



FWT-60-00 Batch Characterization Batch 1081

Typical Calibration Curve

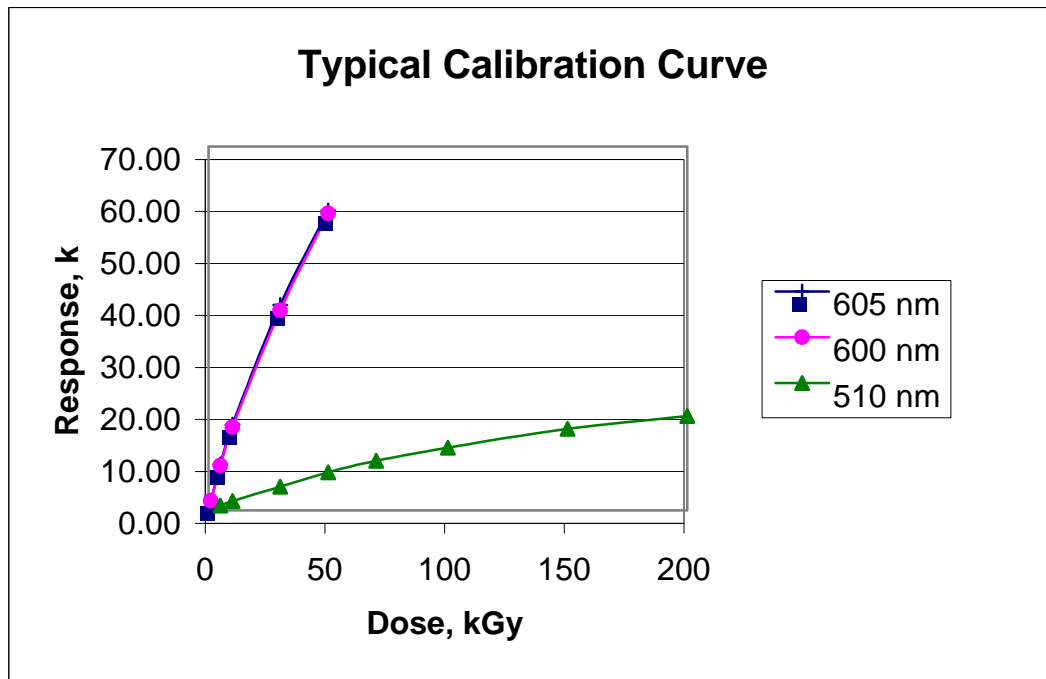
(Dosimeters pre-conditioned to 20 °C and 50%RH)

Dose, kGy	k, mm ⁻¹ at 605 nm	k, mm ⁻¹ at 600 nm	k, mm ⁻¹ at 510 nm
1	1.87	1.82	
5	8.86	8.60	0.94
10	16.49	16.02	1.79
30	39.50	38.48	4.53
50	57.67	57.13	7.33
70			9.51
100			12.06
150			15.69
200			18.15

Coefficient of Variation of k

605 nm	600 nm	510 nm
1.8%	1.8%	2.1%

Note: k is the specific absorbance and is determined from the thickness, t, and final and initial absorbances A_f and A_i:
 $k = (A_f - A_i) / t$.



This typical calibration curve is provided as a guide to the response of FWT-60-00 Radiachromic Detectors to ionizing radiation. Actual response also depends on the instrumentation used to measure absorbancies and thicknesses. Measurements taken with Spectronic Genesys Model 10 UV/Vis Spectrophotometer.

Authorization for Release

Date



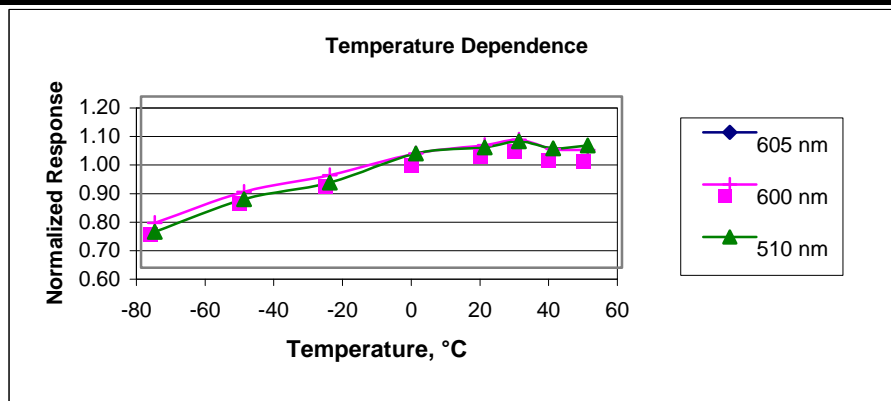
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Temperature Dependence

(Dosimeters pre-conditioned to 20 °C and 50%RH)

T, °C	k, mm ⁻¹ at 605 nm	k, mm ⁻¹ at 600 nm	k, mm ⁻¹ at 510 nm	Norm. k at 605 nm	Norm k at 600 nm	Norm k at 510 nm
-76	29.58	28.78	3.28	0.76	0.76	0.73
-50	33.81	32.91	3.80	0.87	0.87	0.84
-25	36.06	35.12	4.06	0.92	0.92	0.90
0	39.01	38.03	4.52	1.00	1.00	1.00
20	40.11	39.14	4.62	1.03	1.03	1.02
30	40.87	39.87	4.72	1.05	1.05	1.04
40	39.64	38.65	4.60	1.02	1.02	1.02
50	39.52	38.52	4.65	1.01	1.01	1.03



Humidity Dependence

(Dosimeters pre-conditioned to the indicated humidity at 20 °C)

%RH	k, mm ⁻¹ at 605 nm	k, mm ⁻¹ at 600 nm	k, mm ⁻¹ at 510 nm	Norm. k at 605 nm	Norm k at 600 nm	Norm k at 510 nm
30	41.07	40.05	4.80	1.05	1.05	1.06
40	40.73	39.70	4.73	1.04	1.04	1.04
45	39.93	38.93	4.62	1.02	1.02	1.02
50	39.25	38.25	4.54	1.00	1.00	1.00
55	37.84	36.90	4.43	0.96	0.96	0.97
60	35.85	34.93	4.17	0.91	0.91	0.92

