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>> % Use Least squares to find a linear model for the modified data (logx, logy)
>> A=[1 log10(6.1);1 log10(9.1);1 log10(6.9);1 log10(7.3);1 log10(6.4);1 log10(5.8);1
log10(8.2)]
A =
    1.0000    0.7853
    1.0000    0.9590
    1.0000    0.8388
    1.0000    0.8633
    1.0000    0.8062
    1.0000    0.7634
    1.0000    0.9138

>> y=[1.23;.04;.44;.27;.81;1.16;.15]
y =
    1.2300
    0.0400
    0.4400
    0.2700
    0.8100
    1.1600
    0.1500

>> ly=log10(y)
ly =
    0.0899
   -1.3979
   -0.3565
   -0.5686
   -0.0915
    0.0645
   -0.8239

>> t=inv(A'*A)*(A'*ly)
t =
    5.9497
   -7.5434

>> C=10^t(1)
C =
    8.9060e+005

>> b=t(2)
b =
   -7.5434

>> % The model is y= 890600x^(-7.5434)
>> % The estimate for a pH of 7.0 is>> C*7^b

ans =

    0.3757

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