Table S4. Results of charge distribution analyses

Cation		Heftetjern	Baveno	Anion		Heftetjern	Baveno	Anion		Heftetjern	Baveno
A1	$q(i)$	2.00	2.00	O1	$q(r)$	-2.00	-2.00	O10	$q(r)$	-2.00	-2.00
	$Q(ij)$	1.97	1.97		$Q(rs)$	-2.16	-2.16		$Q(rs)$	-2.01	-1.99
	$q(ij)/Q(ij)$	1.02	1.02		$q(r)/Q(rs)$	0.93	0.93		$q(r)/Q(rs)$	1.00	1.01
A2	$q(i)$	1.88	1.82	O2	$q(r)$	-2.00	-2.00	O11	$q(r)$	-2.00	-2.00
	$Q(ij)$	1.88	1.82		$Q(rs)$	-1.89	-1.91		$Q(rs)$	-1.91	-1.93
	$q(ij)/Q(ij)$	1.00	1.00		$q(r)/Q(rs)$	1.06	1.05		$q(r)/Q(rs)$	1.05	1.04
M1	$q(i)$	2.48	2.43	O3	$q(r)$	-2.00	-2.00	O12	$q(r)$	-2.00	-2.00
	$Q(ij)$	2.45	2.42		$Q(rs)$	-2.04	-2.05		$Q(rs)$	-1.94	-1.93
	$q(ij)/Q(ij)$	1.01	1.00		$q(r)/Q(rs)$	0.98	0.98		$q(r)/Q(rs)$	1.03	1.04
M2	$q(i)$	2.64	2.75	O4	$q(r)$	-2.00	-2.00	O13	$q(r)$	-2.00	-2.00
	$Q(ij)$	2.69	2.78		$Q(rs)$	-1.98	-1.99		$Q(rs)$	-2.08	-2.05
	$q(ij)/Q(ij)$	0.98	0.99		$q(r)/Q(rs)$	1.01	1.01		$q(r)/Q(rs)$	0.96	0.98
Si1	$q(i)$	4.00	4.00	O5	$q(r)$	-2.00	-2.00	O14	$q(r)$	-2.00	-2.00
	$Q(ij)$	4.03	4.01		$Q(rs)$	-1.93	-1.91		$Q(rs)$	-2.04	-2.06
	$q(ij)/Q(ij)$	0.99	1.00		$q(r)/Q(rs)$	1.04	1.05		$q(r)/Q(rs)$	0.98	0.97
Si2	$q(i)$	4.00	4.00	O6	$q(r)$	-2.00	-2.00	O15	$q(r)$	-2.00	-2.00
	$Q(ij)$	3.98	3.98		$Q(rs)$	-2.13	-2.13		$Q(rs)$	-1.88	-1.89
	$q(ij)/Q(ij)$	1.01	1.01		$q(r)/Q(rs)$	0.94	0.94		$q(r)/Q(rs)$	1.06	1.06
Si3	$q(i)$	4.00	4.00	O7	$q(r)$	-2.00	-2.00				
	$Q(ij)$	3.93	3.93		$Q(rs)$	-1.95	-1.98				
	$q(ij)/Q(ij)$	1.02	1.02		$q(r)/Q(rs)$	1.03	1.01				
Si4	$q(i)$	4.00	4.00	O8	$q(r)$	-2.00	-2.00				
	$Q(ij)$	4.09	4.09		$Q(rs)$	-2.09	-2.06				
	$q(ij)/Q(ij)$	0.98	0.98		$q(r)/Q(rs)$	0.96	0.97				
Si5	$q(i)$	4.00	4.00	O9	$q(r)$	-2.00	-2.00				
	$Q(ij)$	4.02	4.03		$Q(rs)$	-1.99	-1.99				

	$q(ij)/Q(ij)$	1.00	0.99	$q(r)/Q(rs)$	1.01	1.01
H	$q(i)$	1.00	1.00			
	$Q(ij)$	0.96	0.96			
	$q(ij)/Q(ij)$	1.04	1.04			
	σ (%)	1.4	1.3	σ (%)	3.7	3.3

Note: $Q(ij)$ and $Q(rs)$ are the charge of PC(ij) and V(rs), respectively, computed as the result of the distribution of $q(ij)$ and q(rs) based on the CHARDI algorithm, where i and r identify the atomic site, j and s the crystallographic type. PC(ij) represents an atom inside a coordination polyhedron, PC, of the ith chemical species and the jth crystallographic type, V(rs) an atom at the corner (vertex) of a coordination polyhedron, of the rth chemical species and the sth crystallographic type. The σ (%) represents the mean absolute percentage deviation of the computed charges Q with respect to the formal oxidation number q.