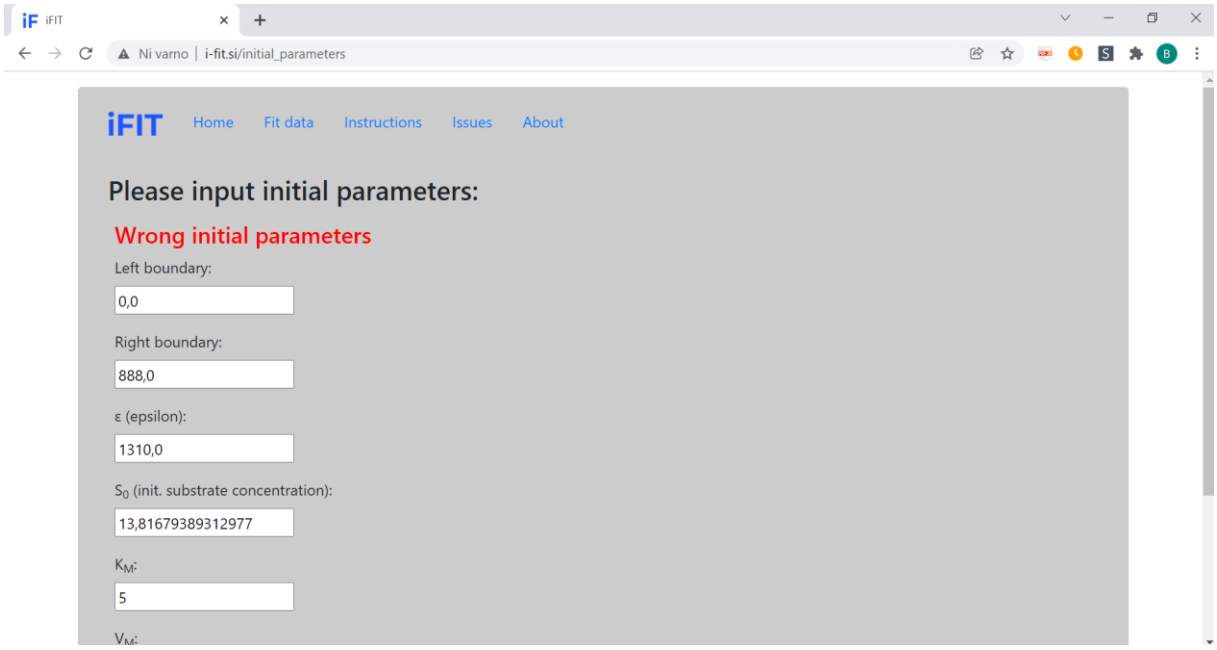
iFIT Troubleshooting

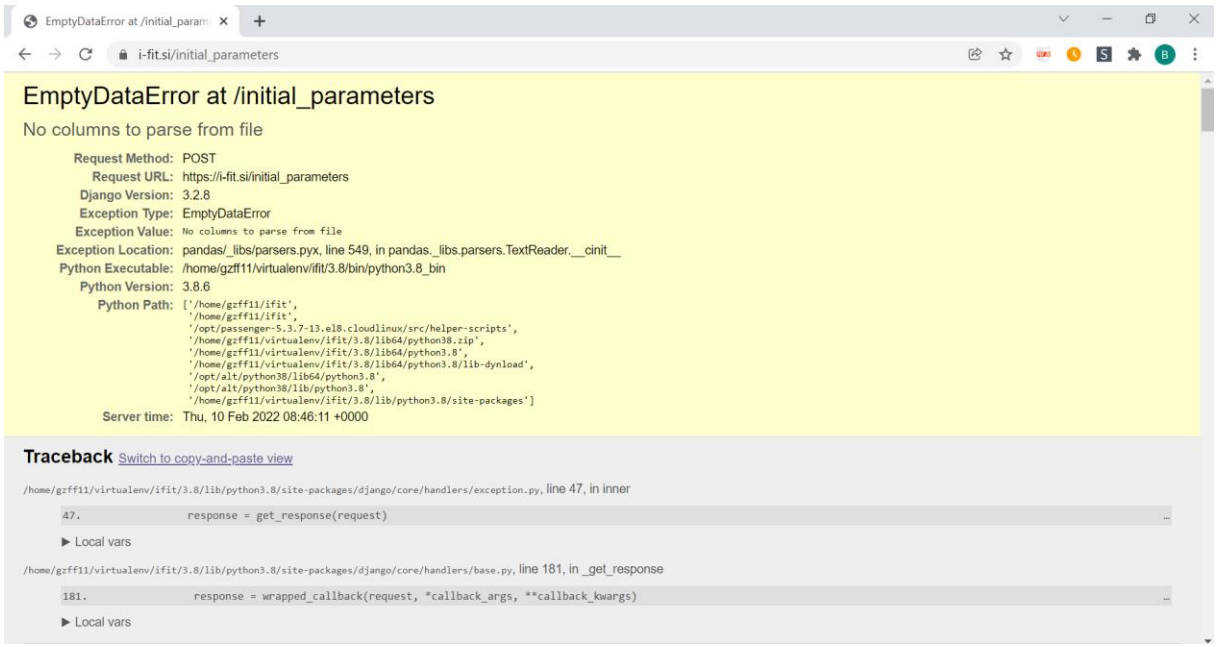
1.1 I input a file, determine the left and right boundaries in the first step, input a guesstimate for Km in the second step, and instead of a result, I get the notice saying “Wrong Initial Parameters.”

Answer: The program could not calculate any Km and Vmax from your progress curve. This is an indication that your measurement has a lot of noise, has ended prematurely or begun too late, or that your reaction does not follow Michaelis-Menten kinetics. Check the .csv file and the graphical display of your progress curve for any outlier points or discontinuities in the measurement. If your plateau keeps rising or falling instead of stabilizing, try removing these points from the progress curve (though this indicates that you have a strong side reaction taking place and the end result of iFIT might not be fully reliable).



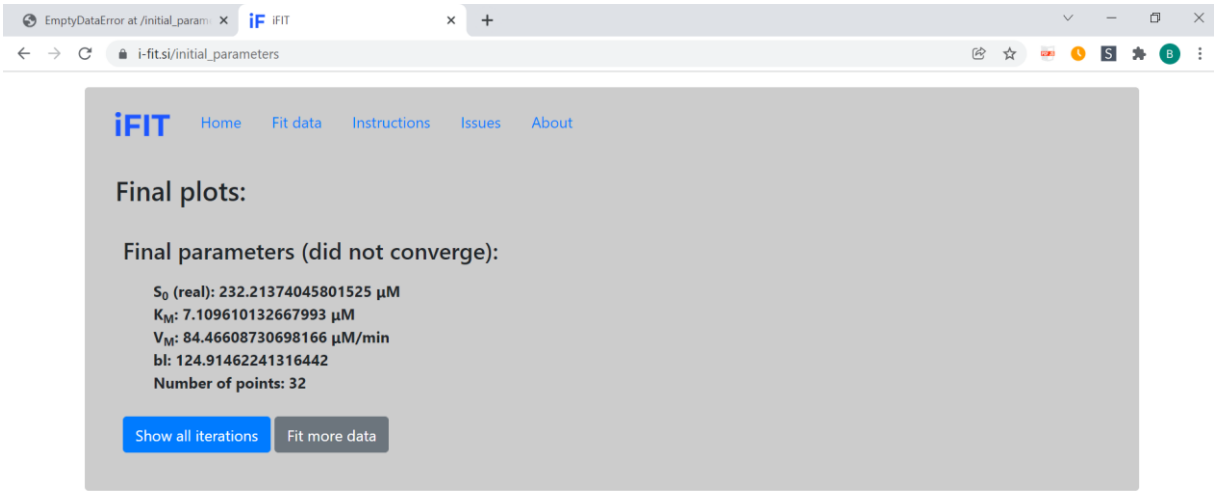
1.2 I input a file, determine the left and right boundaries in the first step, input a guesstimate for Km in the second step, and instead of a result, I receive the message “Empty Data Error.”

Answer: Too much time has elapsed between loading the page for entering parameters and clicking “Submit.” Go back to “Fit data,” reupload your curve and proceed with the subsequent steps more quickly.



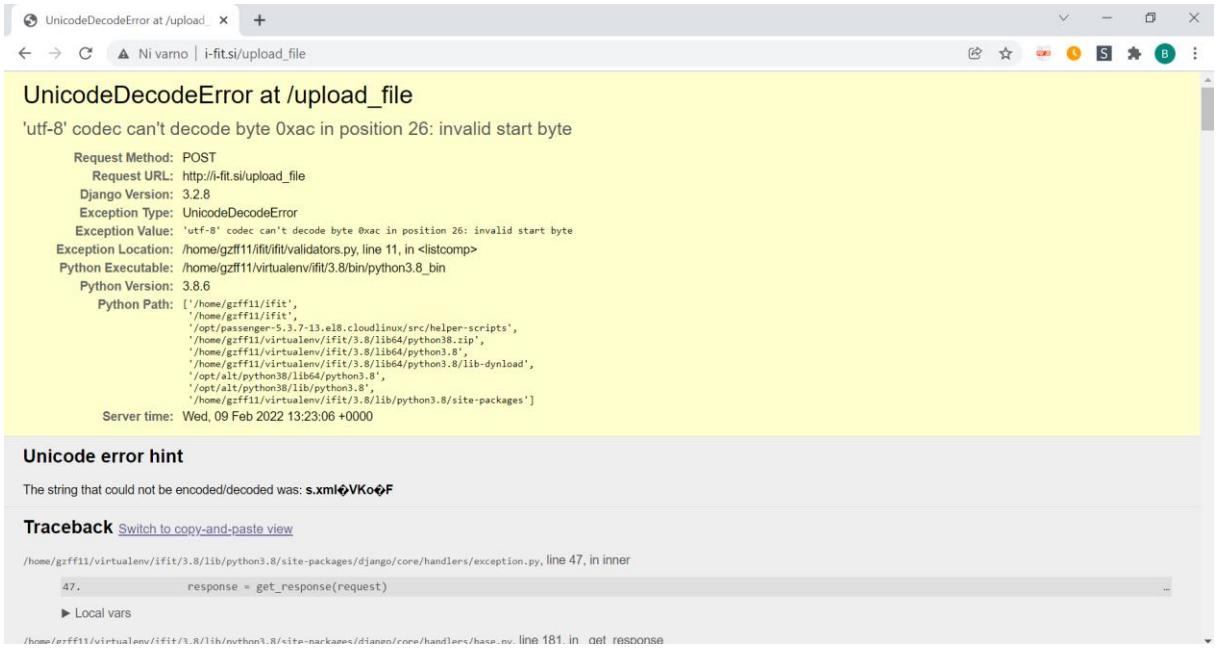
1.3 I input a file, determine initial parameters and get a result, but it says that the final parameters did not converge.

Answer: The iterative process could not converge on one set of values for Km, Vmax and $[S]_0$, but instead kept oscillating between two or more values. This suggests that there was too much noise in your measurement. You can see all 100 iterations by clicking "Show all iterations." To fix the problem, you can try deleting a few points from the progress curve at the left and right border of tQ during the last oscillation, since this is where the noise is located. E.g., if tQ is between 3.52 min and 4.72 min during the 100th oscillaction, remove a few points around t = 3.52 min and a few points around t = 4.72 min from your .csv file. If this does not help, try performing the measurement again. If the difference between the oscillating values for Km and Vmax is very small (e.g. 10.11 and 10.13 µM for Km), you can also take their average as the resultant Km value.



1.4 When I try to upload a file, I receive the message UniCode Decode Error.

Answer: You have tried to upload a file in the wrong format (not a .csv document) or in the .csv format but without the correct header (the first line must contain text, the second line must be either "A,min" or "min,A", depending on how your data is ordered, and all subsequent lines must contain time values and absorbance values (or vice versa), separated by a comma; no other text is permitted). See the ***Instructions*** *tab for more detail on how to create and upload files*.



This is how the data in your .csv file should look like:

	A	B	C	D	E	F
1	92_1_DHC.csv					
2	min,A					
3	0,0.14605					
4	0.018,0.1499					
5	0.037,0.1538					
6	0.055,0.15685					
7	0.073,0.1588					
8	0.092,0.1614					
9	0.11,0.16405					
10	0.128,0.16595					
11	0.147,0.16765					
12	0.165,0.1701					
13	0.183,0.173					
14	0.202,0.17575					
15	0.22,0.1784					