

*Supplementary Materials*

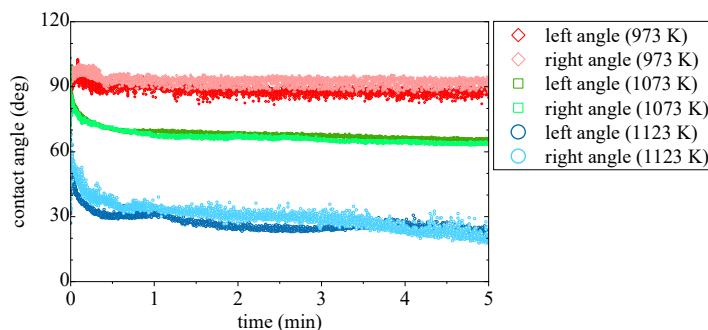
# High-Temperature Reactive Wetting of Natural Quartz by Liquid Magnesium

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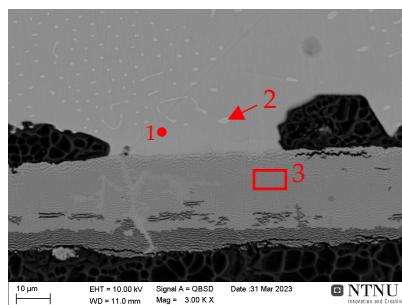
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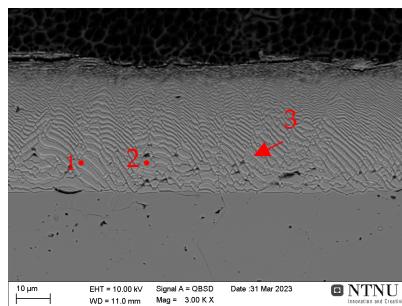
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**Figure S1.** Variation of right and left contact angles with wetting time at 973 K, 1073 K, and 1123 K.

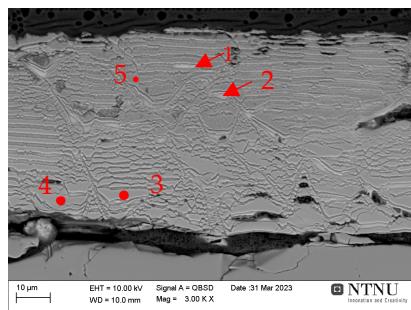


point	Element concentration (at%)		
	Si	Mg	O
1	-	100.00	-
2	36.62	63.11	0.26
3	3.6	79.48	16.92



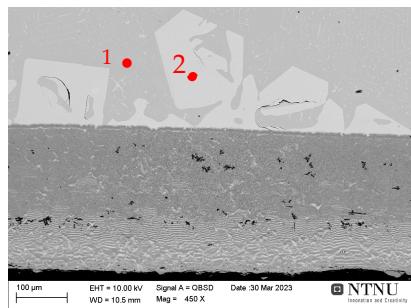
point	Element nonconcentration (at%)		
	Si	Mg	O
1	13.80	61.59	24.61
2	15.62	61.43	22.95
3	34.67	59.65	5.67

**Figure S2.** EDX point analysis at 973 K.



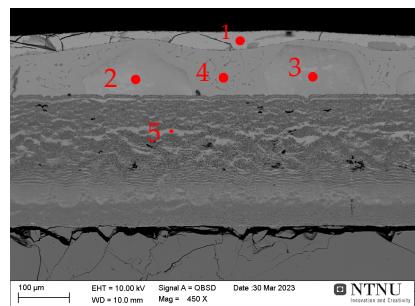
point	Element concentration (at%)		
	Si	Mg	O
1	38.70	61.30	-
2	37.55	59.45	3.00
3	15.16	62.30	22.54
4	18.224	61.87	19.89
5	4.58	71.12	23.30

Figure S3. EDX point analysis at 1073 K.

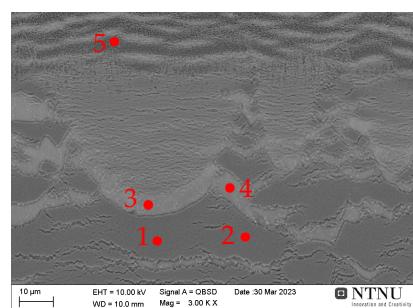


point	Element concentration (at%)		
	Si	Mg	O
1	-	99.97	0.03
2	38.28	61.72	-

Figure S4. EDX point analysis at 1123 K.



point	Element concentration (at%)		
	Si	Mg	O
1	38.63	61.37	-
2	38.95	59.82	1.23
3	39.58	60.42	-
4	-	100.00	-
5	38.96	58.29	2.75



point	Element concentration (at%)		
	Si	Mg	O
1	14.73	62.45	22.82
2	15.08	62.23	22.68
3	38.41	57.62	3.97
4	37.78	55.87	6.35
5	4.58	70.18	25.24

Figure S5. EDX point analysis at 1173 K.