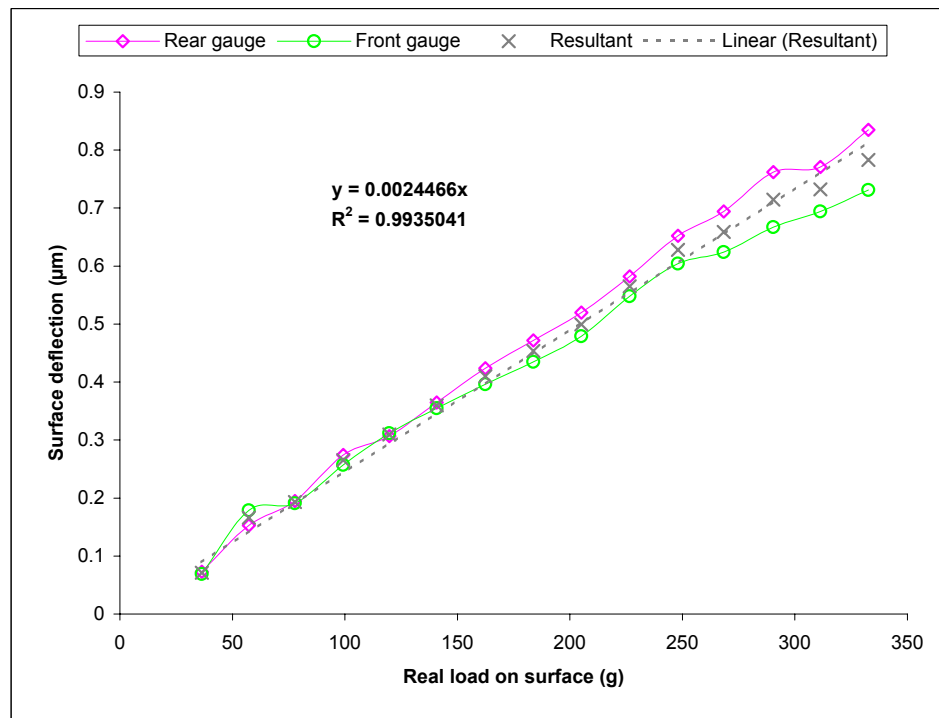


## LOAD-SURFACE DEFLECTION TEST ON *St1* SURFACE USING 5MM TIP

Dead-weight (g)	Loadcell mean voltage before loading	Loadcell mean voltage after loading	Rear cap. gauge mean voltage before loading	Rear cap. gauge mean voltage after loading	Front cap. gauge mean voltage before loading	Front cap. gauge mean voltage after loading	Change of load on surface (g)	Real load on surface (g)	Rear cap. gauge displacement (μm)	Front cap. gauge displacement (μm)	Resultant deflection at contact tip (μm)
15	1.09612	1.13533	6.29958	6.29472	6.30799	6.30378	10.842	36.459	0.073	0.069	0.071
35	1.10635	1.21085	6.29638	6.28619	6.30513	6.29427	28.894	57.341	0.153	0.179	0.166
55	1.11776	1.28484	6.29139	6.27839	6.29859	6.28700	46.198	77.799	0.195	0.191	0.193
75	1.11946	1.36273	6.28832	6.27004	6.29462	6.27906	67.264	99.336	0.274	0.257	0.266
95	1.12461	1.43669	6.28452	6.26403	6.29190	6.27301	86.290	119.786	0.307	0.312	0.310
115	1.12749	1.51274	6.28145	6.25714	6.28800	6.26649	106.522	140.814	0.365	0.355	0.360
135	1.12805	1.59100	6.27840	6.25015	6.28368	6.25969	128.006	162.453	0.424	0.396	0.410
155	1.12912	1.66792	6.27549	6.24399	6.28035	6.25401	148.979	183.721	0.472	0.435	0.454
175	1.12834	1.74493	6.27227	6.23758	6.27740	6.24837	170.488	205.014	0.520	0.479	0.500
195	1.13063	1.82266	6.26944	6.23067	6.27468	6.24147	191.347	226.507	0.582	0.548	0.565
215	1.11919	1.90037	6.26800	6.22453	6.27219	6.23559	215.997	247.994	0.652	0.604	0.628
235	1.13049	1.97400	6.26401	6.21777	6.26821	6.23038	233.231	268.353	0.694	0.624	0.659
255	1.13158	2.05357	6.26261	6.21183	6.26586	6.22546	254.931	290.354	0.762	0.667	0.715
275	1.13315	2.12918	6.25908	6.20768	6.26304	6.22098	275.403	311.260	0.771	0.694	0.733
295	1.13353	2.20661	6.25565	6.20000	6.26003	6.21570	296.708	332.669	0.835	0.731	0.783

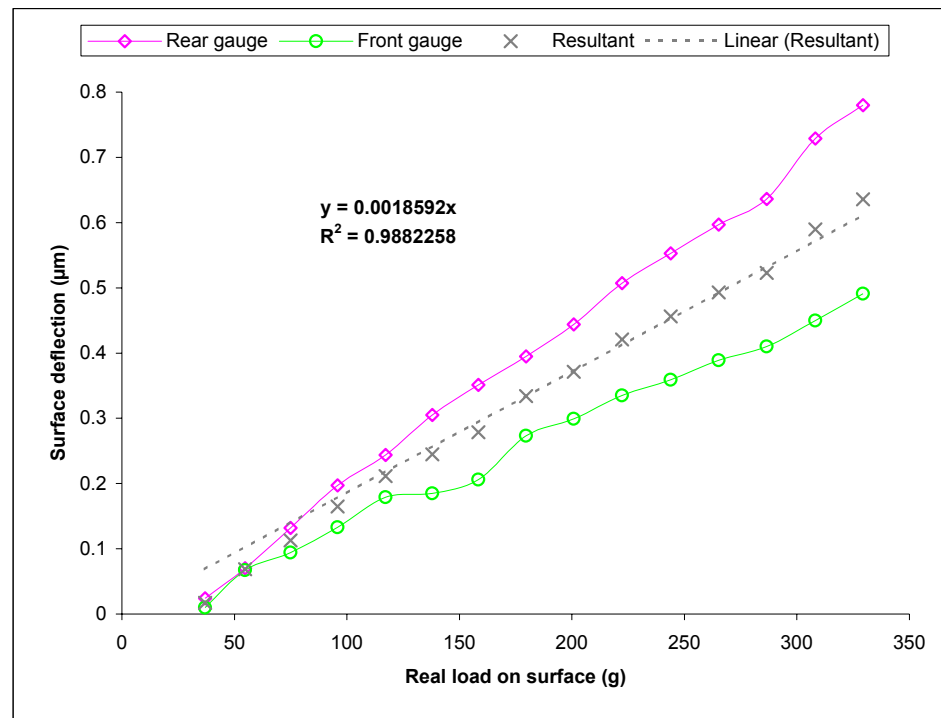
Loadcell voltage reading at no initial load
1.00347



## LOAD-SURFACE DEFLECTION TEST ON *St2* SURFACE USING 5MM TIP

Dead-weight (g)	Loadcell mean voltage before loading	Loadcell mean voltage after loading	Rear cap. gauge mean voltage before loading	Rear cap. gauge mean voltage after loading	Front cap. gauge mean voltage before loading	Front cap. gauge mean voltage after loading	Change of load on surface (g)	Real load on surface (g)	Rear cap. gauge displacement (μm)	Front cap. gauge displacement (μm)	Resultant deflection at contact tip (μm)
15	1.17897	1.20466	6.93545	6.93387	6.89460	6.89397	7.103	36.943	0.024	0.010	0.017
35	1.18713	1.26883	6.93405	6.92940	6.89408	6.89002	22.590	54.686	0.070	0.067	0.069
55	1.21013	1.34224	6.93145	6.92264	6.89097	6.88530	36.529	74.984	0.132	0.094	0.113
75	1.22439	1.41795	6.93022	6.91711	6.89008	6.88203	53.520	95.918	0.197	0.133	0.165
95	1.23323	1.49482	6.92829	6.91204	6.88918	6.87833	72.330	117.173	0.244	0.179	0.212
115	1.24122	1.57015	6.92566	6.90534	6.88630	6.87506	90.949	138.002	0.305	0.185	0.245
135	1.24417	1.64424	6.92365	6.90026	6.88505	6.87257	110.620	158.488	0.351	0.206	0.279
155	1.24765	1.72092	6.92097	6.89464	6.88284	6.86628	130.860	179.690	0.395	0.273	0.334
175	1.24897	1.79725	6.91911	6.88949	6.88264	6.86453	151.600	200.795	0.444	0.299	0.372
195	1.25320	1.87480	6.91888	6.88505	6.88152	6.86120	171.873	222.238	0.507	0.335	0.421
215	1.25605	1.95317	6.91756	6.88070	6.88064	6.85889	192.754	243.907	0.553	0.359	0.456
235	1.25590	2.03022	6.91522	6.87542	6.87895	6.85536	214.100	265.212	0.597	0.389	0.493
255	1.25742	2.10762	6.91433	6.87192	6.87736	6.85250	235.081	286.613	0.636	0.410	0.523
275	1.25783	2.18560	6.91414	6.86551	6.87687	6.84962	256.529	308.174	0.729	0.450	0.590
295	1.25951	2.26212	6.91338	6.86139	6.87599	6.84622	277.223	329.332	0.780	0.491	0.636

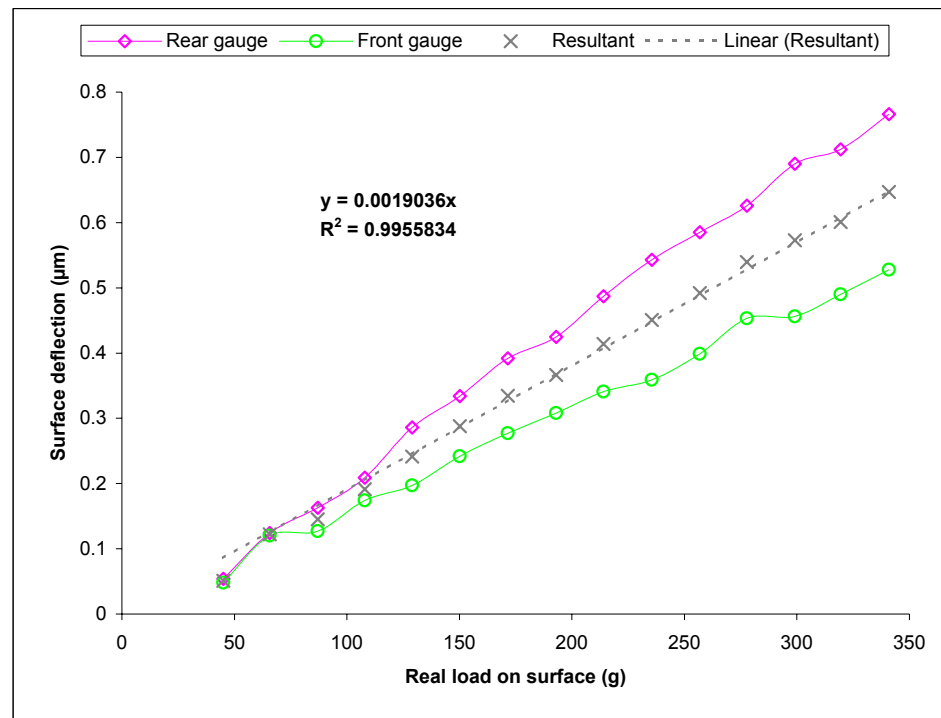
Loadcell voltage reading at no initial load
1.07105



## LOAD-SURFACE DEFLECTION TEST ON *St3* SURFACE USING 5MM TIP

Dead-weight (g)	Loadcell mean voltage before loading	Loadcell mean voltage after loading	Rear cap. gauge mean voltage before loading	Rear cap. gauge mean voltage after loading	Front cap. gauge mean voltage before loading	Front cap. gauge mean voltage after loading	Change of load on surface (g)	Real load on surface (g)	Rear cap. gauge displacement (μm)	Front cap. gauge displacement (μm)	Resultant deflection at contact tip (μm)
15	1.11843	1.16937	7.44163	7.43804	7.46030	7.45740	14.085	45.103	0.054	0.048	0.051
35	1.13325	1.24381	7.43987	7.43162	7.45864	7.45136	30.570	65.686	0.124	0.120	0.122
55	1.13828	1.32090	7.43719	7.42633	7.45571	7.44799	50.495	87.001	0.163	0.127	0.145
75	1.13968	1.39687	7.43523	7.42128	7.45329	7.44273	71.113	108.007	0.209	0.174	0.192
95	1.14189	1.47279	7.43335	7.41430	7.45156	7.43965	91.494	128.999	0.286	0.197	0.242
115	1.14154	1.54919	7.43195	7.40967	7.45025	7.43556	112.716	150.123	0.334	0.242	0.288
135	1.14188	1.62643	7.43047	7.40433	7.44842	7.43162	133.979	171.480	0.392	0.277	0.335
155	1.14443	1.70420	7.42827	7.39993	7.44620	7.42751	154.777	192.984	0.425	0.308	0.367
175	1.14550	1.78010	7.42688	7.39438	7.44479	7.42410	175.468	213.970	0.487	0.341	0.414
195	1.14439	1.85792	7.42585	7.38962	7.44394	7.42220	197.292	235.488	0.543	0.359	0.451
215	1.14602	1.93499	7.42361	7.38462	7.44158	7.41741	218.151	256.798	0.585	0.399	0.492
235	1.14637	2.01095	7.42210	7.38035	7.44024	7.41278	239.057	277.801	0.626	0.453	0.540
255	1.14776	2.08802	7.42147	7.37545	7.43849	7.41086	259.983	299.111	0.690	0.456	0.573
275	1.14671	2.16147	7.41849	7.37104	7.43672	7.40701	280.582	319.420	0.712	0.490	0.601
295	1.14733	2.23901	7.41754	7.36644	7.43554	7.40357	301.851	340.859	0.766	0.528	0.647

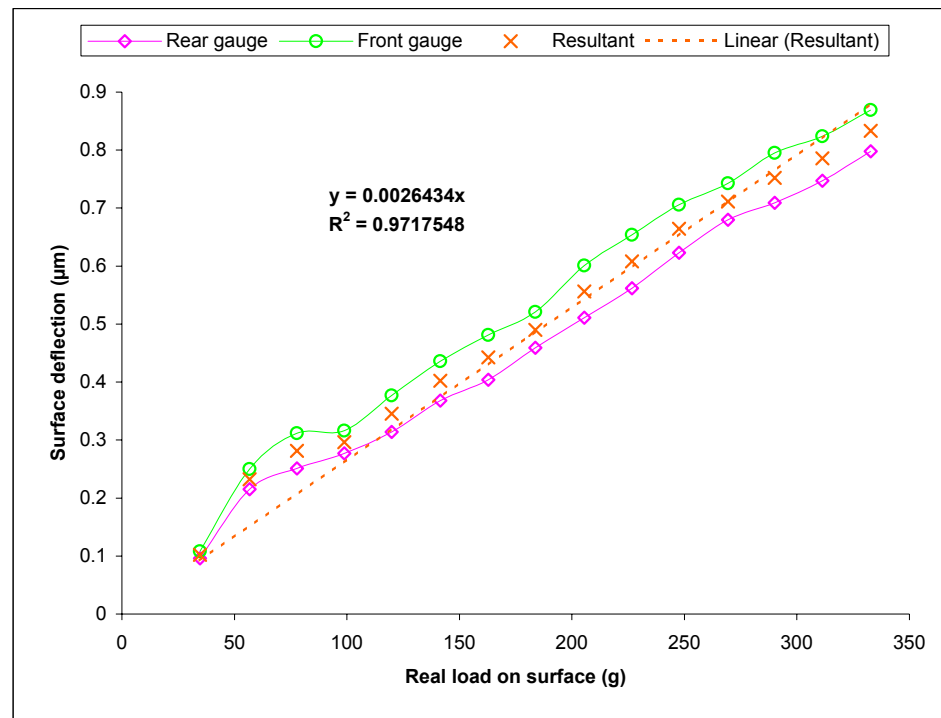
Loadcell voltage reading at no initial load
1.00625



## LOAD-SURFACE DEFLECTION TEST ON *Co1* SURFACE USING 5MM TIP

Dead-weight (g)	Loadcell mean voltage before loading	Loadcell mean voltage after loading	Rear cap. gauge mean voltage before loading	Rear cap. gauge mean voltage after loading	Front cap. gauge mean voltage before loading	Front cap. gauge mean voltage after loading	Change of load on surface (g)	Real load on surface (g)	Rear cap. gauge displacement (μm)	Front cap. gauge displacement (μm)	Resultant deflection at contact tip (μm)
15	1.06322	1.10949	6.62103	6.61465	6.63508	6.62855	12.794	34.767	0.096	0.108	0.102
35	1.08013	1.18899	6.61560	6.60126	6.63004	6.61487	30.100	56.749	0.215	0.250	0.233
55	1.09023	1.26518	6.60707	6.59031	6.62060	6.60172	48.374	77.816	0.251	0.312	0.282
75	1.09304	1.34118	6.59996	6.58150	6.61165	6.59249	68.611	98.830	0.277	0.316	0.297
95	1.09521	1.41760	6.59321	6.57227	6.60535	6.58252	89.141	119.960	0.314	0.377	0.346
115	1.09609	1.49541	6.58980	6.56528	6.60158	6.57515	110.412	141.475	0.368	0.436	0.402
135	1.09639	1.57277	6.58685	6.55991	6.59793	6.56876	131.720	162.865	0.404	0.481	0.443
155	1.09748	1.64840	6.58343	6.55281	6.59428	6.56269	152.330	183.776	0.459	0.521	0.490
175	1.09828	1.72722	6.58131	6.54722	6.59160	6.55515	173.903	205.570	0.511	0.601	0.556
195	1.09870	1.80379	6.57869	6.54120	6.58962	6.55001	194.958	226.742	0.562	0.654	0.608
215	1.09767	1.87931	6.57686	6.53533	6.58661	6.54381	216.124	247.623	0.623	0.706	0.665
235	1.09943	1.95792	6.57536	6.53003	6.58411	6.53909	237.373	269.359	0.680	0.743	0.712
255	1.10047	2.03322	6.57220	6.52490	6.58167	6.53348	257.906	290.180	0.709	0.795	0.752
275	1.10021	2.10947	6.57003	6.52020	6.57852	6.52861	279.061	311.263	0.747	0.824	0.786
295	1.10197	2.18742	6.56781	6.51460	6.57705	6.52436	300.128	332.816	0.798	0.869	0.834

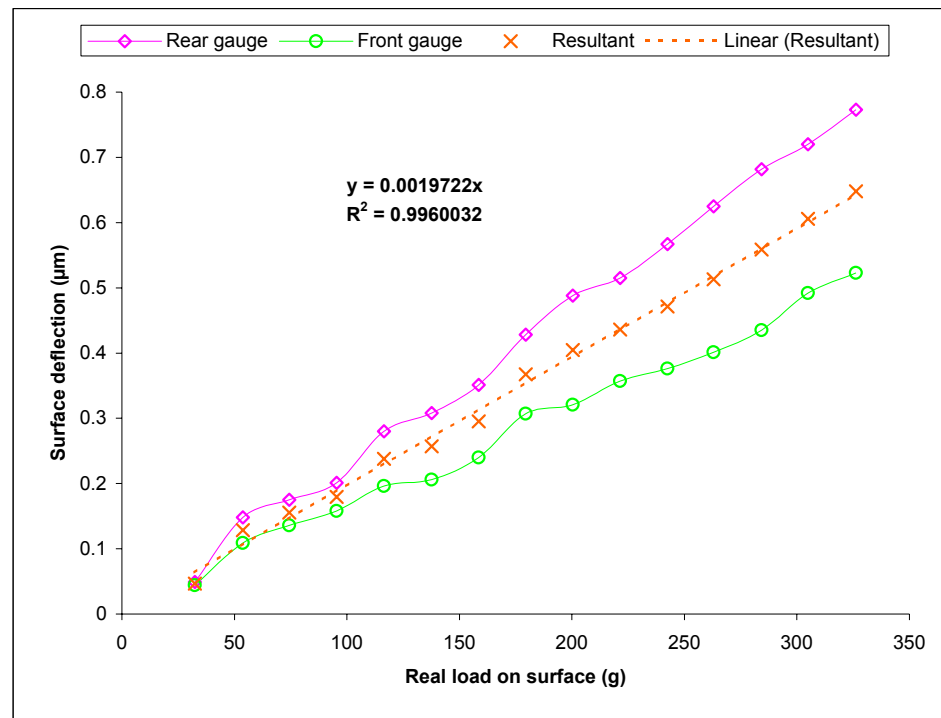
Loadcell voltage reading at no initial load
0.98375



## LOAD-SURFACE DEFLECTION TEST ON CO<sub>2</sub> SURFACE USING 5<sub>MM</sub> TIP

Dead-weight (g)	Loadcell mean voltage before loading	Loadcell mean voltage after loading	Rear cap. gauge mean voltage before loading	Rear cap. gauge mean voltage after loading	Front cap. gauge mean voltage before loading	Front cap. gauge mean voltage after loading	Change of load on surface (g)	Real load on surface (g)	Rear cap. gauge displacement (µm)	Front cap. gauge displacement (µm)	Resultant deflection at contact tip (µm)
15	1.16885	1.20641	6.95595	6.95269	6.76272	6.76008	10.385	32.389	0.049	0.044	0.047
35	1.17719	1.28359	6.95319	6.94335	6.76013	6.75351	29.420	53.730	0.148	0.109	0.129
55	1.20296	1.35845	6.94763	6.93594	6.75642	6.74816	42.993	74.429	0.175	0.136	0.156
75	1.20935	1.43432	6.94414	6.93076	6.75358	6.74403	62.204	95.407	0.201	0.158	0.180
95	1.21106	1.51054	6.94303	6.92437	6.75167	6.73978	82.807	116.482	0.280	0.196	0.238
115	1.21337	1.58729	6.94062	6.92011	6.74943	6.73693	103.389	137.703	0.308	0.206	0.257
135	1.21469	1.66263	6.93882	6.91543	6.74821	6.73368	123.856	158.535	0.351	0.240	0.296
155	1.21569	1.73841	6.93795	6.90941	6.74784	6.72925	144.533	179.488	0.428	0.307	0.368
175	1.21564	1.81423	6.93744	6.90493	6.74708	6.72761	165.511	200.452	0.488	0.321	0.405
195	1.21665	1.89015	6.93573	6.90139	6.74574	6.72413	186.223	221.444	0.515	0.357	0.436
215	1.21604	1.96611	6.93418	6.89636	6.74530	6.72249	207.395	242.447	0.567	0.376	0.472
235	1.21844	2.04042	6.93343	6.89177	6.74356	6.71923	227.278	262.994	0.625	0.401	0.513
255	1.21966	2.11729	6.93242	6.88697	6.74287	6.71649	248.196	284.249	0.682	0.435	0.559
275	1.21922	2.19205	6.93115	6.88317	6.74183	6.71203	268.989	304.920	0.720	0.492	0.606
295	1.21920	2.26936	6.92958	6.87802	6.74075	6.70907	290.370	326.296	0.773	0.523	0.648

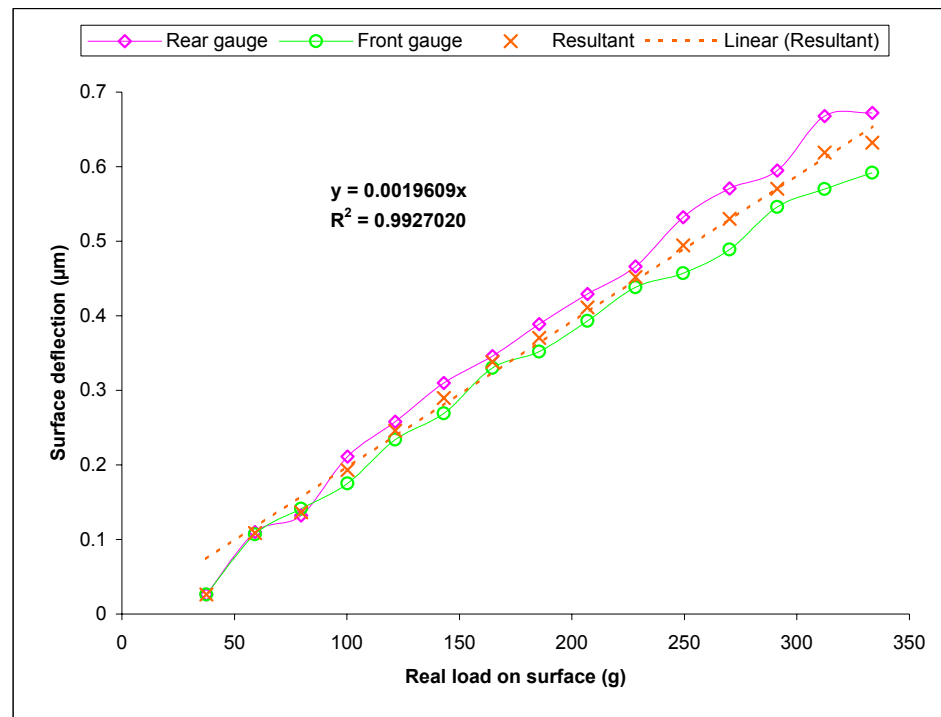
Loadcell voltage reading at no initial load
1.08927



## LOAD-SURFACE DEFLECTION TEST ON CO<sub>3</sub> SURFACE USING 5<sub>MM</sub> TIP

Dead-weight (g)	Loadcell mean voltage before loading	Loadcell mean voltage after loading	Rear cap. gauge mean voltage before loading	Rear cap. gauge mean voltage after loading	Front cap. gauge mean voltage before loading	Front cap. gauge mean voltage after loading	Change of load on surface (g)	Real load on surface (g)	Rear cap. gauge displacement (μm)	Front cap. gauge displacement (μm)	Resultant deflection at contact tip (μm)
15	1.07364	1.11293	7.35396	7.35224	7.36381	7.36225	10.864	37.588	0.026	0.026	0.026
35	1.08178	1.19077	7.35372	7.34640	7.36249	7.35603	30.136	59.110	0.110	0.107	0.109
55	1.09482	1.26517	7.35163	7.34282	7.36084	7.35228	47.102	79.682	0.132	0.141	0.137
75	1.09924	1.33966	7.34951	7.33543	7.35900	7.34837	66.476	100.279	0.211	0.175	0.193
95	1.09887	1.41613	7.34888	7.33167	7.35811	7.34392	87.723	121.423	0.258	0.234	0.246
115	1.09964	1.49422	7.34791	7.32724	7.35694	7.34066	109.102	143.015	0.310	0.269	0.290
135	1.10181	1.57244	7.34700	7.32396	7.35495	7.33496	130.130	164.643	0.346	0.330	0.338
155	1.10167	1.64756	7.34542	7.31950	7.35407	7.33272	150.939	185.413	0.389	0.352	0.371
175	1.10228	1.72553	7.34443	7.31583	7.35356	7.32975	172.329	206.972	0.429	0.393	0.411
195	1.10307	1.80236	7.34389	7.31282	7.35255	7.32602	193.354	228.216	0.466	0.438	0.452
215	1.10564	1.87916	7.34366	7.30821	7.35093	7.32321	213.879	249.451	0.532	0.457	0.495
235	1.10605	1.95355	7.34278	7.30472	7.34929	7.31964	234.335	270.020	0.571	0.489	0.530
255	1.10609	2.03016	7.34103	7.30137	7.34884	7.31576	255.506	291.203	0.595	0.546	0.571
275	1.10596	2.10672	7.34119	7.29668	7.34822	7.31370	276.711	312.372	0.668	0.570	0.619
295	1.10584	2.18312	7.33865	7.29384	7.34579	7.30991	297.869	333.496	0.672	0.592	0.632

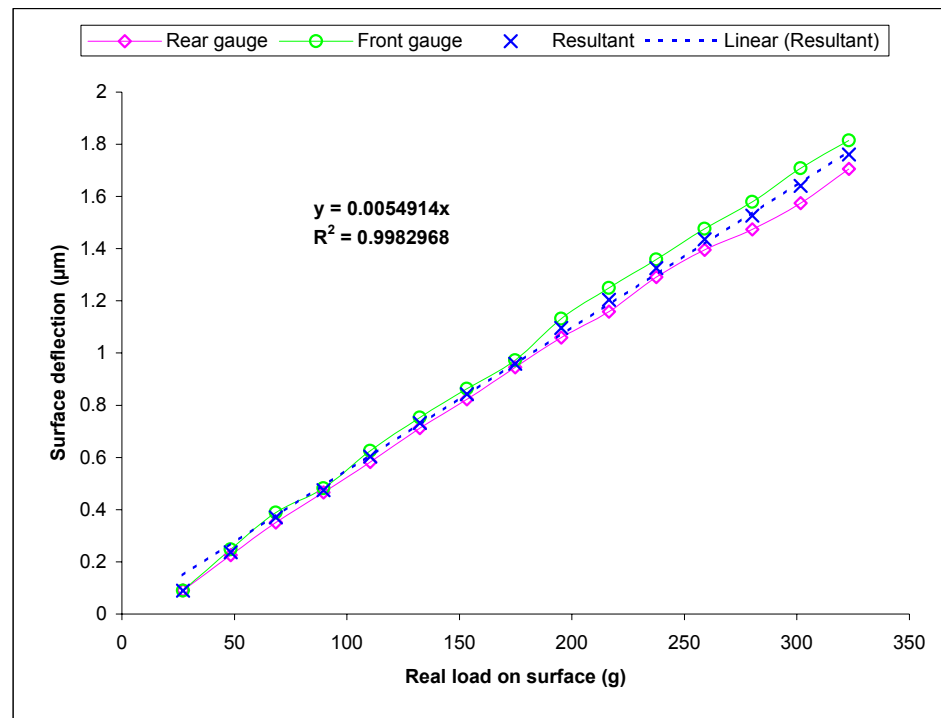
Loadcell voltage reading at no initial load
0.97699



## LOAD-SURFACE DEFLECTION TEST ON *A11* SURFACE USING 5MM TIP

Dead-weight (g)	Loadcell mean voltage before loading	Loadcell mean voltage after loading	Rear cap. gauge mean voltage before loading	Rear cap. gauge mean voltage after loading	Front cap. gauge mean voltage before loading	Front cap. gauge mean voltage after loading	Change of load on surface (g)	Real load on surface (g)	Rear cap. gauge displacement (μm)	Front cap. gauge displacement (μm)	Resultant deflection at contact tip (μm)
15	1.01110	1.05511	7.79500	7.78893	7.81546	7.81005	12.169	27.122	0.091	0.089	0.090
35	1.02169	1.13191	7.79345	7.77839	7.81303	7.79801	30.476	48.357	0.226	0.248	0.237
55	1.02886	1.20426	7.79113	7.76771	7.81141	7.78785	48.498	68.362	0.351	0.389	0.370
75	1.03322	1.28111	7.78752	7.75647	7.80538	7.77617	68.542	89.611	0.466	0.482	0.474
95	1.03412	1.35594	7.78481	7.74599	7.80283	7.76493	88.984	110.302	0.582	0.625	0.604
115	1.03499	1.43582	7.78248	7.73502	7.79981	7.75420	110.830	132.389	0.712	0.753	0.733
135	1.03536	1.51141	7.77940	7.72451	7.79740	7.74510	131.628	153.289	0.823	0.863	0.843
155	1.03663	1.58897	7.77813	7.71513	7.79533	7.73635	152.723	174.735	0.945	0.973	0.959
175	1.03827	1.66300	7.77642	7.70576	7.79438	7.72576	172.739	195.204	1.060	1.132	1.096
195	1.03852	1.73985	7.77406	7.69682	7.79218	7.71640	193.918	216.453	1.159	1.250	1.205
215	1.03801	1.81622	7.77305	7.68699	7.78931	7.70695	215.176	237.570	1.291	1.359	1.325
235	1.03634	1.89350	7.77219	7.67922	7.78824	7.69872	237.006	258.938	1.395	1.477	1.436
255	1.04124	1.97012	7.76761	7.66937	7.78429	7.68851	256.836	280.123	1.474	1.580	1.527
275	1.04089	2.04781	7.76531	7.66040	7.78300	7.67951	278.414	301.605	1.574	1.708	1.641
295	1.04238	2.12557	7.76354	7.64978	7.78070	7.67072	299.503	323.105	1.706	1.815	1.761

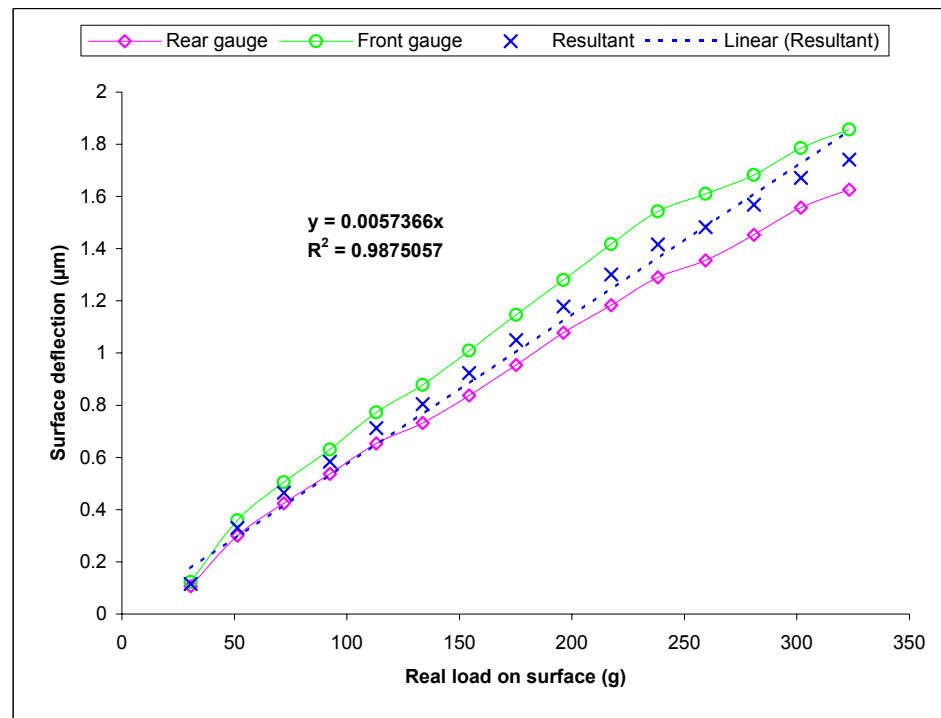
Loadcell voltage reading at no initial load
0.95702



## LOAD-SURFACE DEFLECTION TEST ON $A/2$ SURFACE USING 5MM TIP

Dead-weight (g)	Loadcell mean voltage before loading	Loadcell mean voltage after loading	Rear cap. gauge mean voltage before loading	Rear cap. gauge mean voltage after loading	Front cap. gauge mean voltage before loading	Front cap. gauge mean voltage after loading	Change of load on surface (g)	Real load on surface (g)	Rear cap. gauge displacement ( $\mu\text{m}$ )	Front cap. gauge displacement ( $\mu\text{m}$ )	Resultant deflection at contact tip ( $\mu\text{m}$ )
15	1.17802	1.21086	6.44576	6.43866	6.44597	6.43849	9.080	30.562	0.107	0.123	0.115
35	1.19298	1.28603	6.44240	6.42231	6.44366	6.42189	25.728	51.346	0.301	0.359	0.330
55	1.22064	1.36058	6.43230	6.40400	6.43363	6.40302	38.694	71.959	0.424	0.505	0.465
75	1.22767	1.43478	6.42570	6.38990	6.42613	6.38794	57.266	92.476	0.537	0.630	0.584
95	1.23296	1.50931	6.41958	6.37602	6.42047	6.37361	76.411	113.083	0.653	0.773	0.713
115	1.23425	1.58359	6.41561	6.36683	6.41613	6.36289	96.593	133.622	0.732	0.878	0.805
135	1.23647	1.65860	6.41187	6.35603	6.41260	6.35145	116.719	154.362	0.838	1.009	0.924
155	1.23610	1.73421	6.40973	6.34610	6.41014	6.34069	137.728	175.268	0.954	1.146	1.050
175	1.23555	1.81024	6.40675	6.33489	6.40687	6.32931	158.902	196.291	1.078	1.280	1.179
195	1.23811	1.88671	6.40400	6.32515	6.40357	6.31764	179.339	217.435	1.183	1.418	1.301
215	1.23601	1.96180	6.40192	6.31594	6.40223	6.30877	200.682	238.197	1.290	1.542	1.416
235	1.23630	2.03870	6.39813	6.30781	6.39782	6.30022	221.864	259.460	1.355	1.610	1.483
255	1.23800	2.11618	6.39599	6.29915	6.39573	6.29376	242.818	280.884	1.453	1.683	1.568
275	1.23679	2.19203	6.39526	6.29147	6.39482	6.28662	264.125	301.856	1.557	1.785	1.671
295	1.23710	2.26927	6.39222	6.28381	6.39191	6.27938	285.396	323.213	1.626	1.857	1.742

Loadcell voltage reading at no initial load
1.10033





## LOAD-SURFACE DEFLECTION TEST ON A/3 SURFACE USING 5MM TIP

Dead-weight (g)	Loadcell mean voltage before loading	Loadcell mean voltage after loading	Rear cap. gauge mean voltage before loading	Rear cap. gauge mean voltage after loading	Front cap. gauge mean voltage before loading	Front cap. gauge mean voltage after loading	Change of load on surface (g)	Real load on surface (g)	Rear cap. gauge displacement (μm)	Front cap. gauge displacement (μm)	Resultant deflection at contact tip (μm)
15	1.03834	1.08160	6.89536	6.89153	6.90250	6.89903	11.961	26.555	0.057	0.057	0.057
35	1.04698	1.15819	6.89446	6.88453	6.89995	6.89250	30.750	47.732	0.149	0.123	0.136
55	1.05485	1.23481	6.89229	6.88181	6.89706	6.88724	49.759	68.918	0.157	0.162	0.160
75	1.05666	1.31002	6.89056	6.87410	6.89556	6.88183	70.054	89.714	0.247	0.227	0.237
95	1.05978	1.38440	6.88867	6.86651	6.89514	6.87866	89.758	110.280	0.332	0.272	0.302
115	1.05919	1.45853	6.89138	6.86168	6.89468	6.87488	110.418	130.777	0.446	0.327	0.387
135	1.06029	1.53734	6.89269	6.85673	6.89446	6.86988	131.905	152.568	0.539	0.406	0.473
155	1.06171	1.61561	6.88583	6.85298	6.89251	6.86547	153.154	174.209	0.493	0.446	0.470
175	1.06265	1.69263	6.88679	6.84587	6.89282	6.86189	174.190	195.506	0.614	0.510	0.562
195	1.06430	1.76596	6.88495	6.84377	6.89143	6.85949	194.010	215.781	0.618	0.527	0.573
215	1.06414	1.84278	6.88509	6.83756	6.89118	6.85584	215.295	237.022	0.713	0.583	0.648
235	1.06518	1.91915	6.88491	6.83568	6.89066	6.85398	236.124	258.139	0.738	0.605	0.672
255	1.06698	1.99640	6.88488	6.83080	6.89064	6.85064	256.986	279.498	0.811	0.660	0.736
275	1.06823	2.07421	6.88376	6.82606	6.88962	6.84658	278.155	301.013	0.865	0.710	0.788
295	1.06936	2.15084	6.88341	6.82189	6.88906	6.84432	299.030	322.201	0.923	0.738	0.831

Loadcell voltage reading at no initial load
0.98556

