

SM 1. Comparison Colorimetric Values of the samples.

Samples-series 1-treated with calcium nano-hydroxide in propanol				
C.N-h.1.	ΔL^*	Δa^*	Δb^*	ΔE^*
Paper	0.77	-0.32	-0.02	0.84
Violet	-1.28	-0.81	0.16	1.52
Orange	0.31	-0.09	-1.99	2.02
Blue	1.03	-0.68	3.23	3.46
Black	3.09	-0.79	-1.21	3.41
C.N-h.2.				
Paper	0.24	-0.24	-0.02	0.34
Violet	-0.59	-0.8	0.27	1.03
Orange	-0.06	0.07	-2.41	2.42
Blue	1.57	-3.2	4.19	5.5
Black	1.47	-0.19	-2.3	2.73
C.N-h.3.				
Paper	1.04	-0.62	-0.18	1.22
Violet	-1.24	0.65	-3.14	3.43
Orange	1.97	-0.29	0.24	2
Blue	0.69	0.44	1.31	1.55
Black	2.4	-1.58	-1.63	3.3

Samples-series1- treated with calcium propionate in ethanol				
C.P.1.	ΔL^*	Δa^*	Δb^*	ΔE^*
Paper	0.76	-0.23	-0.33	0.86
Violet	0.65	-2.17	1.72	2.84
Orange	0.22	-0.38	-3	3.03
Blue	0.04	0.13	1.54	1.54
Black	2.61	0.98	-1.48	3.16
C.P.2.				
Paper	0.89	-0.53	0.13	1.05
Violet	-0.56	-1.44	1.3	2.02
Orange	0.74	0.77	-1.74	2.05
Blue	1.28	-1.87	5.32	5.78
Black	2.62	-1.93	-1.32	3.51
C.P.3.				
Paper	0.5	-0.35	-0.51	0.79
Violet	-1.15	-0.64	-0.05	1.31
Orange	0.68	-0.54	-4.48	4.56
Blue	1.68	-1.08	3.87	4.36
Black	2.37	-1.05	-0.75	2.7