Supporting Information

An Integrated Biophysical Approach to Discovering Mechanisms of NDM-1 Inhibition for Several Thiol-Containing Drugs

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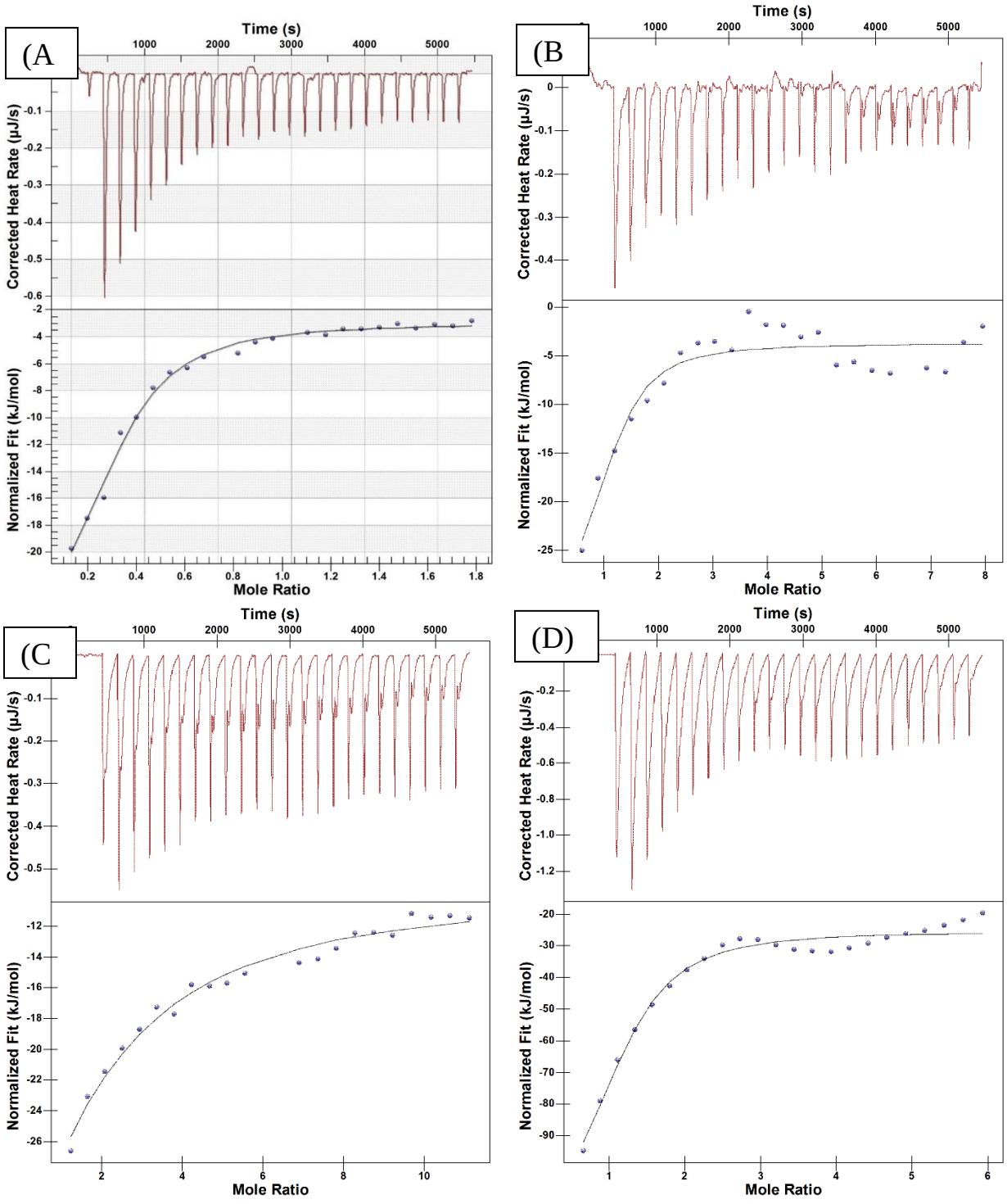

Figure S1. ITC titrations of ZnZn-NDM-1 with (A) thiorphan, (B) captopril, (C) tiopronin, and (D) 2,3-dimercaprol. Upper panels show titration thermograms (red); lower panels show the integrated data with fitted curves (blue).

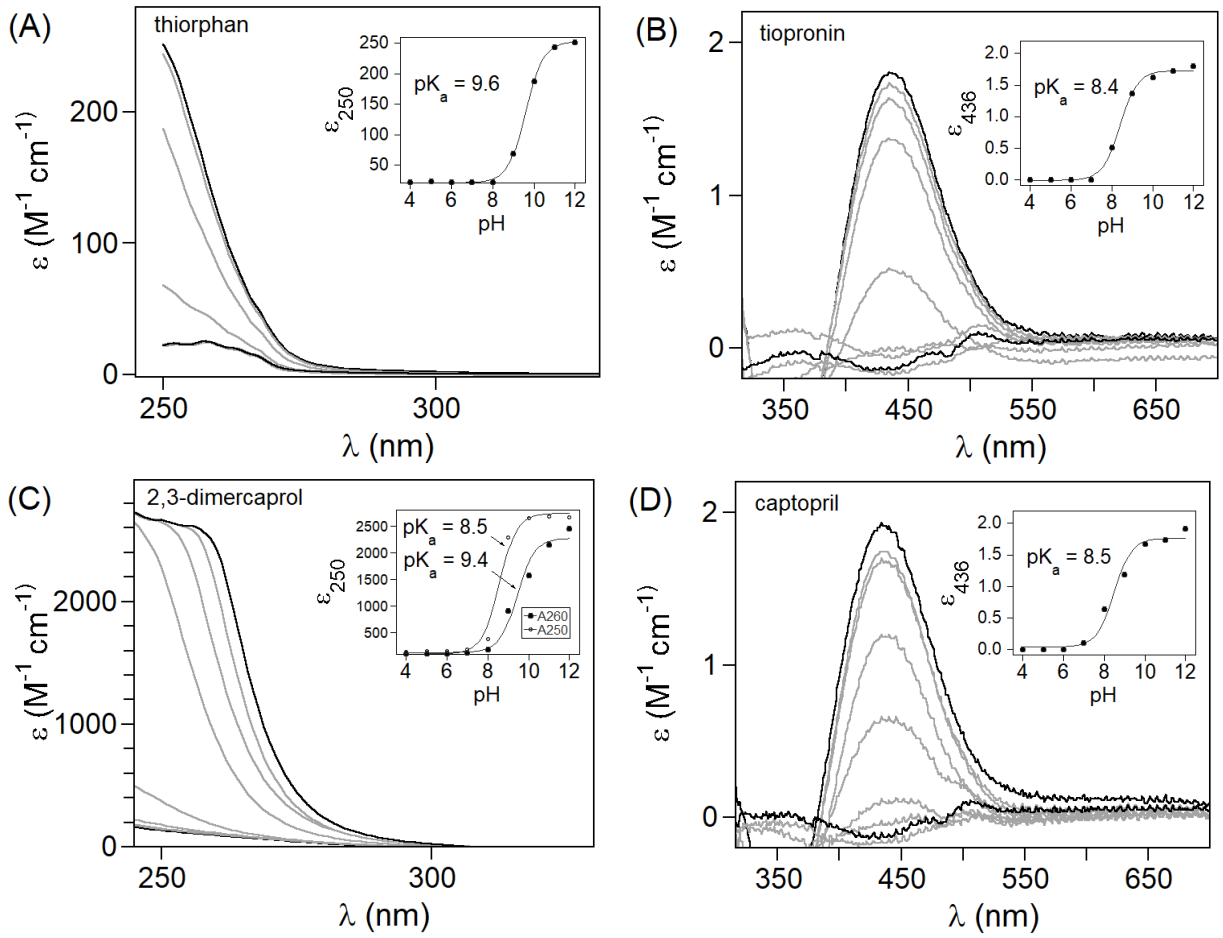

Figure S2. UV-visible spectra of **(A)** 10 mM thiorphan, **(B)** 10 mM tiopronin, **(C)** 1 mM dimercaprol, and **(D)** 10 mM captopril, as a function of pH. In each case, the low pH (low ε) and high pH (high ε) spectrum is shown in black, with the intervening pH values shown in gray. **Insets:** Fits to ε at λ_{max} vs. pH, according to Eq. 1 (see text).

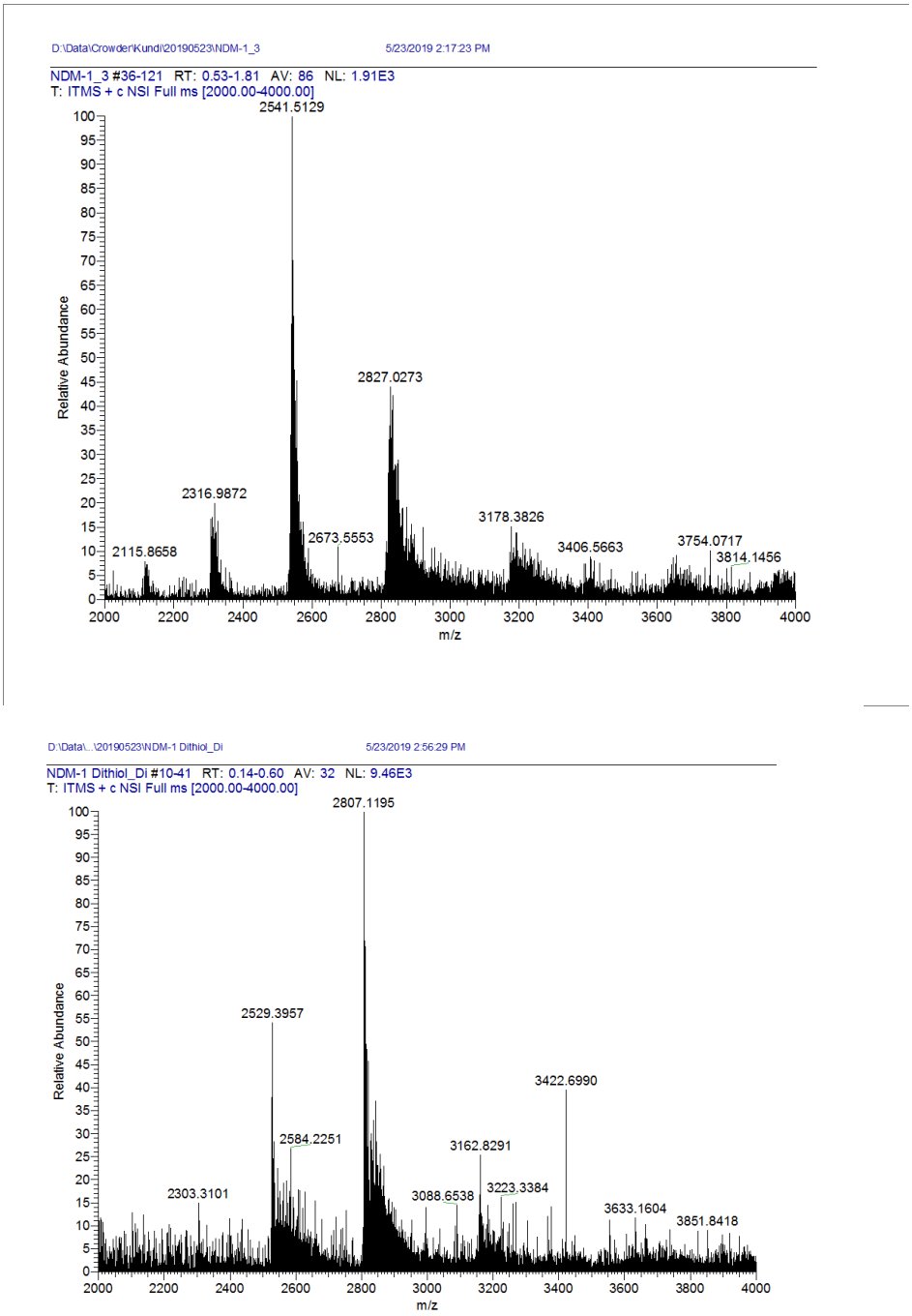

Figure S3. Native-ESI MS data for **(top)** ZnZn-NDM-1 and **(bottom)** ZnZn-NDM-1 treated with 2,3-dimercaprol. Both protein samples were in 100 mM ammonium acetate, pH 7.5. The +10 and +9 charged peaks were observed from both samples in positive mode.

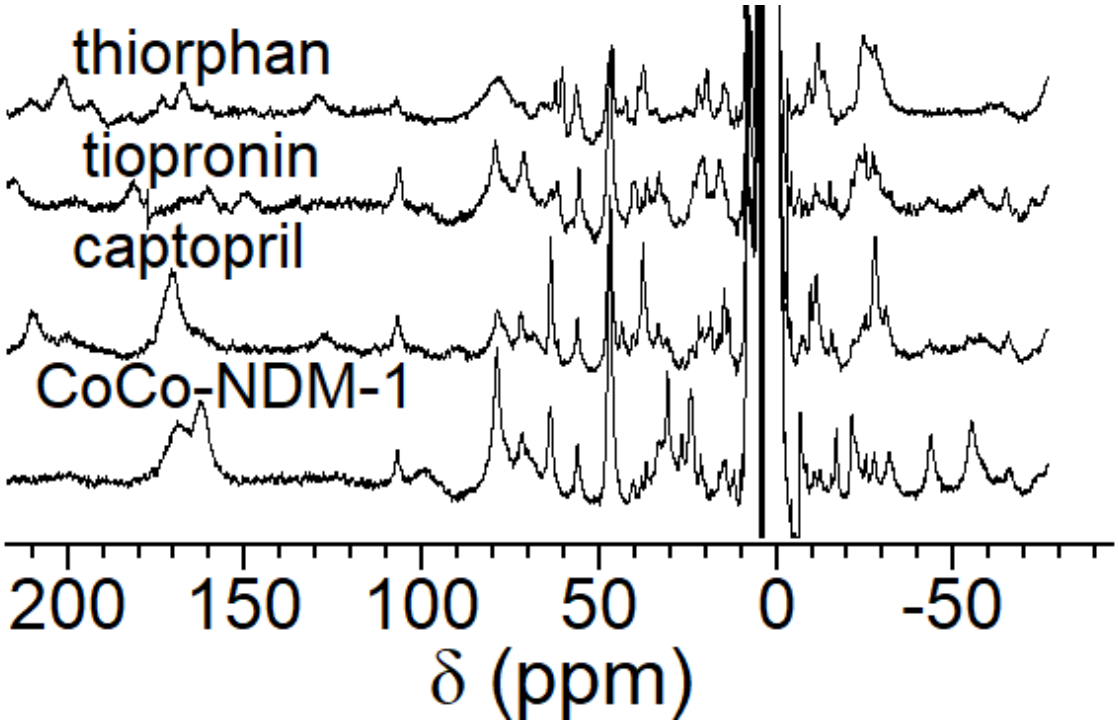

Figure S4. ^{1}H NMR spectra of CoCo-NDM-1 thiol inhibitor complexes, as collected.

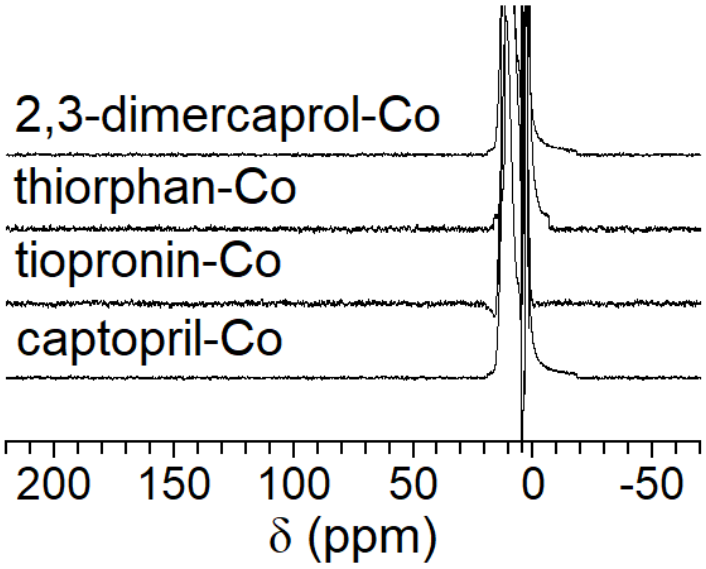

Figure S5. ^{1}H NMR spectra of Co(II) in the presence of excess inhibitor (without enzyme).

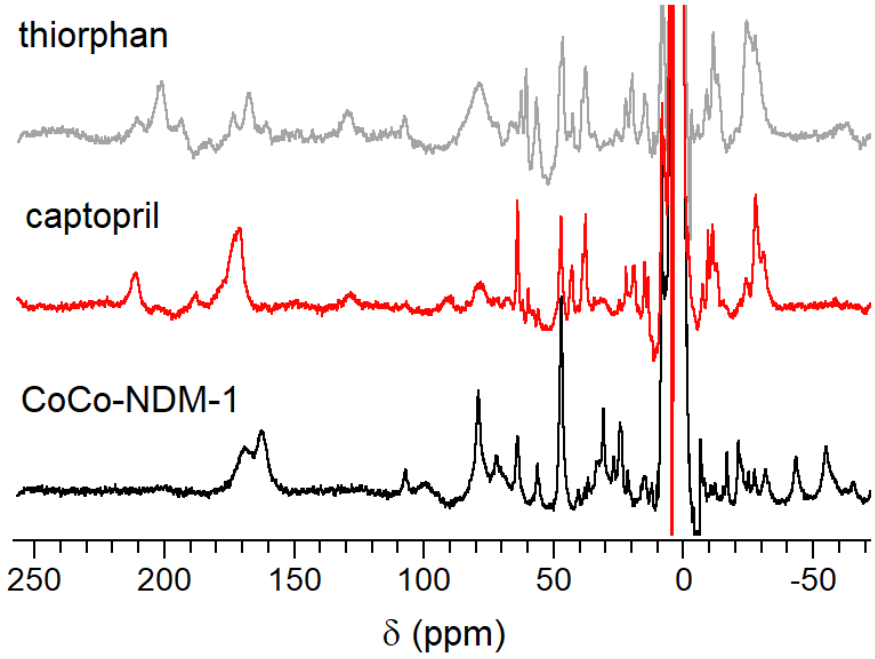

Figure S6. Comparison of the ^{1}H NMR spectra for CoCo-NDM-1, and its complexes with thiorphan and captopril.