

Supporting information

Photocatalytic WO₃/TiO₂ nanowires: WO₃ polymorphs influencing the ALD nucleation of TiO₂

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Table S1. Fragments of gases evolved during the EGA-MS study of as-prepared, non-washed h-WO₃ NWs in air

m/z	MS fragments	Evolved gases
14	N ⁺	NH ₃
15	NH ⁺	NH ₃
16	O ⁺ , NH ₂ ⁺	O ₂ , NH ₃
17	OH ⁺ , NH ₃ ⁺	H ₂ O, NH ₃
18	H ₂ O ⁺	H ₂ O
19	HOD ⁺	HOD
30	NO ⁺	NH ₃
35	³⁵ Cl ⁺	HCl
36	H ³⁵ Cl ⁺	HCl
37	³⁷ Cl ⁺	HCl
38	H ³⁷ Cl ⁺	HCl
44	N ₂ O ⁺	NH ₃
48	SO ⁺	SO ₂
64	SO ₂ ⁺	SO ₂

Sample: h-WO₃ MW
Size: 29.7209 mg
Method: 10C-600

TGA-DTA

File: D:\...h-WO₃-MW-lev-600C-MS_kiért.001
Operator: ND
Run Date: 19-Jul-2012 13:48
Instrument: 2960 SDT V2.3B

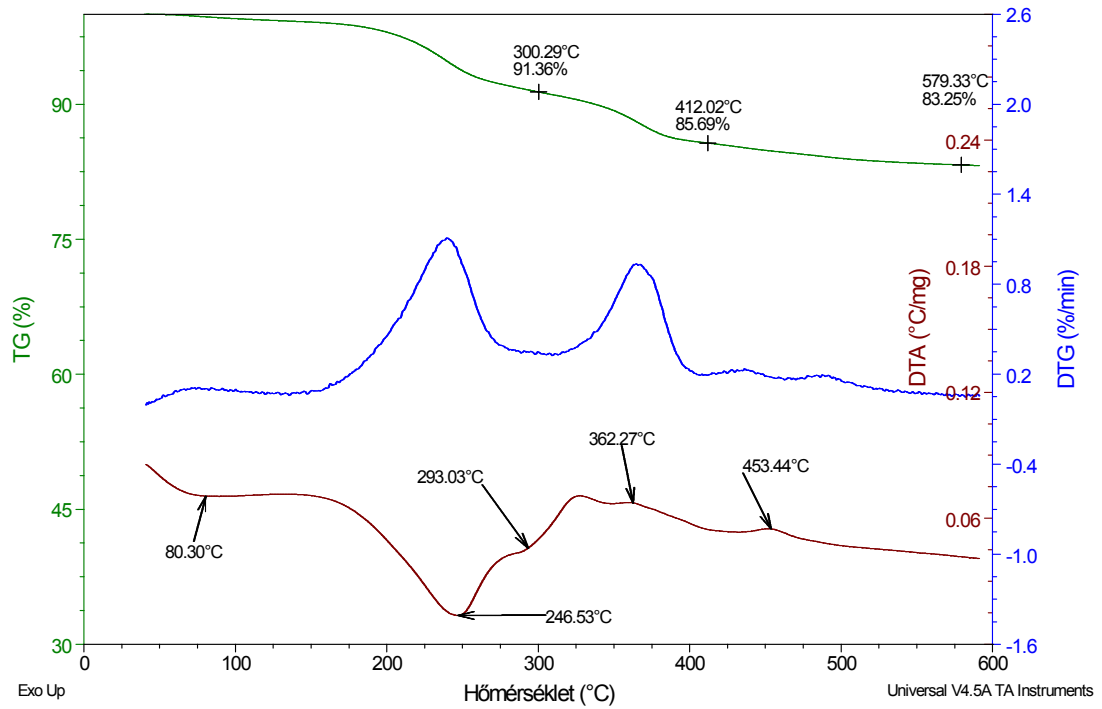


Fig. S1. TG/DTG/DTA curves of as-prepared, non-washed h-WO₃ NWs in air

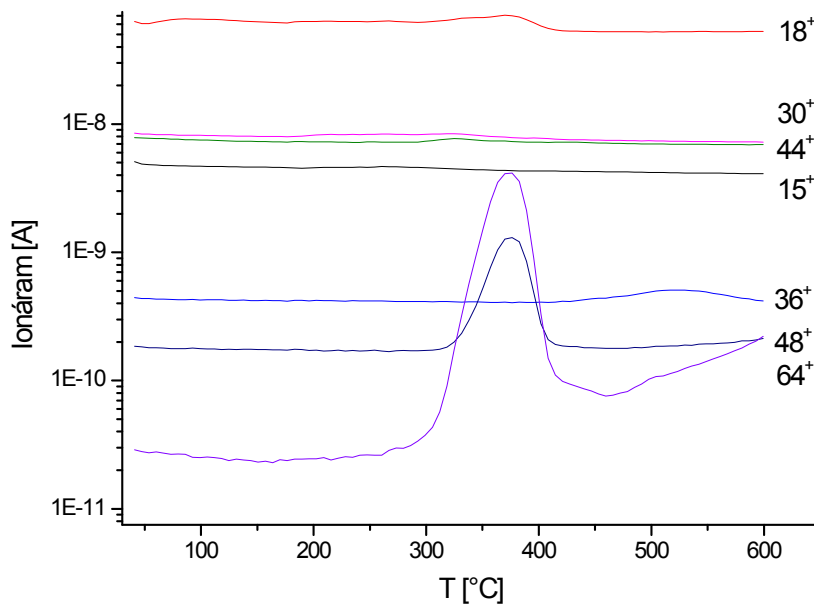


Fig. S2. Evolved gas analysis (EGA)-MS curves of as-prepared, non-washed h-WO₃ NWs in air

Sample: h-WO₃ MW2
Size: 20.9368 mg
Method: 10C-600

TGA-DTA

File: D:\...h-WO₃-MW2-lev-600C_kiert.001
Operator: SZI
Run Date: 08-Aug-2012 15:13
Instrument: 2960 SDT V2.3B

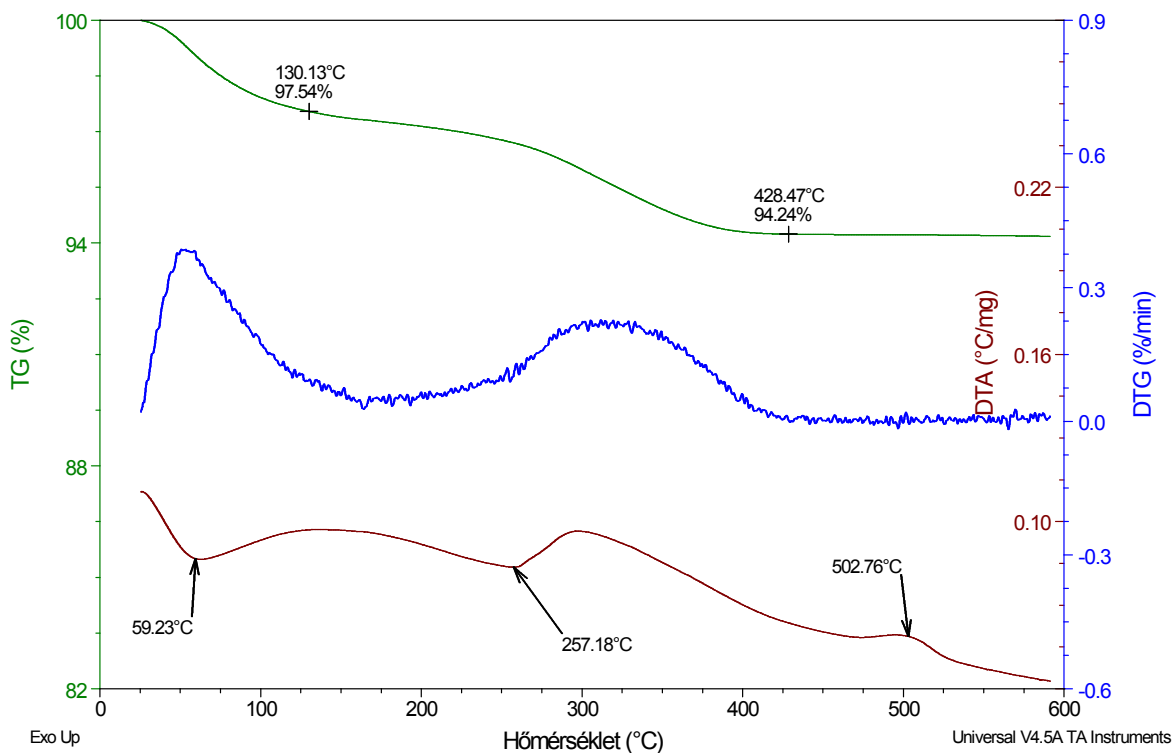


Fig. S3. TG/DTG/DTA curves of washed h-WO₃ NWs in air

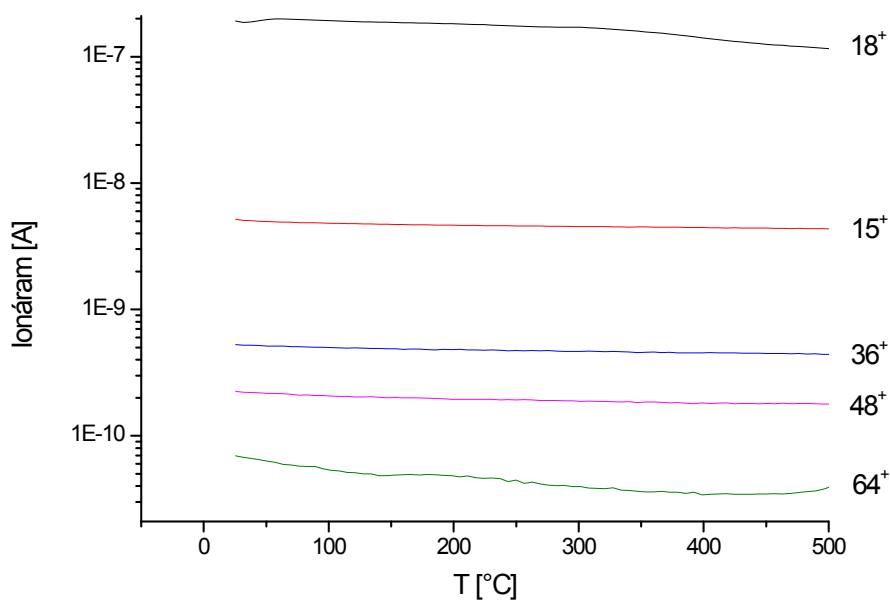


Fig. S4. TG/DTG/DTA curves of washed h-WO₃ NWs in air

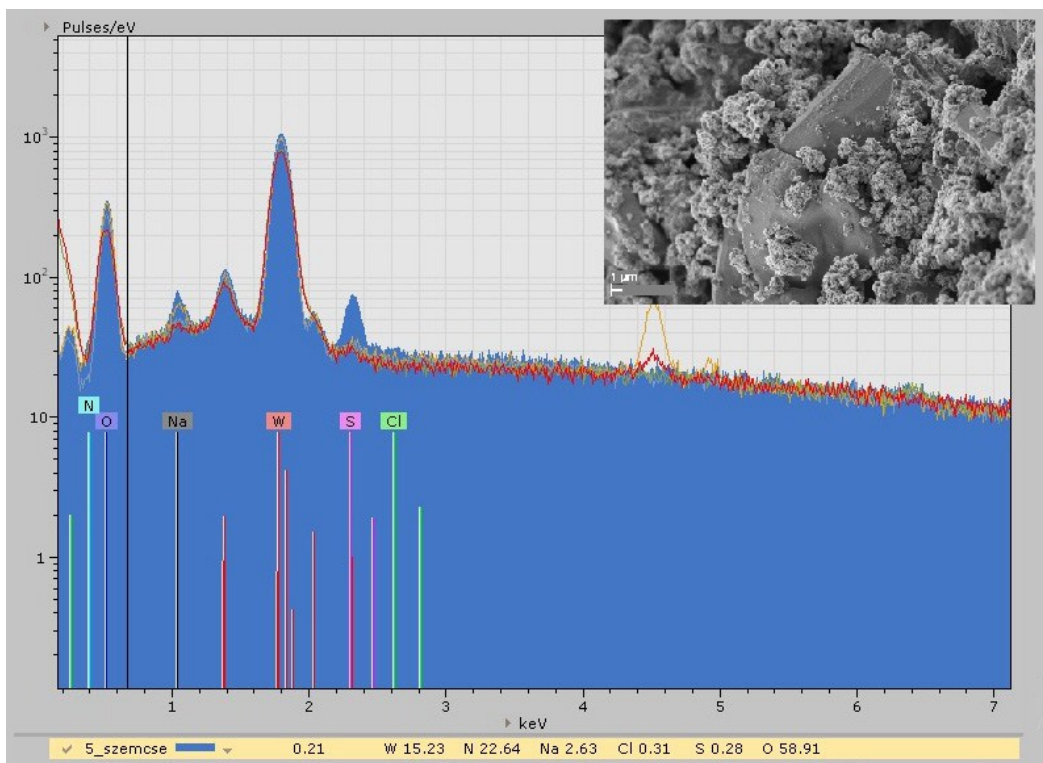


Fig. S5. SEM-EDX results of as-prepared, non-washed h-WO₃ NWs

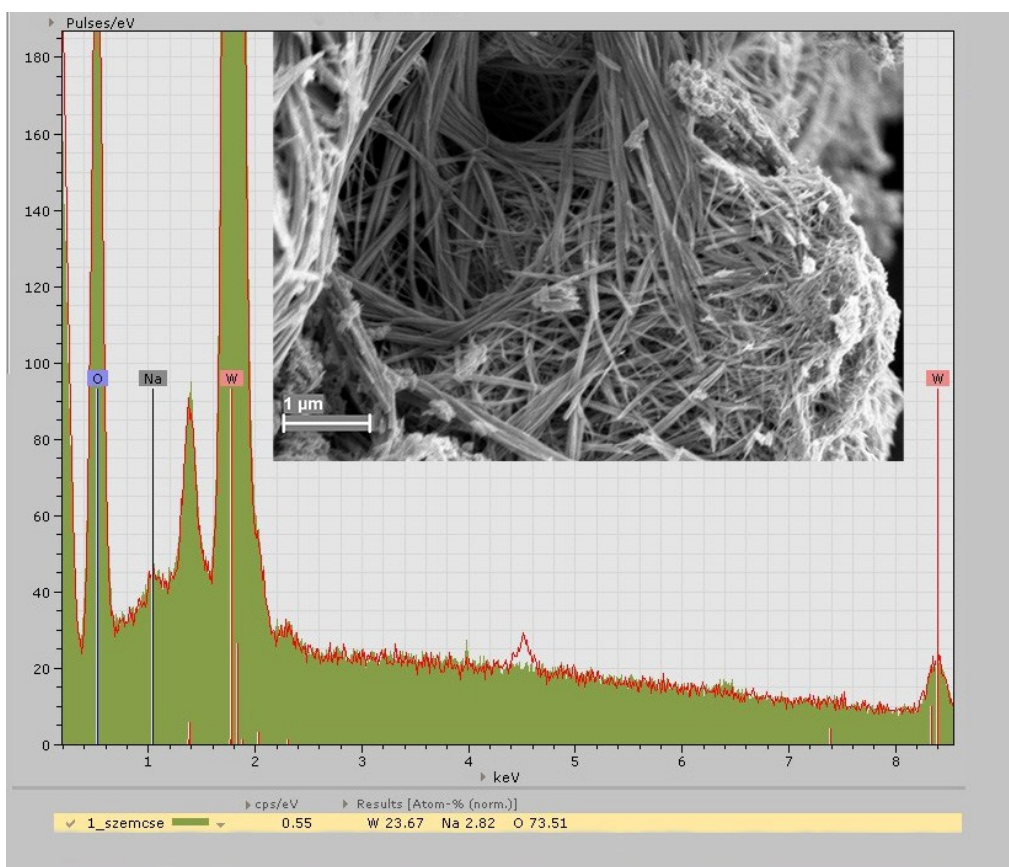


Fig. S6. SEM-EDX results of as-prepared, washed h-WO₃ NWs

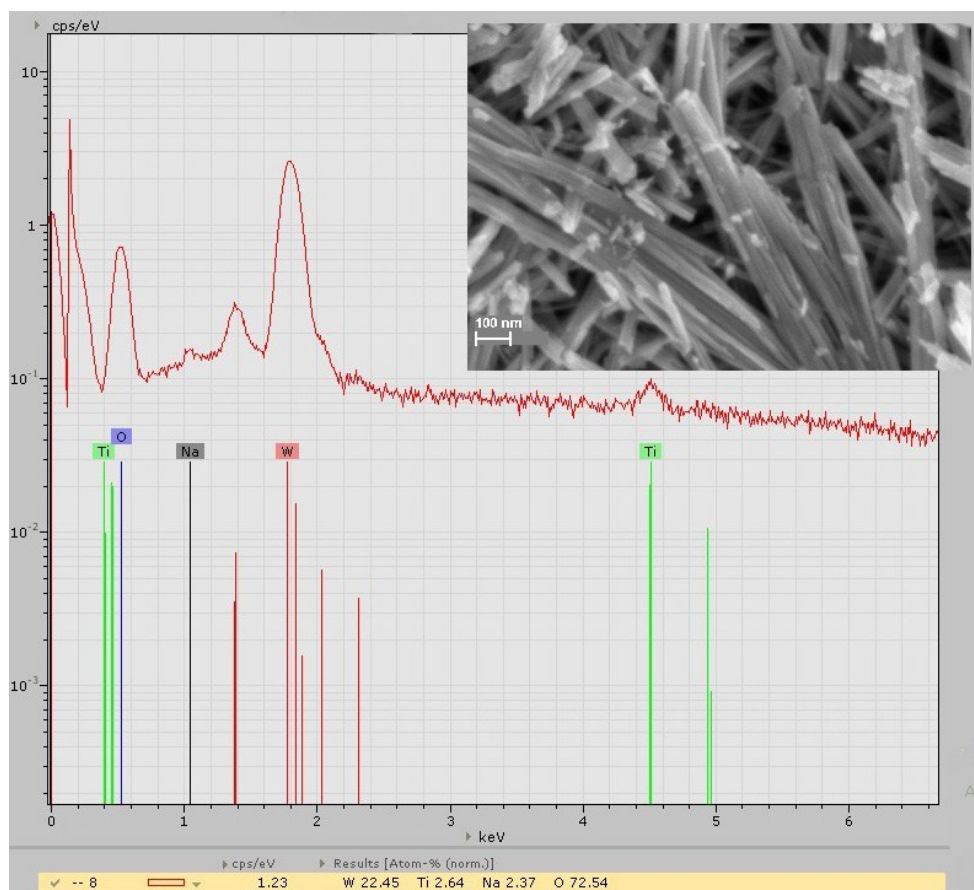


Fig. S7. SEM-EDX results of as-prepared, washed h-WO₃/TiO₂ NWs

	Elemental distribution (wt. %)						
	W	O	Na	Ti	N	S	Cl
non-washed h-WO ₃ NWs	15.23	58.91	2.63	0	22.64	0.28	0.31
washed h-WO ₃ NWs	23.67	73.51	2.82	0	0	0	0
h-WO ₃ /TiO ₂ NWs	22.45	72.54	2.37	2.64	0	0	0

Table S2. Summarizing EDX results for selected nanostructures

Sample: h-WO₃ MW2 TiO₂
Size: 14.8224 mg
Method: 10C-600

TGA-DTA

File: h-WO₃-MW2-TiO₂-lev-600C_kiertekelt.001
Operator: SZI
Run Date: 16-Aug-2012 13:14
Instrument: 2960 SDT V2.3B

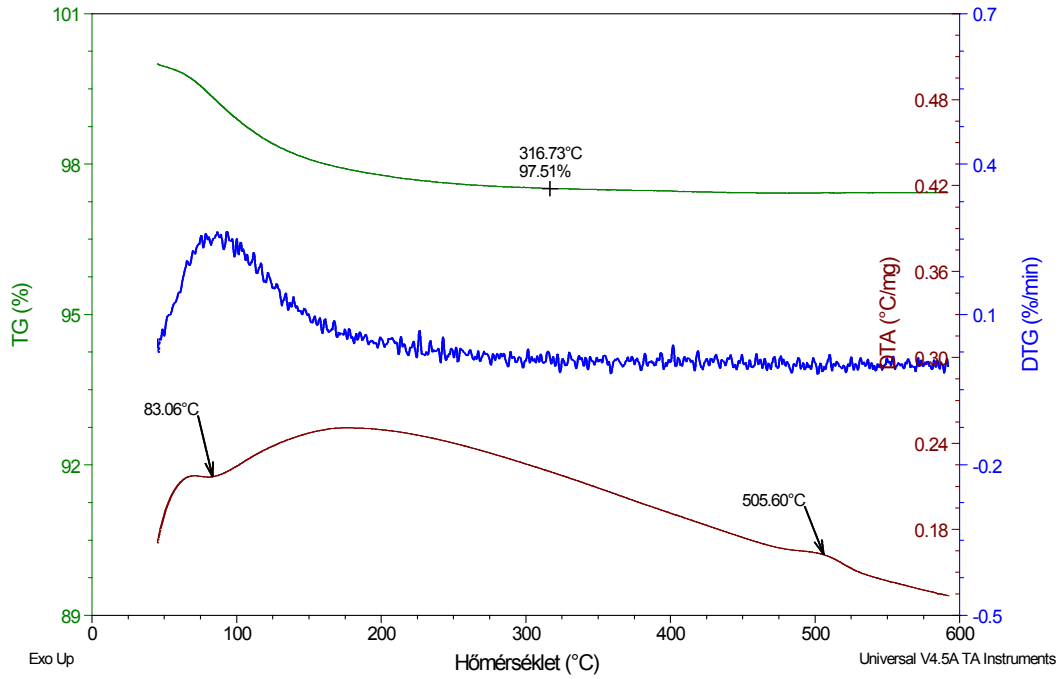


Fig. S8. TG/DTG/DTA curves of h-WO₃/TiO₂ NWs in air

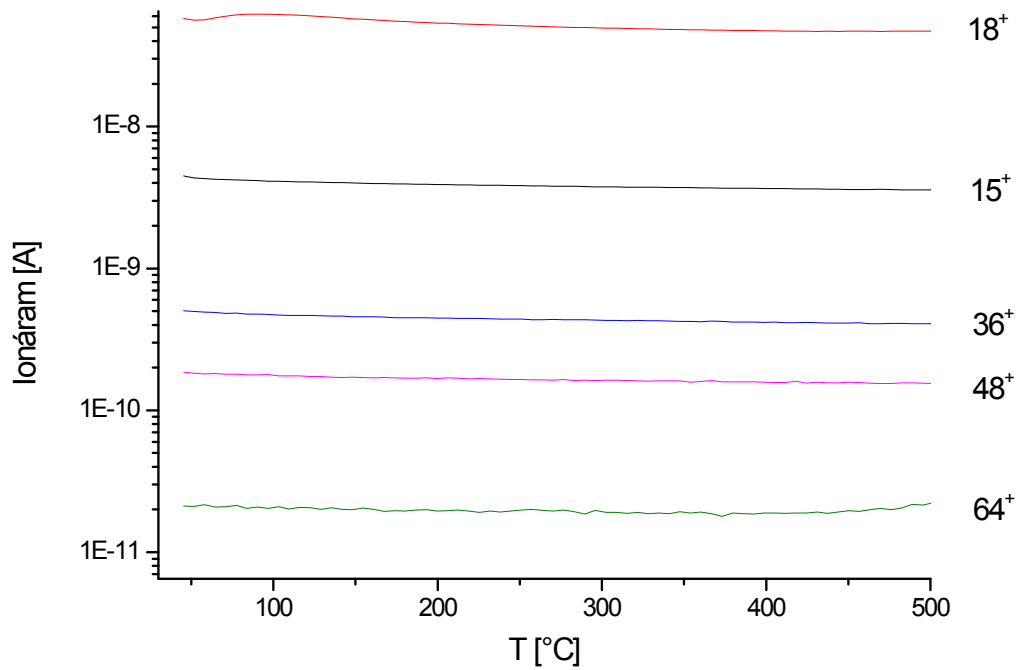


Fig. S9. TG/DTG/DTA curves of h-WO₃/TiO₂ NWs in air