



Fig. S1 Sample color of the sample obtained after milling at MRVP 30:1 for 3h.

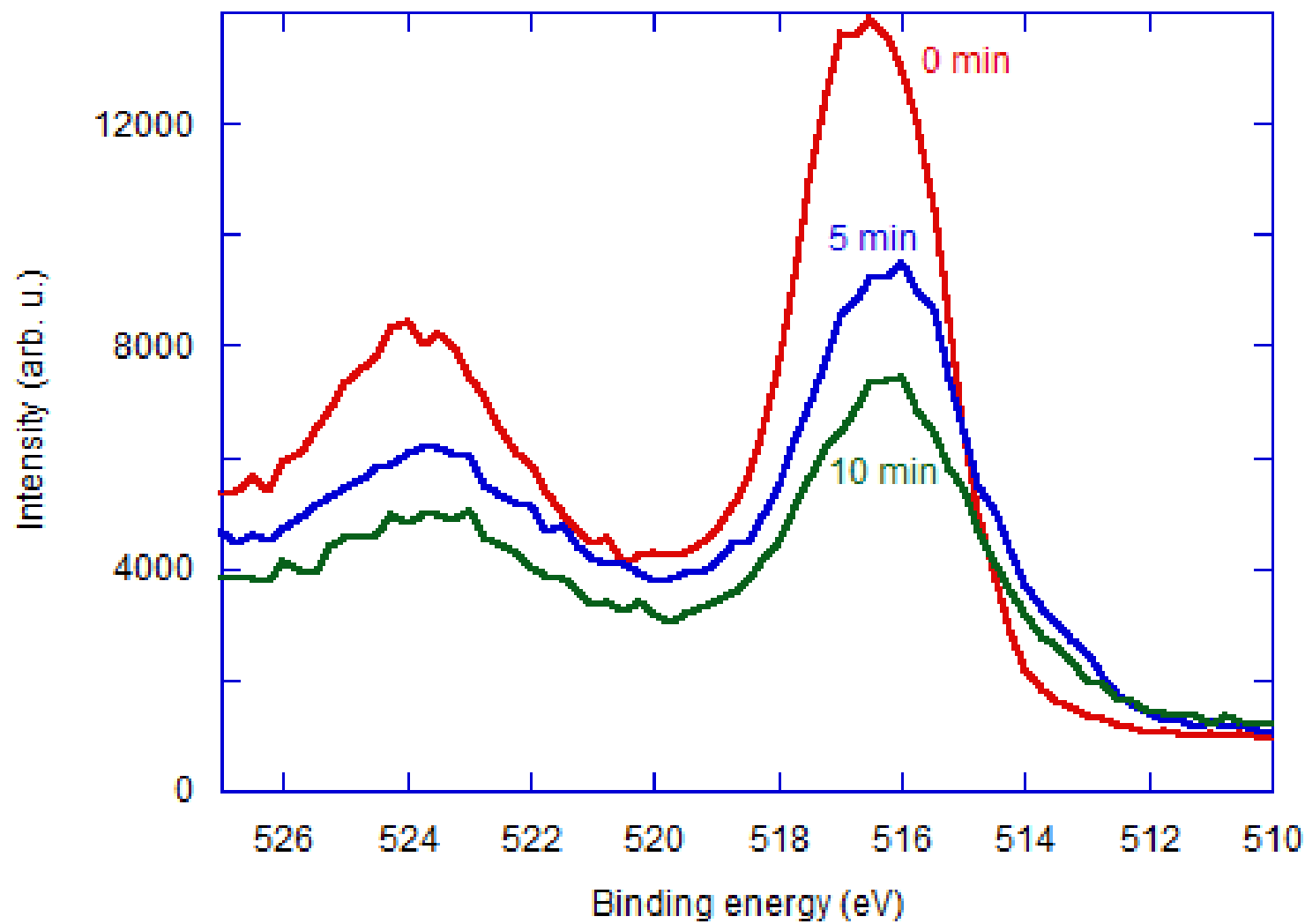


Fig. S2 V2p XPS profiles of 30:1 with varying etching time

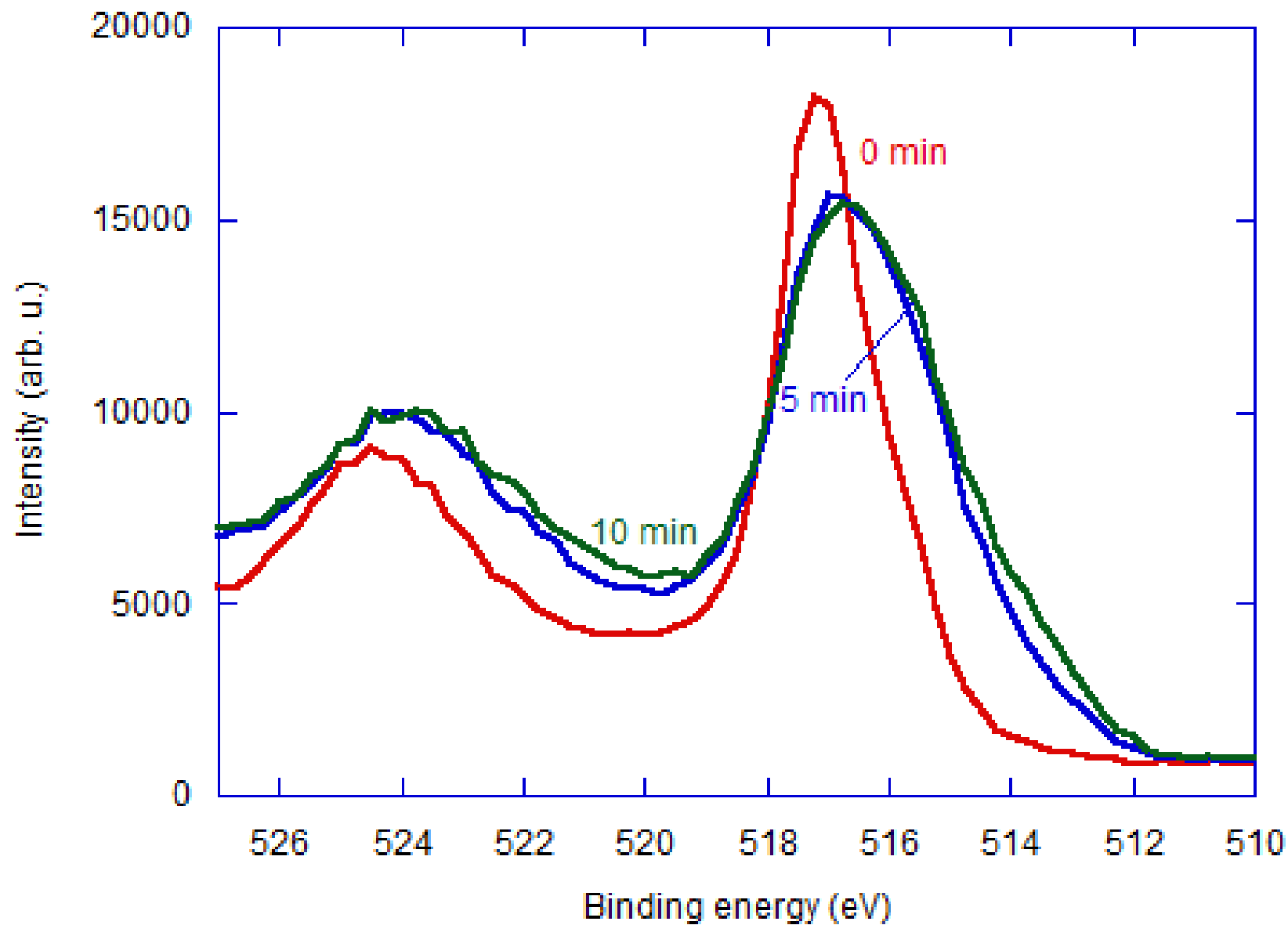


Fig. S3 V2p XPS profiles of VO2 with varying etching time

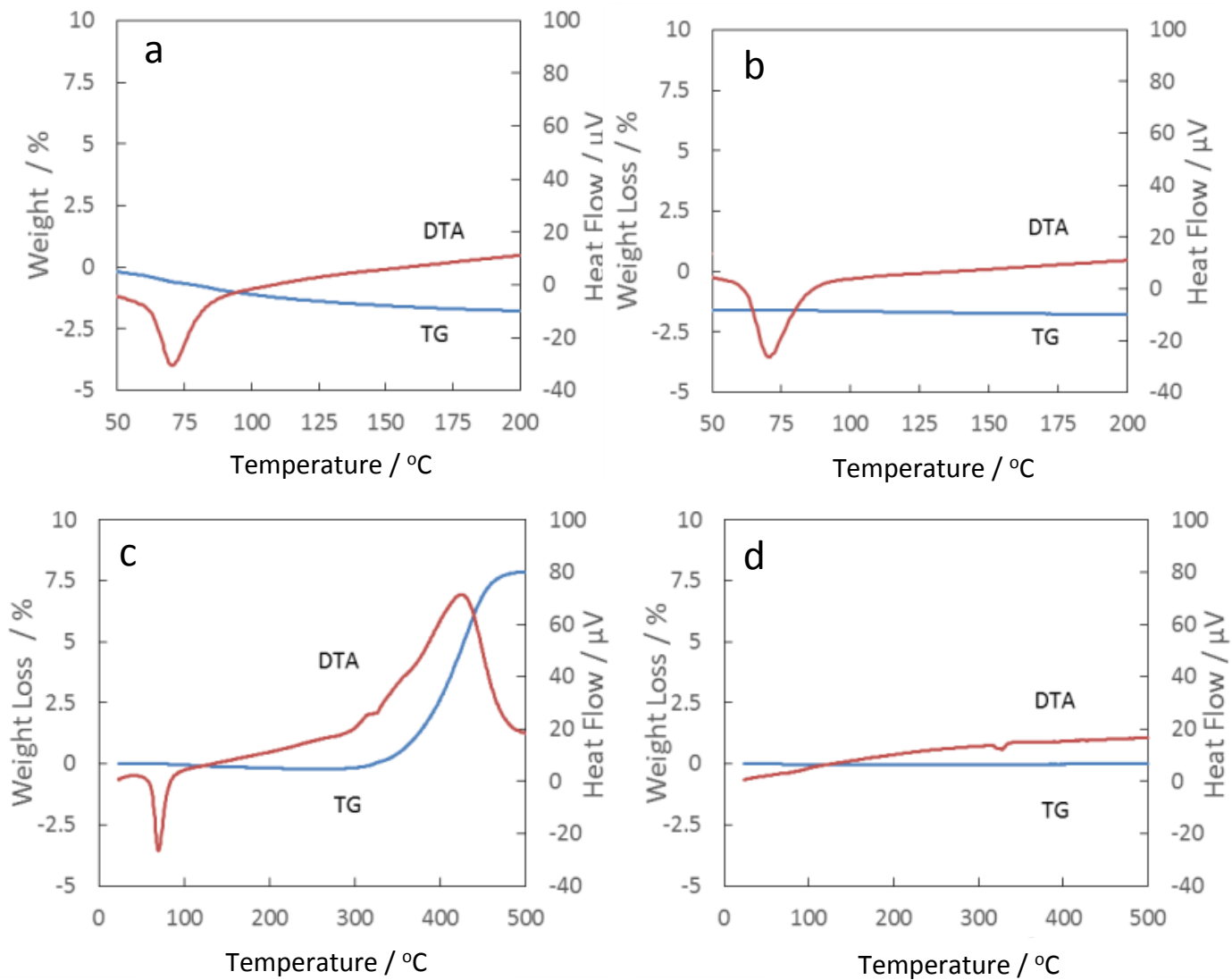


Fig. S4 TG-DTA profiles of the first and second cycles of commercial VO₂ for the temperature spans, 50 °C~200 °C (a and b) and 50 °C~500 °C (c and d)..

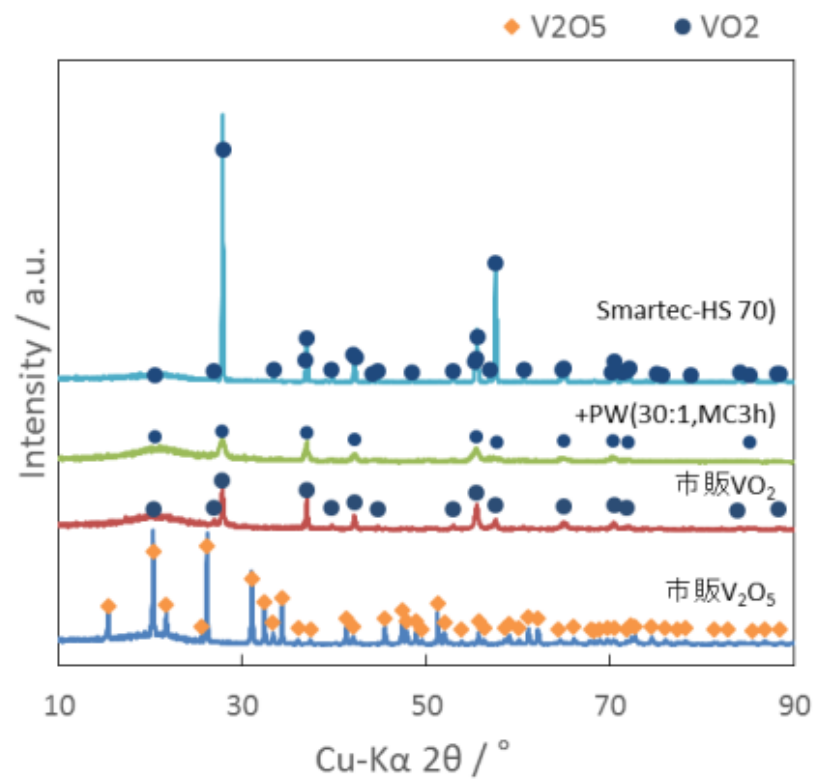


Fig. S5 X-ray diffractogram of commercial heat storage material, Smartec HS 70 compared with other VO_2 and V_2O_5 samples

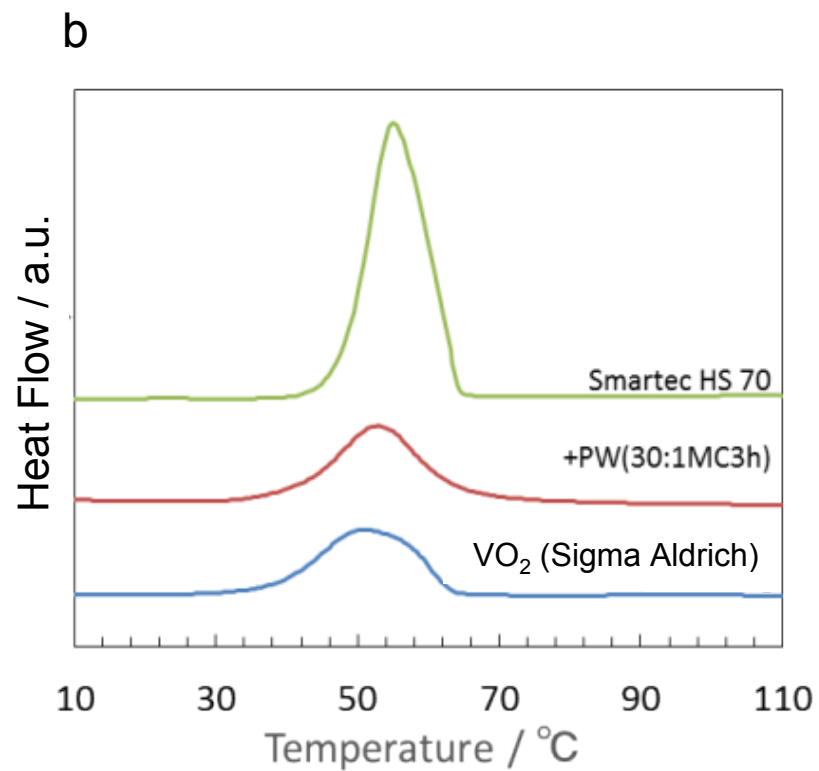
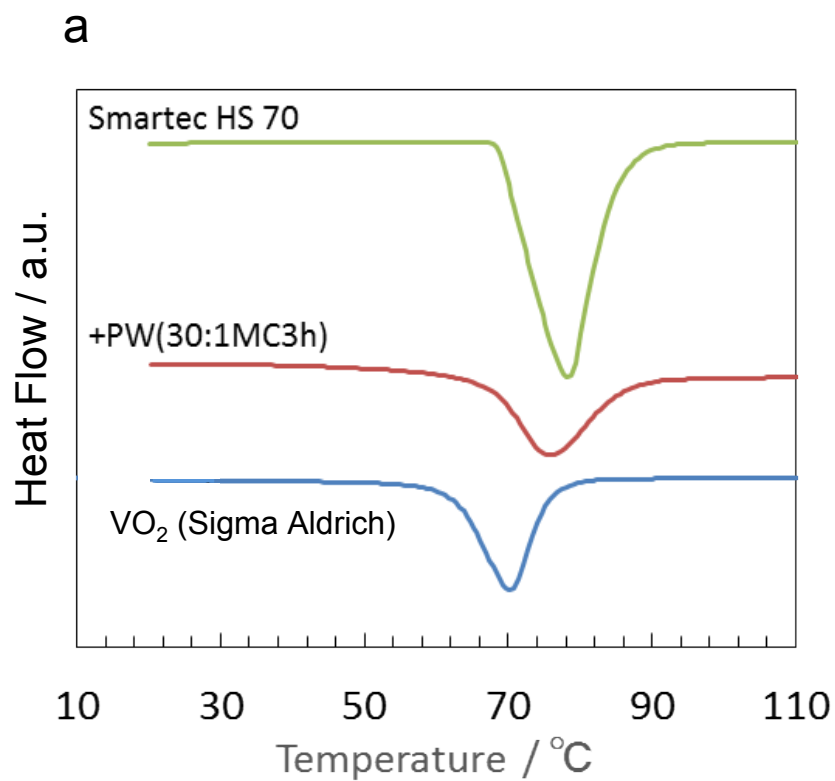


Fig. S6 DSC profiles of the milling time, 3h, with varying V₂O₅:HC ratio 30:1, compared with commercial VO₂ and heat storage material Smartec HS 70