



Communication

Nano-Topographical Control of Ti-Nb-Zr Alloy Surfaces for Enhanced Osteoblastic Response

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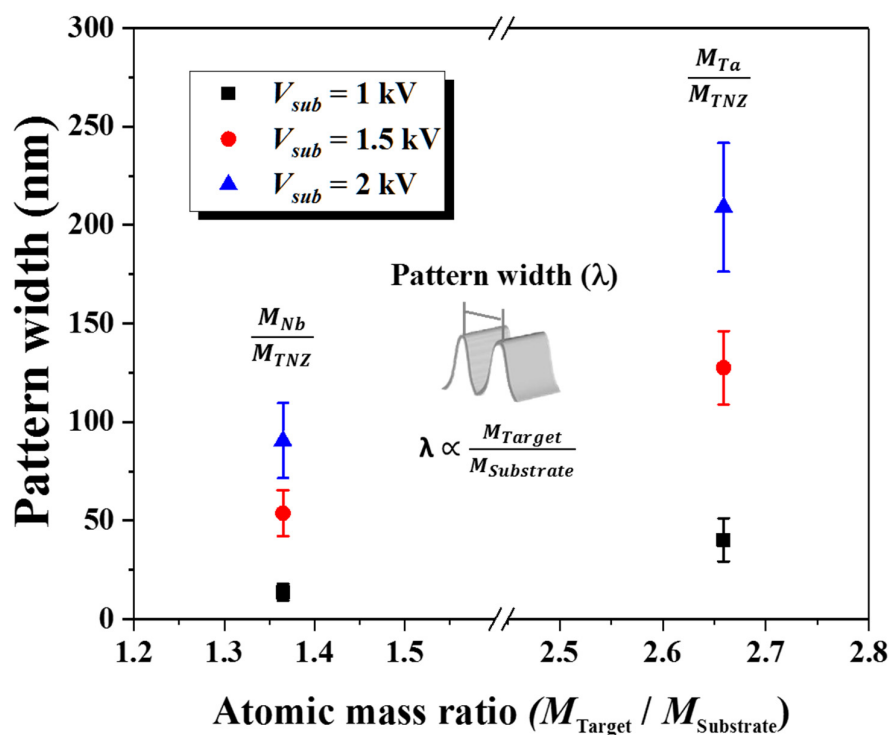
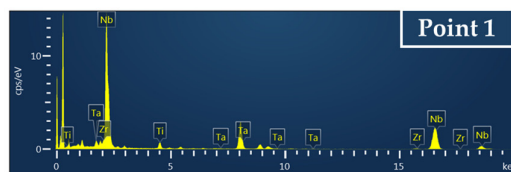
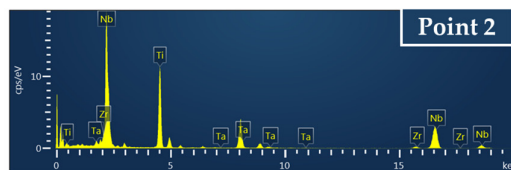


Figure S1. The width of nano-patterns formed on TNZ substrate as a function of atomic mass ratio between target and substrate materials.

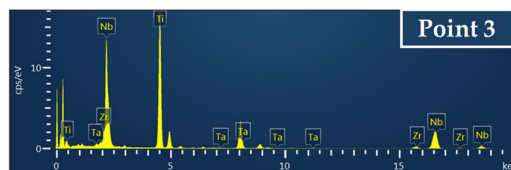
A



Element	Line Type	k Factor	k Factor type	Absorption Correction	Wt%	Wt% Sigma	Atomic %
Ti	K series	1.090		1.00	5.97	0.16	11.28
Zr	K series	3.211		1.00	1.91	0.22	1.90
Nb	K series	3.717		1.00	86.17	0.48	83.86
Ta	L series	2.135		1.00	5.95	0.43	2.97
Total:					100.00		100.00

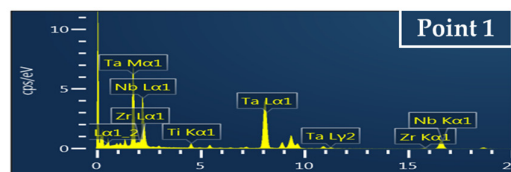


Element	Line Type	k Factor	k Factor type	Absorption Correction	Wt%	Wt% Sigma	Atomic %
Ti	K series	1.090		1.00	31.90	0.35	48.11
Zr	K series	3.211		1.00	3.54	0.22	2.80
Nb	K series	3.717		1.00	61.64	0.44	47.92
Ta	L series	2.135		1.00	2.92	0.35	1.17
Total:					100.00		100.00

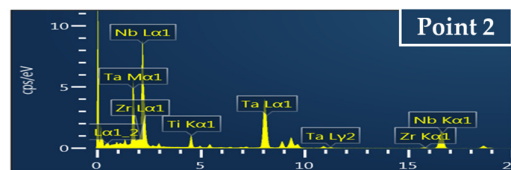


Element	Line Type	k Factor	k Factor type	Absorption Correction	Wt%	Wt% Sigma	Atomic %
Ti	K series	1.090		1.00	49.71	0.43	65.94
Zr	K series	3.211		1.00	4.02	0.23	2.80
Nb	K series	3.717		1.00	45.12	0.44	30.86
Ta	L series	2.135		1.00	1.15	0.31	0.40
Total:					100.00		100.00

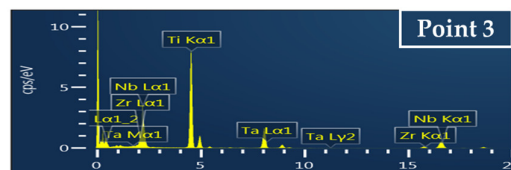
B



Element	Line Type	k Factor	k Factor type	Absorption Correction	Wt%	Wt% Sigma	Atomic %
Ti	K series	1.090		1.00	2.22	0.07	6.14
Zr	K series	3.211		1.00	1.09	0.12	1.58
Nb	K series	3.717		1.00	31.07	0.34	44.27
Ta	L series	2.135		1.00	65.61	0.35	48.00
Total:					100.00		100.00



Element	Line Type	k Factor	k Factor type	Absorption Correction	Wt%	Wt% Sigma	Atomic %
Ti	K series	1.090		1.00	4.90	0.09	11.33
Zr	K series	3.211		1.00	1.67	0.13	2.02
Nb	K series	3.717		1.00	50.87	0.35	60.61
Ta	L series	2.135		1.00	42.56	0.35	26.04
Total:					100.00		100.00



Element	Line Type	k Factor	k Factor type	Absorption Correction	Wt%	Wt% Sigma	Atomic %
Ti	K series	1.090		1.00	62.34	0.29	76.66
Zr	K series	3.211		1.00	5.34	0.15	3.45
Nb	K series	3.717		1.00	30.37	0.27	19.26
Ta	L series	2.135		1.00	1.95	0.19	0.63
Total:					100.00		100.00

Figure S2. EDS point analysis spectra of (A) Nb- and (B) Ta-TIPS TNZ.