

Electronic Supplementary Information

Direct and Continuous Hydrothermal Flow Synthesis of Thermo-chromic Phase Pure Monoclinic VO₂ Nanoparticles

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Full width half maximum of peak (001) of XRD patterns

Table 1a: FWHM of un-doped VO₂ and Nb-doped VO₂ calculated via Origin software with PersonVII peak function.

Samples	Un-doped VO ₂	Nb-doped VO ₂
FWHM	0.32 ± 0.01	0.52 ± 0.03

Continuous Hydrothermal Flow Synthesis (CHFS) of VO₂ nanoparticles

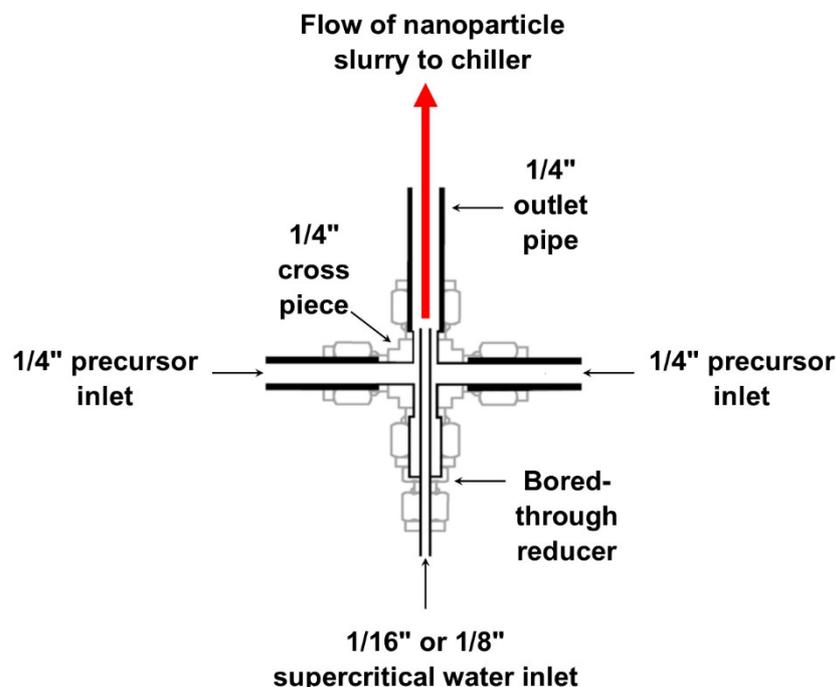


Figure s1: Schematic diagram of confined jet mixer (CJM) used for the synthesis of the VO₂ nanoparticles. The supercritical water stream combines with the V⁴⁺ precursor at the supercritical water outlet within the 1/4" cross piece. This rapidly formed a nanoparticle slurry, which exited the mixer as shown by the red arrow.

Particles size analysis

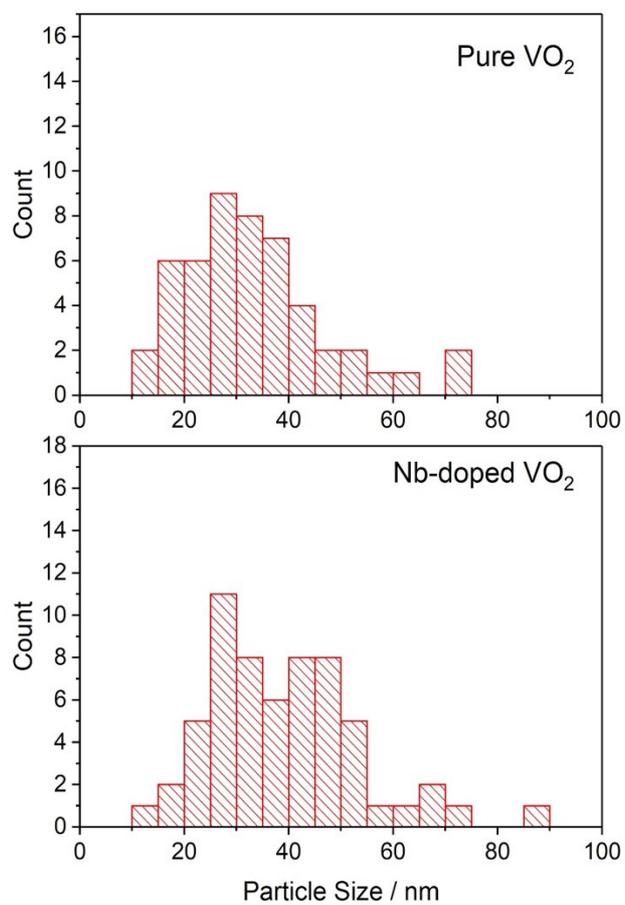


Figure s2: Particle size analysis of the VO₂ and Nb-doped VO₂ samples (50 particles per distribution) showed average particle sizes of 33 ± 13 nm (top) and 39 ± 13 nm (bottom).