

Corrigendum

Corrigendum to “Oxidation of adamantane with 1 atm molecular oxygen by vanadium-substituted polyoxometalates” [J. Catal. 233 (1) (2005) 81–89]

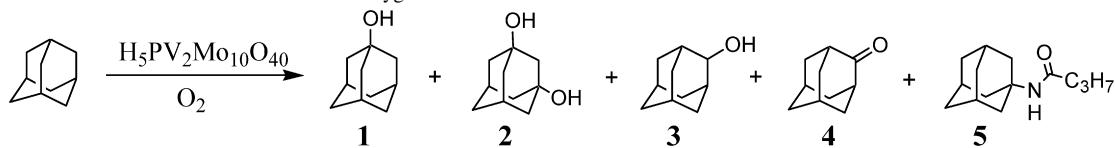
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The authors regret that **Tables 1 and 2** in the article cited above included some incorrect entries and should be replaced with **Tables 1 and 2** below.

Table 1
Oxidation of adamantane with molecular oxygen in various solvents^a



Entry	Solvent	Yield (%)	Selectivity (%)				
			1	2	3	4	5
1	Butyronitrile	46	54	7	4	16	19
2 ^b	Butyronitrile	84	43	24	1	20	12
3	Diethylketone	30	65	11	7	17	—
4	Cyclopentanone	22	68	4	12	16	—
5	Dimethylformamide	12	80	—	9	11	—
6	Acetic acid	11	65	—	15	20	—
7	Acetonitrile	<1	—	—	—	—	—
8	Toluene	<1	—	—	—	—	—
9	1,2-Dichloroethane	<1	—	—	—	—	—

^a Reaction conditions: H₅PV₂Mo₁₀O₄₀ (2 µmol), adamantane (1 mmol), solvent (3 mL), 356 K, 96 h under 1 atm of molecular oxygen. Yields and selectivities were determined by gas chromatographic analysis using naphthalene as an internal standard.

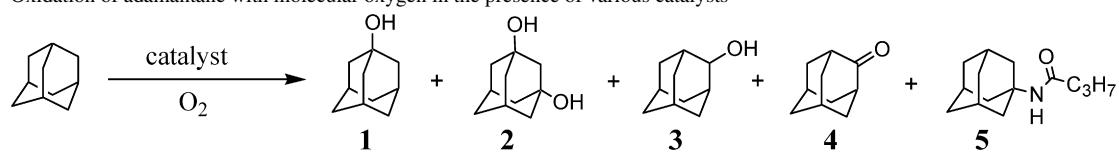
^b 288 h.

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Table 2

Oxidation of adamantane with molecular oxygen in the presence of various catalysts^a

Entry	Catalyst	Yield (%)	Selectivity (%)					$C^3\text{-H}/C^2\text{-H}^b$
			1	2	3	4	5	
1	H ₅ PV ₂ Mo ₁₀ O ₄₀	46	54	7	4	16	19	13.1
2	H ₆ PV ₃ Mo ₉ O ₄₀	46	54	7	4	16	19	13.1
3	H ₄ PVMo ₁₁ O ₄₀	39	54	6	5	15	20	12.9
4	H ₄ PW ₁₁ O ₄₀	26	62	5	6	15	12	12.0
5	H ₃ PMo ₁₂ O ₄₀	7	50	8	8	12	22	13.2
6	H ₃ PW ₁₂ O ₄₀	<1	—	—	—	—	—	—
8	VO(acac) ₂	29	78	—	—	22	—	10.6
9	Co(OAc) ₂	17	80	2	7	11	—	14.0
10	Mn(OAc) ₂	<1	—	—	—	—	—	—
11	None	<1	—	—	—	—	—	—

^a Reaction conditions: catalyst (2 µmol), adamantane (1 mmol), butyronitrile (3 mL), 356 K, 96 h under 1 atm of molecular oxygen. Yields and selectivities were determined by gas chromatographic analysis using naphthalene as an internal standard. Carbon balance for each reaction was more than 93%.

^b The selectivity parameter defined by the relative reactivity of tertiary C–H bonds to secondary C–H bonds ($= \{(1 + 2 \times 2 + 5)/4\} / \{(3 + 4)/12\}$).