

Stainless steel (AISI 316L) with titanium coating (Ti)												
Image (gf)	Vertice	Row (μm)	Column (μm)	l_1 (μm)	l_2 (μm)	Average diagonal length (μm)	HV (GP)	l_1 (μm)	l_2 (μm)	Average diagonal length (μm)	HV (GP)	Relative error in average diagonal length
1 of 3	Data obtained by algorithm for automatic detection and measurement of indentation in Vickers hardness testing images						Data obtained in the manual manner by an expert					
1 (10)	A	99.375	40.125	13.002	14.080	13.541	1.0114	13.072	14.150	13.611	1.0009	0.5165
	B	99.625	53.125									
	D	106.375	45.625									
	C	92.375	47.125									
2(10)	A	98.875	25.875	5.83631	6.96419	6.4	4.52636719	5.839088	6.966974	6.403	4.522083	0.0473
	B	99.875	31.625			0						
	D	102.625	27.625			0						
	C	96.125	30.125			0						
3(50)	A	100.875	27.625	42.2507	46.0333	44.142	0.47574663	42.30972	46.09226	44.201	0.474478	0.1335
	B	101.125	69.875			0						
	D	124.375	47.875			0						
	C	78.375	49.625			0						
4(50)	A	100.375	19.625	40.0944	49.0918	44.593	0.46617218	40.10954	49.10687	44.608	0.465854	0.0341
	B	103.125	59.625			0						
	D	126.375	38.375			0						
	C	77.375	41.375			0						
5(50)	A	102.125	12.375	41.512	45.7835	43.648	0.4865764	41.5631	45.83451	43.699	0.485446	0.1163
	B	103.125	53.875			0						
	D	125.375	32.125			0						
	C	79.625	33.875			0						
6 (50)	A	101.375	26.125	27.5102	30.25	28.88	1.11143829	27.73538	30.47515	29.105	1.094301	0.7740
	B	102.125	53.625			0						
	D	116.875	39.375			0						
	C	86.625	39.375			0						
7 (50)	A	101.375	22.125	29.5011	31.751	30.626	0.98832363	29.50865	31.75858	30.634	0.987832	0.0249
	B	101.125	51.625			0						
	D	118.375	36.625			0						
	C	86.625	36.875			0						
8 (50)	A	102.125	18.125	28.5175	31.7539	30.136	1.02072445	28.58615	31.82255	30.204	1.01611	0.2263
	B	103.125	46.625			0						
	D	118.375	31.875			0						
	C	86.625	32.375			0						
9 (50)	A	99.125	20.875	19.54	20.0062	19.773	2.37101664	19.56	20.03	19.79	2.365756	0.1110
	B	100.375	40.375			0						
	D	110.125	29.875			0						
	C	90.125	30.375			0						
10 (50)	A	98.375	19.375	20.8041	21.095	20.95	2.1120864	20.84	21.13	20.98	2.105174	0.1638
	B	99.875	40.125			0						
	D	109.875	29.375			0						
	C	88.875	31.375			0						

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2 of 3	Data obtained by algorithm for automatic detection and measurement of indentation in Vickers hardness testing images						Data obtained in the manual manner by an expert					
11(10)	A	96.375	17.625	12.52248	13.25	12.886	1.11654	12.53	13.26	12.89	1.1153	0.0576
	B	97.125	30.125			0						
	D	103.625	23.625			0						
	C	90.375	23.625			0						
12 (10)	A	96.125	30.375	13.64734	15.4151	14.531	0.87805	13.71	15.48	14.59	0.8706	0.4252
	B	98.125	43.875			0						
	D	104.625	36.625			0						
	C	89.375	38.875			0						
13 (10)	A	99.375	22.375	15.25205	16.5303	15.891	0.73419	15.40	16.68	16.04	0.7205	0.9363
	B	99.125	37.625			0						
	D	108.125	29.625			0						
	C	91.625	30.625			0						
14 (10)	A	100.875	27.625	8.87764	9.33408	9.106	2.23591	8.89	9.35	9.12	2.2294	0.1464
	B	102.375	36.375			0						
	D	106.125	32.125			0						
	C	96.875	33.375			0						
15 (10)	A	101.875	29.375	7.786206	8.51469	8.15	2.79122	7.80	8.53	8.17	2.7802	0.1973
	B	102.625	37.125			0						
	D	106.375	32.875			0						
	C	97.875	33.375			0						
16 (10)	A	101.125	28.625	7.603453	8.53302	8.068	2.84825	7.67	8.60	8.14	2.799	0.8676
	B	102.375	36.125			0						
	D	106.125	31.875			0						
	C	97.625	32.625			0						
17(10)	A	101.875	29.875	5.006246	5.09902	5.053	7.26125	5.02	5.11	5.07	7.2254	0.2470
	B	102.125	34.875			0						
	D	104.625	31.875			0						
	C	99.625	32.875			0						
18 (10)	A	101.625	30.125	4.366062	5.27376	4.82	7.98023	4.40	5.30	4.85	7.88	0.6299
	B	102.625	34.375			0						
	D	104.375	31.625			0						
	C	99.125	32.125			0						
19 (10)	A	101.125	29.875	4.743416	5.09902	4.921	7.65602	4.78	5.13	4.95	7.553	0.6749
	B	102.625	34.375			0						
	D	104.375	31.625			0						
	C	99.375	32.625			0						
20 (10)	A	103.125	94.875	4.756574	5.64026	5.198	6.86179	4.77	5.65	5.21	6.8258	0.2624
	B	103.375	99.625			0						
	D	105.625	96.625			0						
	C	100.125	97.875			0						

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3 of 3	Data obtained by algorithm for automatic detection and measurement of indentation in Vickers hardness testing images						Data obtained in the manual manner by an expert					
21 (10)	A	100.875	29.875	4.43001	5.05594	4.743	8.24145	4.46	5.08	4.77	8.145316	0.5849
	B	102.125	34.125			0						
	D	104.125	31.375			0						
	C	99.125	32.125			0						
22 (10)	A	96.625	50.875	7.26722	8.06226	7.665	3.15563	7.27	8.06	7.67	3.153942	0.0267
	B	97.125	58.125			0						
	D	100.875	54.375			0						
	C	92.875	55.375			0						
23 (10)	A	98.125	43.625	18.5	19.0263	18.763	0.52663	18.52	19.05	18.79	0.525326	0.1239
	B	98.125	62.125			0						
	D	107.625	52.875			0						
	C	88.625	53.875			0						
24 (10)	A	97.125	48.125	17.2518	18.2928	17.772	0.587	17.26	18.30	17.78	0.586282	0.0611
	B	97.375	65.375			0						
	D	106.625	56.375			0						
	C	88.375	57.625			0						
25(10)	A	89.875	50.125	12.0026	13.0384	12.521	1.18258	12.07	13.10	12.58	1.170691	0.5041
	B	89.625	62.125			0						
	D	95.875	55.375			0						
	C	82.875	56.375			0						
26 (10)	A	95.125	51.875	12.51	14.5344	13.522	1.01398	12.53	14.55	13.54	1.010961	0.1488
	B	95.625	64.375			0						
	D	102.375	57.875			0						
	C	87.875	58.875			0						
											1.4494	
											Total suma =	8.0416
											Total relative error =	0.309291444

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