

## Supporting Information

### Interaction of a Novel Platinum Drug with Bovine Serum Albumin: FTIR and UV-Vis Spectroscopy Analysis

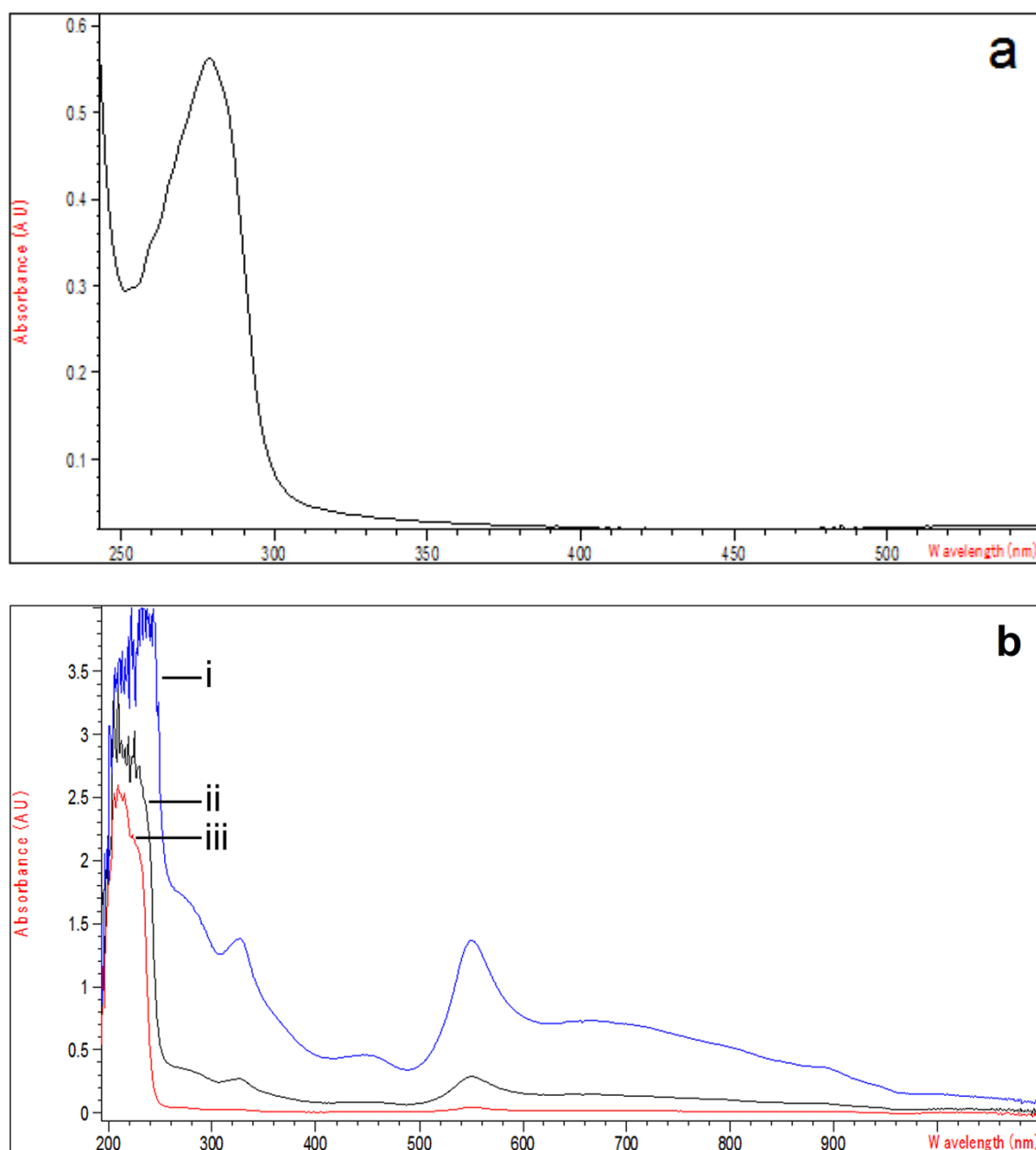
*Filiz Korkmaz, Deniz Altunöz, Şeniz Özalp-Yaman*

Atilim University, Faculty of Engineering, Biophysics Laboratory, 06836, Ankara, Turkey and

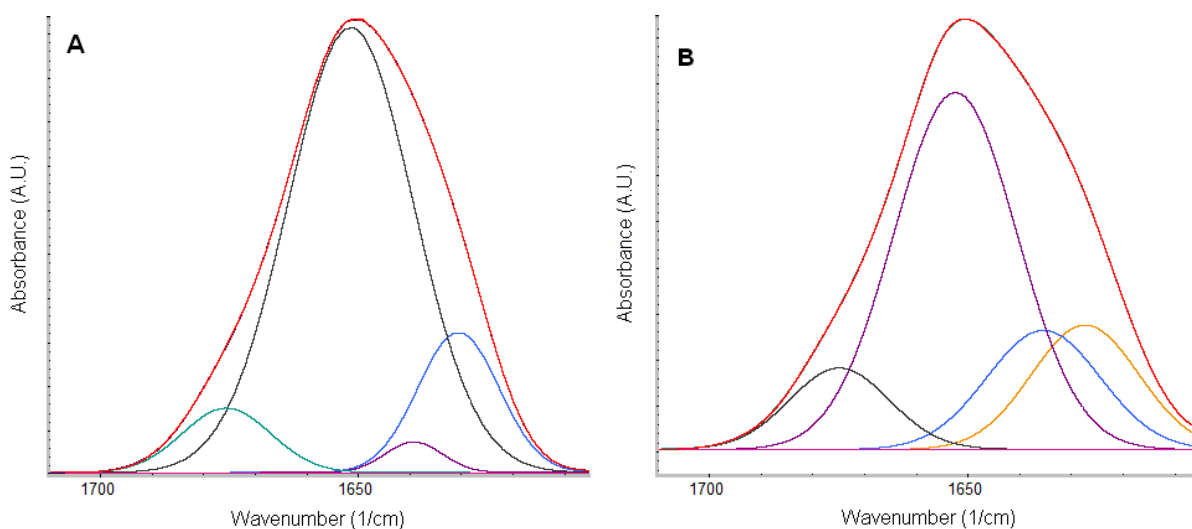
Atilim University, Faculty of Engineering, Department of Chemical Engineering and Applied Chemistry, 06836, Ankara, Turkey

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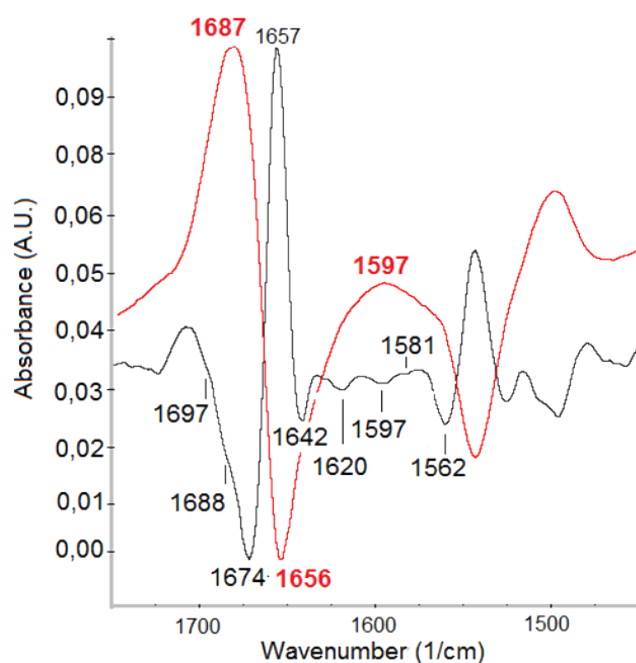
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| Absorption spectrum of 0.0213 mM BSA ( <b>a</b> ) and Pt-Blue ( <b>b</b> ) at $1.065 \times 10^{-4}$ M (i), $2.13 \times 10^{-5}$ M (ii) and $3.27 \times 10^{-6}$ M (iii) concentrations in NaPi buffer pH 7.4, corresponding to the amount of Pt-Blue in samples (BSA+Pt-Blue) with $R = 0.2$ , 1.0 and 6.5, respectively. | <b>S-1</b> |
| Curve fitting results of amide-I band for BSA (left) and BSA in complex with Pt-Blue (right) incubated in $^2\text{H}_2\text{O}$ -NaPi buffer, pH 7.4, at 37°C for 15 days. Root Mean Square (RMS) errors of fits are 0.00088 and 0.00192, respectively.   | <b>S-2</b> |
| Difference spectrum (red) of BSA+Pt-Blue in the 6th day of incubation minus the 5th day of incubation, shown in the inset of Figure 7 and its second derivative (black).   | <b>S-3</b> |



**Figure S-1:** Absorption spectrum of 0.0213 mM BSA (**a**) and Pt-Blue (**b**) at  $1.065 \times 10^{-4}$  M (i),  $2.13 \times 10^{-5}$  M (ii) and  $3.27 \times 10^{-6}$  M (iii) concentrations in NaPi buffer pH 7.4, corresponding to the amount of Pt-Blue in samples (BSA+Pt-Blue) with  $R = 0.2$ , 1.0 and 6.5, respectively.



**Figure S-2:** Curve fitting results of amide-I band for BSA (left) and BSA in complex with Pt-Blue (right) incubated in  $^2\text{H}_2\text{O}$ -NaPi buffer, p $^2\text{H}$  7.4, at 37°C for 15 days. Root Mean Square (RMS) errors of fits are 0.00088 and 0.00192, respectively.



**Figure S-3:** Difference spectrum (red) of BSA+Pt-Blue in the 6th day of incubation minus the 5th day of incubation (shown in the inset of Figure 7) and its second derivative (black).

Peak positions of the difference spectrum is slightly different than the positions indicated in Fig.7-inset. Therein, the positions belong to the last spectrum with highest absorbance amplitude

(trace 3). The positive peaks in the difference spectrum are seen to be composed of many sub-components. For instance the positive peak at  $1687\text{ cm}^{-1}$  is a superposition of bands at 1697, 1688 and  $1674\text{ cm}^{-1}$ . The peak at  $1597\text{ cm}^{-1}$  in the difference spectrum is consisting of five components located at 1642, 1620, 1597, 1581 and  $1562\text{ cm}^{-1}$ .