In[663]:=
```
LX1 = {{0, 123}, {100, 123}, {200, 122}, {350, 121}, {400, 120}, {425, 112.7},
    {450, 102.9}, {475, 101}, {500, 92.1}, {550, 72.4}, {575, 60.7},
    {600, 52.7}, {650, 33.5}, {700, 15.8}, {750, 0.745}, {800, 0.304},
    {850, 0.000104}, {900, 0.000576}, {950, 0.000297}, {1000, 0.00016}};
LX2 = {{0, 111.1}, {100, 110.4}, {200, 100.2}, {250, 92}, {300, 82.3}, {350, 72},
    {400, 62.1}, {450, 52.5}, {500, 44.1}, {550, 32.4}, {600, 21.7}, {650, 5.75},
    {700, 1.58}, {750, 0.8712}, {800, 0.65}, {900, 0.257}, {1000, 0.00002}};
LX3 = {{0, 103}, {100, 99.2}, {200, 82.9}, {250, 73.1}, {300, 68.7},
    {350, 65}, {400, 58.2}, {450, 52.5}, {500, 45.8}, {550, 39.6},
    {600, 37}, {700, 21}, {800, 12.3}, {900, 1.52}, {1000, 0.000052}};
```

In[666]:=
```
CX1 = {{0, 7.75}, {200, 7.72}, {300, 7.69},
    {450, 7.52}, {475, 6.85}, {500, 3.46}, {525, 0.754}, {550, 0.129},
    {575, 0.000073}, {600, 0.000065}, {700, 0.000021}, {800, 0.000005}};
CX2 = {{0, 7.36}, {100, 7.35}, {300, 7.3}, {350, 5.67}, {375, 2.92},
    {400, 0.832}, {450, 0.00000068}, {500, 0.00000035}};
CX3 = {{0, 7.29}, {100, 7.29}, {200, 7.29}, {300, 7.26},
    {350, 7.17}, {400, 6.58}, {450, 4.29}, {475, 2.56},
    {500, 1.31}, {550, 0.21}, {600, 0.000046}, {650, 0.000019}};
```

In[669]:=

In[670]:=
```
FLX1 = NonlinearModelFit[LX1, P1 + .5 * P * (Erf[w * (x - x1)]),
  {{P, 123}, {P1, 150}, {w, .01}, {x1, 500}}, x]
FLX2 = NonlinearModelFit[LX2, P1 + .5 * P * (Erf[w * (x - x1)]),
  {{P, 123}, {P1, 150}, {w, .01}, {x1, 500}}, x]
FLX3 = NonlinearModelFit[LX3, P1 + .5 * P * (Erf[w * (x - x1)]),
  {{P, 123}, {P1, 150}, {w, .01}, {x1, 500}}, x]
```

Out[670]= FittedModel[ 60.8892 − 62.1632 Erf[0.00634296 (−577.044 + x)] ]

Out[671]= FittedModel[ 54.9086 − 57.9552 Erf[0.00366724 (−433.866 + x)] ]

Out[672]= FittedModel[ 60.7333 − 81.0895 Erf[0.00138689 (−378.784 + x)] ]

In[673]:=
```
FCX1 = NonlinearModelFit[CX1, P1 + .5 * P * (Erf[w * (x - x1)]),
  {{P, 9}, {P1, 150}, {w, .01}, {x1, 500}}, x]
FCX2 = NonlinearModelFit[CX2, P1 + .5 * P * (Erf[w * (x - x1)]),
  {{P, 9}, {P1, 150}, {w, .01}, {x1, 300}}, x]
FCX3 = NonlinearModelFit[CX3, P1 + .5 * P * (Erf[w * (x - x1)]),
  {{P, 9}, {P1, 150}, {w, .01}, {x1, 500}}, x]
```

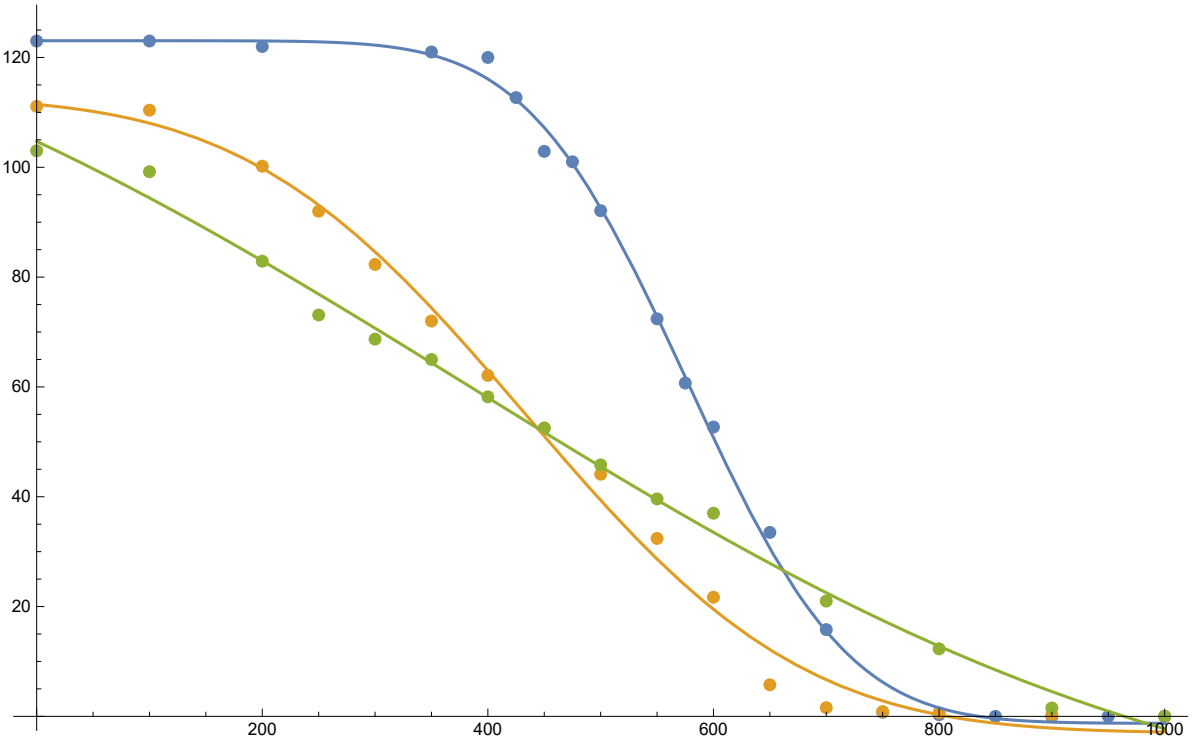
Out[673]= FittedModel[ 3.86318 − 3.83519 Erf[0.035892 (−497.88 + x)] ]

Out[674]= FittedModel[ 3.67599 − 3.67147 Erf[0.0278502 (−368.65 + x)] ]

Out[675]= FittedModel[ 3.64219 − 3.62713 Erf[0.0159368 (−459.025 + x)] ]

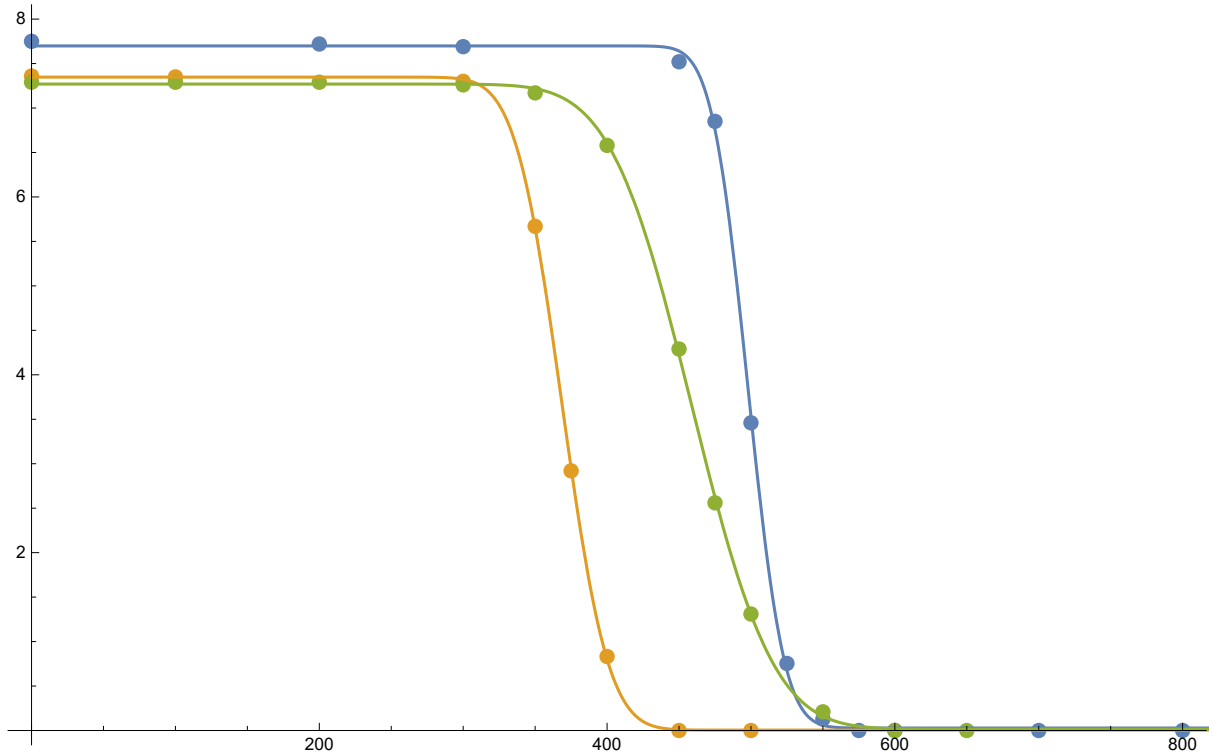
In[676]:=
```
Show[ListPlot[{LX1, LX2, LX3}], Plot[{FLX1[x], FLX2[x], FLX3[x]}, {x, 0, 1000}]]
```

Out[676]=



In[677]:=
```
Show[ListPlot[{CX1, CX2, CX3}], Plot[{FCX1[x], FCX2[x], FCX3[x]}, {x, 0, 1000}]]
```

Out[677]=




In[678]:=
```
LY1 = {{0, 123}, {100, 121}, {200, 121}, {225, 116.7}, {250, 102.3}, {260, 87.3},
    {270, 71}, {280, 52.7}, {290, 37.2}, {300, 25.4}, {325, 8.28}, {350, 2.99},
    {400, 1.2}, {450, 0.777}, {550, 0.358}, {600, 0.241}, {700, 0.000653}};
LY2 = {{0, 112}, {100, 111.2}, {200, 101.1}, {250, 80.2}, {300, 49.6}, {350, 21.6},
    {400, 6.47}, {450, 1.72}, {500, 0.567}, {550, 0.316}, {600, 0.263}};
LY3 = {{0, 103}, {100, 103}, {200, 102.3}, {300, 96.6},
    {400, 62.7}, {450, 45.6}, {500, 30.4}, {600, 12.5}};
```

In[681]:=
```
CY1 = {{0, 7.74}, {100, 7.73}, {200, 7.69}, {300, 5.74}, {310, 4.24}, {325, 1.89},
    {350, 0.429}, {400, 0.000084}, {500, 0.000041}, {600, 0.000026}};
CY2 = {{0, 7.35}, {100, 7.35}, {200, 7.33}, {300, 6.04}, {325, 3.41},
    {350, 1.17}, {400, 0.000057}, {450, 0.000039}};
CY3 = {{0, 7.3}, {100, 7.3}, {200, 7.3}, {300, 7.28}, {400, 7.2}, {500, 5.18},
    {550, 1.94}, {600, 0.338}, {650, 0.000055}, {700, 0.000025}};
```

In[684]:=
```
FLY1 = NonlinearModelFit[LY1, P1 + .5 * P * (Erf[1 - w * (x - x1)]),
  {{P, 123}, {P1, 150}, {w, .01}, {x1, 500}}, x]
FLY2 = NonlinearModelFit[LY2, P1 + .5 * P * (Erf[1 - w * (x - x1)]),
  {{P, 123}, {P1, 150}, {w, .01}, {x1, 500}}, x]
FLY3 = NonlinearModelFit[LY3, P1 + .5 * P * (Erf[1 - w * (x - x1)]),
  {{P, 123}, {P1, 150}, {w, .01}, {x1, 500}}, x]
```

Out[684]= FittedModel[ 61.5062 − 60.3534 Erf[1 + 0.0252088 (−315.398 + x)] ]

Out[685]= FittedModel[ 56.086 − 55.7026 Erf[1 + 0.0102454 (−387.315 + x)] ]

Out[686]= FittedModel[ 57.106 + 46.3384 Erf[1 − 0.00759303 (−288.202 + x)] ]

In[687]:=
```
FCY1 = NonlinearModelFit[CY1, P1 + .5 * P * (Erf[1 - w * (x - x1)]),
  {{P, 9}, {P1, 150}, {w, .01}, {x1, 500}}, x]
FCY2 = NonlinearModelFit[CY2, P1 + .5 * P * (Erf[1 - w * (x - x1)]),
  {{P, 9}, {P1, 150}, {w, .01}, {x1, 300}}, x]
FCY3 = NonlinearModelFit[CY3, P1 + .5 * P * (Erf[1 - w * (x - x1)]),
  {{P, 9}, {P1, 150}, {w, .01}, {x1, 500}}, x]
```

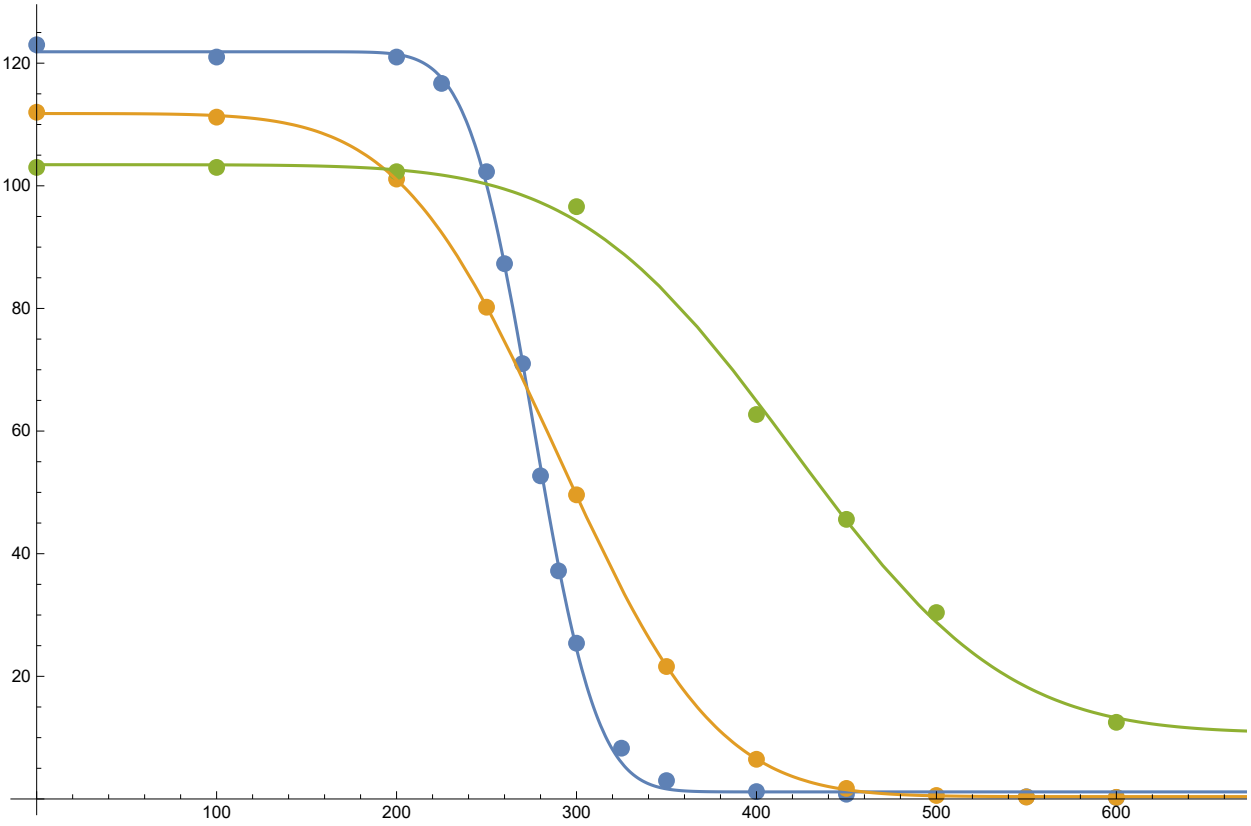
Out[687]= FittedModel[ 3.88699 + 3.83669 Erf[1 − 0.0371539 (−285.218 + x)] ]

Out[688]= FittedModel[ 3.67751 + 3.67163 Erf[1 − 0.0272929 (−286.584 + x)] ]

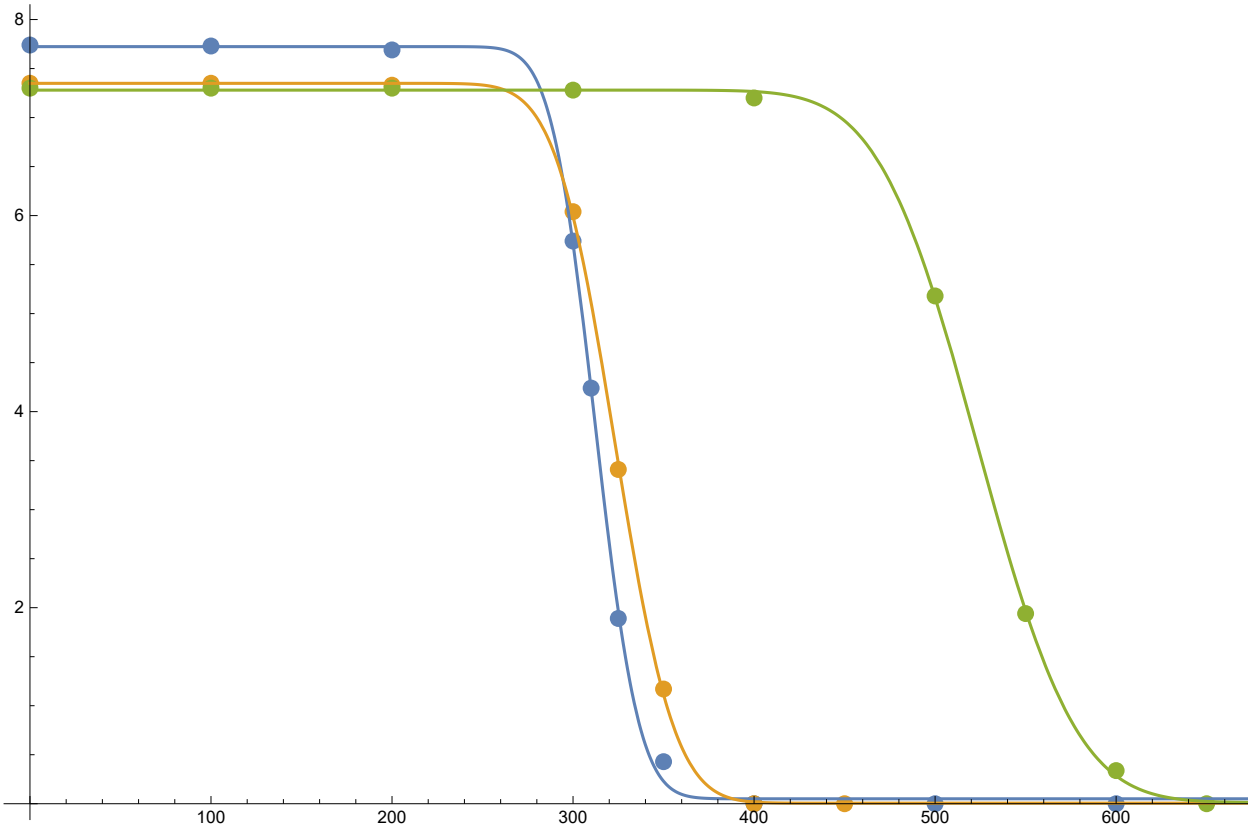
Out[689]= FittedModel[ 3.64603 + 3.63399 Erf[1 − 0.0164848 (−462.937 + x)] ]

In[690]:=
```
Show[ListPlot[{LY1, LY2, LY3}], Plot[{FLY1[x], FLY2[x], FLY3[x]}, {x, 0, 1000}]]
Show[ListPlot[{CY1, CY2, CY3}], Plot[{FCY1[x], FCY2[x], FCY3[x]}, {x, 0, 1000}]]
```

Out[690]=




Out[691]=



**a**