

Supporting Information for

Enrichment of Al in the near-surface region of natural quartzite rock after Al exposure

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Figure S1: Survey spectra of untreated and treated quartzite samples

Table S1: Fitting parameter of Si 2p, Al 2p and O 1s spectra.

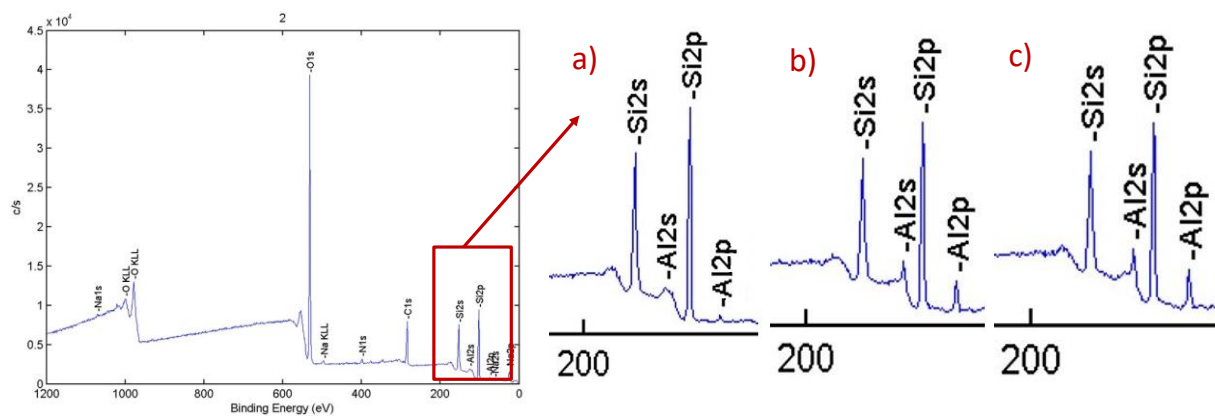


Figure S1: Survey spectrum of pristine quartzite sample and zoom into the Al and Si region (50 eV until 210 eV) of a pristine (a) and samples after 7 days of treatment in KOH with metakaolin (b) and after 21 days (c).

Table S1: Fitting parameters of the high-resolution spectra shown in Figure 4.

a) Stored in KOH without any Al-source

Peak	L-G-Mixing	E_B^F / eV	FWHM / eV	Rel. area /%
Al 2p _{3/2}	0.14	74.6	1.63	66.6
Al 2p _{1/2}	0.14	75.0	1.63	33.4

Peak	L-G-Mixing	E_B^F / eV	FWHM / eV	Rel. area /%
Si 2p _{3/2} -a	0.09	103.3	1.40	65.6
Si 2p _{1/2} -a	0.09	103.9	1.40	32.8
Si 2p _{3/2} -b	0.29	105.2	1.82	1.1
Si 2p _{1/2} -b	0.29	105.8	1.82	0.5

Peak	L-G-Mixing	E_B^F / eV	FWHM / eV	Rel. area /%
O 1s -a	0.20	530.7	1.58	3.7
O 1s -b	0.20	532.7	1.58	96.3

b) 14 days stored in KOH with Al(OH)₃

c) Peak	L-G-Mixing	E_B^F / eV	FWHM / eV	Rel. area /%
Al 2p _{3/2}	0.14	74.7	1.67	66.6
Al 2p _{1/2}	0.14	75.1	1.67	33.4

Peak	L-G-Mixing	E_B^F / eV	FWHM / eV	Rel. area /%
Si 2p _{3/2} -a	0.09	103.0	1.32	56.5
Si 2p _{1/2} -a	0.09	103.6	1.32	38.2
Si 2p _{3/2} -b	0.39	104.1	1.45	10.2
Si 2p _{1/2} -b	0.39	104.7	1.45	5.1

Peak	L-G-Mixing	E_B^F / eV	FWHM / eV	Rel. area /%
O 1s -a	0.34	530.8	1.68	1.7
O 1s -b	0.34	532.5	1.68	98.3

a) 14 days stored in KOH with metakaolin

b) Peak	L-G-Mixing	E_B^F / eV	FWHM / eV	Rel. area /%
Al 2p _{3/2}	0.14	74.6	1.77	66.6
Al 2p _{1/2}	0.14	75.0	1.7	33.4

Peak	L-G-Mixing	E_B^F / eV	FWHM / eV	Rel. area /%
Si 2p _{3/2} -a	0.09	103.0	1.31	66.7
Si 2p _{1/2} -a	0.09	103.2	1.31	33.3

Peak	L-G-Mixing	E_B^F / eV	FWHM / eV	Rel. area /%
O 1s -a	0.34	531.0	1.62	12.9
O 1s -b	0.20	532.3	1.40	87.1