

Electronic Supporting Information

**Catalytic activity and X-Ray photoelectron spectroscopy
performance of $\text{Bi}_2\text{Mo}_x\text{W}_{(1-x)}\text{O}_6$ solid-solutions**

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Table S1. Relative atomic concentrations for samples sintered at 700 °C.

		Intensity				Atomic concentration (%)			
Catalysts	Name	O	Bi	W	Mo	O	Bi	W	Mo
Bi_2MoO_6	BiMo-7	3.94	12.37	0.0	4.31	66.7	22.2	0.0	11.1
$\text{Bi}_2\text{Mo}_{0.995}\text{W}_{0.005}\text{O}_6$	M995-7	3.59	13.68	0.78	2.97	63.1	26.8	2.2	7.9
$\text{Bi}_2\text{Mo}_{0.95}\text{W}_{0.05}\text{O}_6$	M95-7	5.07	15.11	0.36	3.82	68.6	22.8	0.8	7.8
$\text{Bi}_2\text{Mo}_{0.9}\text{W}_{0.1}\text{O}_6$	M9-7	4.09	12.40	0.62	3.65	66.8	22.5	1.6	9.0
$\text{Bi}_2\text{Mo}_{0.75}\text{W}_{0.25}\text{O}_6$	M75-7	4.07	12.19	1.22	2.74	67.4	22.5	3.2	6.9
$\text{Bi}_2\text{Mo}_{0.5}\text{W}_{0.5}\text{O}_6$	M5-7	3.87	13.27	1.83	1.91	65.3	24.9	4.9	4.9
$\text{Bi}_2\text{Mo}_{0.1}\text{W}_{0.9}\text{O}_6$	M1-7	3.40	11.57	3.15	0.0	65.6	24.8	9.6	0.0
$\text{Bi}_2\text{Mo}_{0.05}\text{W}_{0.95}\text{O}_6$	M05-7	3.70	11.61	2.59	0.0	68.5	23.9	7.6	0.0
Bi_2WO_6	BiW-7	3.74	10.61	3.92	0.0	66.7	22.2	11.1	0.0

Table S2. Reative atomic concentrations for samples sintered at 900 °C.

		Intensity				Atomic concentration (%)			
Catalysts	Name	O	Bi	W	Mo	O	Bi	W	Mo
Bi_2MoO_6	BiMo-9	2.98	12.56	0.0	2.52	66.7	22.2	0.0	11.1
$\text{Bi}_2\text{Mo}_{0.99}\text{W}_{0.01}\text{O}_6$	M99-9	3.42	12.06	0.52	3.52	66.3	18.5	1.8	13.4
$\text{Bi}_2\text{Mo}_{0.75}\text{W}_{0.25}\text{O}_6$	M75-9	3.27	12.51	1.07	2.51	66.2	20.0	3.8	10
$\text{Bi}_2\text{Mo}_{0.5}\text{W}_{0.5}\text{O}_6$	M5-9	3.30	10.95	1.63	1.54	69.4	18.2	6.1	6.4
$\text{Bi}_2\text{Mo}_{0.1}\text{W}_{0.9}\text{O}_6$	M1-9	2.63	7.05	2.31	0.0	73.1	15.5	11.4	0.0
$\text{Bi}_2\text{Mo}_{0.05}\text{W}_{0.95}\text{O}_6$	M05-7	6.24	14.49	5.95	0.0	73.9	13.6	12.5	0.0
Bi_2WO_6	BiW-7	3.62	9.41	3.40	0.0	66.7	22.2	11.1	0.0