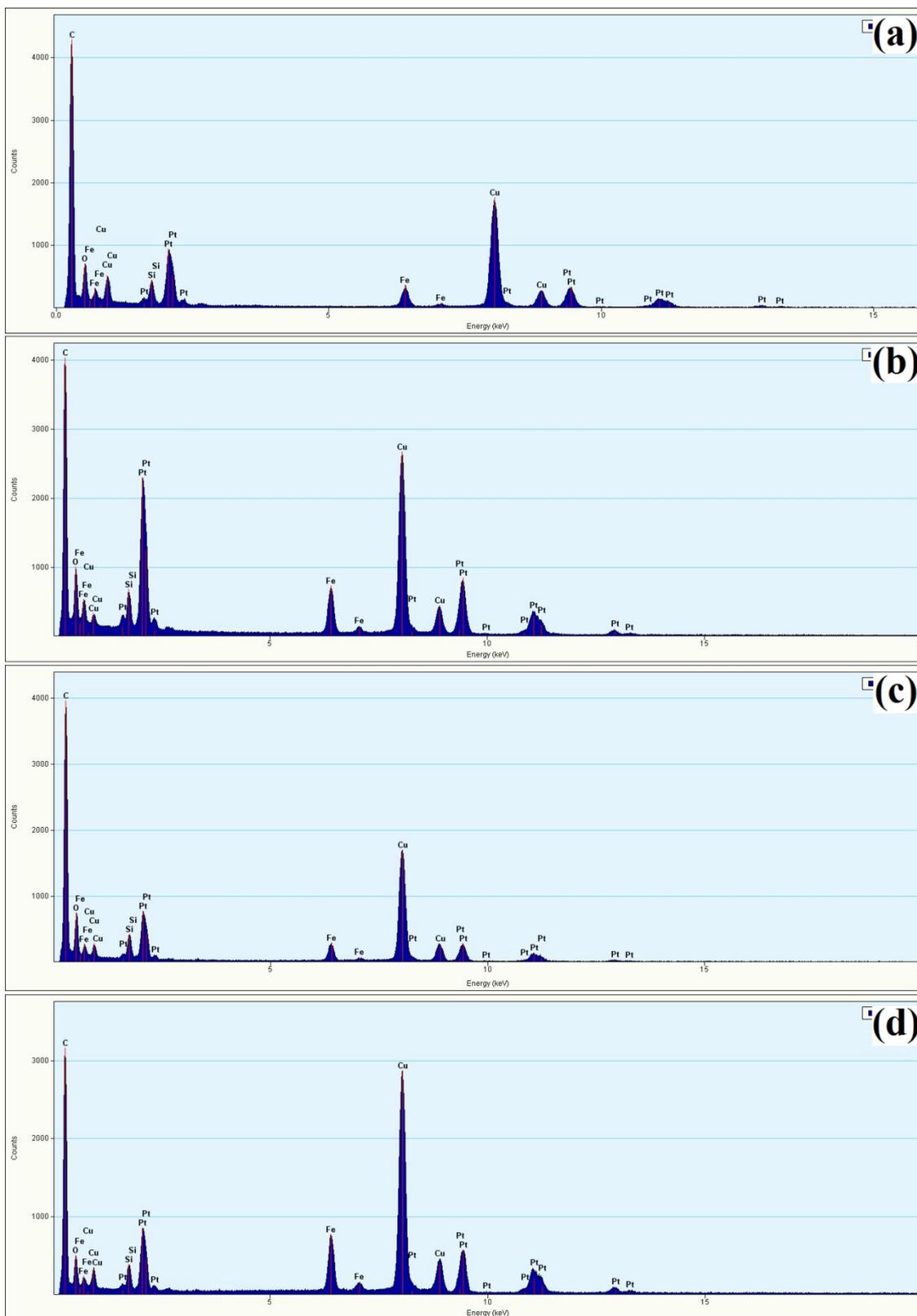


Figure S15. EDX analysis plots of pyrolyzed bulk samples of (a) **PM1**, (b) **PM2**, (c) **PM3** and (d) **PM4**.

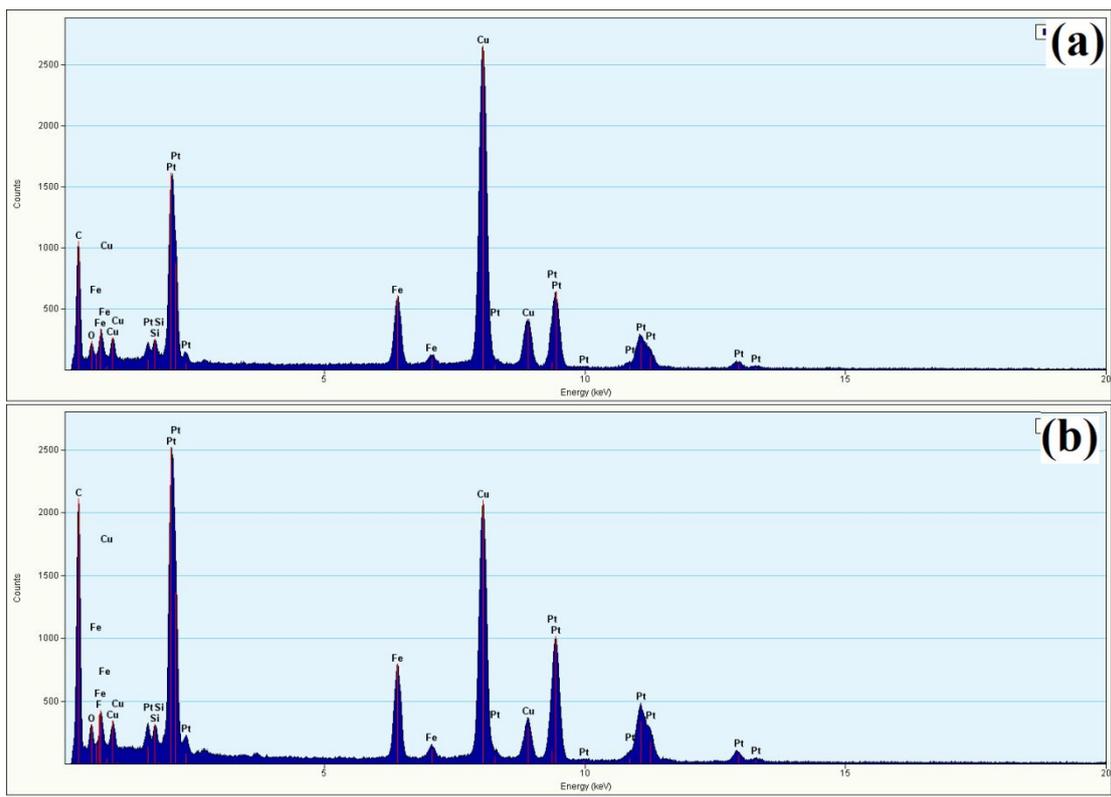


Figure S16. EDX analysis plots of pyrolyzed bulk samples of (a) **PM5** and (d) **4**.

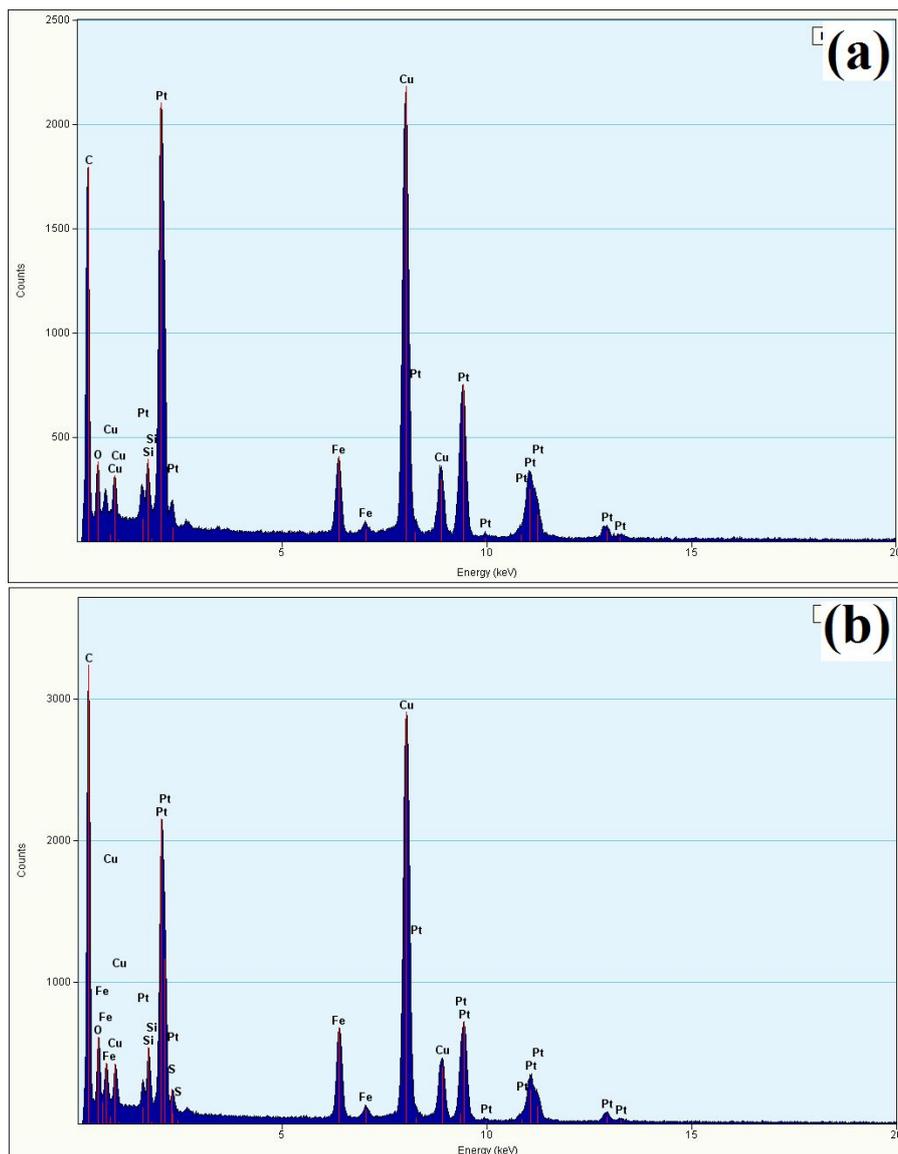


Figure S17. EDX analysis plots of pyrolyzed bulk samples of (a) **PS+PM5** and (b) **PS+4**.