

Supplementary Information

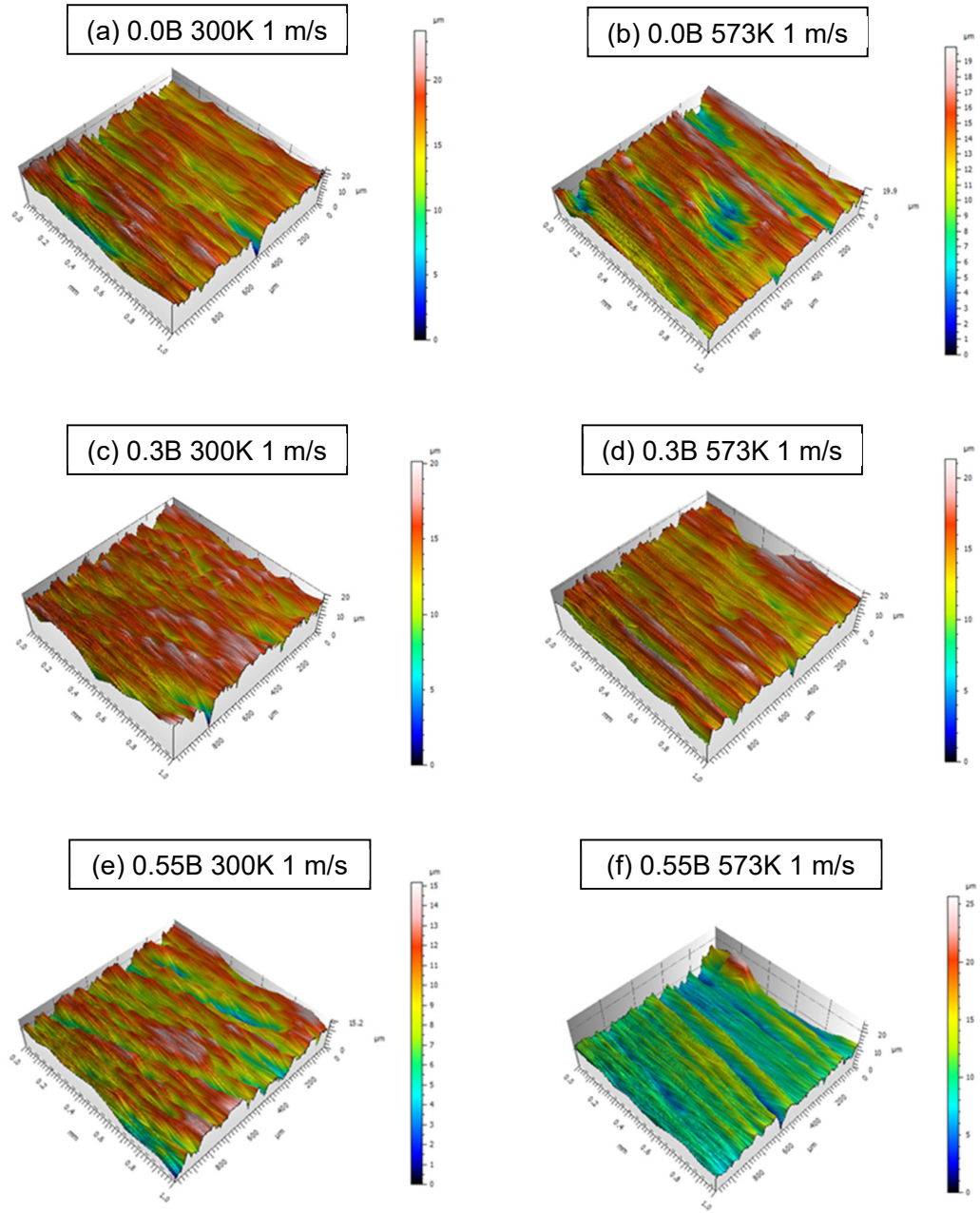


Figure S1. 3 Dimensional profilometer topography of wear surfaces for experiments performed at $s = 1$ m/s for (a) 0.0B at 300K, (b) 0.0B at 573K, (c) 0.3B at 300K, (d) 0.3B at 573K, (e) 0.55B at 300K, and (f) 0.55B at 573K.

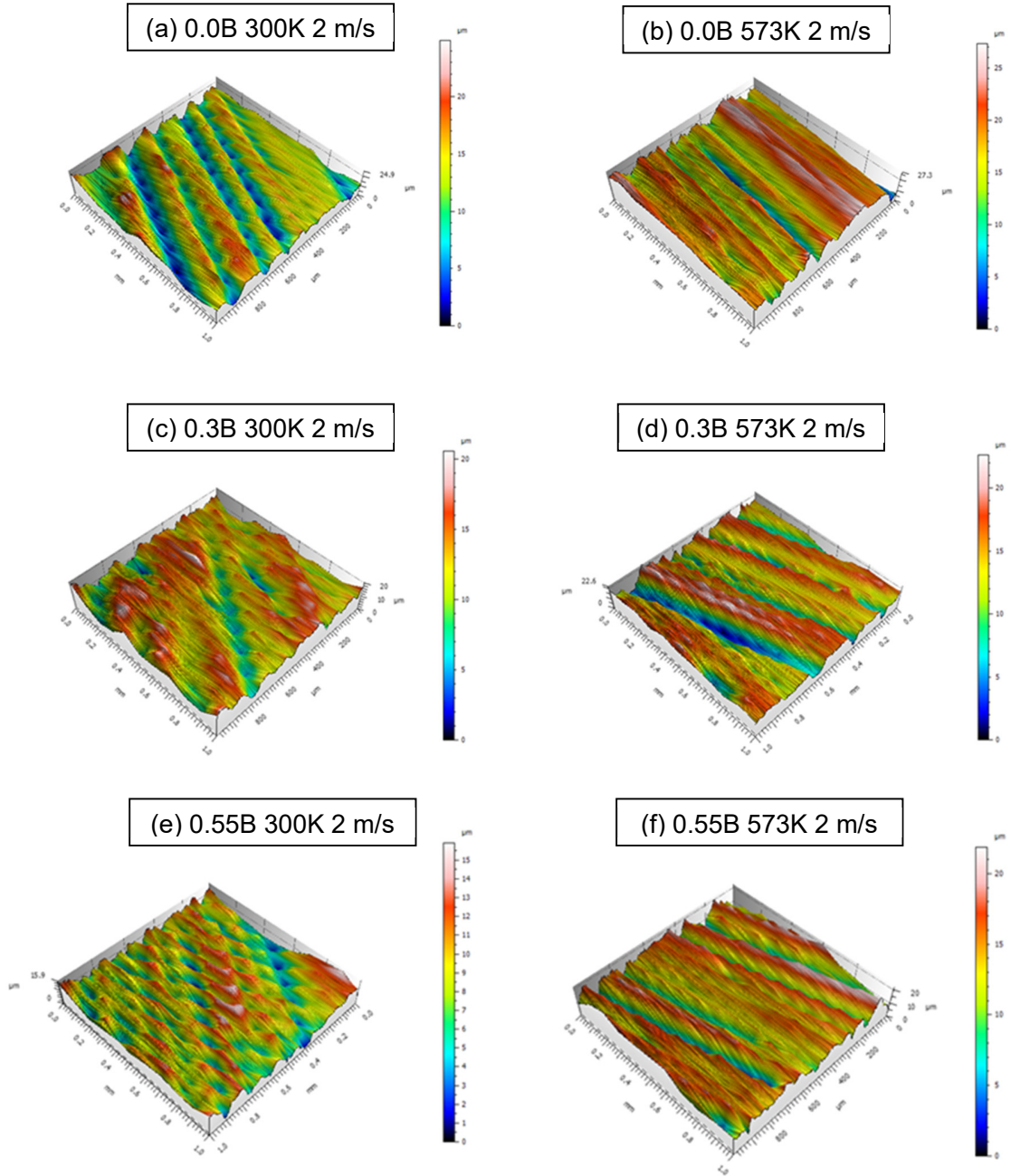


Figure S2. 3 Dimensional profilometer topography of wear surfaces for experiments performed at $s = 2$ m/s for (a) 0.0B at 300K, (b) 0.0B at 573K, (c) 0.3B at 300K, (d) 0.3B at 573K, (e) 0.55B at 300K, and (f) 0.55B at 573K.

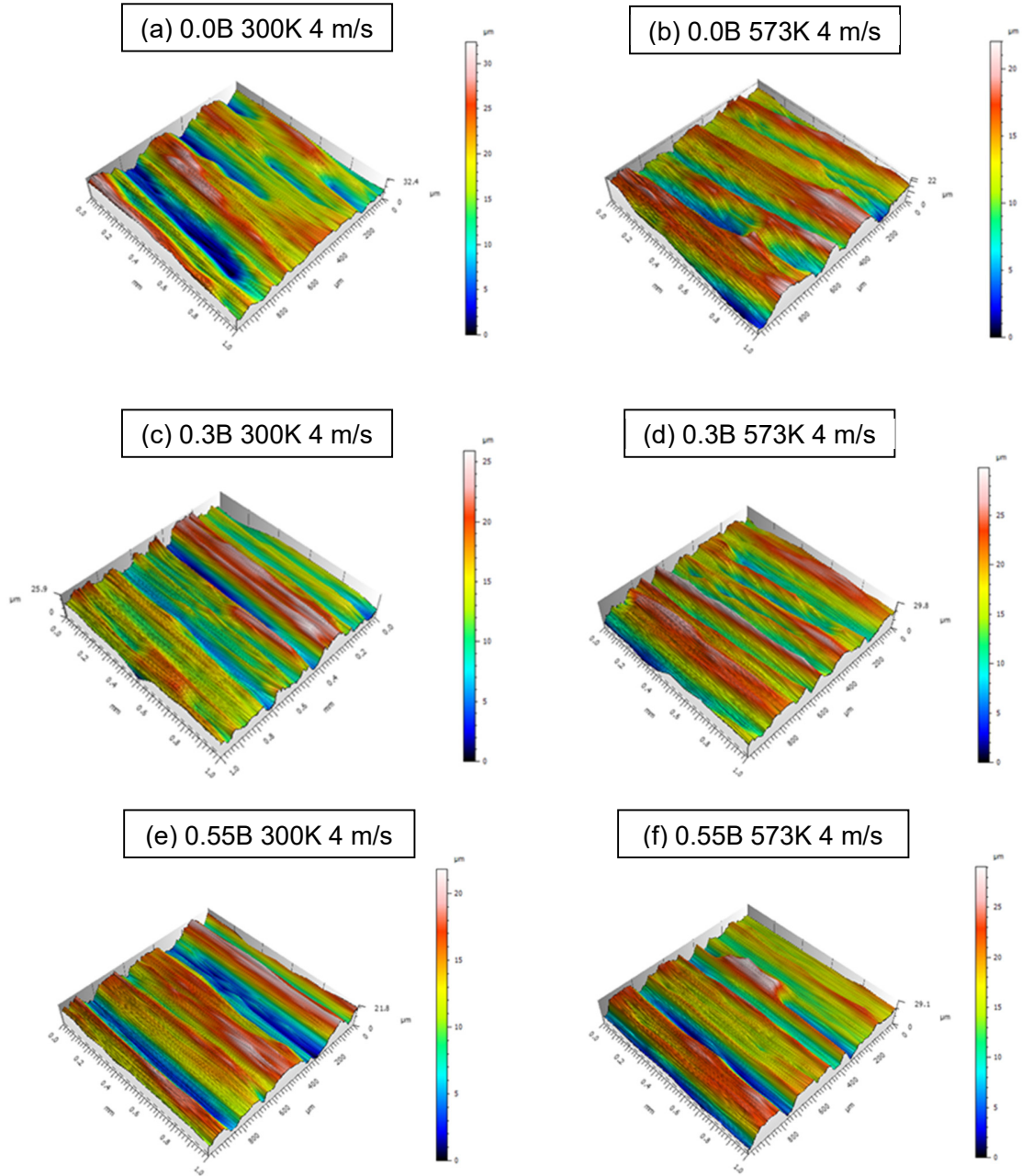


Figure S3. 3 Dimensional profilometer topography of wear surfaces for experiments performed at $s = 4$ m/s for (a) 0.0B at 300K, (b) 0.0B at 573K, (c) 0.3B at 300K, (d) 0.3B at 573K, (e) 0.55B at 300K, and (f) 0.55B at 573K.

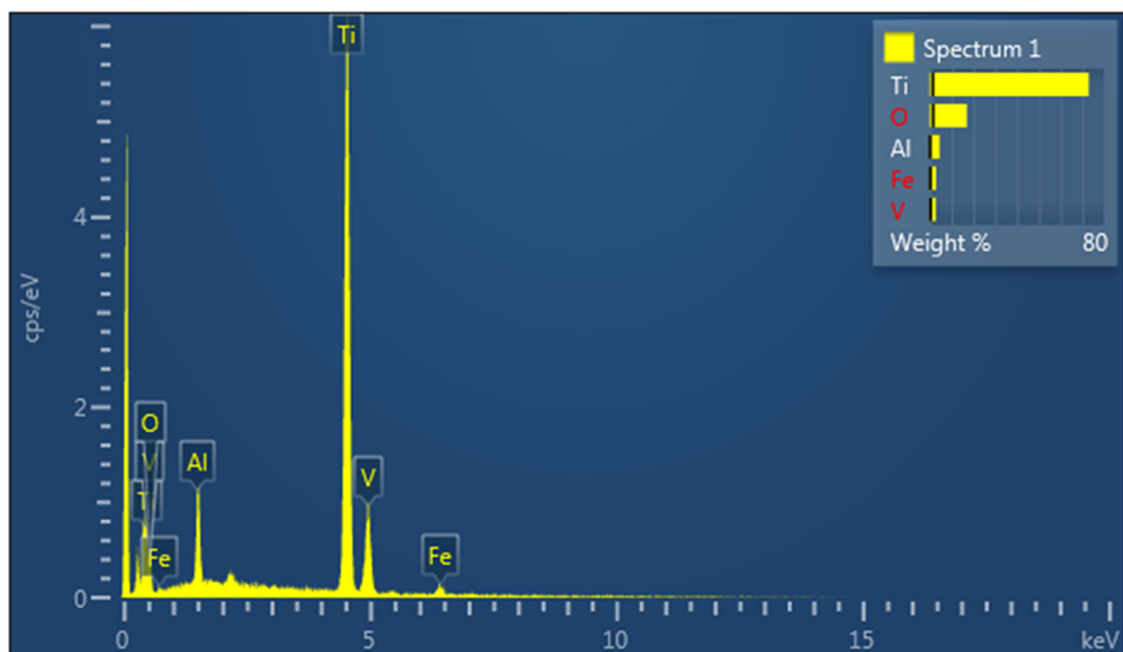


Figure S4. EDS spectrum of 0.55B sample tested at 573K at $v_s = 4$ m/s.

Table S1. Tabulated representation of Rz for all the samples experimented at 300K and 573K for $v_s = 1, 2$ and 4 m/s.

Sample	Working temperature, K	Sliding speed, v_s (m/s)	Rz (μm)
0B	300K	1	11.9
0.3B			11.9
0.55B			12.4
0B		2	16.9
0.3B			11.8
0.55B			12.0
0B		4	23.2
0.3B			20.2
0.55B			18.0
0B	573K	1	14.8
0.3B			13.5
0.55B			10.9
0B		2	21.6
0.3B			20.0
0.55B			18.1
0B		4	14.5
0.3B			19.3
0.55B			21.5