## Data Graph



## Data

| Pt# | X | Y | SigmaY |
| --- | --- | --- | --- |
| 1 | 1.500E+0001 | 9.790E+0001 | 1.000E+0000 |
| 2 | 3.000E+0001 | 8.550E+0001 | 1.000E+0000 |
| 3 | 4.500E+0001 | 7.470E+0001 | 1.000E+0000 |
| 4 | 6.000E+0001 | 6.530E+0001 | 1.000E+0000 |
| 5 | 7.500E+0001 | 5.700E+0001 | 1.000E+0000 |
| 6 | 9.000E+0001 | 4.990E+0001 | 1.000E+0000 |
| 7 | 1.050E+0002 | 4.360E+0001 | 1.000E+0000 |
| 8 | 1.200E+0002 | 3.810E+0001 | 1.000E+0000 |
| 9 | 1.350E+0002 | 3.330E+0001 | 1.000E+0000 |
| 10 | 4.950E+0002 | 1.000E+0000 | 1.000E+0000 |

## Fit Graph



## Fit

|  |  |
| --- | --- |
| File: | c:\users\public\fitall10\data\f0001tst.dta |
| Title: | F0001 Test Data |
| Sub-Title: |  |
| Function: | 0001..1st order exponential + bkgrnd: Y=P1\*exp(-P2\*K1\*X) + Σ{A[i]\*X^(i)} |
| Analysis Method: | Nonlinear Least Squares (nls) |
| Analysis Range: | 1 to 10 of 10 |
| Weighted as: | 1 |
| Variance: | 0.0026489458897368 |
| Std. Dev. of Fit: | 0.0514679112626188 |
| Iterations: | 4 |

| Parameter | Name | Value | Std. Dev. | RSD /% |
| --- | --- | --- | --- | --- |
| 1 | Yo-Yinf | 1.122E+0002 | 6.866E-0002 | 0.06 |
| 2 | k | 8.940E-0003 | 1.201E-0005 | 0.13 |
| 3 | Yinf | -3.243E-0001 | 5.707E-0002 | 17.60 |
| Constant |  |  |  |  |
| 1 | K1 | 1.000E+0000 |  |  |

## Residuals Graph



## Residuals

|  |  |
| --- | --- |
| File: | c:\users\public\fitall10\data\f0001tst.dta |
| Title: | F0001 Test Data |
| Sub-Title: |  |
| Function: | 0001..1st order exponential + bkgrnd: Y=P1\*exp(-P2\*K1\*X) + Σ{A[i]\*X^(i)} |
| Analysis Method: | Nonlinear Least Squares (nls) |
| Analysis Range: | 1 to 10 of 10 |
| Weighted as: | 1 |
| Variance: | 0.0026489458897368 |
| Std. Dev. of Fit: | 0.0514679112626188 |
| Iterations: | 4 |

| Pt# | X | Y | SigmaY | Ycalc | Y-Ycalc |
| --- | --- | --- | --- | --- | --- |
| 1 | 1.500E+0001 | 9.790E+0001 | 1.000E+0000 | 9.784E+0001 | 6.361E-0002 |
| 2 | 3.000E+0001 | 8.550E+0001 | 1.000E+0000 | 8.552E+0001 | -1.710E-0002 |
| 3 | 4.500E+0001 | 7.470E+0001 | 1.000E+0000 | 7.474E+0001 | -4.390E-0002 |
| 4 | 6.000E+0001 | 6.530E+0001 | 1.000E+0000 | 6.532E+0001 | -2.274E-0002 |
| 5 | 7.500E+0001 | 5.700E+0001 | 1.000E+0000 | 5.708E+0001 | -8.396E-0002 |
| 6 | 9.000E+0001 | 4.990E+0001 | 1.000E+0000 | 4.988E+0001 | 2.085E-0002 |
| 7 | 1.050E+0002 | 4.360E+0001 | 1.000E+0000 | 4.358E+0001 | 2.145E-0002 |
| 8 | 1.200E+0002 | 3.810E+0001 | 1.000E+0000 | 3.807E+0001 | 3.131E-0002 |
| 9 | 1.350E+0002 | 3.330E+0001 | 1.000E+0000 | 3.325E+0001 | 4.968E-0002 |
| 10 | 4.950E+0002 | 1.000E+0000 | 1.000E+0000 | 1.019E+0000 | -1.919E-0002 |

## Residuals Distribution Graph



## Residuals Distribution

|  |  |
| --- | --- |
| File: | c:\users\public\fitall10\data\f0001tst.dta |
| Title: | F0001 Test Data |
| Sub-Title: |  |
| Function: | 0001..1st order exponential + bkgrnd: Y=P1\*exp(-P2\*K1\*X) + Σ{A[i]\*X^(i)} |
| Analysis Method: | Nonlinear Least Squares (nls) |
| Analysis Range: | 1 to 10 of 10 |
| Weighted as: | 1 |
| Variance: | 0.0026489458897368 |
| Std. Dev. of Fit: | 0.0514679112626188 |
| Iterations: | 4 |

| Std. Dev.'s from Best Fit | # of Pts | % of Pts |
| --- | --- | --- |
| -6.5 to -5.5 | 0 | 0.00 |
| -5.5 to -4.5 | 0 | 0.00 |
| -4.5 to -3.5 | 0 | 0.00 |
| -3.5 to -2.5 | 0 | 0.00 |
| -2.5 to -1.5 | 0 | 0.00 |
| -1.5 to -0.5 | 3 | 30.00 |
| -0.5 to 0.5 | 5 | 50.00 |
|  0.5 to 1.5 | 1 | 10.00 |
|  1.5 to 2.5 | 1 | 10.00 |
|  2.5 to 3.5 | 0 | 0.00 |
|  3.5 to 4.5 | 0 | 0.00 |
|  4.5 to 5.5 | 0 | 0.00 |

## Sensitivities Graph



## Sensitivities

|  |  |
| --- | --- |
| File: | c:\users\public\fitall10\data\f0001tst.dta |
| Title: | F0001 Test Data |
| Sub-Title: |  |
| Function: | 0001..1st order exponential + bkgrnd: Y=P1\*exp(-P2\*K1\*X) + Σ{A[i]\*X^(i)} |
| Analysis Method: | Nonlinear Least Squares (nls) |
| Analysis Range: | 1 to 10 of 10 |
| Weighted as: | 1 |
| Variance: | 0.0026489458897368 |
| Std. Dev. of Fit: | 0.0514679112626188 |
| Iterations: | 4 |

| Pt# | X | Y | SigmaY | (∂Y/∂P1)\*P1 | (∂Y/∂P2)\*P2 | (∂Y/∂P3)\*P3 |
| --- | --- | --- | --- | --- | --- | --- |
| 1 | 1.500E+0001 | 9.790E+0001 | 1.000E+0000 | 9.816E+0001 | -1.316E+0001 | -3.243E-0001 |
| 2 | 3.000E+0001 | 8.550E+0001 | 1.000E+0000 | 8.584E+0001 | -2.302E+0001 | -3.243E-0001 |
| 3 | 4.500E+0001 | 7.470E+0001 | 1.000E+0000 | 7.507E+0001 | -3.020E+0001 | -3.243E-0001 |
| 4 | 6.000E+0001 | 6.530E+0001 | 1.000E+0000 | 6.565E+0001 | -3.521E+0001 | -3.243E-0001 |
| 5 | 7.500E+0001 | 5.700E+0001 | 1.000E+0000 | 5.741E+0001 | -3.849E+0001 | -3.243E-0001 |
| 6 | 9.000E+0001 | 4.990E+0001 | 1.000E+0000 | 5.020E+0001 | -4.040E+0001 | -3.243E-0001 |
| 7 | 1.050E+0002 | 4.360E+0001 | 1.000E+0000 | 4.390E+0001 | -4.121E+0001 | -3.243E-0001 |
| 8 | 1.200E+0002 | 3.810E+0001 | 1.000E+0000 | 3.839E+0001 | -4.119E+0001 | -3.243E-0001 |
| 9 | 1.350E+0002 | 3.330E+0001 | 1.000E+0000 | 3.357E+0001 | -4.052E+0001 | -3.243E-0001 |
| 10 | 4.950E+0002 | 1.000E+0000 | 1.000E+0000 | 1.343E+0000 | -5.945E+0000 | -3.243E-0001 |

## Standard Stats

|  |  |
| --- | --- |
| File: | c:\users\public\fitall10\data\f0001tst.dta |
| Title: | F0001 Test Data |
| Sub-Title: |  |
| Analysis Range: | 1 to 10 of 10 |

| Col. Name | Minimum | Mean | Median | Maximum | Std. Dev. | Ave. Dev. | Skew | Kurtosis |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| X | 1.500E+0001 | 1.170E+0002 | 8.250E+0001 | 4.950E+0002 | 1.383E+0002 | 7.980E+0001 | 1.950E+0000 | 5.629E+0000 |
| Y | 1.000E+0000 | 5.463E+0001 | 5.345E+0001 | 9.790E+0001 | 2.808E+0001 | 2.145E+0001 | -2.266E-0001 | 2.117E+0000 |
| SigmaY | 1.000E+0000 | 1.000E+0000 | 1.000E+0000 | 1.000E+0000 | 0.000E+0000 | 0.000E+0000 | 0.000E+0000 | 0.000E+0000 |

## Pearson's R (Lin. Corr. Coeff.)

|  |  |
| --- | --- |
| File: | c:\users\public\fitall10\data\f0001tst.dta |
| Title: | F0001 Test Data |
| Sub-Title: |  |
| Analysis Range: | 1 to 10 of 10 |

| Column1 | Column2 | R | R^2 | ProbR | Z |
| --- | --- | --- | --- | --- | --- |
| X | Y | -8.494E-0001 | 7.215E-0001 | 1.868E-0003 | -1.254E+0000 |
| X | SigmaY | 0.000E+0000 | 0.000E+0000 | 1.000E+0000 | 0.000E+0000 |
| Y | SigmaY | 0.000E+0000 | 0.000E+0000 | 1.000E+0000 | 0.000E+0000 |

## Kendall's Tau

|  |  |
| --- | --- |
| File: | c:\users\public\fitall10\data\f0001tst.dta |
| Title: | F0001 Test Data |
| Sub-Title: |  |
| Analysis Range: | 1 to 10 of 10 |

| Column1 | Column2 | Tau | ZTau | ProbTau |
| --- | --- | --- | --- | --- |
| X | Y | -1.000E+0000 | -4.025E+0000 | 5.699E-0005 |
| X | SigmaY | 0.000E+0000 | 0.000E+0000 | 1.000E+0000 |
| Y | SigmaY | 0.000E+0000 | 0.000E+0000 | 1.000E+0000 |

## Spearman's Rank Order

|  |  |
| --- | --- |
| File: | c:\users\public\fitall10\data\f0001tst.dta |
| Title: | F0001 Test Data |
| Sub-Title: |  |
| Analysis Range: | 1 to 10 of 10 |

| Column1 | Column2 | Rs | ProbRs |
| --- | --- | --- | --- |
| X | Y | -1.000E+0000 | 6.045E-0076 |
| X | SigmaY | 0.000E+0000 | 1.000E+0000 |
| Y | SigmaY | 0.000E+0000 | 1.000E+0000 |

## Sum Squared Difference Of Rank

|  |  |
| --- | --- |
| File: | c:\users\public\fitall10\data\f0001tst.dta |
| Title: | F0001 Test Data |
| Sub-Title: |  |
| Analysis Range: | 1 to 10 of 10 |

| Column1 | Column2 | D | ZD | ProbD |
| --- | --- | --- | --- | --- |
| X | Y | 3.300E+0002 | 3.000E+0000 | 2.700E-0003 |
| X | SigmaY | 8.250E+0001 | 0.000E+0000 | 0.000E+0000 |
| Y | SigmaY | 8.250E+0001 | 0.000E+0000 | 0.000E+0000 |

## Info

|  |  |
| --- | --- |
| Data |  |
|  Directory: | c:\users\public\fitall10\data\ |
|  File: | f0001tst.dta |
|  Saved?: | True |
|  Title: | F0001 Test Data |
|  Sub-Title: |  |
|  Points: | 10 |
|  Max. Points: | 1024 |
|  Columns: | 3 |
|  Max. Columns: | 32 |
|  |  |
| Function: |  |
|  Name: | 0001..1st order exponential + bkgrnd: Y=P1\*exp(-P2\*K1\*X) + Σ{A[i]\*X^(i)} |
|  Parameters: | 3 |
|  Constants: | 1 |
|  Variables: | 1 |
|  |  |
| FitAll | Research Edition |
|  Version: | 10.0.0.532 (32 Bit) |
|  SN: | FA010R- |
|  Libraries: | FFL: User Requested Ftns 10.0.0.15 (32 Bit) |
|  | FFL: Basic 10.0.0.57 (32 Bit) |
|  | FFL: Scripted Ftns 10.0.0.44 (32 Bit) |
|  | FFL: Binding + Growth Curves 10.0.0.18 (32 Bit) |
|  | FFL: Peaks 10.0.0.14 (32 Bit) |
|  | FFL: Chemistry 10.0.0.13 (32 Bit) |
|  | FFL: Solar Cell 10.0.0.14 (32 Bit) |
|  | FFL: Examples 10.0.0.20 (32 Bit) |
|  |  |
| MS Windows version: | 10.0.0.19041 (64 Bit) |
| MS Word Version: | 12.0.6787.5000 |
| LibreOffice Version:  | 6.4.6.2 |