

Supplementary



Figure. S1. TION-2M setup used for reactive magnetron sputtering (VIP technologies Ltd., Tomsk, Russia).

Table S1. Statistical significance of differences in direct cytotoxicity after 72-h direct contact with samples

Direct cytotoxicity, %	No.1	No.2	No.3	No.4	No.5	No.6	No.7	No.8	control (NiTi)
No.1		0.000	1.000	0.000	1.000	1.000	0.060	0.090	1.000
No.2	0.000		0.002	1.000	0.013	0.038	1.000	1.000	0.155
No.3	1.000	0.002		0.004	1.000	1.000	0.302	0.425	1.000
No.4	0.000	1.000	0.004		0.025	0.068	1.000	1.000	0.260
No.5	1.000	0.013	1.000	0.025		1.000	1.000	1.000	1.000
No.6	1.000	0.038	1.000	0.068	1.000		1.000	1.000	1.000
No.7	0.060	1.000	0.302	1.000	1.000	1.000		1.000	1.000
No.8	0.090	1.000	0.425	1.000	1.000	1.000	1.000		1.000
control (NiTi)	1.000	0.155	1.000	0.260	1.000	1.000	1.000	1.000	

Table S2. Statistical significance of differences of cell adhesion after six-day cultivation on sample surfaces

Adhesion and spreading of cells, cells per mm ²	No.1	No.2	No.3	No.4	No.5	No.6	No.7	No.8	control (NiTi)
No.1		0.184	1.000	0.056	1.000	1.000	0.011	0.188	1.000
No.2	0.184		1.000	1.000	1.000	0.955	1.000	1.000	0.023
No.3	1.000	1.000		1.000	1.000	1.000	0.509	1.000	1.000
No.4	0.056	1.000	1.000		1.000	0.338	1.000	1.000	0.006
No.5	1.000	1.000	1.000	1.000		1.000	0.911	1.000	1.000
No.6	1.000	0.955	1.000	0.338	1.000		0.088	0.813	1.000
No.7	0.011	1.000	0.509	1.000	0.911	0.088		1.000	0.001
No.8	0.188	1.000	1.000	1.000	1.000	0.813	1.000		0.033

control (NiTi)	1.000	0.023	1.000	0.006	1.000	1.000	0.001	0.033	
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Table S3. Statistical significance of differences of cell viability after six-day cultivation on sample surfaces

Viability of cells, %	No.1	No.2	No.3	No.4	No.5	No.6	No.7	No.8	control (NiTi)
No.1		1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
No.2	1.000		1.000	0.874	0.009	1.000	1.000	1.000	1.000
No.3	1.000	1.000		1.000	0.404	1.000	1.000	1.000	1.000
No.4	1.000	0.874	1.000		1.000	1.000	1.000	1.000	1.000
No.5	1.000	0.009	0.404	1.000		1.000	0.604	0.381	0.033
No.6	1.000	1.000	1.000	1.000	1.000		1.000	1.000	1.000
No.7	1.000	1.000	1.000	1.000	0.604	1.000		1.000	1.000
No.8	1.000	1.000	1.000	1.000	0.381	1.000	1.000		1.000
control (NiTi)	1.000	1.000	1.000	1.000	0.033	1.000	1.000	1.000	

Table S4. Statistical significance of differences of NO production by endothelial cells within 24 h

NO μ M/mL production,	No.1	No.2	No.3	No.4	No.5	No.6	No.7	No.8	control (NiTi)
No.1		1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
No.2	1.000		1.000	1.000	1.000	1.000	1.000	1.000	1.000
No.3	1.000	1.000		1.000	1.000	1.000	1.000	1.000	1.000
No.4	1.000	1.000	1.000		0.468	1.000	1.000	1.000	1.000
No.5	1.000	1.000	1.000	0.468		1.000	0.101	0.101	1.000
No.6	1.000	1.000	1.000	1.000	1.000		0.479	0.479	1.000
No.7	1.000	1.000	1.000	1.000	0.101	0.479		1.000	1.000
No.8	1.000	1.000	1.000	1.000	0.101	0.479	1.000		1.000
control (NiTi)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	

Table S5. Scores assigned to each sample in a direct cytotoxicity test

sample number, (n)	No.1	No.2	No.3	No.4	No.5	No.6	No.7	No.8	control (NiTi)
1	0	2	1	2	1	1	1	2	1
2	0	1	0	1	0	0	1	1	0
3	0	2	0	2	0	0	1	1	0
4	0	2	0	1	0	0	1	1	0
5	0	2	0	1	0	0	1	1	0
6	0	2	1	2	0	1	1	1	1
Mean	0.0	1.8	0.3	1,5	0.2	0.3	1	1.2	0.3
SD	0.0	0.41	0.52	0.55	0.41	0.52	0.0	0.41	0.52

Table S6. Scores assigned to each sample in cell adhesion test

sample number, (n)	No.1	No.2	No.3	No.4	No.5	No.6	No.7	No.8	control (NiTi)
1	0	1	0	2	1	0	2	1	0
2	0	2	1	2	1	0	2	2	0
3	0	2	1	2	1	0	2	1	0
4	0	1	1	2	1	1	2	1	0
5	0	2		2	1				0
Mean	0	1.6	0.8	2	1	0.3	2	1.3	0
SD	0	0.55	0.50	0	0	0.50	0	0.50	0

Table S7. Scores assigned to each sample in the viability test

sample number, (n)	No.1	No.2	No.3	No.4	No.5	No.6	No.7	No.8	control (NiTi)
1	2	1	0	2	2	2	1	1	0
2	2	1	1	1	2	1	1	2	0
3	1	0	1	1	2	1	1	0	0
4	0	0	1	2	2	1	1	0	2
5	1	0	1	1	2	1	1	0	2
6	2	1					0		0
7									1
Mean	1.3	0.5	0.8	1.4	2	1.2	0.8	0.6	0.7
SD	0.82	0.55	0.45	0.55	0	0.45	0.45	0.89	1.0

Table S8. Scores assigned to each sample in the nitric oxide (NO) production test

sample number, (n)	No.1	No.2	No.3	No.4	No.5	No.6	No.7	No.8	control (NiTi)
1	1	0	1	1	0	0	2	2	0
2	0	0	1	1	0	0	2	2	1
3	0	0	1	2	0	0	2	2	0
4	0	0	1	1	0	0	2	2	0
5	0	0	1	2	0	0	2	2	1
6	1	1	1	1	0	0	2	2	1
Mean	0.3	0	1	1.3	0	0	2	2	0.5
SD	0.52	0	0	0.52	0	0	0	0	0.55

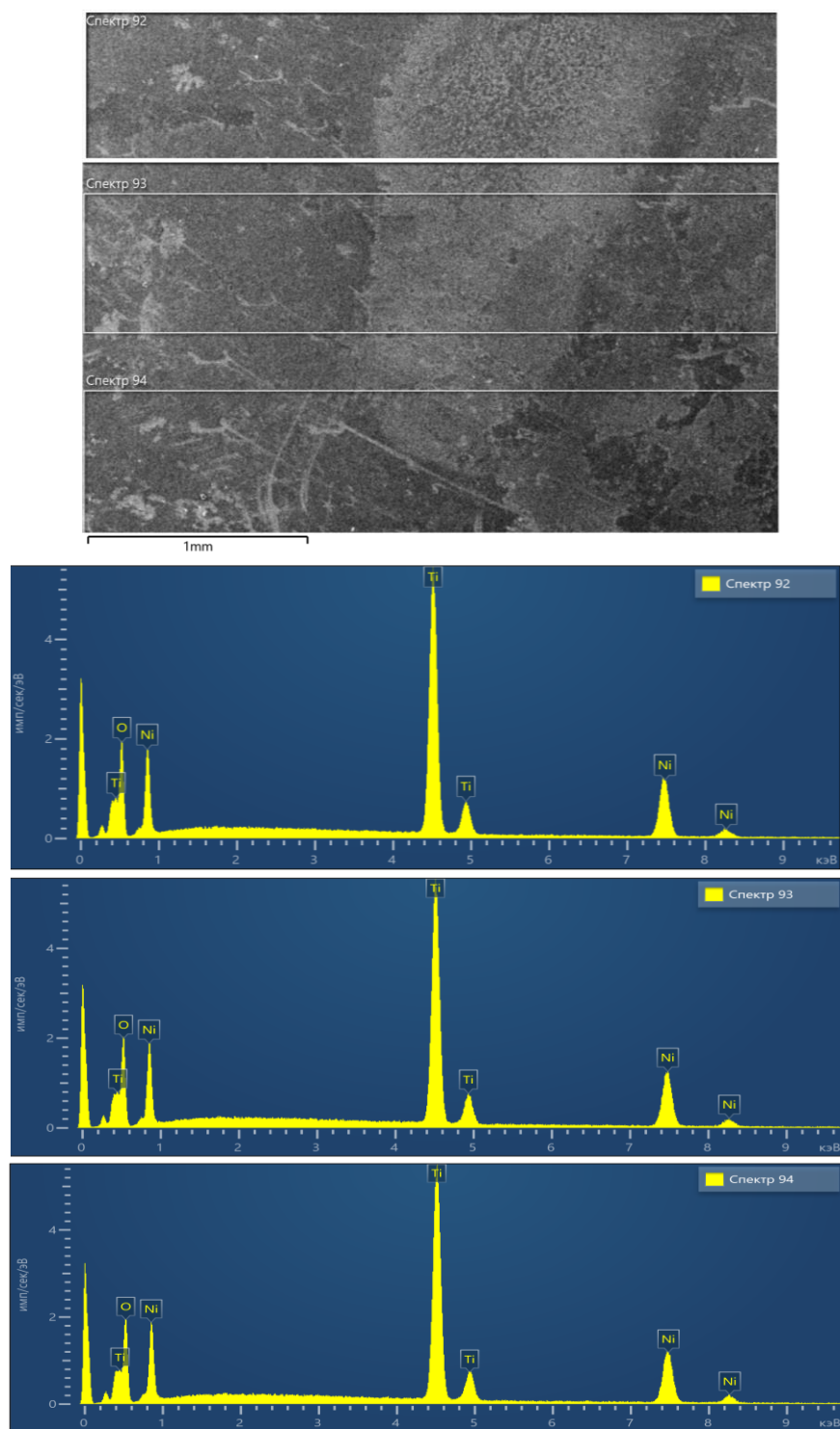


Figure S2. EDS analysis. Three spots selected on the surface of the sample No.1 (top image) and 3 element spectra obtained from these fields.