SUPPORTING INFORMATION

Targeted Development of Sustainable Green Catalysts for Oxidation of Alcohols *via* Tungstate-Decorated Multifunctional Amphiphilic Carbon Quantum Dots

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Detailed list of CONTENTS of the supporting information

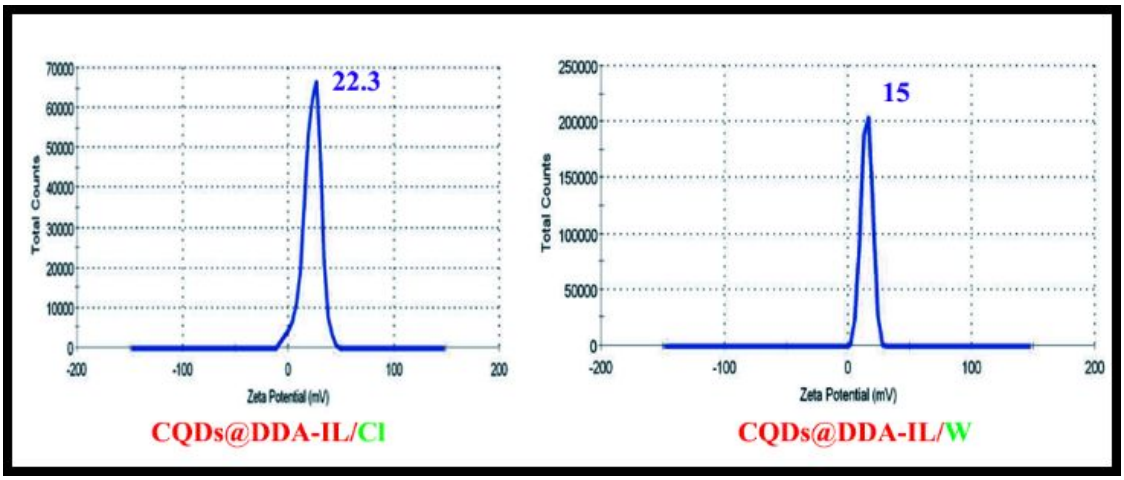

Figure S 1. Zeta potential distribution graph of the CQDs@ DDA-IL/Cl and CQDs@DDA-IL/W.

	wt % results of EDS analysis		wt% results of XPS analysis
Elements	**CQDs@DDA-IL/Cl**	**CQDs@DDA-IL/W**	**CQDs@DDA-IL/W**
C	49.46	44.85	63.24
O	23.98	30.17	21
N	20.26	18.91	12.36
Na	0.27	0.6	0.34
Cl	6.03	0.54	–
W	–	4.93	1.17
Si	–	–	1.89

Table S 1. wt% results of EDS and XPS analyses.

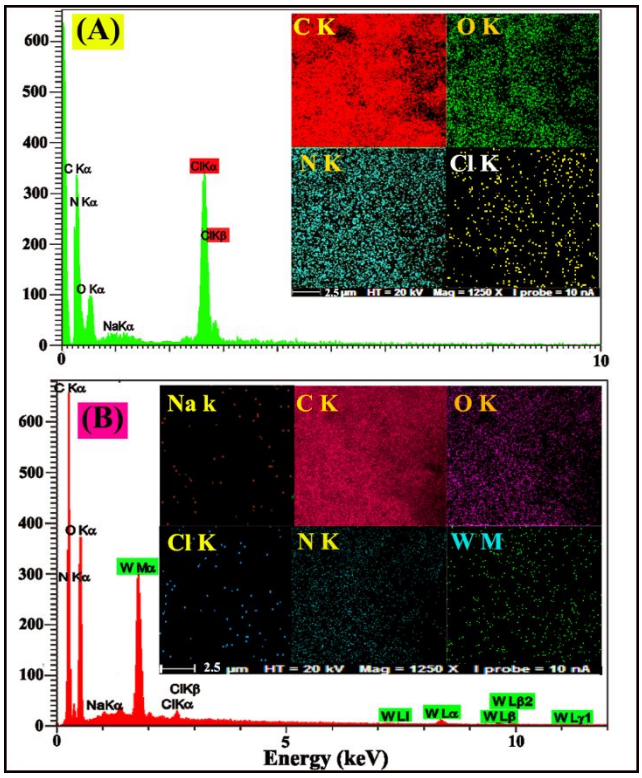

Figure S 2. EDS profile and corresponding elemental mapping images of (A) the CQDs@DDA-IL/Cl and (B) the CQDs@DDA-IL/W.

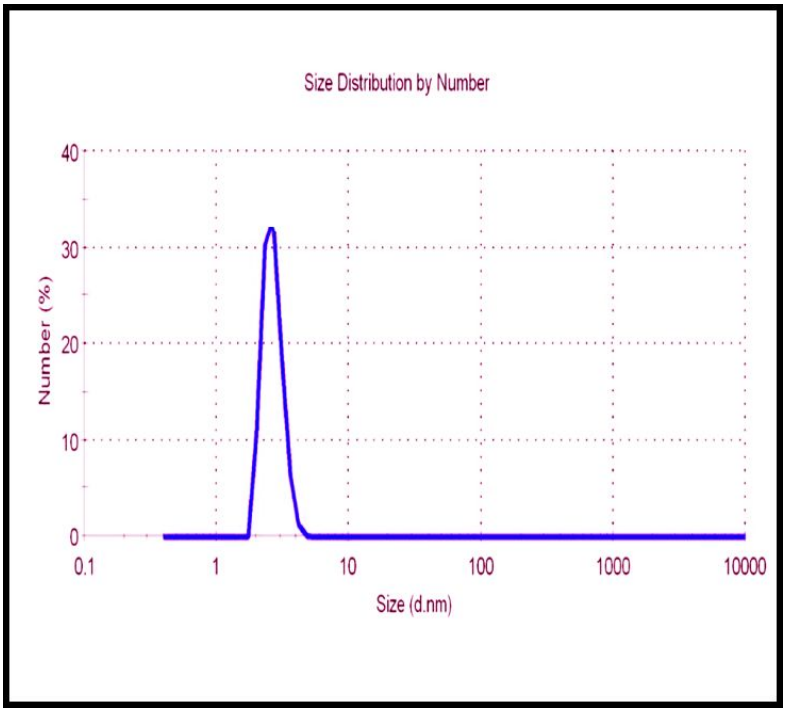

Figure S 3. Size distribution graph of the CQDs@ DDA-IL/W aqueous solution.

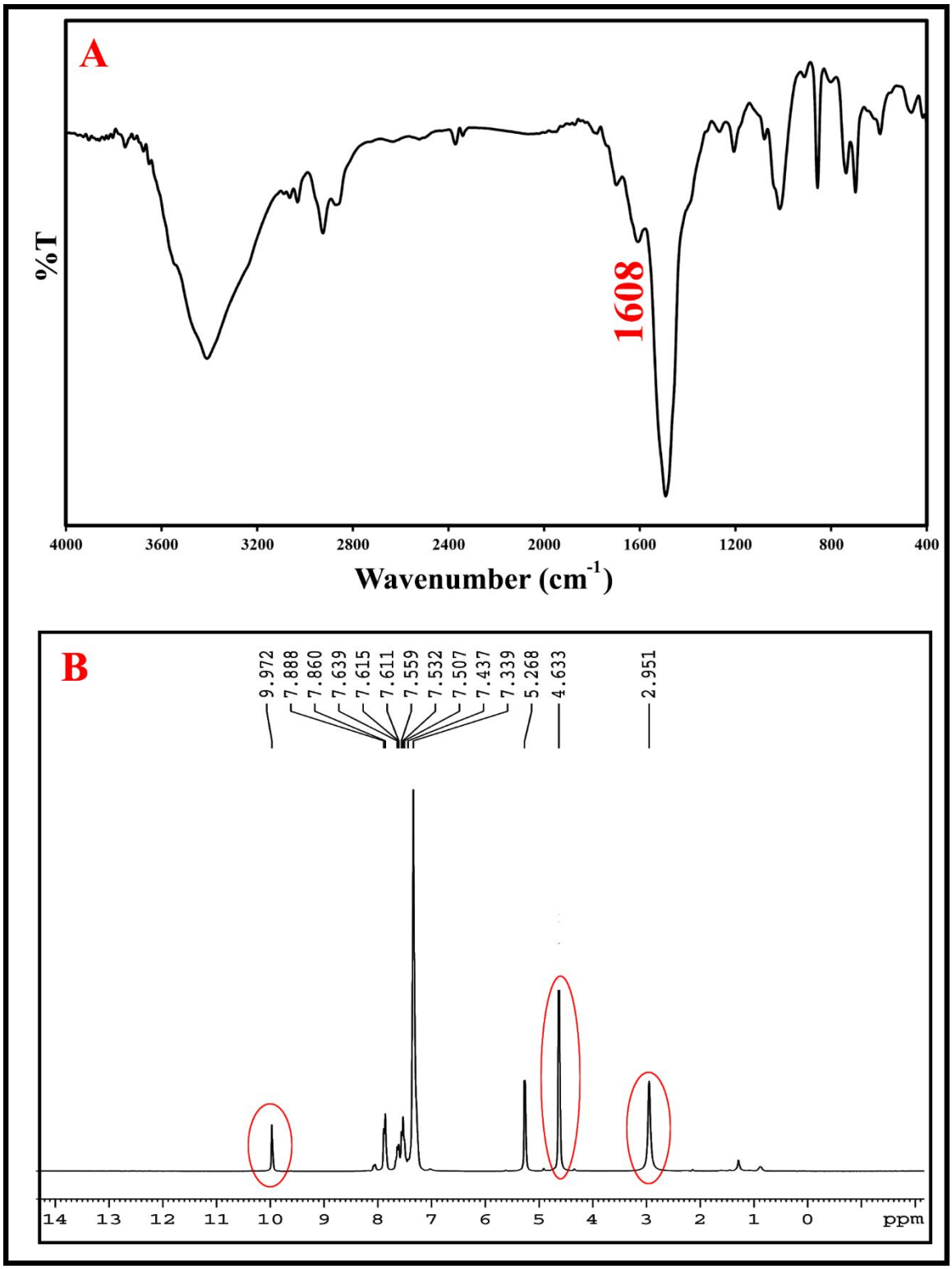

Figure S 4. (A) FT-IR spectrum and (B) ^{1}H NMR spectrum of the extracted reaction mixture of the benzyl alcohol oxidation in the $CDCl_3$.

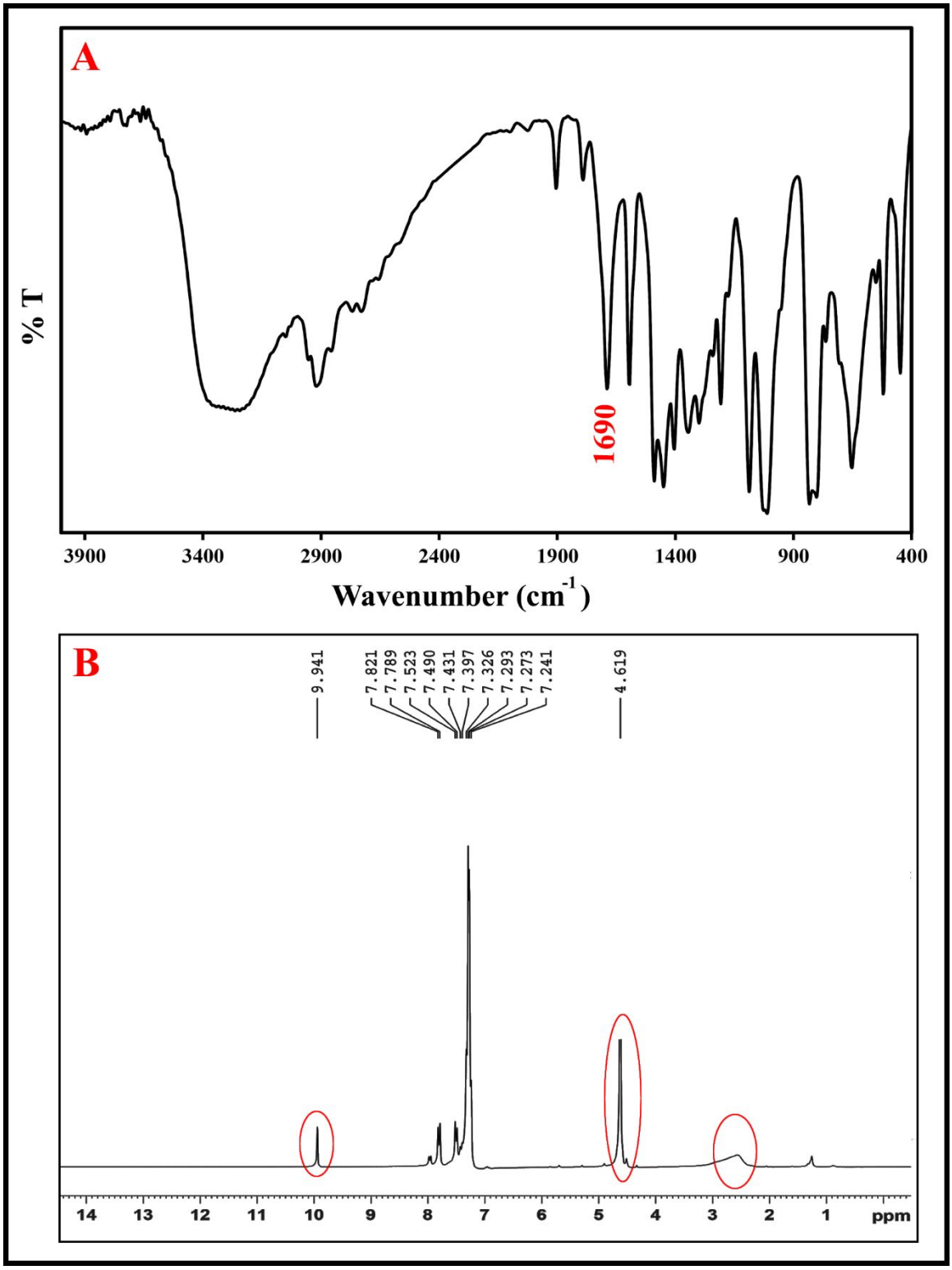

Figure S 5. (A) FT-IR spectrum and (B) ^{1}H NMR spectrum of the extracted reaction mixture of the 4-chlorobenzyl alcohol oxidation in the $CDCl_3$.

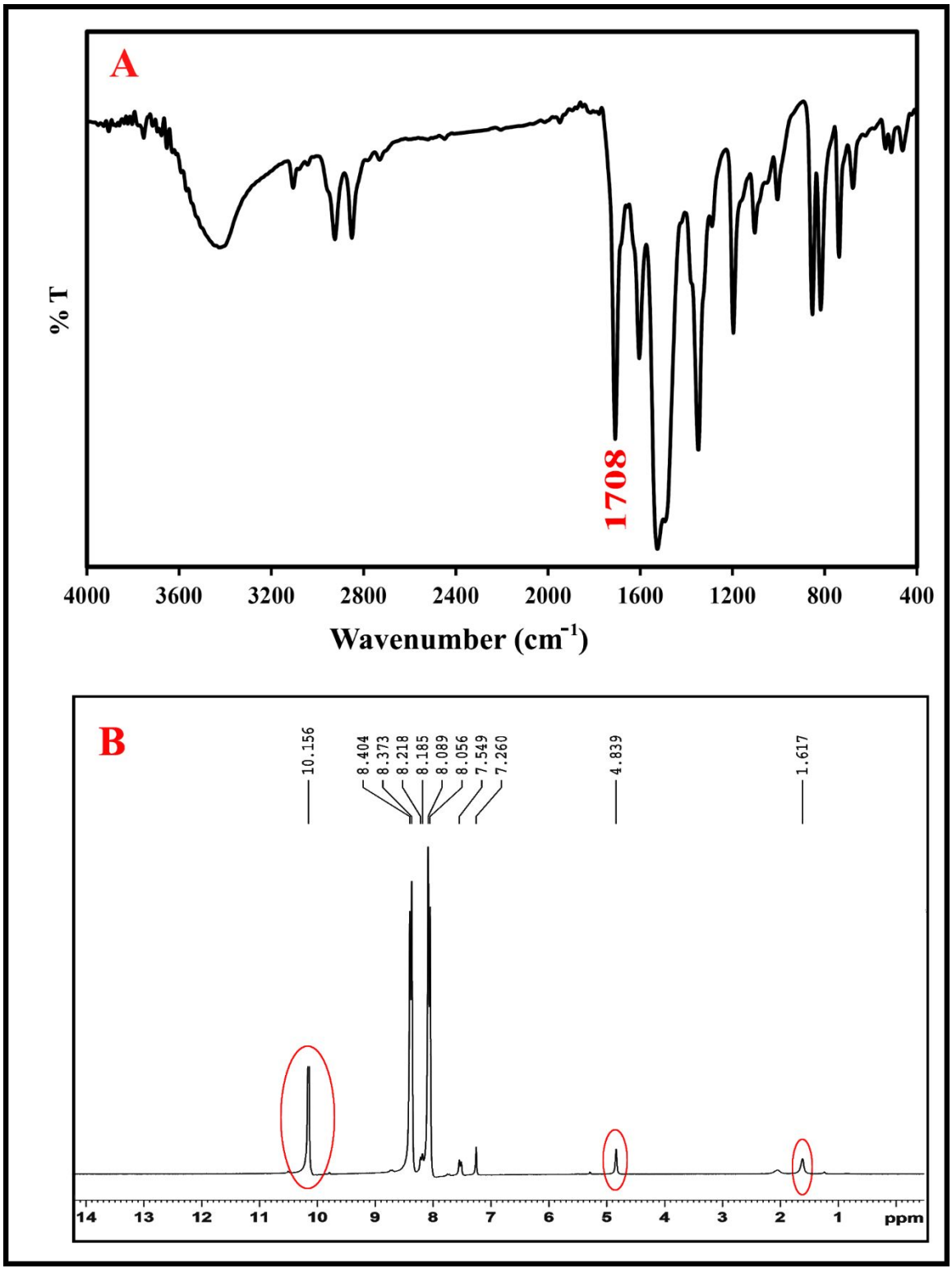

Figure S 6. (A) FT-IR spectrum and (B) ^{1}H NMR spectrum of the extracted reaction mixture of the 4-nitrorobenzyl alcohol oxidation in the $CDCl_3$.

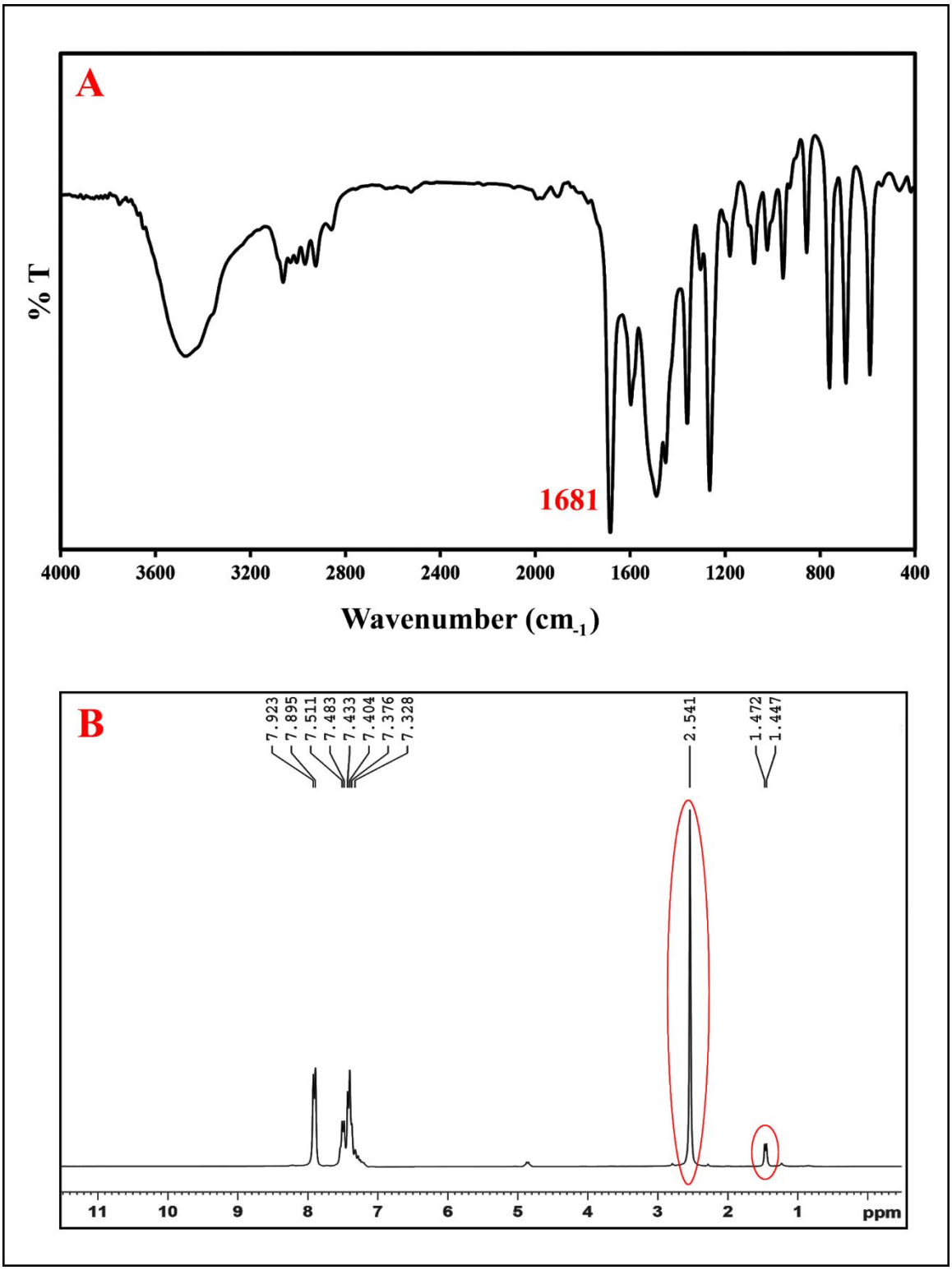

Figure S 7. (A) FT-IR spectrum and (B) ^{1}H NMR spectrum of the extracted reaction mixture of the 1-phenylethanol oxidation in the $CDCl_3$.