

ORIGIN := 1

$x_1 :=$ $\left(\begin{array}{c} 0.00 \\ 0.05 \\ 0.1 \\ 0.15 \\ 0.2 \\ 0.25 \\ 0.3 \\ 0.35 \\ 0.4 \\ 0.45 \\ 0.5 \\ 0.55 \\ 0.6 \\ 0.65 \\ 0.7 \\ 0.75 \\ 0.8 \\ 0.85 \\ 0.9 \\ 0.95 \\ 1 \end{array} \right)$

$$\tau_{12} := -0.06 \quad \tau_{21} := 1.378 \quad \alpha := 0.47$$

$$T := 343.15$$

$$P_1 := \exp\left(10.5394 - \frac{3982.02}{T - 45.07}\right) \quad P_2 := \exp\left(12.0096 - \frac{4809.96}{T - 69.70}\right)$$

$$G_{12} := \exp(-\alpha \cdot \tau_{12}) \quad G_{21} := \exp(-\alpha \cdot \tau_{21})$$

$i := 1 .. 21$

$$x_{2_i} := 1 - x_{1_i}$$

$$\gamma_{1_i} := \exp\left[\left(x_{2_i}\right)^2 \cdot \left[\tau_{21} \cdot \left(\frac{G_{21}}{x_{1_i} + G_{21} \cdot x_{2_i}}\right)^2 + \frac{\tau_{12} \cdot G_{12}}{\left(x_{2_i} + G_{12} \cdot x_{1_i}\right)^2} \right] \right]$$

$$\gamma_{2_i} := \exp\left[\left(x_{1_i}\right)^2 \cdot \left[\tau_{12} \cdot \left(\frac{G_{12}}{x_{2_i} + G_{12} \cdot x_{1_i}}\right)^2 + \frac{\tau_{21} \cdot G_{21}}{\left(x_{1_i} + G_{21} \cdot x_{2_i}\right)^2} \right] \right]$$

$$P_i := x_{1_i} \cdot \gamma_{1_i} \cdot P_1 + x_{2_i} \cdot \gamma_{2_i} \cdot P_2$$

$$\gamma_1 =$$

	1
1	3.73
2	2.951
3	2.43
4	2.068
5	1.808
6	1.616
7	1.472
8	1.362
9	1.277
10	1.211
11	1.159
12	1.118
13	1.086
14	1.061
15	1.042
16	1.027
17	1.016
18	1.009
19	1.004
20	1.001
21	1

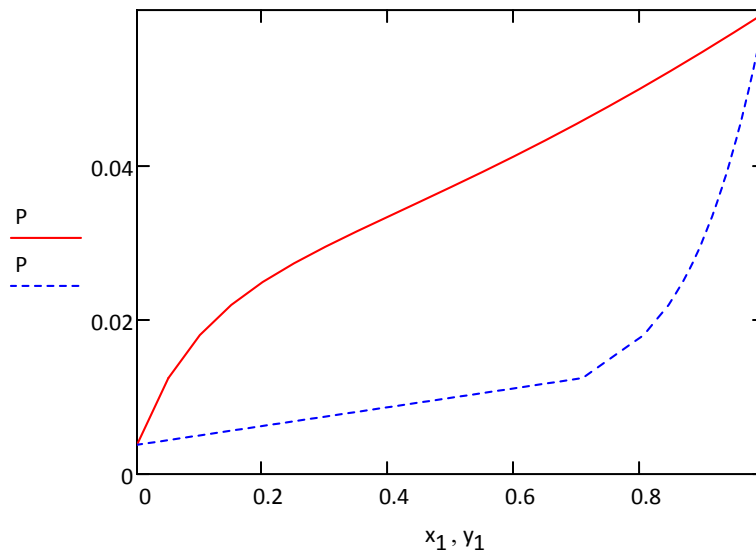
$$\gamma_2 =$$

	1
1	1
2	1.006
3	1.022
4	1.045
5	1.076
6	1.111
7	1.151
8	1.195
9	1.242
10	1.291
11	1.344
12	1.398
13	1.454
14	1.511
15	1.57
16	1.63
17	1.691
18	1.752
19	1.813
20	1.875
21	1.937

$$P =$$

	1
1	$3.771 \cdot 10^{-3}$
2	0.012
3	0.018
4	0.022
5	0.025
6	0.027
7	0.029
8	0.031
9	0.033
10	0.035
11	0.037
12	0.039
13	0.041
14	0.043
15	0.045
16	0.047
17	0.05
18	0.052
19	0.055
20	0.057
21	0.06

$$y_{1_i} := \frac{x_{1_i} \cdot \gamma_{1_i} \cdot P_1}{P_i}$$



$y_1 =$

	1
1	0
2	0.709
3	0.807
4	0.847
5	0.869
6	0.885
7	0.897
8	0.907
9	0.916
10	0.924
11	0.932
12	0.939
13	0.947
14	0.954
15	0.961
16	0.968
17	0.974
18	0.981
19	0.987
20	0.994
21	1