

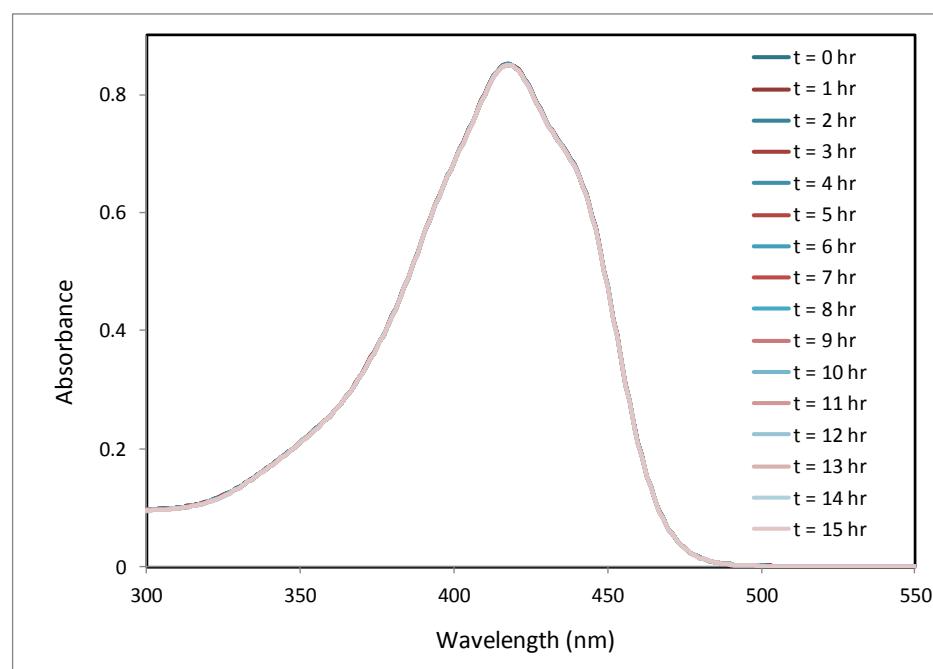
Supplementary Material

Figure S1. UV-Vis absorption spectra of 10 μM curcumin in acetonitrile (3 mL) with 3 μL of water over 15 h. All spectra overlap well with no sign of decomposition.

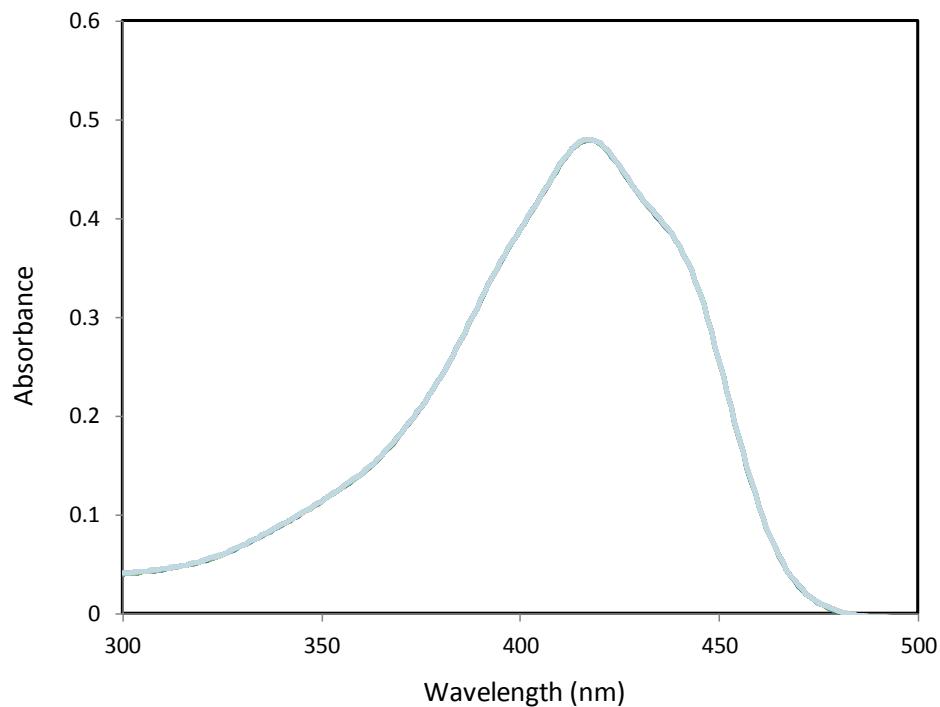


Figure S2. UV-Vis absorption spectra of 10 μM curcumin in acetonitrile in the presence of 20 μM tetrakis(acetonitrile)copper(I)hexafluorophosphate over 10 h. All spectra overlap well with no sign of decomposition.

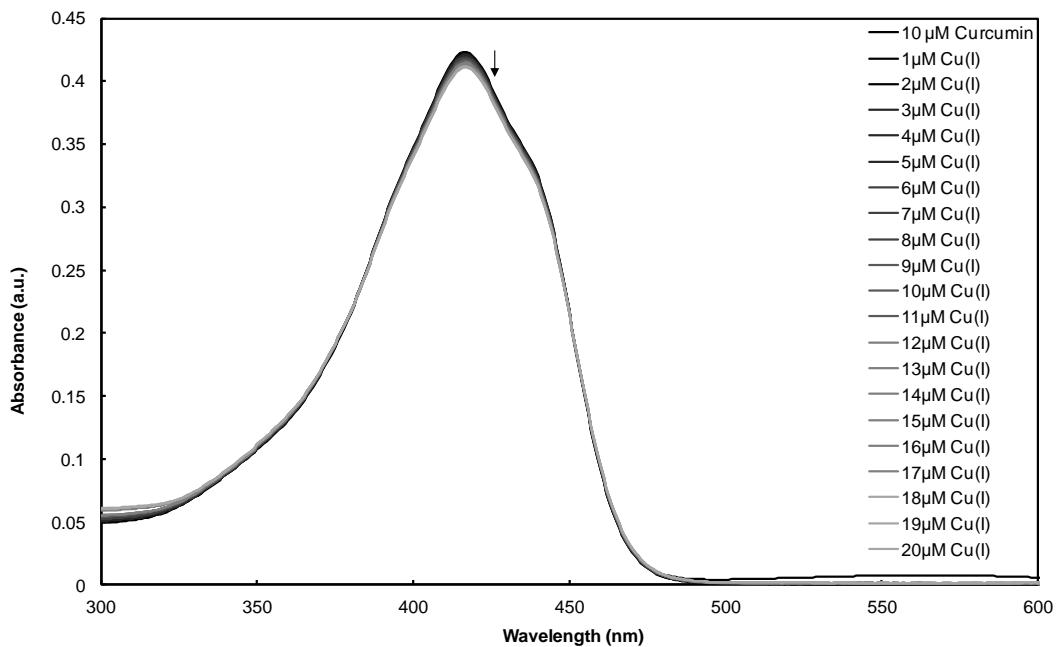


Figure S3. UV-Vis absorption spectra of 10 μM curcumin in acetonitrile with increasing concentration of tetrakis(acetonitrile)copper(I)hexafluorophosphate from 0 to 20 μM . All spectra overlap well with no significant spectral shift. The arrow indicates the small absorbance decrease occurring with increasing [Cu(I)].

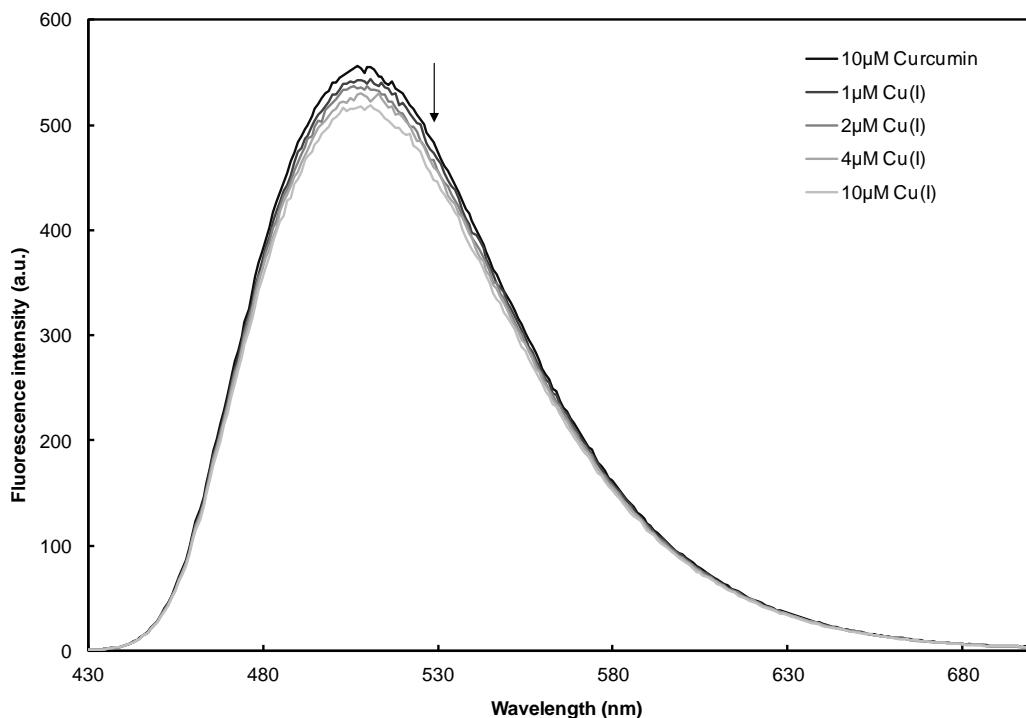


Figure S4. Fluorescence spectra of 10 μM curcumin in acetonitrile in the presence of 0 – 10 μM tetrakis(acetonitrile)copper(I)hexafluorophosphate with excitation wavelength of 417 nm. The addition of Cu(I) has a minor effect on the fluorescence of curcumin signifying a weak interaction. The arrow indicates the small fluorescence decrease occurring with increasing [Cu(I)].

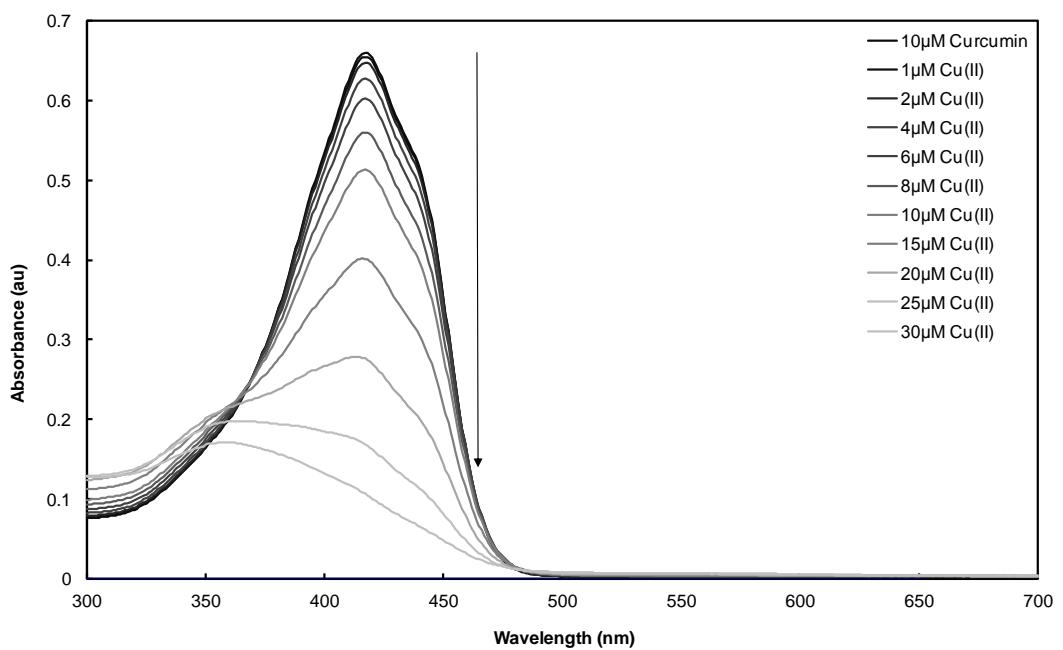


Figure S5. UV-Vis absorption spectra of 10 μM curcumin in acetonitrile with increasing concentration of CuSO_4 from 0 to 30 μM . There is a significant blue shift with increasing CuSO_4 concentration. The arrow indicates the significant absorbance decrease occurring with increasing $[\text{Cu(II)}]$.

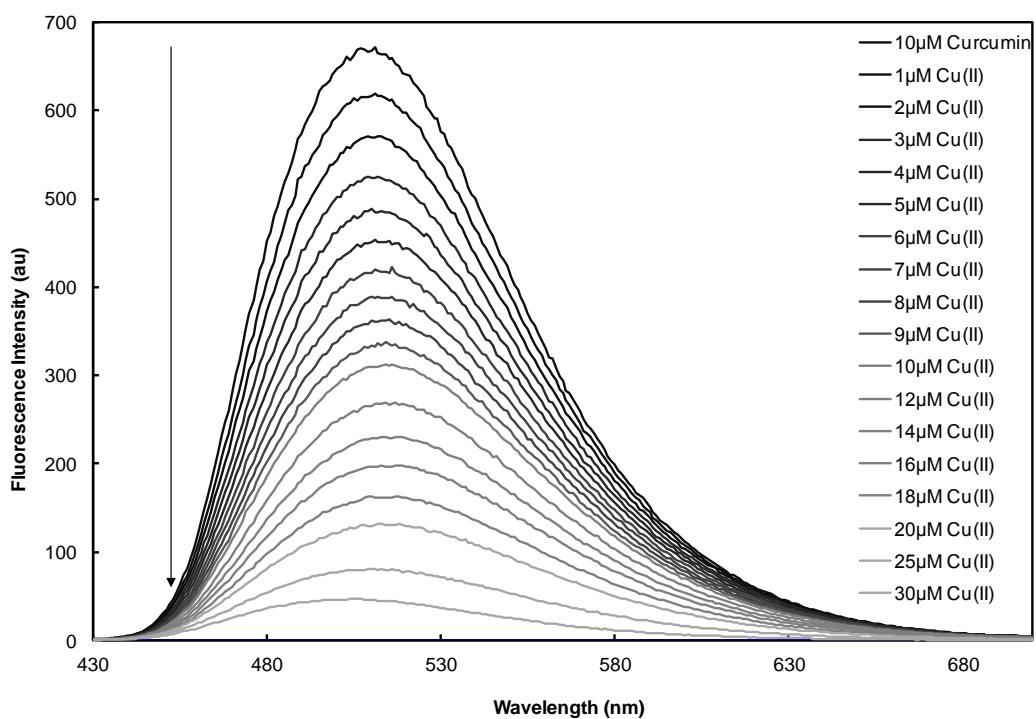


Figure S6. Fluorescence spectra of 10 μM curcumin in acetonitrile in the presence of 0 – 30 μM CuSO_4 with excitation wavelength of 415 nm. The arrow indicates the significant fluorescence decrease occurring with increasing $[\text{Cu(II)}]$.

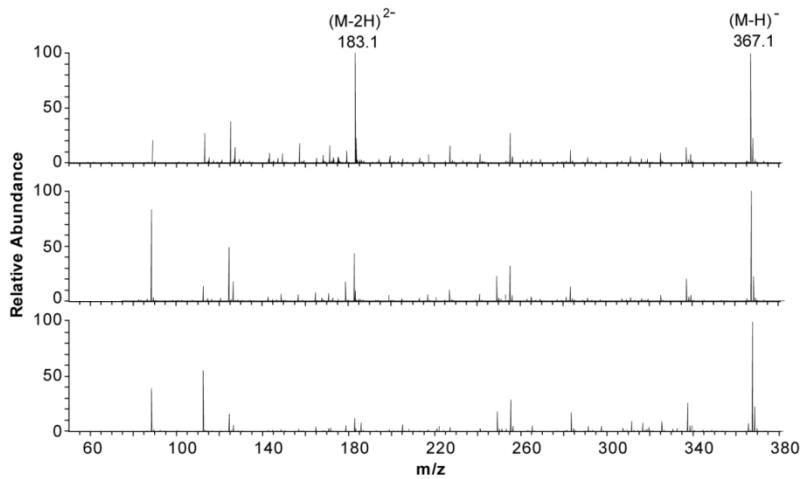


Figure S5. Mass spectra of 10 μM curcumin in acetonitrile at 0 hr (top), 6 hrs (middle), and 24 hrs (bottom). The results show that curcumin ($m/z = 367.1$) is the most abundant species throughout, indicating the absence of any degradation. Note that the $m/z = 183.1$ peak corresponds to doubly charged curcumin.

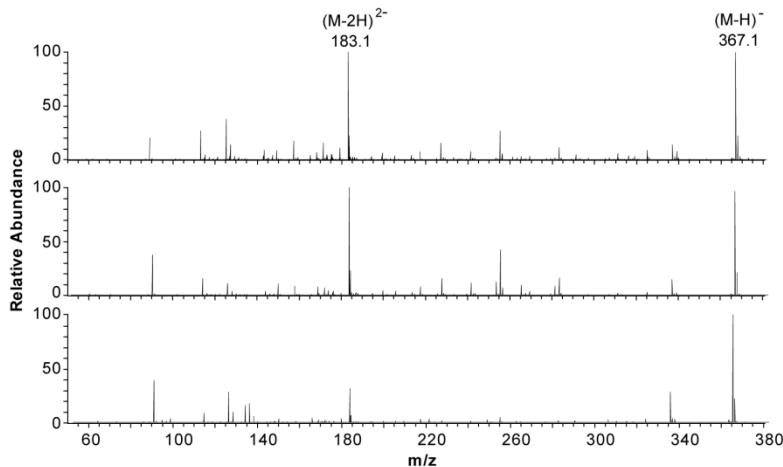


Figure S6. Mass spectra of 10 μM curcumin in acetonitrile at 0 h with the following $\text{Cu}(\text{II})$ concentrations: 0 μM (top), 20 μM (middle), and 100 μM (bottom).

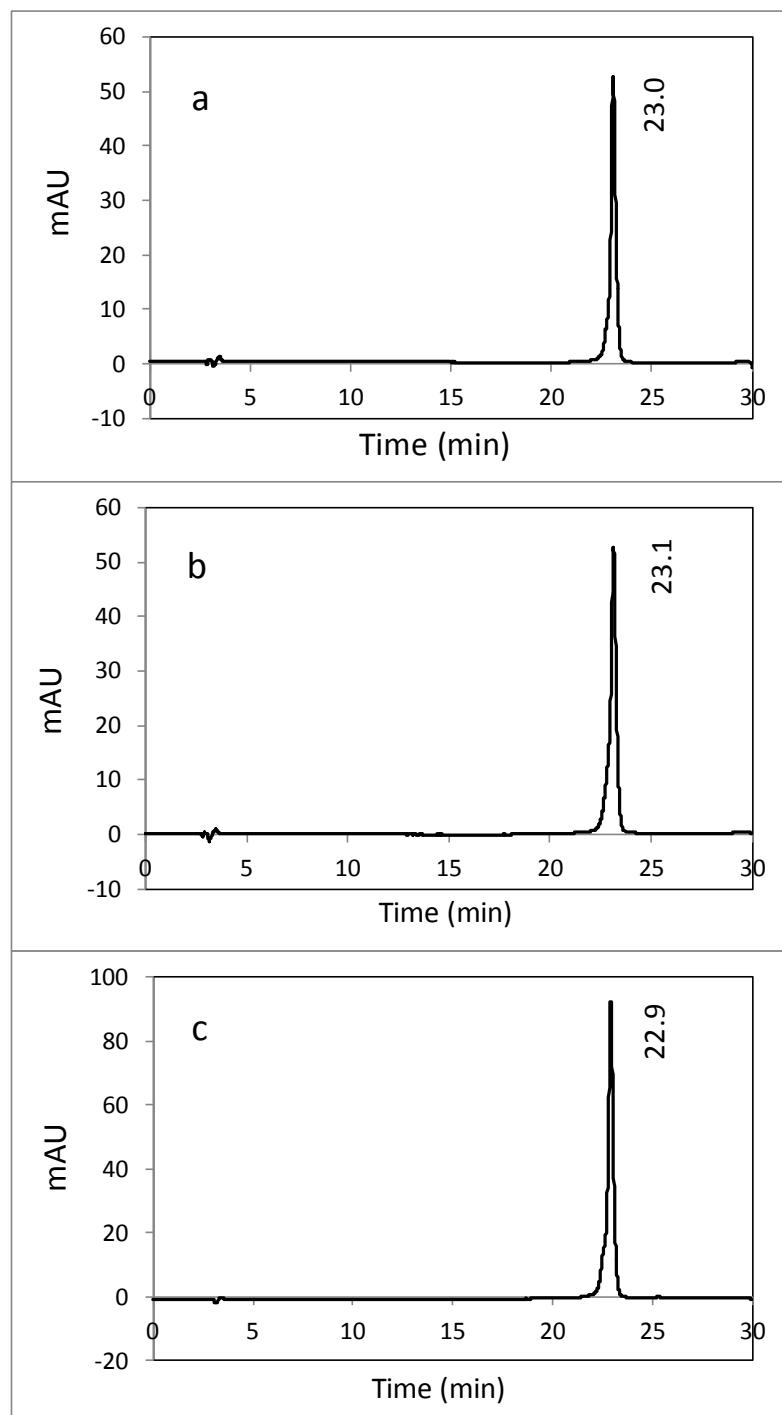


Figure S7. HPLC chromatograms of 10 μ M curcumin in acetonitrile at (a) 0 h, (b) 6 h, and (c) 24 h after equilibration are identical within experimental error, showing that the level of degradation is negligible.