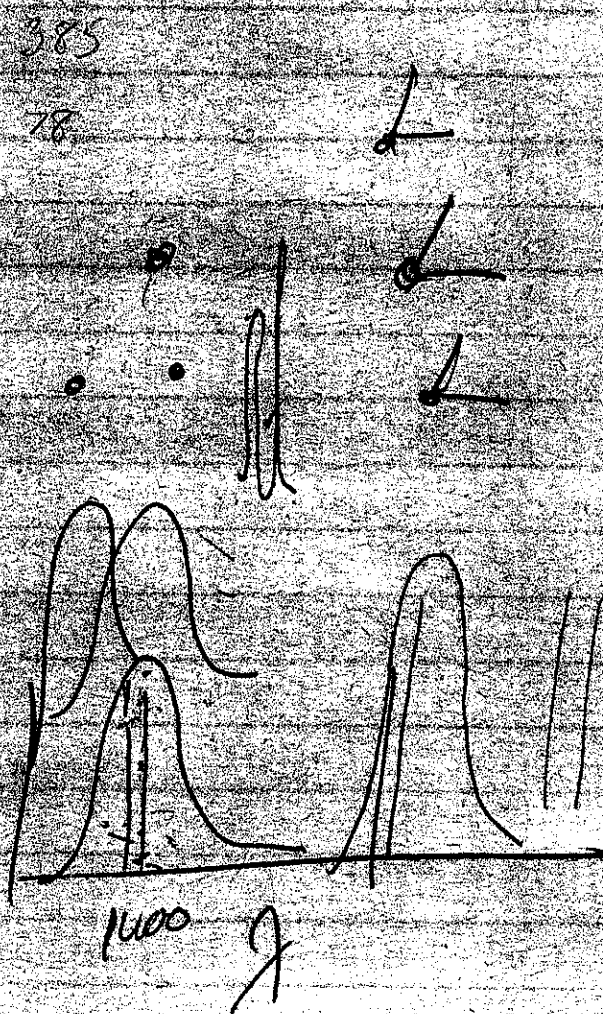


080-#1 - 73, 73, 74
 080-#6 - 74, 73, 74
 080-#11 - 73, 73, 74
 080-#8 - 458, 462, 459
 680-#9 - 651, 655, 653
 680-#14 - 651, 652, 647
 480-#13 - 463, 469, 463
 480-#3 - 460, 461, 454
 880-#5 - 837, 838, 840
 680-#4 - 646, 649, 648
 880-#10 - 829, 828, 833
 280-#7 - 262, 263, 261
 280-#12 - 266, 263, 263
 880-#15 - 838, 829, 833
 280-#2 - 256, 253, 251
 280-#17 - 261, 265, 261
 000 REF-1 0, 0, 0
 000 REF-2 0, 0, 0
 480-#18 - 453, 457, 453
 080-#16 - 67, 68, 68
 000 REF-3 0, 0, 0
 680-#19 - 628, 630, 638
 880-#20 - 824, 810, 818
 000 REF-4 1, 0, 1

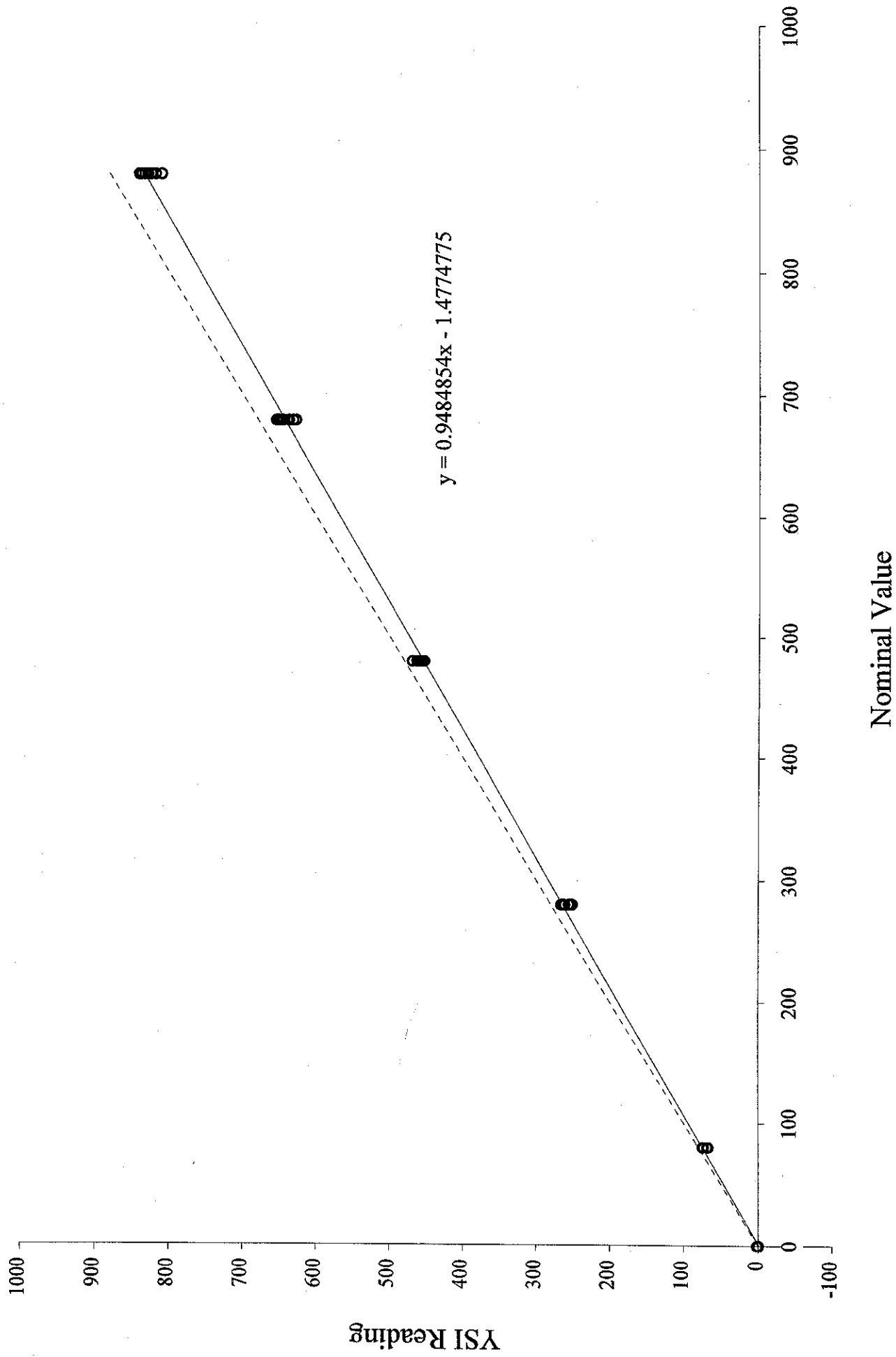
180 ± 4
 500 ± 25
 900 ± 45

80
 290
 480
 610
 880

568, 573, 563
 384
 186, 183, 183



Sample Concentrations



C concentration

glucose	Urea	Intralipid
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C_{gs} = Glucose Stock Solution

C_{us} = Urea Stock Solution

C_{is} = Intralipid Stock Solution

C_{gf} = Glucose final Solution

C_{uf} = Urea final Solution

C_{if} = Intralipid final Solution

④

V_x = Volume of Stock Solution x (V_w is Volume of water)
 V_f is Volume of final solution

$$C_{gf} = \frac{C_{gs} V_g}{(V_g + V_u + V_I + V_w)} = \frac{C_{gs} V_g}{V_f}$$

$$C_{uf} = \frac{C_{us} V_u}{(V_g + V_u + V_I + V_w)} = \frac{C_{us} V_u}{V_f}$$

$$C_{if} = \frac{C_{is} V_I}{(V_g + V_u + V_I + V_w)} = \frac{C_{is} V_I}{V_f}$$

$$V_g = \frac{C_{gf} V_f}{C_{gs}} \quad 2a$$

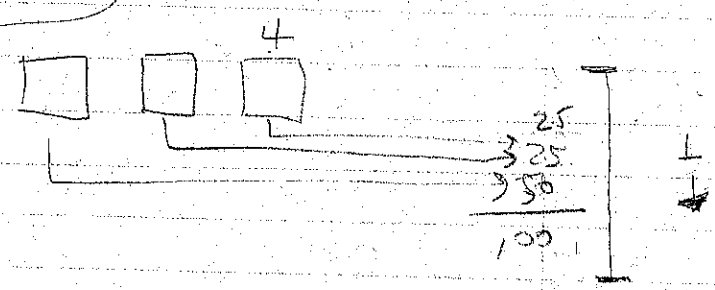
$$V_u = \frac{C_{uf} V_f}{C_{us}} \quad 2b$$

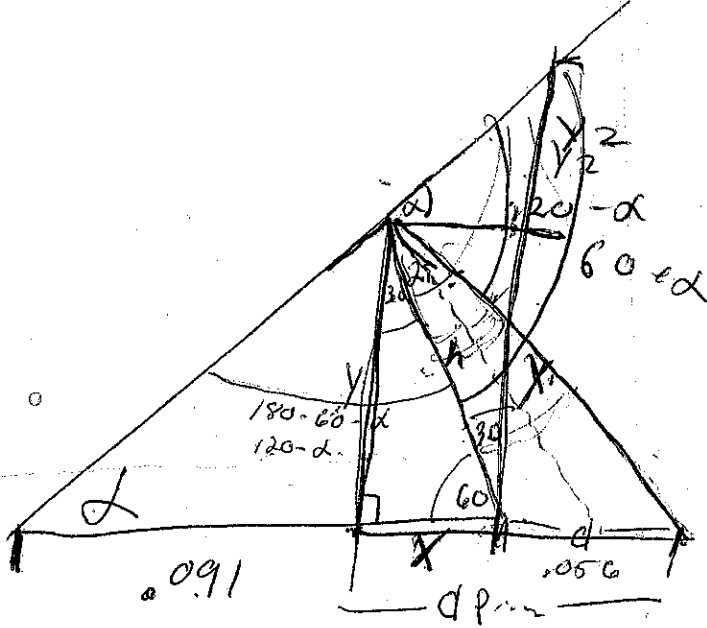
$$V_I = \frac{C_{if} V_f}{C_{is}} \quad 2c$$

$$V_f \left(\frac{C_{gf}}{C_{gs}} + \frac{C_{uf}}{C_{us}} + \frac{C_{if}}{C_{is}} \right) + V_w = V_f$$

$$\rightarrow V_f \left(1 - \left(\frac{C_{gf}}{C_{gs}} + \frac{C_{uf}}{C_{us}} + \frac{C_{if}}{C_{is}} \right) \right) = V_w$$

①





$$y_1 = \frac{x}{\tan 30} \quad y_2 = x \tan \alpha$$

$$y_1 + y_2 = 0.091 \tan \alpha$$

$$= x \left(\frac{1}{\tan 30} + \tan \alpha \right)$$

$$= x \left(\frac{1 + \tan \alpha \tan 30}{\tan 30} \right)$$

$$\frac{0.091 \tan \alpha \tan 30}{1 + \tan \alpha \tan 30} = x$$

$$h = \frac{x}{\cos 60} \quad y = h \sin 60$$

$$d_{\text{prime}} = y \tan (30 + 2i)$$

$$2i = 180 - 2(120 - \alpha) = -60 + 2\alpha$$

$$d_{\text{prime}} = y \tan (-30 + 2\alpha)$$

$$180 - (90 - \alpha) - \alpha$$

$$d = d_{\text{prime}} - x$$

$$180 - 90 - \alpha - \alpha$$

$$90 + \alpha - \alpha$$

$$180 - 2(90 + \alpha - \alpha)$$

$$180 - 2(90 + \alpha - \alpha)$$

$$-2\alpha + 2\alpha = 2i$$

$$d = y \tan (-2\alpha + 2\alpha) - x$$

$$d = h \sin 60 \tan (-2\alpha + 2\alpha) - x$$

$$x \tan 60 \tan (-2\alpha + 2\alpha) - x$$