

Supporting Information

Supercritical CO₂ Processing Generates Aqueous Cisplatin Solutions with Enhanced Cancer Specificity

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Figure S1:

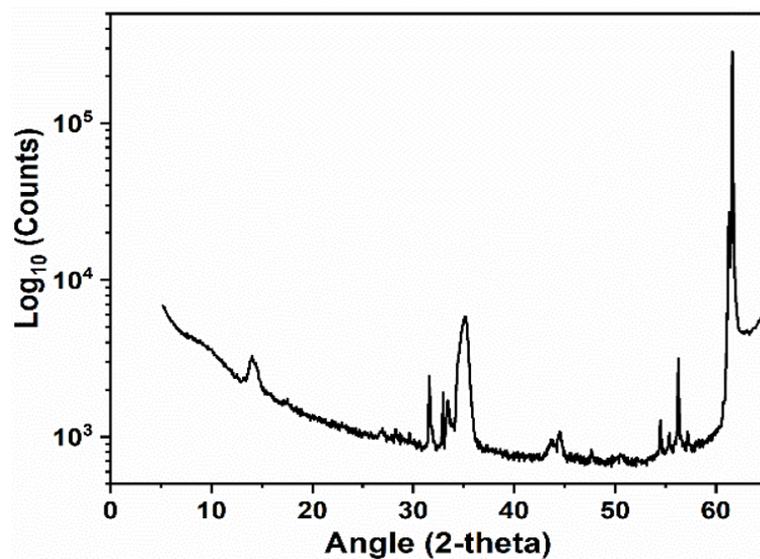


Figure S1: XRD characterization of NC-0: Typical XRD data collected for as-dissolved drop-cast and dried cisplatin aqueous solution (NC-0). Wide angle X-ray- diffraction (XRD) data collected for NC-0 films showed some of diffraction peaks associated with triclinic crystalline (β -polymorph) cisplatin (PDF 00-050-0643).

Figure S2:

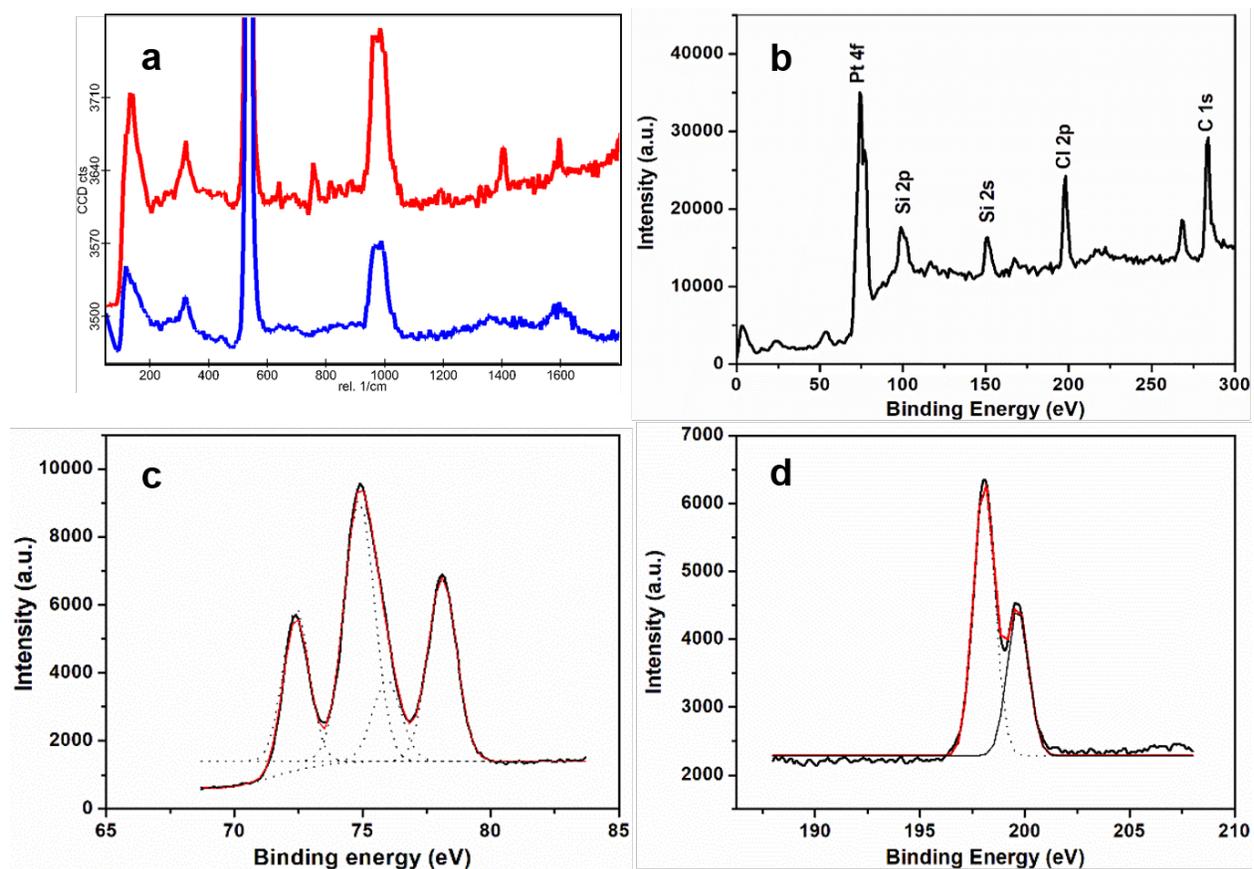


Figure S2: Compositional characterizations of NC-0: (a) Confocal Raman spectrum collected for NC-0 (red ink) drop-cast and dried on silicon substrate indicate the characteristic peaks of cisplatin. The blue ink spectrum is included for the silicon substrate as reference. (b) XPS survey spectrum collected for the binding energy range of 0-300 eV indicating for well resolved spectral peaks of Pt, Si, Cl and C, respectively. (c and d) XPS high resolution spectrum collected for Pt and Cl binding energy range. High resolution spectrum was deconvoluted with Gaussian curve fitting.

Figure S3:

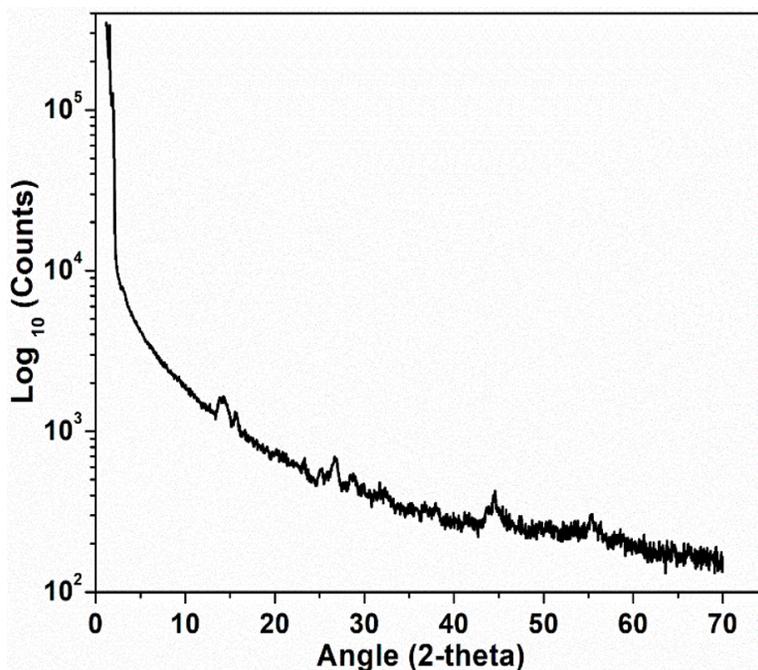


Figure S3: XRD characterization of NC-5: Typical XRD data collected for drop-cast and dried film deposited from the highest cisplatin concentrations aqueous solution (NC-5). XRD data of NC-5 was found to be similar to NC-0. This data showed the presence of more significant primarily triclinic crystalline (β -polymorph) of cisplatin peaks.

Figure S4:

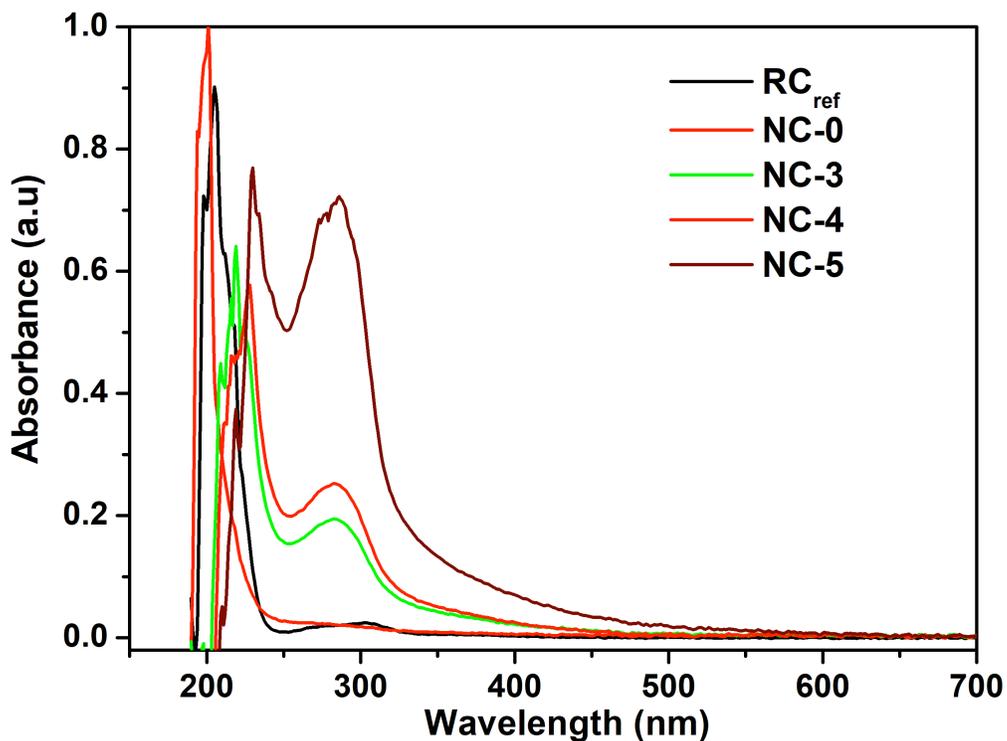


Figure S4: UV-Vis spectroscopic data: The effect of increasing cisplatin concentration on the UV-Vis absorption spectra of cisplatin formulations prepared by Rotovap process after RESS processing of standard cisplatin. As a reference, we show the absorption spectra of standard cisplatin dissolved in deionized water marked as RC_{ref} in above figure.