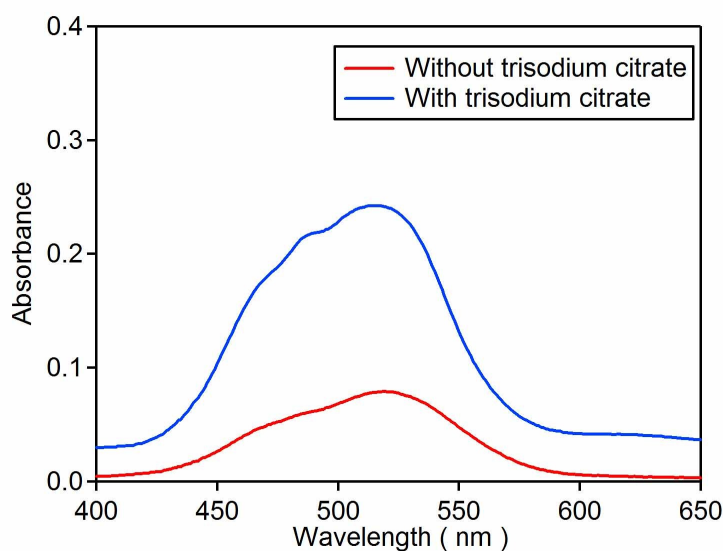


Supporting Information for

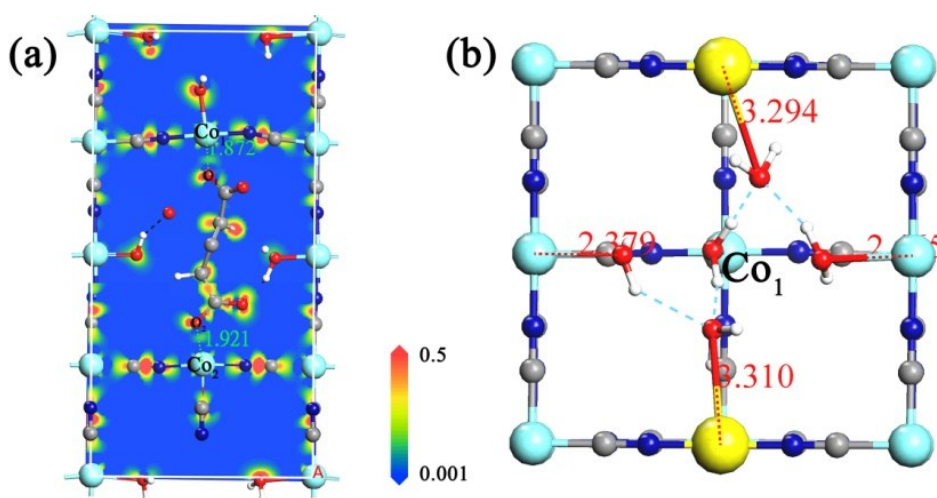
## Facile preparation of Prussian blue analogue $\text{Co}_3[\text{Co}(\text{CN})_6]_2$ with fine-tuning color transition temperature as thermochromic material

**Table S1** The main existed species in solution A with various amount of sodium citrate.

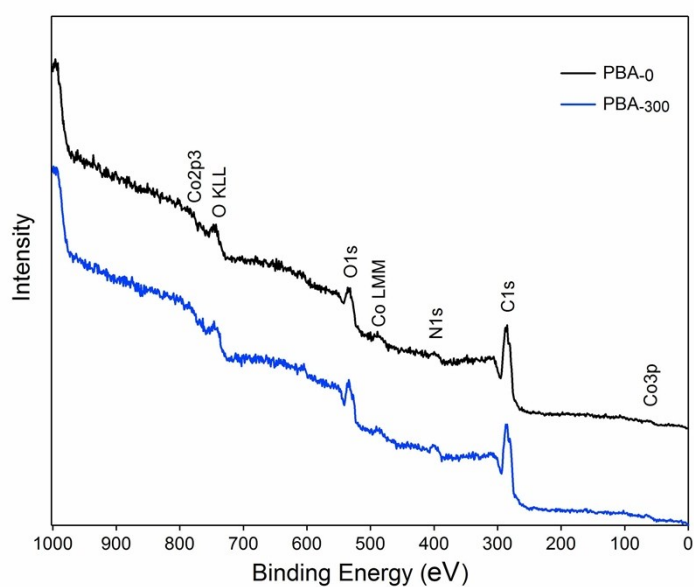
Amount of sodium citrate (mg)	Molar ratio of citrate to Co(II)	pH value of the solution	the main mode of Co(II) in solution
0	0	6.80	$\text{Co}(\text{H}_2\text{O})_6^{2+}$
100	0.568	6.01	$\text{Co}(\text{H}_2\text{O})_6^{2+}$ and $\text{Co}(\text{C}_6\text{H}_5\text{O}_7)^-$
200	1.137	6.40	$\text{Co}(\text{C}_6\text{H}_5\text{O}_7)^-$ with a small amount of $\text{Co}(\text{C}_6\text{H}_5\text{O}_7)_2^{4-}$ and $\text{Co}(\text{H}_2\text{O})_6^{2+}$
265	1.506	6.5	$\text{Co}(\text{C}_6\text{H}_5\text{O}_7)^-$ with a small amount of $\text{Co}(\text{C}_6\text{H}_5\text{O}_7)_2^{4-}$ and $\text{Co}(\text{H}_2\text{O})_6^{2+}$
300	1.705	6.60	$\text{Co}(\text{C}_6\text{H}_5\text{O}_7)^-$ with a small amount of $\text{Co}(\text{C}_6\text{H}_5\text{O}_7)_2^{4-}$ and $\text{Co}(\text{H}_2\text{O})_6^{2+}$



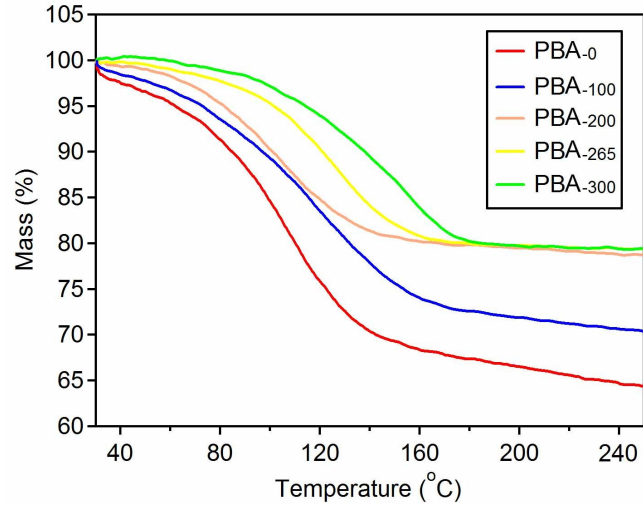
**Figure S1.** Visible light absorption spectra of cobalt acetate solution with and without sodium citrate.



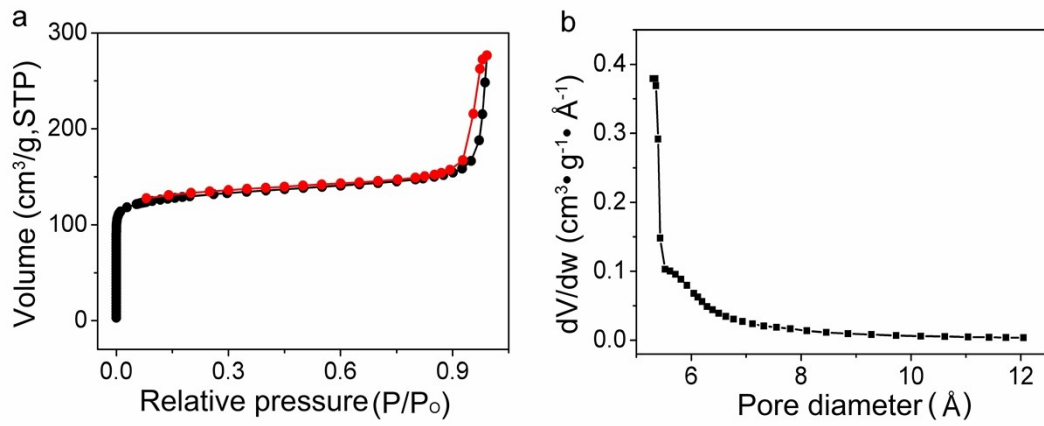
**Figure S2.** Electron difference density maps of citrate substituted PBA (a) and detailed structural parameters for neighboring Co atoms coordinated with water (b). The yellow ball represented the Co atoms with changed coordination environment.



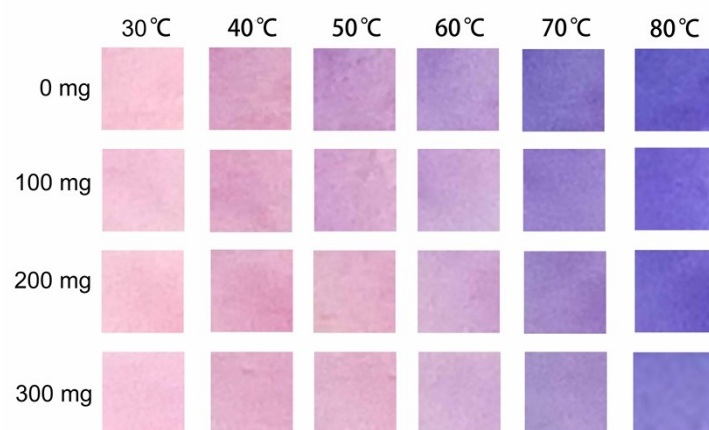
**Figure S3.** XPS survey spectra of PBA<sub>0</sub> and PBA<sub>300</sub>.



**Figure S4.** TG curves of the prepared PBAs.



**Figure S5.** N<sub>2</sub> adsorption-desorption isotherms (a) and pore size distribution curve (b) of PBA-265.



**Figure S6.** Color evolution of the prepared PBAs obtained in presence of different amount of sodium tartrate.