

## Supplementary Information

### Adipic acid formation from cyclohexanediol using platinum and vanadium catalysts: Elucidating the role of homogeneous vanadium species

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Table S1 Spreadsheet to show the vanadium stoichiometry ratio for the oxidation of 2-hydroxycyclohexanone to adipic acid **Reaction conditions:** 80 °C, 3 bar O<sub>2</sub>, 4 h, 4000 ppm 2-hydroxycyclohexanone in water (5 ml), vanadium added as a stock solution of 200 ppm V<sub>2</sub>O<sub>5</sub> in water.

Vanadium concentration / ppm	Moles of vanadium / mmol L <sup>-1</sup>	Concentration of product (adipic acid) / ppm	Moles of Product (adipic acid) / mmol L <sup>-1</sup>	Stoichiometry ratio (vanadium:AA)
3.25	0.064	5.39	0.037	1.731
7.56	0.148	68.32	0.468	0.317
9.62	0.189	177.53	1.215	0.155
11.76	0.231	242.41	1.659	0.139
13.42	0.263	271.67	1.859	0.142
18.62	0.366	431.03	2.949	0.124
22.11	0.434	546.47	3.739	0.116
28.62	0.562	592.19	4.052	0.139
27.70	0.544	710.77	4.864	0.112
31.30	0.614	822.81	5.630	0.109
32.30	0.634	937.75	6.417	0.099
39.40	0.773	778.54	5.327	0.145
42.30	0.830	880.35	6.024	0.138
43.80	0.860	1081.39	7.400	0.116