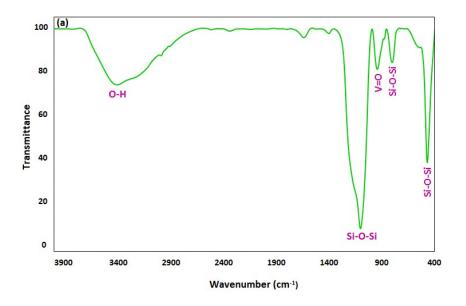
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Aerobic and totally selective oxidative destruction of BTEX contaminants using VO²⁺ decorated silica nanoparticles and Kaolin powder

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1. Characterization of catalyst



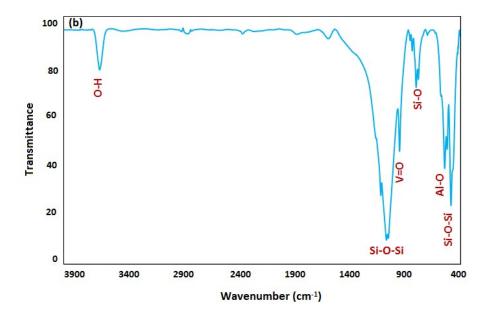
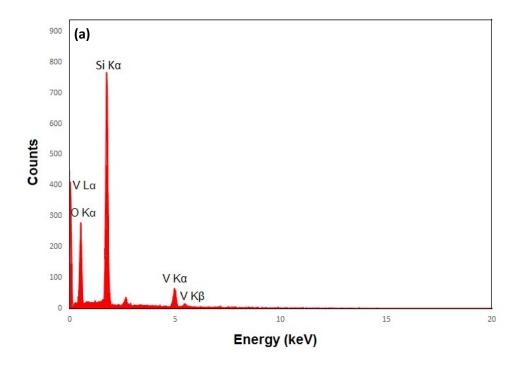


Figure S1: FTIR spectra of VO-SNP (a) and VO-Kaolin (b).



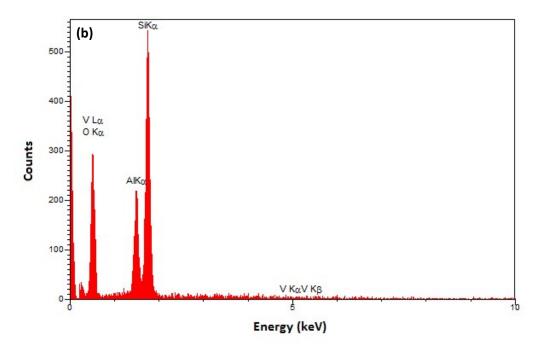


Figure S2: Energy-dispersive X-ray spectroscopy of VO-SNP (a) and VO-Kaolin (b).

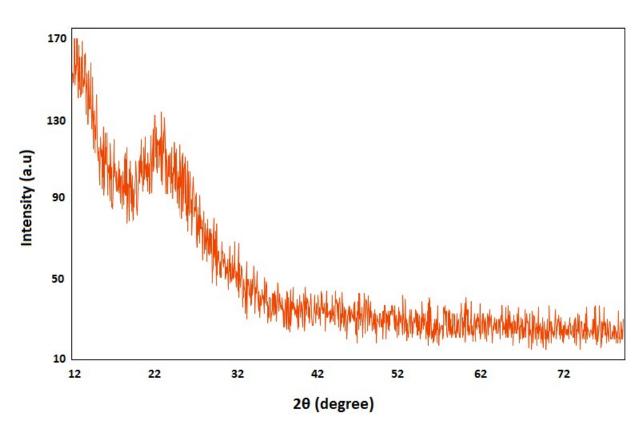


Figure S3: X-ray diffraction pattern of VO-SNP.

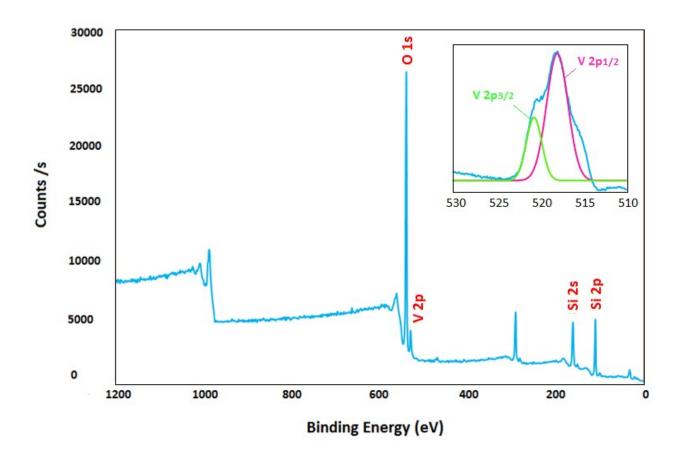


Figure S4: The X-ray photoelectron spectroscopy (XPS) spectrum of VO-SNP and curve fitting of V2p.

2. ¹H NMR spectrum of products

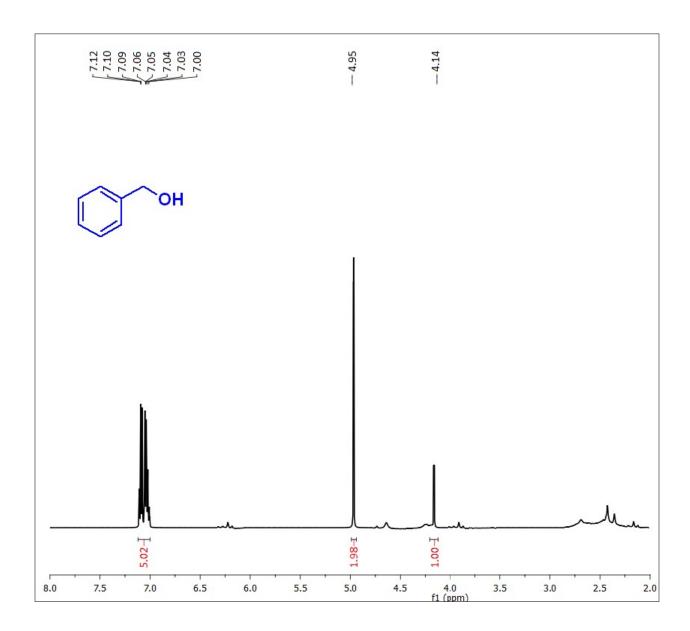


Figure S5: The ¹H NMR spectrum of benzyl alcohol in CDCl₃.

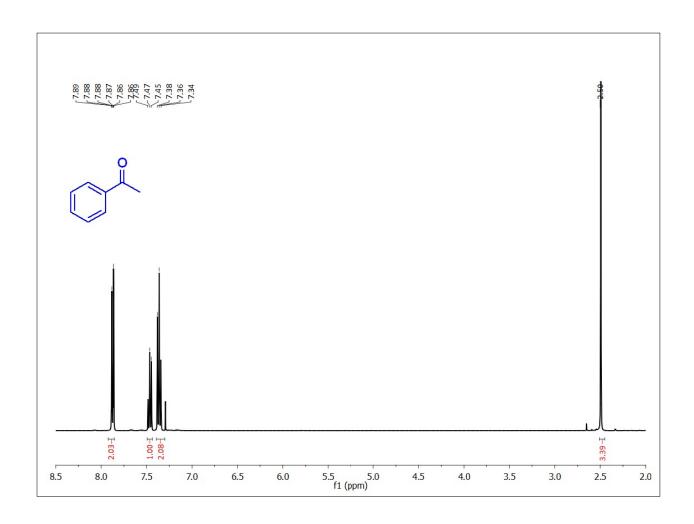


Figure S6: The ¹H NMR spectrum of acetophenone in CDCl₃.

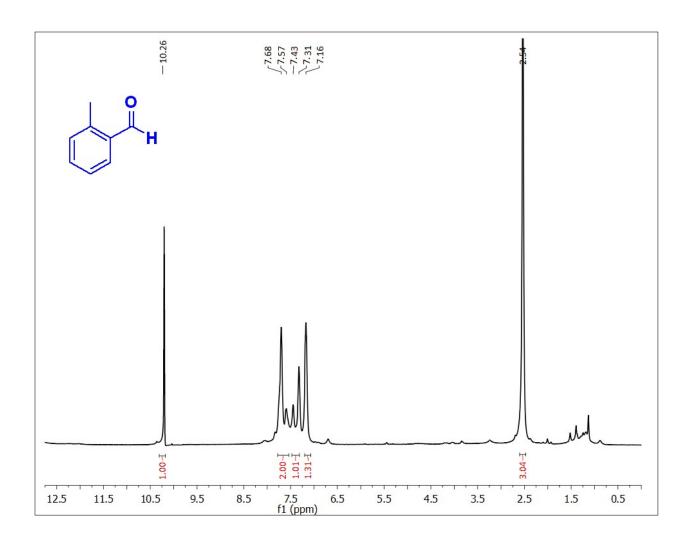


Figure S7: The ¹H NMR spectrum of 2-Methylbenzaldehyde in CDCl₃.

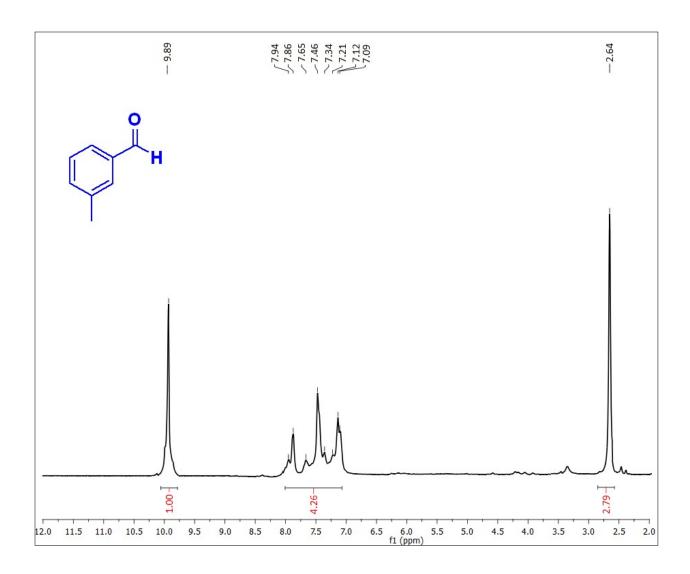


Figure S8: The ¹H NMR spectrum of 3-Methylbenzaldehyde in CDCl₃.

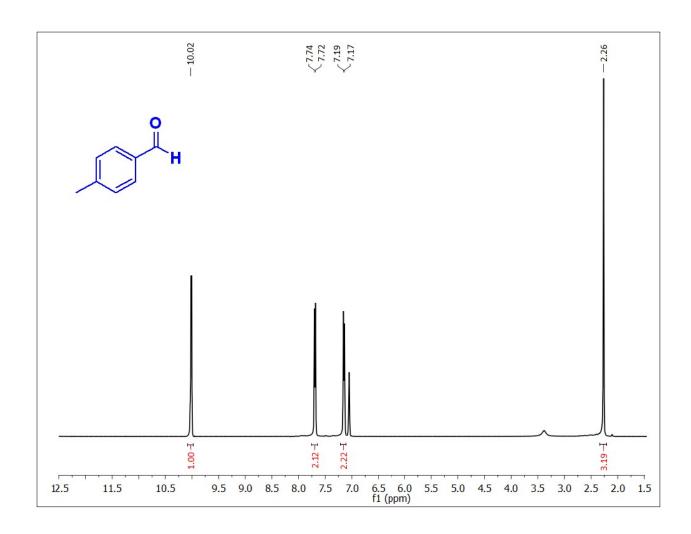


Figure S9: The ¹H NMR spectrum of 4-Methylbenzaldehyde in CDCl₃.