

*Supplementary Materials for*

**Selective Recognition of Carbonic Anhydrase Using  
Transition Metal Complexes**

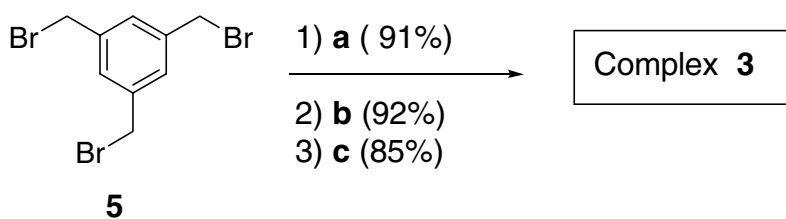
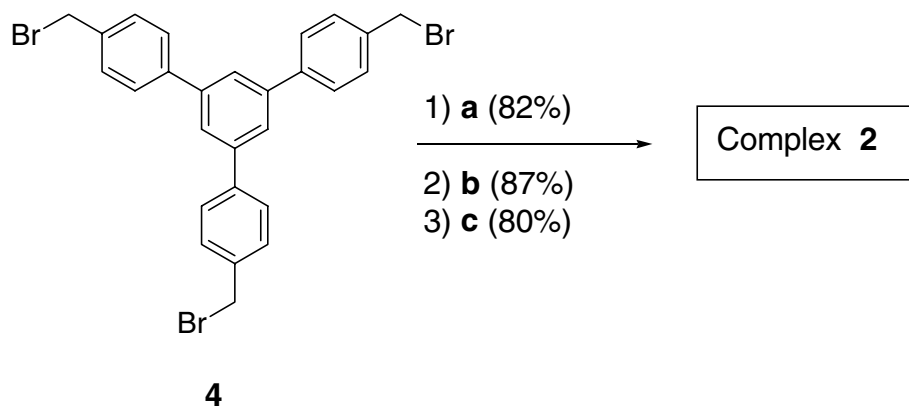
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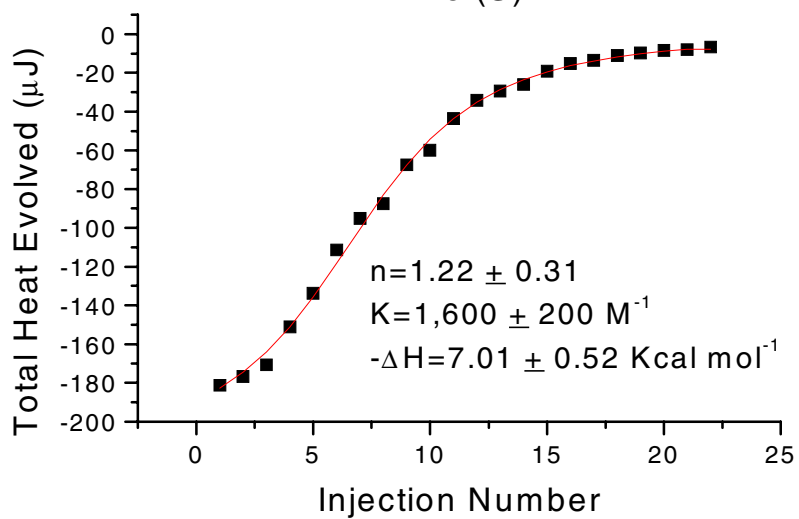
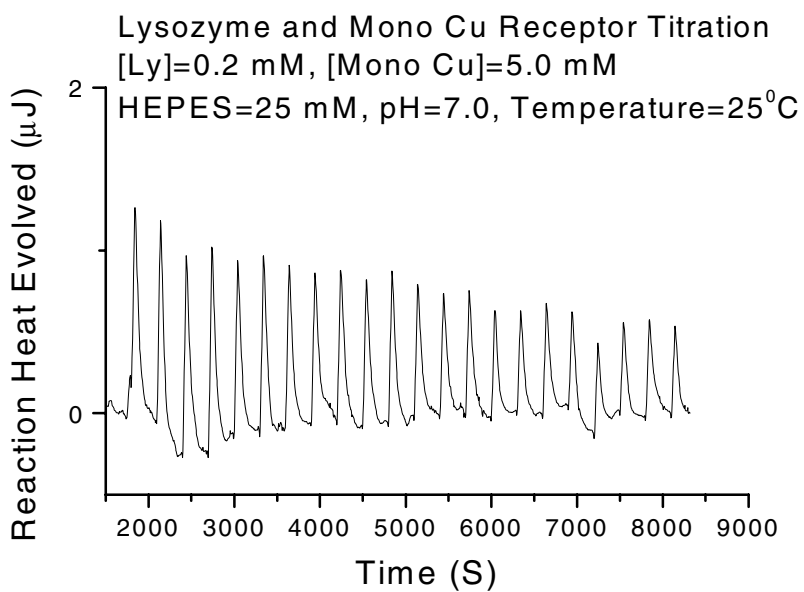
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Reagents and conditions. **a**:  $\text{HN}(\text{CH}_2\text{CO}_2\text{Et})_2$  (3 eq.),  $\text{K}_2\text{CO}_3$  (10 eq.),  $\text{CH}_3\text{CN}$   
 Sonication, 24 h. **b**:  $\text{LiOH}$  (9 eq.),  $\text{MeOH-THF}$ ,  $25^\circ\text{C}$ , 15 h then  $\text{H}_3\text{O}^+$  (pH = 3.0)  
**c**:  $\text{CuCl}_2 \cdot 2\text{H}_2\text{O}$  (3 eq.),  $\text{MeOH-H}_2\text{O}$ ,  $25^\circ\text{C}$ , 3h

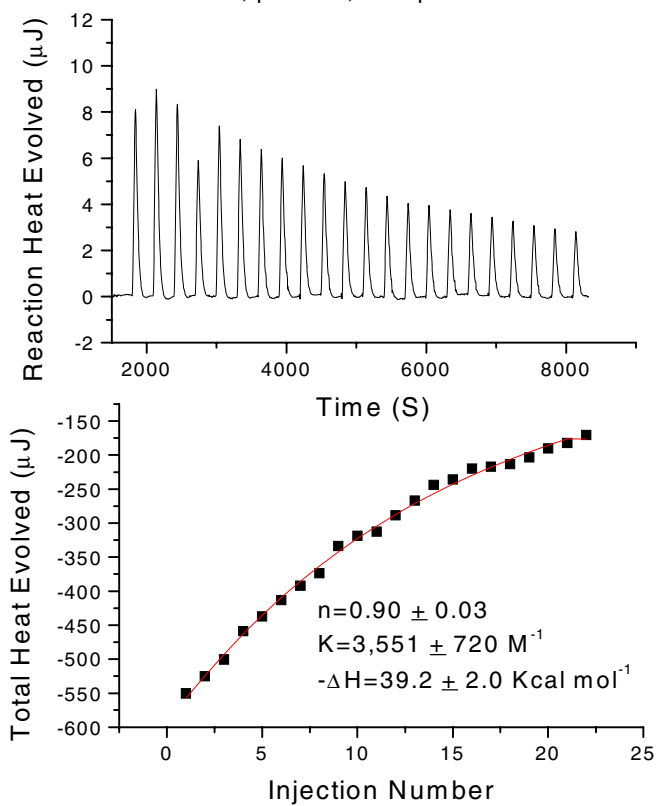
**Scheme** for the synthesis of the metal complexes **2** and **3**.



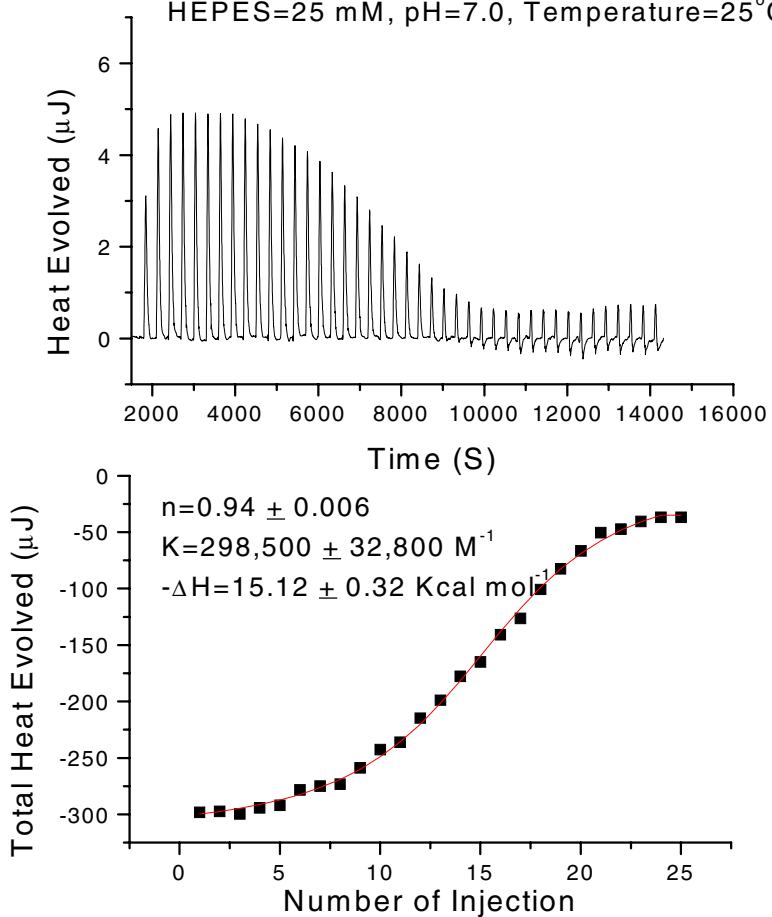
Carbonic Anhydrase and Mono Cu Receptor Titration

[CA]=0.1 mM, [m-Cu]=1.6 mM

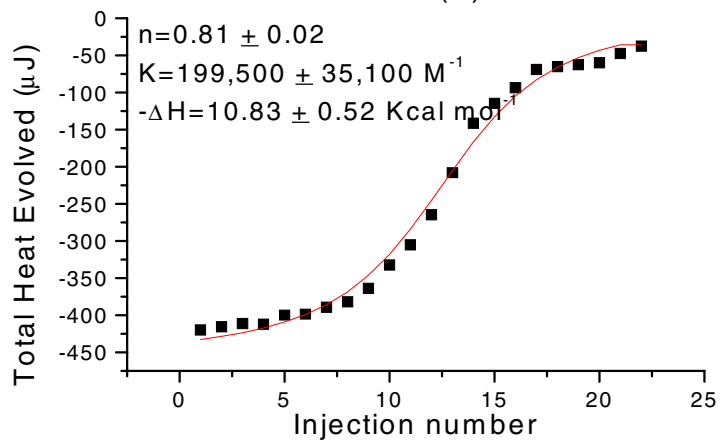
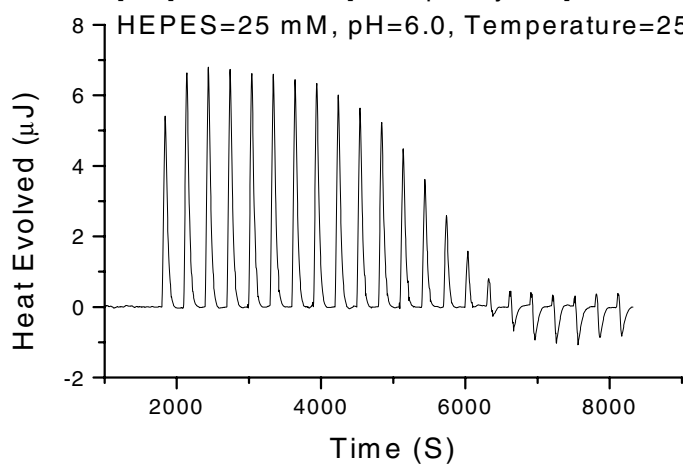
HEPES=25 mM, pH=7.0, Temperature=25 °C



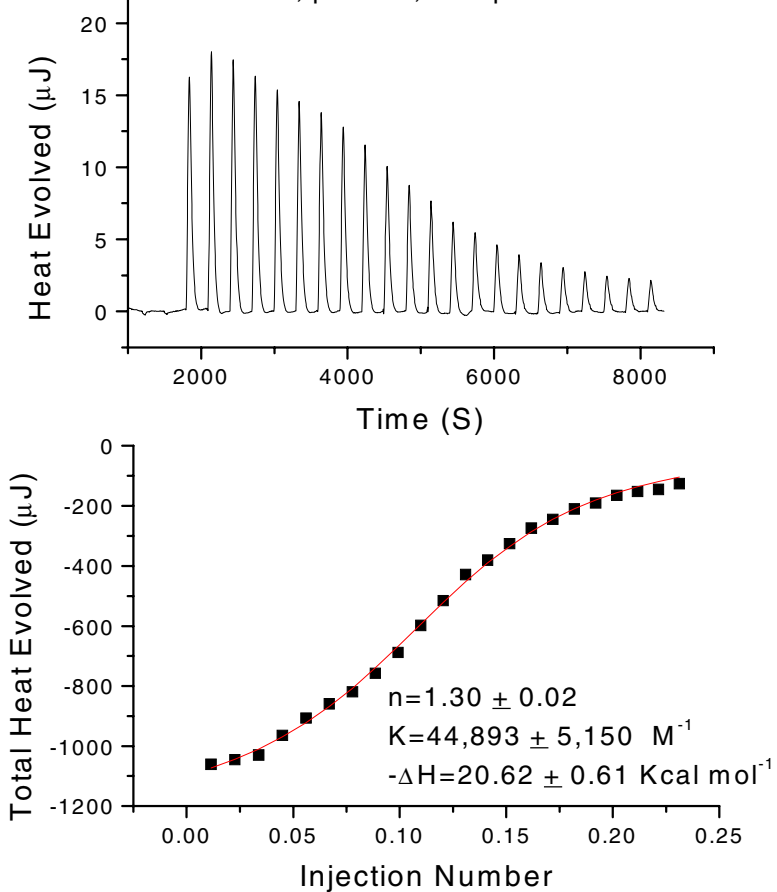
Carbonic Anhydrase and  
Tetraphenyl Cu Receptor Titration  
[CA]=0.12 mM, [Tetraphenyl Cu]=1.0 mM  
HEPES=25 mM, pH=7.0, Temperature=25°C



Carbonic Anhydrase and  
Tetraphenyl Cu Receptor Titration  
[CA]=0.125 mM, [Tetraphenyl Cu]=1.0 mM  
HEPES=25 mM, pH=6.0, Temperature=25°C



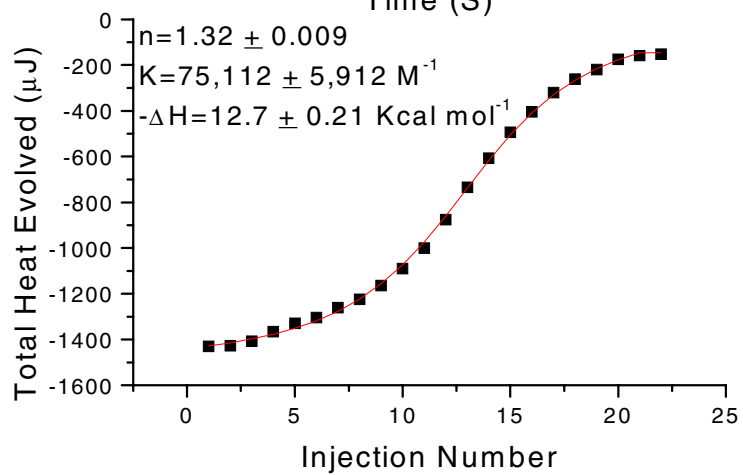
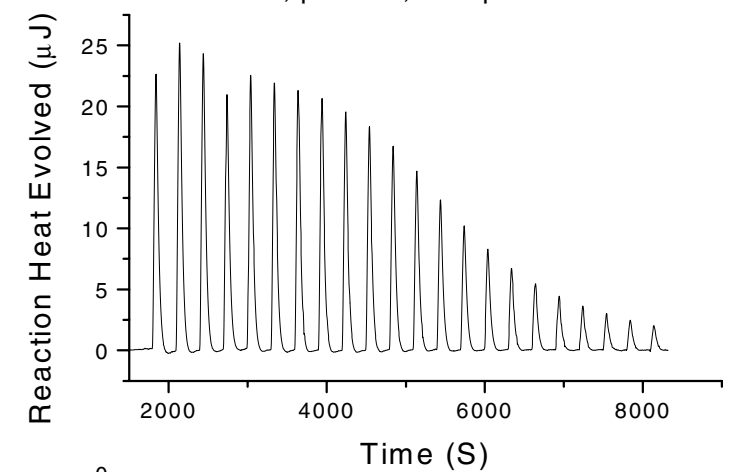
Carbonic Anhydrase and Tris Cu Receptor Titration  
[CA]=0.1 mM [Tris-Cu]=1.5 mM  
HEPES=25 mM, pH=8.0, Temperature=25°C



Carbonic Anhydrase and Tris Cu Receptor Titration

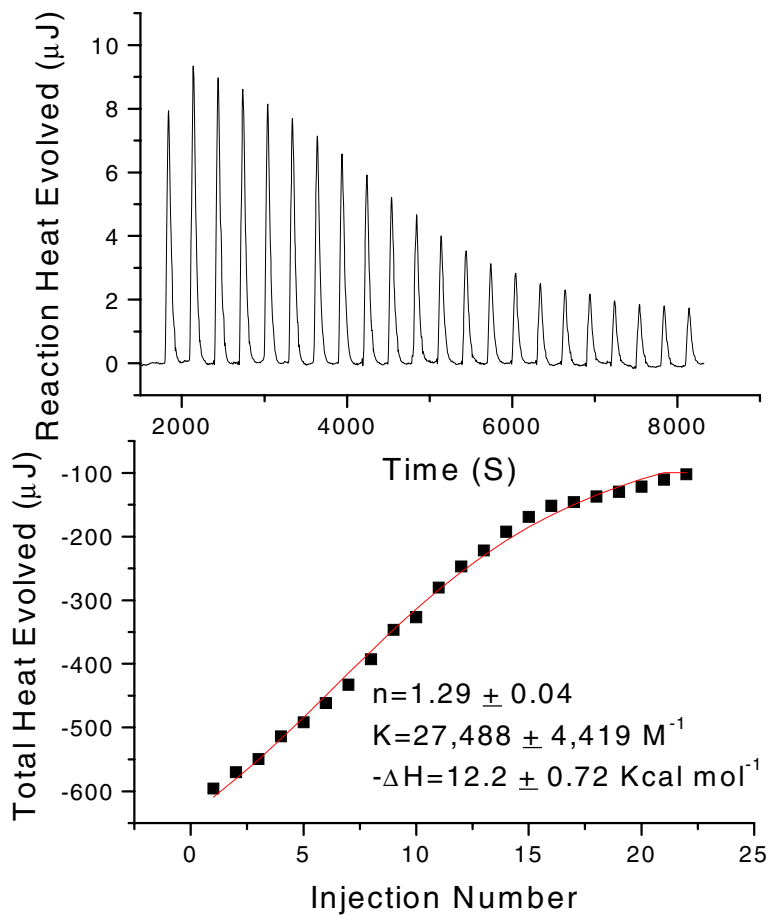
[CA]=0.2 mM, [Tris Cu]=2.5 mM

HEPES=25 mM, pH=7.0, Temperature=25°C

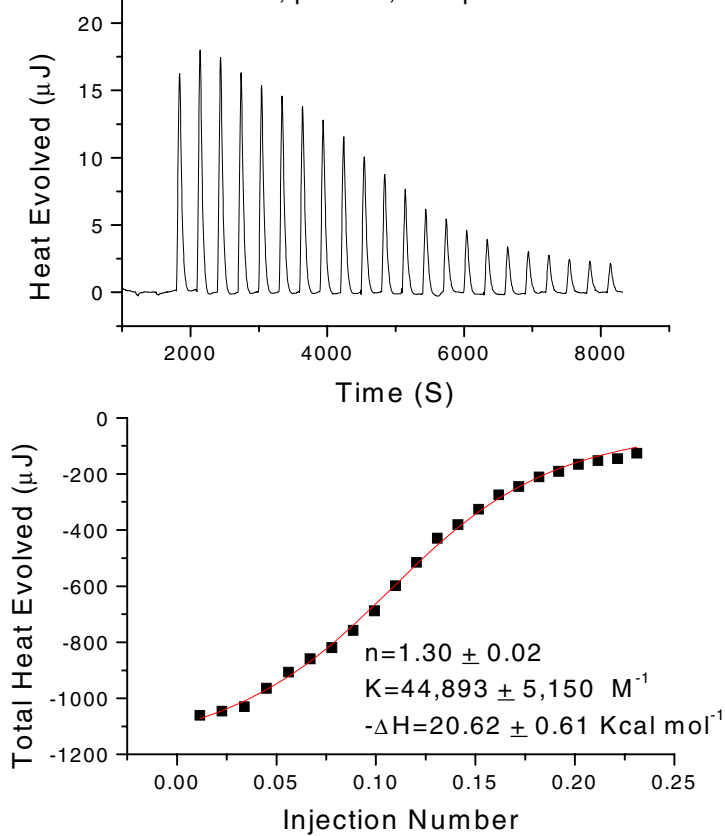




Carbonic Anhydrase and Tris Cu Receptor Titration  
[CA]=0.1 mM, [Tris Cu]=1.5 mM  
HEPES=25 mM, pH=6.0, Temperature=25°C



Carbonic Anhydrase and Tris Cu Receptor Titration  
[CA]=0.1 mM [Tris-Cu]=1.5 mM  
HEPES=25 mM, pH=8.0, Temperature=25°C



Chicken Egg Albumin and Tris Cu Receptor Titration

[CEA]=0.1 mM, [Tris Cu]=2.0 mM

HEPES=25 mM, pH=7.0, Temperature=25°C

