

Titanium Nitride (TiN)												
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 1	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	76.375	36.375	10.0281	11.3853	10.707	1.6172387	10.09812	11.45533	10.777	1.596379	0.6470
	B	77.125	46.375									
	D	82.375	40.625									
	C	71.125	42.375									
2(10)	A	87.625	33.125	10.0281	11.0454	10.537	1.6698435	10.04097	11.05824	10.550	1.665856	0.1195
	B	88.375	43.125									
	D	93.375	37.625									
	C	82.375	38.625									
3(10)	A	78.875	33.375	10.5119	11.0255	10.769	1.59867055	10.51468	11.02832	10.771	1.597929	0.0232
	B	79.375	43.875									
	D	84.375	38.375									
	C	73.375	39.125									
4(10)	A	72.875	47.125	13.5577	14.285	13.921	0.95668478	13.69131	14.4186	14.055	0.938536	0.9531
	B	74.125	60.625									
	D	80.375	53.375									
	C	66.125	54.375									
5(10)	A	64.875	31.375	12.0234	12.3744	12.199	1.24583712	12.15379	12.50474	12.329	1.21965	1.0565
	B	65.625	43.375									
	D	70.875	36.125									
	C	58.625	37.875									
6(10)	A	73.125	34.625	11.7527	12.0234	11.888	1.31187404	11.80371	12.07447	11.939	1.300671	0.4279
	B	73.375	46.375									
	D	78.625	40.625									
	C	66.625	41.375									
7 (10)	A	70.625	46.125	11.7739	12.5897	12.182	1.24931668	11.86347	12.67924	12.271	1.231189	0.7282
	B	71.375	57.875									
	D	77.125	51.375									
	C	64.625	52.875									
8 (50)	A	112.125	36.125	14	18.0624	16.031	3.60710269	14.13553	18.19792	16.167	3.546793	0.8395
	B	112.125	50.125									
	D	121.125	41.625									
	C	103.125	43.125									
9 (50)	A	114.375	35.875	14.5022	17.5642	16.033	3.60620282	14.57077	17.63278	16.102	3.575464	0.4271
	B	114.125	50.375									
	D	123.125	42.125									
	C	105.625	43.625									
10 (50)	A	109.375	31.125	19.2516	22.5347	20.893	2.12362645	19.53623	22.81931	21.178	2.066899	1.3447
	B	109.625	50.375									
	D	121.125	40.875									
	C	98.625	42.125									
Total relative error =										0.6567	6.5666	