Electronic Supplementary Material (ESI) for Dalton Transactions
This journal is © The Royal Society of Chemistry 2013

Electric Supplemental Information for:

Monolacunary Keggin Polyoxometalates Connected to Ten 4d or 4f Metal Atoms

Haijun Pang[a,b], Carlos J. Gómez-García[c], Jun Peng[a]*, Huiyuan Ma[b], Chunjing Zhang[d] and Qingyin Wu[e]

Table of contents:

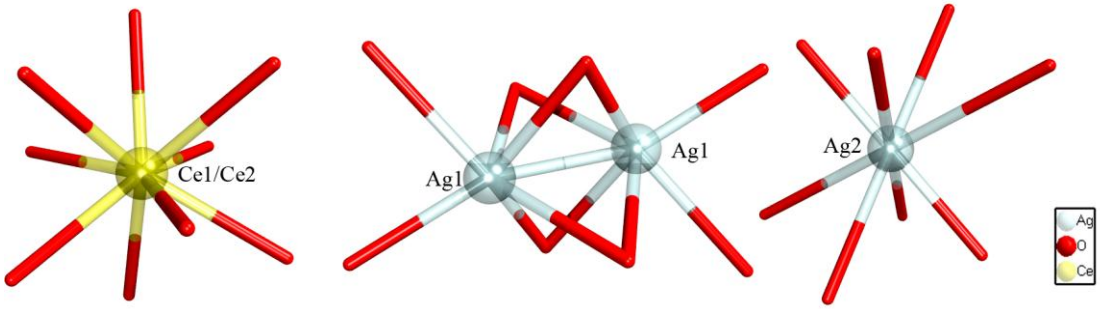

Fig. S1. Coordination modes of Ce^{3+} and Ag^{+} cations in **1**.

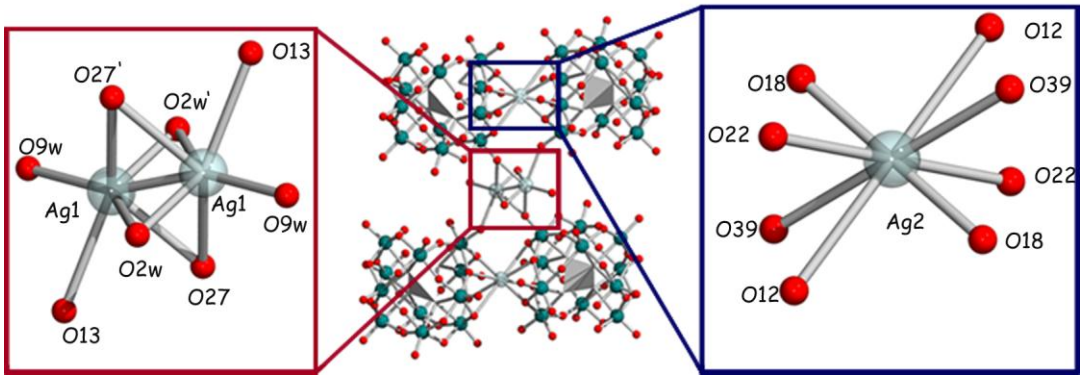

Fig. S2. The detailed coordination environments of $Ag1^{+}$ and $Ag2^{+}$ cations.

This journal is © The Royal Society of Chemistry 2013

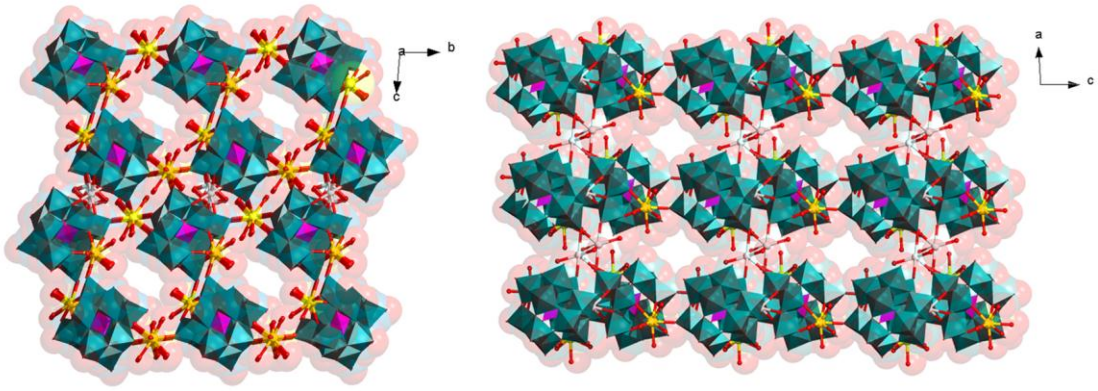

Fig. S3. Combined polyhedral/ball/stick and space-filling diagrams of **1** showing the 2D channels along [100] (left) and [010] (right) directions.

Table S1. Summary of calculated values from BVS for the metal centers in **1** and **2**

Compound 1	atom	R_0	BVS	Compound 2	atom	R_0	BVS
(Ag-Ce-SiW_{11})	Ag1	1.805	1.06	(Ag-Pr-SiW_{11})	Ag1	1.805	1.28
	Ag2	1.805	0.95		Ag2	1.805	0.98
	Ce1	2.094	2.67		Pr1	2.138	3.26
	Ce2	2.094	2.75		Pr2	2.138	3.32
	W1	1.921	6.38		W1	1.921	6.15
	W2	1.921	6.26		W2	1.921	5.88
	W3	1.921	6.25		W3	1.921	6.11
	W4	1.921	6.07		W4	1.921	5.90
	W5	1.921	6.02		W5	1.921	6.19
	W6	1.921	6.20		W6	1.921	6.39
	W7	1.921	5.93		W7	1.921	6.36
	W8	1.921	6.24		W8	1.921	6.26
	W9	1.921	6.22		W9	1.921	6.30
	W10	1.921	6.09		W10	1.921	6.42
	W11	1.921	6.45		W11	1.921	6.38

This journal is © The Royal Society of Chemistry 2013

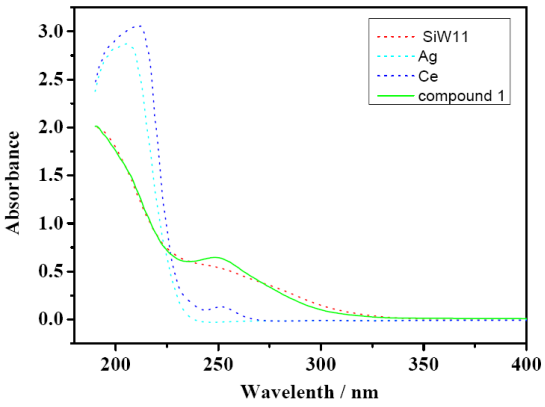

Fig. S4. The UV spectra of **1**, with control experiments of $K_8SiW_{11}O_{39}\cdot 13H_2O$, $AgNO_3$ and $Ce(NO_3)_3$ aqueous solutions.

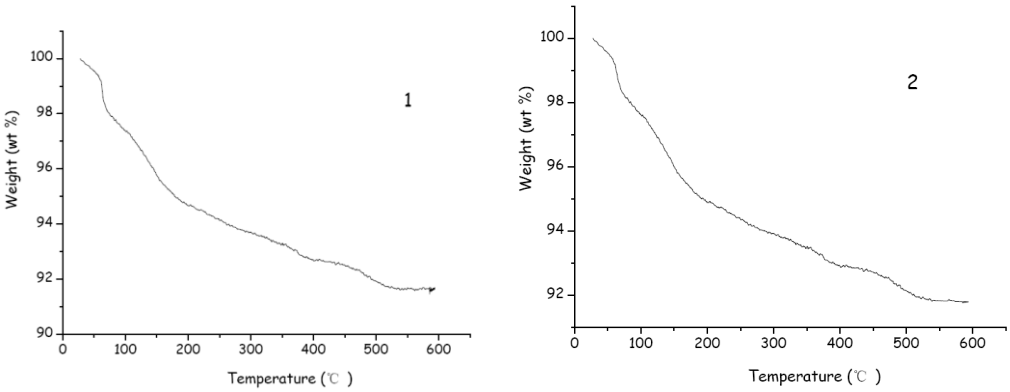

Fig. S5. The TG curves: **1** (left) and **2** (right).

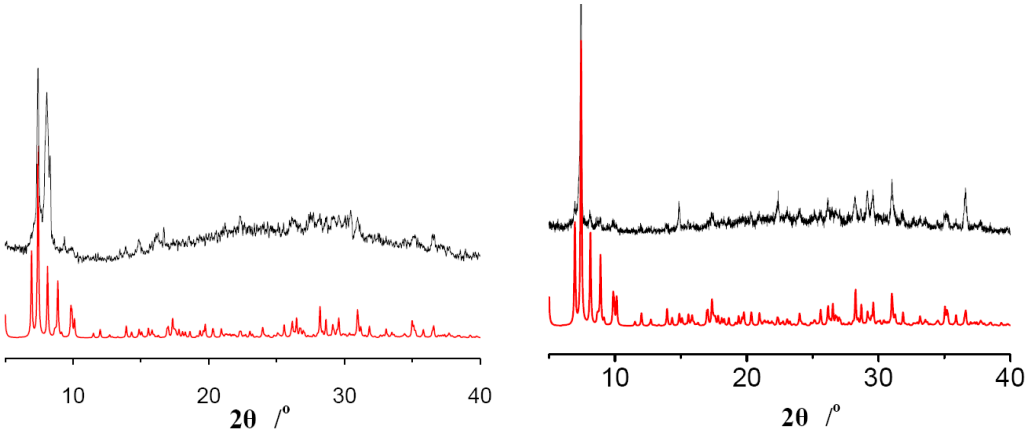

Fig. S6. The simulated (red) and experimental (black) XRPD patterns of **1** and **2**.