A comparative kinetic study of modified Pt(dppf)Cl₂ complexes and their interactions with *L*-cysteine and *L*-methionine

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Pseudo-first-order rate constants versus concentrations for complexes (I) – (III) with *L*-met:



Figure 1 Plots of pseudo-first-order rate constants versus *L*-met concentration for: (a) formation of the mono adduct and (b) formation of the bis adduct for complex (I) - +, (II) - × and (III) - O.

Pseudo-first-order rate constants versus concentrations for cisplatin with *L*-cys and *L*-met:



Figure 2 Plots of pseudo-first-order rate constants for formation of the mono (O) and bis (\times) adducts for cisplatin versus: (a) concentration of *L*-cys and (b) concentrations of *L*-met.



Measured and calculated absorbance data at 239 nm for complexes (I), (II) and cisplatin with L-cys:

Figure 3 Plots of measured (•••) and calculated () absorbance data at 239 nm for the reaction between complex (I) and *L*-cys with Pt(II):L-cys ratios of 1:20 to 1:100.



Figure 4 Plots of measured (•••) and calculated () absorbance data at 239 nm for the reaction between complex (II) and *L*-cys with Pt(II):L-cys ratios of 1:20 to 1:100.



Figure 5 Plots of measured (•••) and calculated () absorbance data at 239 nm for the reaction between cisplatin and *L*-cys with Pt(II):L-cys ratios of 1:20 to 1:100.



Measured and calculated absorbance data at 239 nm for complexes (I) – (III) and cisplatin with *L*-met:

Figure 6 Plots of measured (•••) and calculated () absorbance data at 239 nm for the reaction between complex (I) and *L*-met with Pt(II):*L*-cys ratios of 1:20 to 1:100.



Figure 7 Plots of measured (•••) and calculated () absorbance data at 239 nm for the reaction between complex (II) and *L*-met with Pt(II):*L*-cys ratios of 1:20 to 1:100.



Figure 8 Plots of measured (•••) and calculated () absorbance data at 239 nm for the reaction between complex (III) and *L*-met with Pt(II):*L*-cys ratios of 1:20 to 1:100.



Figure 9 Plots of measured (•••) and calculated () absorbance data at 239 nm for the reaction between cisplatin and *L*-met with Pt(II):L-cys ratios of 1:20 to 1:100.



Figure 10 Plots of measured (•••) and calculated () pH titration data for *L*-cys and *L*-met.