**Appendix A. Supplementary Information for**

# Chromium scavenging ability of Silver Nanoparticles in Human Erythrocytes, real samples and its effect on Catalase Enzyme.

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## Contents

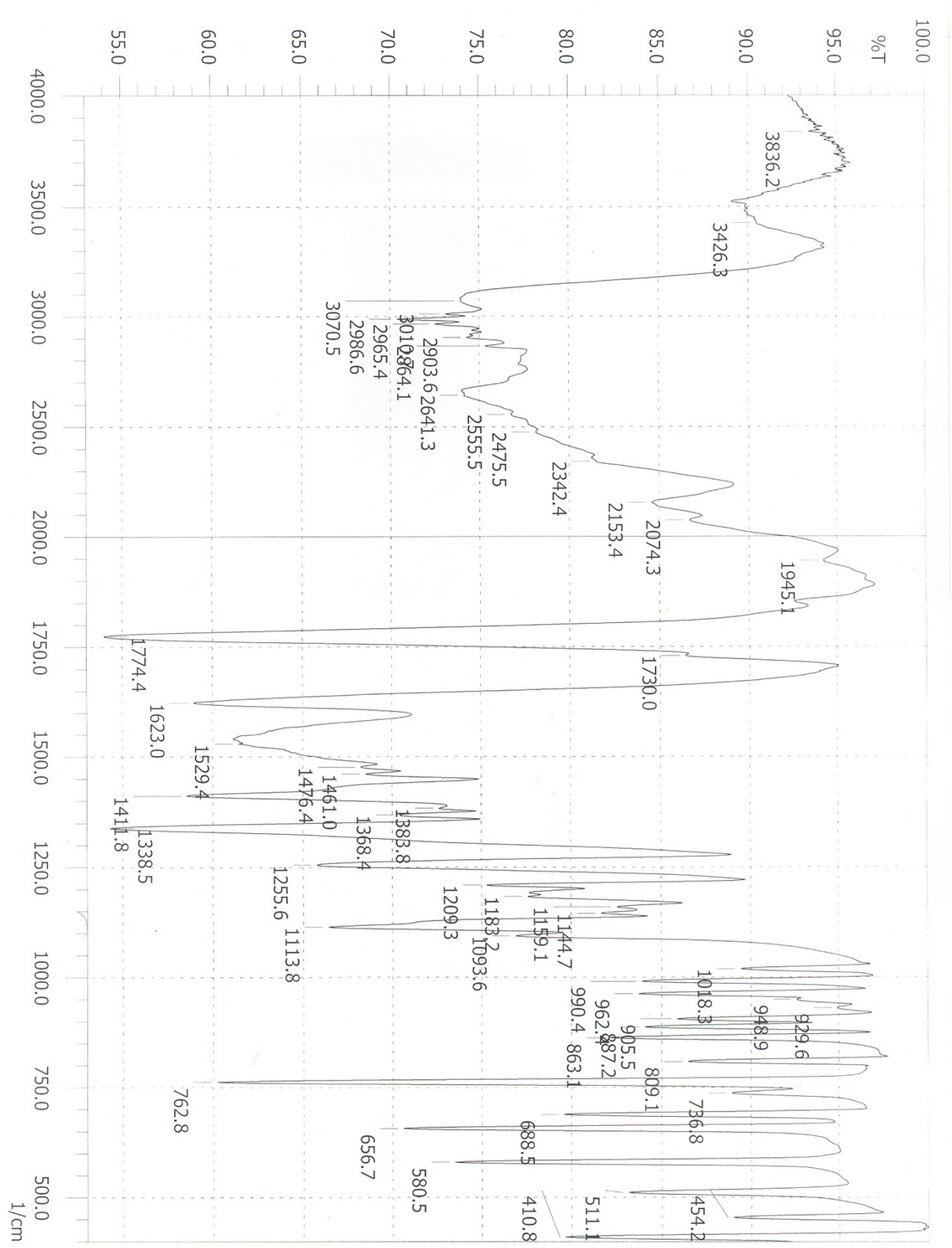


Fig. S1: Fourier Transform infrared spectrum of 6-aminopenicillanic acid.

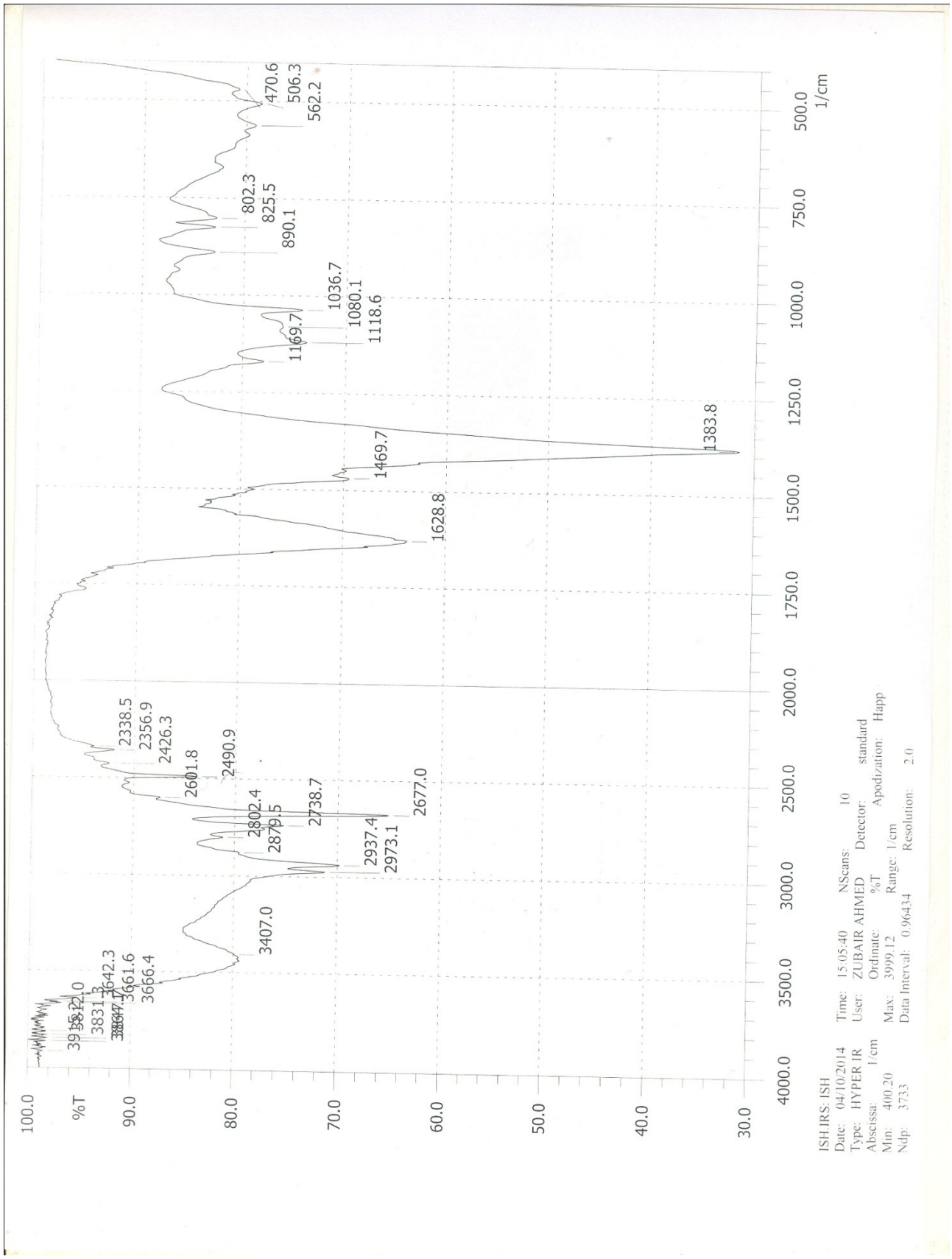


Fig. S2: Fourier Transform infrared spectrum of freeze dried 6APA-AgNPs separated from the mother liquor after centrifugation at 15000 rpm for 30 minutes.

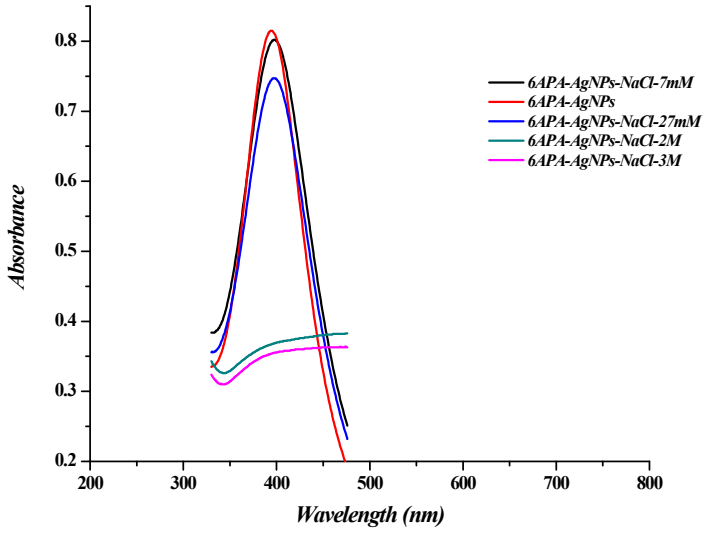


Figure S3: Modulation of absorption spectrum of synthesized functional conjugates of silver with 6-aminopenicillanic acid (150 µM) upon the addition of 7 and 27 mM, 2 and 3 M of NaCl in water.

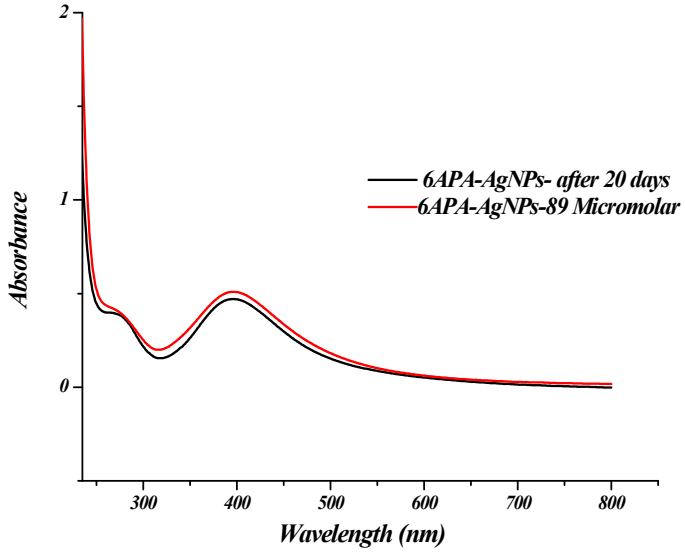


Figure S4: Modulation in Surface plasmon resonance of 6APA-AgNPs on storage for 20 days.

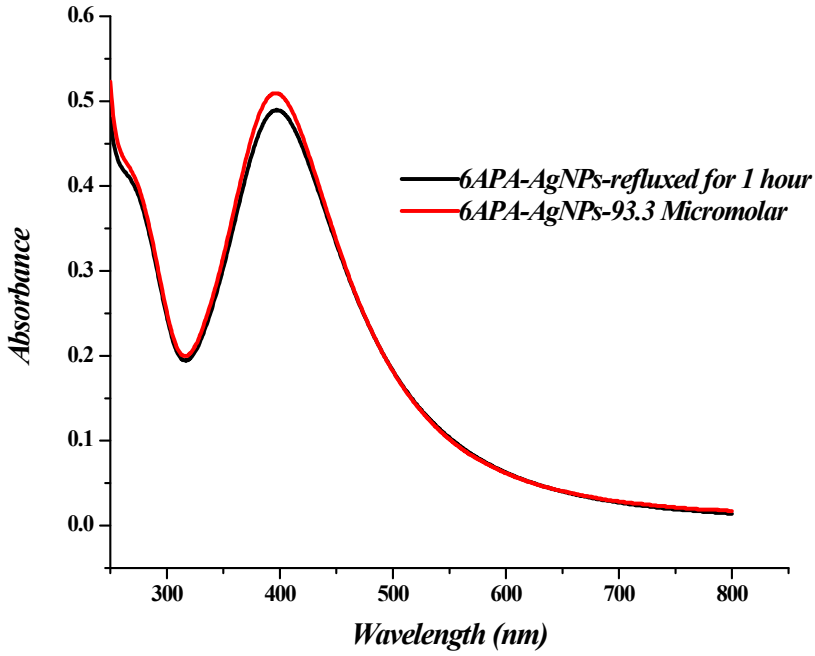


Figure S5: Modulation in Surface plasmon resonance of 6APA-AgNPs on refluxing the freshly prepared sample for 1 hour.

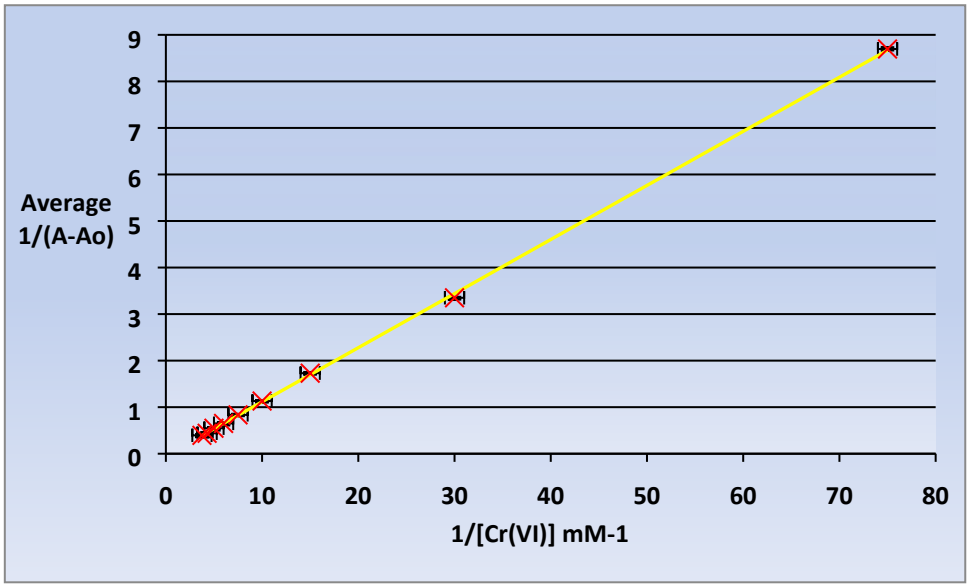


Figure S6: Benesi-Hildebrand plot for 1:1 complexation of 6APA-AgNPs (133.3 µM) with Cr(VI). All values are expressed as mean ± Standard Deviation. Error bar represents the standard deviation for three readings.

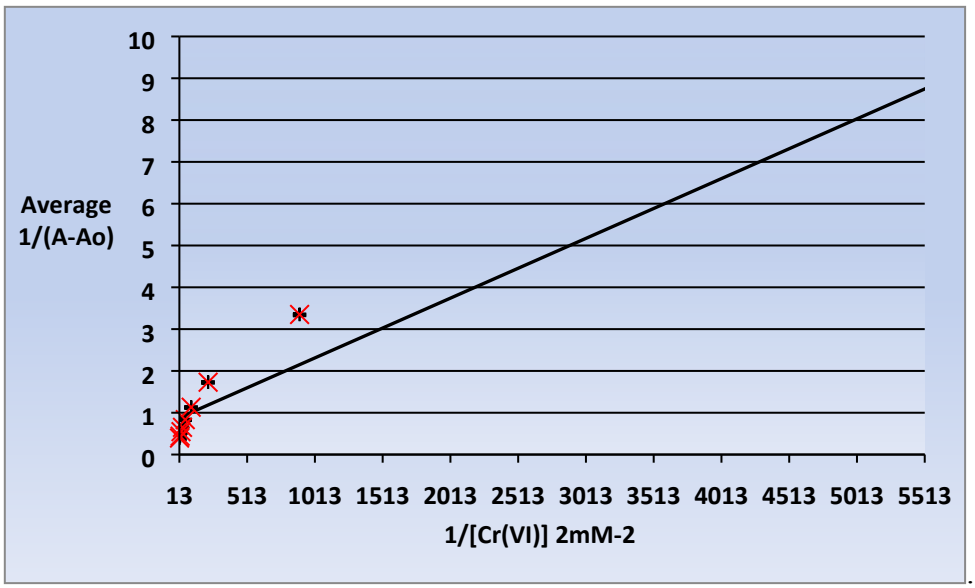


Figure S7: Benesi-Hildebrand plot for 1:2 complexation of 6APA-AgNPs (133.3 µM) with Cr(VI).The association constant evaluated by equation 2 is (K= 862 $M^{-2}$). All values are expressed as mean ± Standard Deviation. Error bar represents the standard deviation for three readings.

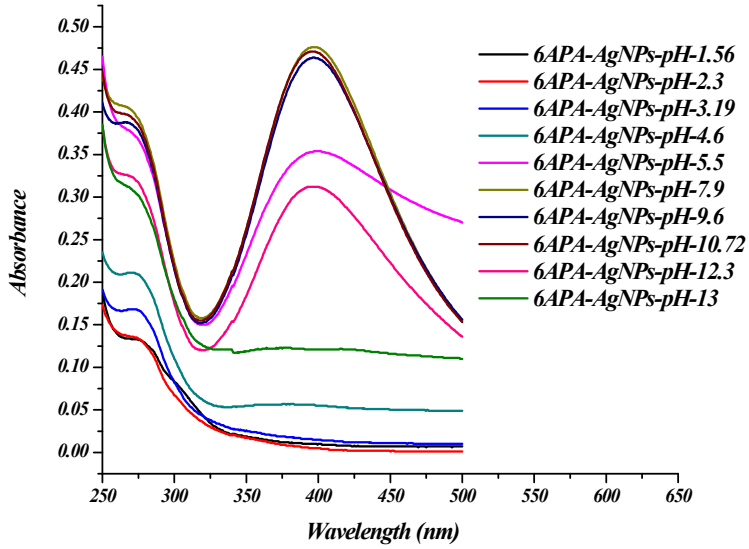


Figure S8: Modulation of surface plasmon resonance of functional conjugate of silver with 6-aminopenicillanic acid (142.8 µM) at various pH.

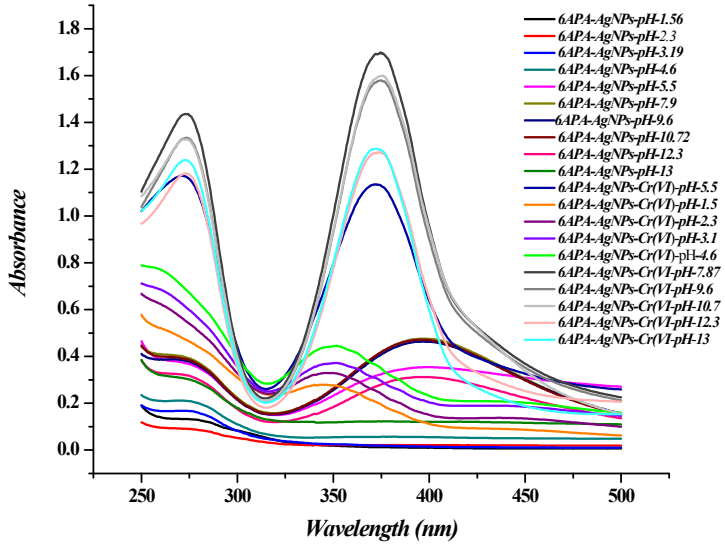


Figure S9: Spectral response of 6APA-AgNPs-Chromium (VI) complex at various pH.

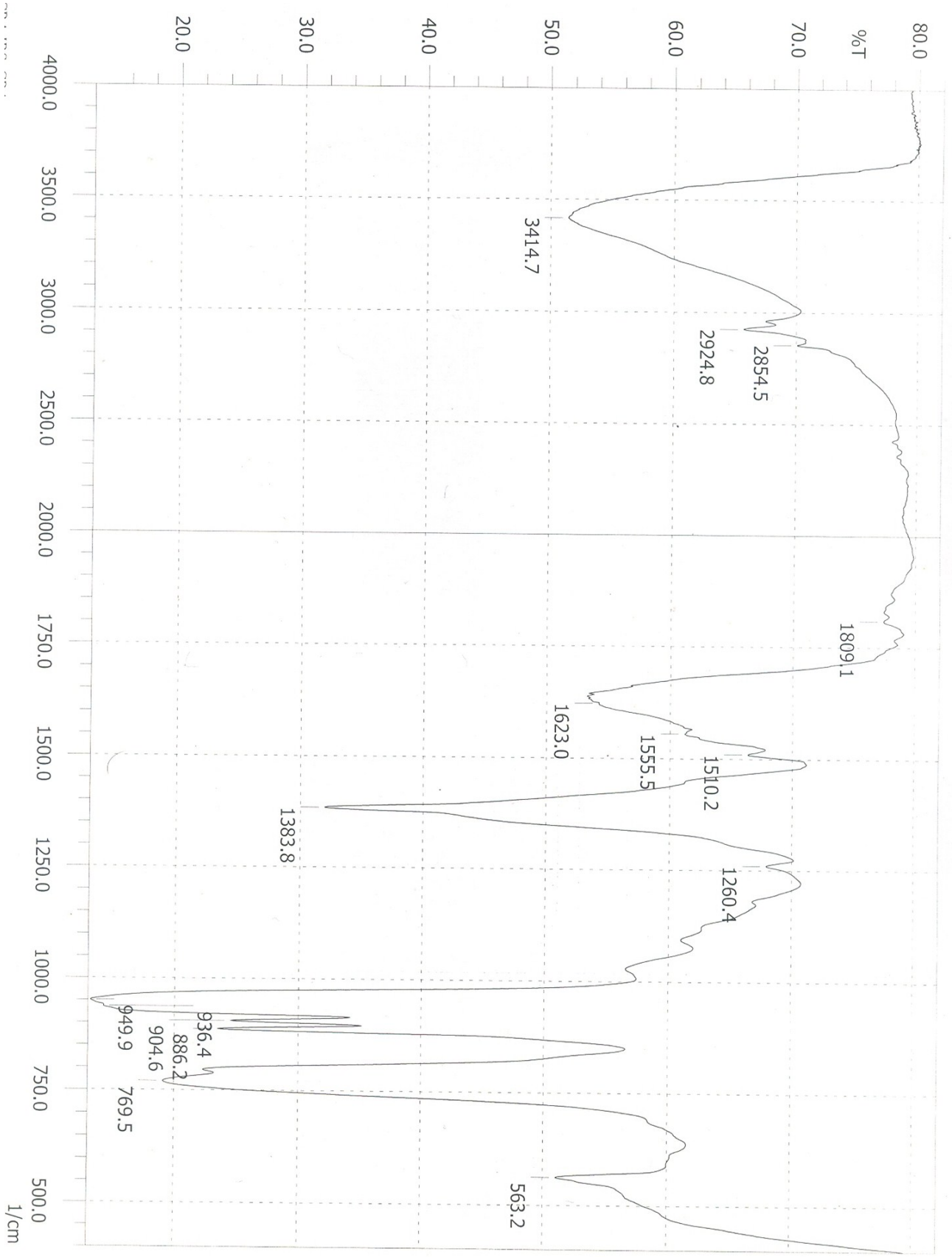


Fig. S10: Fourier Transform infrared spectrum of freeze dried 6APA-AgNPs-Cr (VI) complex separated from the mother liquor after centrifugation at 15000 rpm for 30 minutes.