

Electronic Supplementary Information

Vanadium pentoxide 1-D nanostructures applied to dye removal from aqueous systems by coupling adsorption and visible-light photodegradation

Waldir Avansi Jr.^{1*}, Vagner R. de Mendonça^{1,2}, Osmando F. Lopes^{2,3}, and Caue Ribeiro³

¹ *Departamento de Física, Universidade Federal de São Carlos, São Carlos-SP, Brasil.*

² *Departamento de Química, Universidade Federal de São Carlos, São Carlos-SP, Brasil.*

³ *Laboratório Nacional de Nanotecnologia para Agricultura (LNNA) - Embrapa Instrumentação, São Carlos-SP, Brasil.*

*e-mail of corresponding author: w_avansi@yahoo.com.br

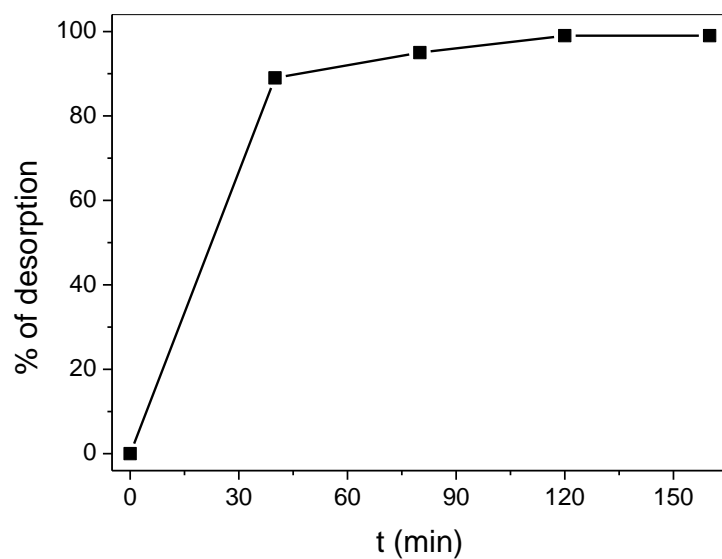
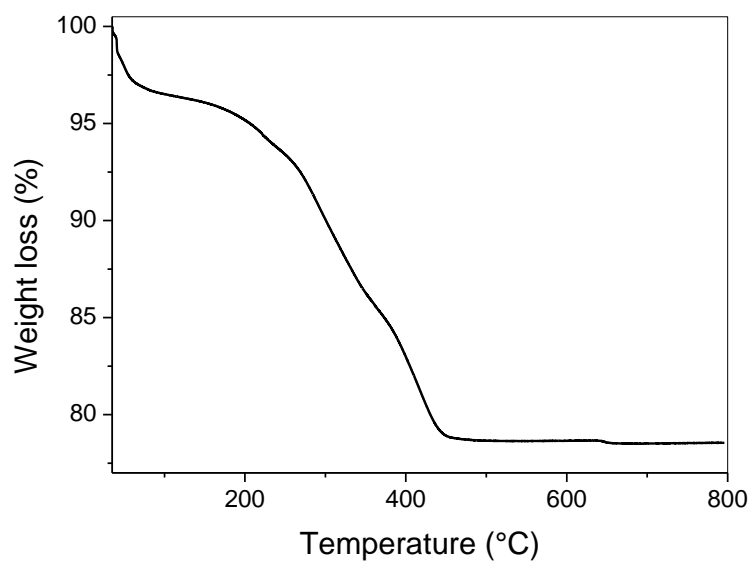


Figure S1 – a) TGA of the SAM02 with MB used to calculate the MB quantity after separation and washed by centrifugation. b) Kinetic of desorption of MB dye onto the SAM02 (100 mg.L^{-1}) sample in ethanol.

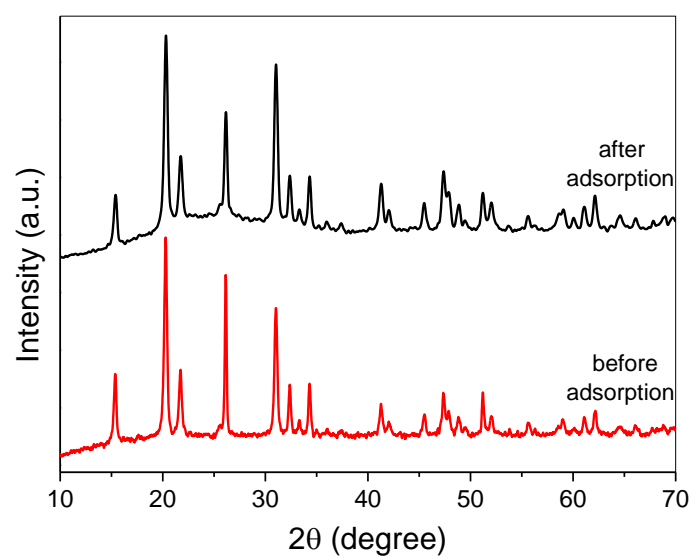
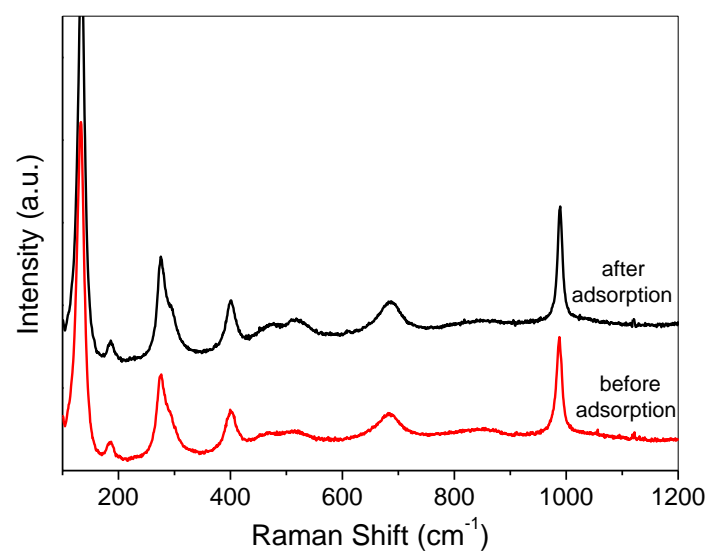


Figure S2 – Raman scattering and XRD of SAM02 sample before and after adsorption process.

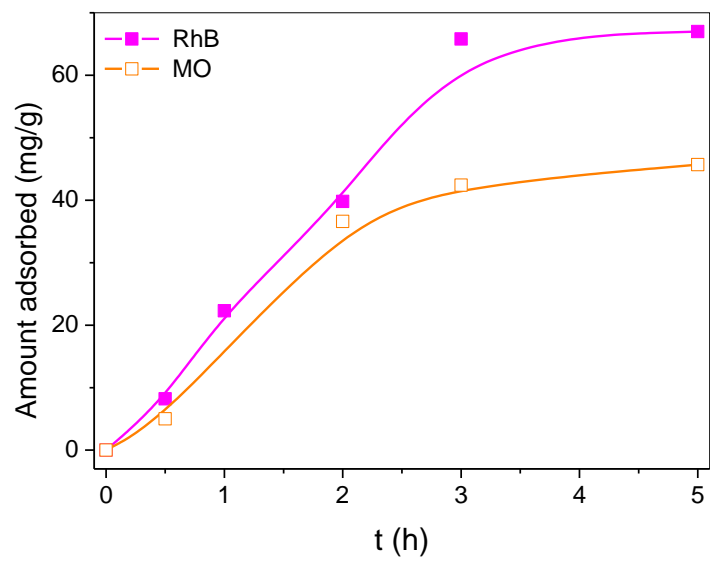


Figure S3 – The adsorption kinetic of Rhodamine B (RhB, 50 mg/L) and Methyl Orange (MO, 50 mg/L) dyes using the SAM02 sample.