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Supporting information

Application of reversible thermochromic Co-MOF in smart windows

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Cobalt acetate/PVB film preparation: A suspension was prepared by dispersing 75 mg of cobalt(II) acetate tetrahydrate powder in 0.5 mL DMF using bath sonication for 10 min. Subsequently, 4 g of PVB solution (7.5 wt% in DMF) was added to the cobalt(II) acetate tetrahydrate suspension. The mixture was subjected to 90 min of ultrasonic bath sonication, followed by overnight stirring. $Co(OAc)_2$/PVB film were produced by casting the suspension onto ITO glass slides, evaporating the solvent at 40 °C.

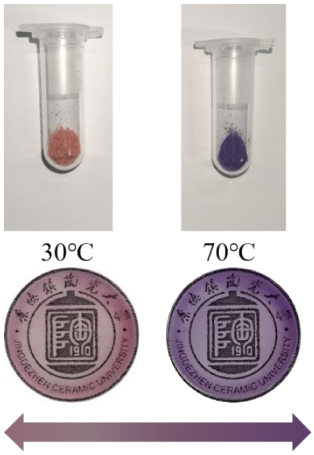

Fig. S1. The photographs of cobalt acetate/PVB film at different temperatures under 73% relative humidity.

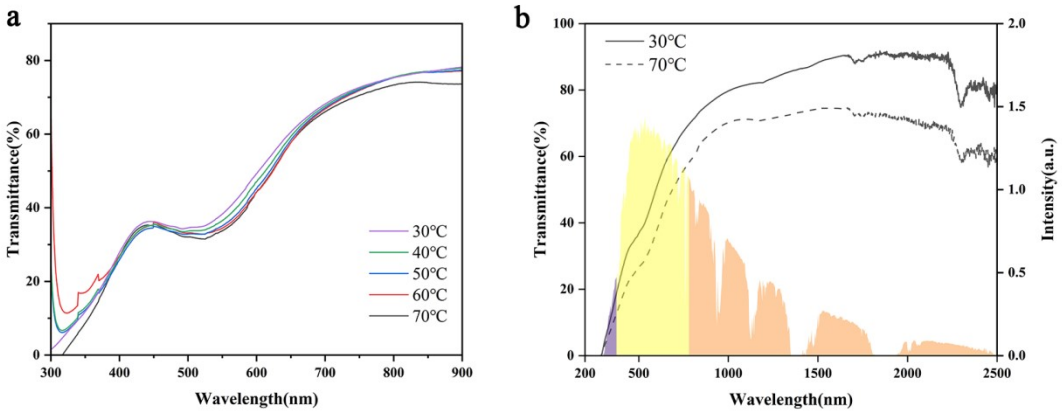

Fig. S2. (a) The UV-vis spectra of the cobalt acetate/PVB film at various temperatures under 70% relative humidity. (b) The UV-vis-NIR transmission spectra of cobalt acetate/PVB window at different temperatures. The purple-yellow-orange area indicates the normalized values of the UV (purple), visible (yellow), and NIR (orange) spectra spectral irradiance.

Table S1 Optical properties of cobalt acetate/PVB window at 30 °C and 70 °C.

Sample	T_{sol} (%)		ΔT_{sol} (%)	T_{vis} (%)		ΔT_{vis} (%)	T_{NIR} (%)		ΔT_{NIR} (%)
	30°C	70°C	—	30°C	70°C	—	30°C	70°C	—
cobalt acetate/PVB window	56.71	45.89	10.82	46.72	35.47	11.25	80.29	67.32	12.97