Waves\_intact\_cells

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# Analysis of Ca2+ waves in intact cells

## Importing libraries

We import the custom made package containing the functions and methods for the analysis of calcium waves.

The package {AnlysisOfWaves} can be download like by un-comment the following chunk code:

# install.packages("devtools")  
# devtools::install\_github("rjlopez2/AnlysisOfWaves")

## Create folder names to save results and plots

## Loading the raw dataset from the excel file.

This excel file contain the features extracted form the linescan images. They also contain relevant information such date, animal, treatments, etc.

Features from the wave kinetics analysis were aggregated as average in this dataset. Later on we will load the raw individual values for the kinetics.

## Date filename Experiment Protocol  
## 1 2018-11-22 20181122 L1 CS1 Cell A0001.oib Wave latency FS, caff puff  
## 2 2018-11-22 20181122 L1 CS1 Cell A0002.oib Wave latency FS, caff puff  
## 3 2018-11-22 20181122 L1 CS2 Cell A0001.oib Wave latency FS, caff puff  
## 4 2018-11-22 20181122 L1 CS2 Cell A0002.oib Wave latency FS, caff puff  
## 5 2018-11-22 20181122 L1 CS3 Cell A0001.oib Wave latency FS, caff puff  
## 6 2018-11-22 20181122 L1 CS3 Cell A0002.oib Wave latency FS, caff puff  
## 7 2018-11-22 20181122 L2 CS1 Cell A0001.oib Wave latency FS, caff puff  
## 8 2018-11-22 20181122 L2 CS1 Cell A0002.oib Wave latency FS, caff puff  
## 9 2018-11-22 20181122 L2 CS2 Cell A0001.oib Wave latency FS, caff puff  
## 10 2018-11-22 20181122 L2 CS2 Cell A0002.oib Wave latency FS, caff puff  
## 11 2018-12-13 20181213 L1 CS2 Cell A0001.oib Wave latency FS, caff puff  
## 12 2018-12-13 20181213 L1 CS2 Cell A0002.oib Wave latency FS, caff puff  
## 13 2018-12-13 20181213 L1 CS3 Cell A0001.oib Wave latency FS, caff puff  
## 14 2018-12-13 20181213 L1 CS3 Cell A0002.oib Wave latency FS, caff puff  
## 15 2018-12-13 20181213 L2 CS1 Cell A0001.oib Wave latency FS, caff puff  
## 16 2018-12-13 20181213 L2 CS1 Cell A0002.oib Wave latency FS, caff puff  
## 17 2018-12-13 20181213 L2 CS2 Cell A0001.oib Wave latency FS, caff puff  
## 18 2018-12-13 20181213 L2 CS2 Cell A0002.oib Wave latency FS, caff puff  
## 19 2018-12-13 20181213 L2 CS3 Cell A0001.oib Wave latency FS, caff puff  
## 20 2018-12-13 20181213 L2 CS3 Cell A0002.oib Wave latency FS, caff puff  
## 21 2018-12-13 20181213 L3 CS1 Cell A0001.oib Wave latency FS, caff puff  
## 22 2018-12-13 20181213 L3 CS1 Cell A0002.oib Wave latency FS, caff puff  
## 23 2019-01-18 20190118 L1 CS1 Cell A0001.oib Wave latency FS, caff puff  
## 24 2019-01-18 20190118 L1 CS1 Cell A0002.oib Wave latency FS, caff puff  
## 25 2019-01-18 20190118 L1 CS2 Cell A0001.oib Wave latency FS, caff puff  
## 26 2019-01-18 20190118 L1 CS2 Cell A0002.oib Wave latency FS, caff puff  
## 27 2019-01-18 20190118 L1 CS3 Cell A0001.oib Wave latency FS, caff puff  
## 28 2019-01-18 20190118 L1 CS3 Cell A0002.oib Wave latency FS, caff puff  
## 29 2019-01-18 20190118 L2 CS1 Cell A0002.oib Wave latency FS, caff puff  
## 30 2019-01-18 20190118 L2 CS1 Cell A0003.oib Wave latency FS, caff puff  
## 31 2019-01-18 20190118 L2 CS2 Cell A0001.oib Wave latency FS, caff puff  
## 32 2019-01-18 20190118 L2 CS2 Cell A0002.oib Wave latency FS, caff puff  
## 33 2019-01-18 20190118 L2 CS3 Cell A0001.oib Wave latency FS, caff puff  
## 34 2019-01-18 20190118 L2 CS3 Cell A0002.oib Wave latency FS, caff puff  
## 35 2019-01-18 20190118 L2 CS4 Cell A0001.oib Wave latency FS, caff puff  
## 36 2019-01-18 20190118 L2 CS4 Cell A0002.oib Wave latency FS, caff puff  
## 37 2019-03-19 20190319 L1 CS1 Cell A0001.oib Wave latency FS, caff puff  
## 38 2019-03-19 20190319 L1 CS1 Cell A0002.oib Wave latency FS, caff puff  
## 39 2019-03-19 20190319 L2 CS1 Cell A0001.oib Wave latency FS, caff puff  
## 40 2019-03-19 20190319 L2 CS1 Cell A0002.oib Wave latency FS, caff puff  
## 41 2019-03-19 20190319 L2 CS2 Cell A0002.oib Wave latency FS, caff puff  
## 42 2019-03-19 20190319 L2 CS2 Cell A0001.oib Wave latency FS, caff puff  
## 43 2019-03-19 20190319 L2 CS3 Cell A0001.oib Wave latency FS, caff puff  
## 44 2019-03-19 20190319 L2 CS3 Cell A0002.oib Wave latency FS, caff puff  
## 45 2019-03-19 20190319 L3 CS1 Cell A0001.oib Wave latency FS, caff puff  
## 46 2019-03-19 20190319 L3 CS1 Cell A0002.oib Wave latency FS, caff puff  
## 47 2019-03-19 20190319 L3 CS2 Cell A0001.oib Wave latency FS, caff puff  
## 48 2019-03-19 20190319 L3 CS2 Cell A0002.oib Wave latency FS, caff puff  
## 49 2019-03-19 20190319 L3 CS3 Cell A0001.oib Wave latency FS, caff puff  
## 50 2019-03-19 20190319 L3 CS3 Cell A0002.oib Wave latency FS, caff puff  
## 51 2019-03-19 20190319 L4 CS1 Cell A0002.oib Wave latency FS, caff puff  
## 52 2019-03-19 20190319 L4 CS1 Cell A0003.oib Wave latency FS, caff puff  
## 53 2019-03-19 20190319 L4 CS2 Cell A0001.oib Wave latency FS, caff puff  
## 54 2019-03-19 20190319 L4 CS2 Cell A0002.oib Wave latency FS, caff puff  
## 55 2018-11-15 20181115 L1 CS1 Cell A0001.oib Wave latency FS, caff puff  
## 56 2018-11-15 20181115 L1 CS1 Cell A0002.oib Wave latency FS, caff puff  
## 57 2018-11-15 20181115 L1 CS2 Cell A0001.oib Wave latency FS, caff puff  
## 58 2018-11-15 20181115 L1 CS2 Cell A0002.oib Wave latency FS, caff puff  
## 59 2018-11-15 20181115 L1 CS3 Cell A0001.oib Wave latency FS, caff puff  
## 60 2018-11-15 20181115 L1 CS3 Cell A0002.oib Wave latency FS, caff puff  
## 61 2018-11-15 20181115 L2 CS2 Cell A0001.oib Wave latency FS, caff puff  
## 62 2018-11-15 20181115 L2 CS2 Cell A0002.oib Wave latency FS, caff puff  
## 63 2018-11-15 20181115 L2 CS3 Cell A0001.oib Wave latency FS, caff puff  
## 64 2018-11-15 20181115 L2 CS3 Cell A0002.oib Wave latency FS, caff puff  
## 65 2018-11-29 20181129 L1 CS1 Cell A0001.oib Wave latency FS, caff puff  
## 66 2018-11-29 20181129 L1 CS1 Cell A0002.oib Wave latency FS, caff puff  
## 67 2018-11-29 20181129 L1 CS2 Cell A0001.oib Wave latency FS, caff puff  
## 68 2018-11-29 20181129 L1 CS2 Cell A0002.oib Wave latency FS, caff puff  
## 69 2018-11-29 20181129 L2 CS1 Cell A0001.oib Wave latency FS, caff puff  
## 70 2018-11-29 20181129 L2 CS1 Cell A0002.oib Wave latency FS, caff puff  
## 71 2018-11-29 20181129 L2 CS2 Cell A0001.oib Wave latency FS, caff puff  
## 72 2018-11-29 20181129 L2 CS2 Cell A0002.oib Wave latency FS, caff puff  
## 73 2018-11-29 20181129 L2 CS3 Cell A0001.oib Wave latency FS, caff puff  
## 74 2018-11-29 20181129 L2 CS3 Cell A0002.oib Wave latency FS, caff puff  
## 75 2018-12-06 20181206 L1 CS1 Cell A0001.oib Wave latency FS, caff puff  
## 76 2018-12-06 20181206 L1 CS1 Cell A0002.oib Wave latency FS, caff puff  
## 77 2018-12-06 20181206 L1 CS2 Cell A0001.oib Wave latency FS, caff puff  
## 78 2018-12-06 20181206 L1 CS2 Cell A0002.oib Wave latency FS, caff puff  
## 79 2018-12-06 20181206 L1 CS3 Cell A0001.oib Wave latency FS, caff puff  
## 80 2018-12-06 20181206 L1 CS3 Cell A0002.oib Wave latency FS, caff puff  
## 81 2018-12-06 20181206 L2 CS1 Cell A0001.oib Wave latency FS, caff puff  
## 82 2018-12-06 20181206 L2 CS1 Cell A0002.oib Wave latency FS, caff puff  
## 83 2018-12-06 20181206 L2 CS2 Cell A0001.oib Wave latency FS, caff puff  
## 84 2018-12-06 20181206 L2 CS2 Cell A0002.oib Wave latency FS, caff puff  
## 85 2018-12-06 20181206 L2 CS3 Cell A0001.oib Wave latency FS, caff puff  
## 86 2018-12-06 20181206 L2 CS3 Cell A0002.oib Wave latency FS, caff puff  
## 87 2018-12-06 20181206 L3 CS1 Cell A0001.oib Wave latency FS, caff puff  
## 88 2018-12-06 20181206 L3 CS1 Cell A0002.oib Wave latency FS, caff puff  
## 89 2019-01-17 20190117 L1 CS2 Cell A0001.oib Wave latency FS, caff puff  
## 90 2019-01-17 20190117 L1 CS2 Cell A0002.oib Wave latency FS, caff puff  
## 91 2019-01-17 20190117 L1 CS3 Cell A0001.oib Wave latency FS, caff puff  
## 92 2019-01-17 20190117 L1 CS3 Cell A0002.oib Wave latency FS, caff puff  
## 93 2019-01-17 20190117 L2 CS1 Cell A0001.oib Wave latency FS, caff puff  
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## 96 2019-01-17 20190117 L2 CS2 Cell A0002.oib Wave latency FS, caff puff  
## 97 2019-01-17 20190117 L2 CS3 Cell A0001.oib Wave latency FS, caff puff  
## 98 2019-01-17 20190117 L2 CS3 Cell A0002.oib Wave latency FS, caff puff  
## 99 2019-01-17 20190117 L3 CS1 Cell A0001.oib Wave latency FS, caff puff  
## 100 2019-01-17 20190117 L3 CS1 Cell A0002.oib Wave latency FS, caff puff  
## 101 2019-02-20 20190220 L1 CS1 Cell A0001.oib Wave latency FS, caff puff  
## 102 2019-02-20 20190220 L1 CS1 Cell A0005.oib Wave latency FS, caff puff  
## 103 2019-02-20 20190220 L1 CS2 Cell A0002.oib Wave latency FS, caff puff  
## 104 2019-02-20 20190220 L1 CS2 Cell A0004.oib Wave latency FS, caff puff  
## 105 2019-02-20 20190220 L1 CS3 Cell A0001.oib Wave latency FS, caff puff  
## 106 2019-02-20 20190220 L1 CS3 Cell A0003.oib Wave latency FS, caff puff  
## 107 2019-02-20 20190220 L2 CS1 Cell A0001.oib Wave latency FS, caff puff  
## 108 2019-02-20 20190220 L2 CS1 Cell A0003.oib Wave latency FS, caff puff  
## 109 2019-02-20 20190220 L2 CS2 Cell A0001.oib Wave latency FS, caff puff  
## 110 2019-02-20 20190220 L2 CS2 Cell A0004.oib Wave latency FS, caff puff  
## 111 2019-02-20 20190220 L3 CS1 Cell A0001.oib Wave latency FS, caff puff  
## 112 2019-02-20 20190220 L3 CS1 Cell A0003.oib Wave latency FS, caff puff  
## 113 2019-02-20 20190220 L3 CS2 Cell A0001.oib Wave latency FS, caff puff  
## 114 2019-02-20 20190220 L3 CS2 Cell A0003.oib Wave latency FS, caff puff  
## 115 2019-02-21 20190221 L1 CS1 Cell A0002.oib Wave latency FS, caff puff  
## 116 2019-02-21 20190221 L1 CS2 Cell A0001.oib Wave latency FS, caff puff  
## 117 2019-02-21 20190221 L1 CS2 Cell A0003.oib Wave latency FS, caff puff  
## 118 2019-01-17 20190117 L1 CS1 Cell A0001.oib Wave latency FS, caff puff  
## 119 2019-01-17 20190117 L1 CS1 Cell A0002.oib Wave latency FS, caff puff  
## 120 2018-11-22 20181122 L2 CS3 Cell A0001.oib Wave latency FS, caff puff  
## 121 2018-11-22 20181122 L2 CS3 Cell A0002.oib Wave latency FS, caff puff  
## 122 2018-12-13 20181213 L1 CS1 Cell A0001.oib Wave latency FS, caff puff  
## 123 2018-12-13 20181213 L1 CS1 Cell A0002.oib Wave latency FS, caff puff  
## Condition Animal Chip Number Gender Animal\_No DOB Animal Age (w)  
## 1 Control CPVT-WT 289596506 M 5709 2018-02-01 42.00  
## 2 Iso\_3' CPVT-WT 289596506 M 5709 2018-02-01 42.00  
## 3 Control CPVT-WT 289596506 M 5709 2018-02-01 42.00  
## 4 Iso\_3' CPVT-WT 289596506 M 5709 2018-02-01 42.00  
## 5 Control CPVT-WT 289596506 M 5709 2018-02-01 42.00  
## 6 Iso\_3' CPVT-WT 289596506 M 5709 2018-02-01 42.00  
## 7 Control CPVT-WT 289596506 M 5709 2018-02-01 42.00  
## 8 Iso\_3' CPVT-WT 289596506 M 5709 2018-02-01 42.00  
## 9 Control CPVT-WT 289596506 M 5709 2018-02-01 42.00  
## 10 Iso\_3' CPVT-WT 289596506 M 5709 2018-02-01 42.00  
## 11 Control CPVT-WT 289654258 M 5714 2018-03-05 40.43  
## 12 Iso\_3' CPVT-WT 289654258 M 5714 2018-03-05 40.43  
## 13 Control CPVT-WT 289654258 M 5714 2018-03-05 40.43  
## 14 Iso\_3' CPVT-WT 289654258 M 5714 2018-03-05 40.43  
## 15 Control CPVT-WT 289654258 M 5714 2018-03-05 40.43  
## 16 Iso\_3' CPVT-WT 289654258 M 5714 2018-03-05 40.43  
## 17 Control CPVT-WT 289654258 M 5714 2018-03-05 40.43  
## 18 Iso\_3' CPVT-WT 289654258 M 5714 2018-03-05 40.43  
## 19 Control CPVT-WT 289654258 M 5714 2018-03-05 40.43  
## 20 Iso\_3' CPVT-WT 289654258 M 5714 2018-03-05 40.43  
## 21 Control CPVT-WT 289654258 M 5714 2018-03-05 40.43  
## 22 Iso\_3' CPVT-WT 289654258 M 5714 2018-03-05 40.43  
## 23 Control CPVT-WT 289645578 M 5719 2018-04-19 39.14  
## 24 Iso\_3' CPVT-WT 289645578 M 5719 2018-04-19 39.14  
## 25 Control CPVT-WT 289645578 M 5719 2018-04-19 39.14  
## 26 Iso\_3' CPVT-WT 289645578 M 5719 2018-04-19 39.14  
## 27 Control CPVT-WT 289645578 M 5719 2018-04-19 39.14  
## 28 Iso\_3' CPVT-WT 289645578 M 5719 2018-04-19 39.14  
## 29 Control CPVT-WT 289645578 M 5719 2018-04-19 39.14  
## 30 Iso\_3' CPVT-WT 289645578 M 5719 2018-04-19 39.14  
## 31 Control CPVT-WT 289645578 M 5719 2018-04-19 39.14  
## 32 Iso\_3' CPVT-WT 289645578 M 5719 2018-04-19 39.14  
## 33 Control CPVT-WT 289645578 M 5719 2018-04-19 39.14  
## 34 Iso\_3' CPVT-WT 289645578 M 5719 2018-04-19 39.14  
## 35 Control CPVT-WT 289645578 M 5719 2018-04-19 39.14  
## 36 Iso\_3' CPVT-WT 289645578 M 5719 2018-04-19 39.14  
## 37 Control CPVT-WT 289552348 M 5866 2018-11-19 17.14  
## 38 Iso\_3' CPVT-WT 289552348 M 5866 2018-11-19 17.14  
## 39 Control CPVT-WT 289552348 M 5866 2018-11-19 17.14  
## 40 Iso\_3' CPVT-WT 289552348 M 5866 2018-11-19 17.14  
## 41 Iso\_3' CPVT-WT 289552348 M 5866 2018-11-19 17.14  
## 42 Control CPVT-WT 289552348 M 5866 2018-11-19 17.14  
## 43 Control CPVT-WT 289552348 M 5866 2018-11-19 17.14  
## 44 Iso\_3' CPVT-WT 289552348 M 5866 2018-11-19 17.14  
## 45 Control CPVT-WT 289552348 M 5866 2018-11-19 17.14  
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## 54 Iso\_3' CPVT-WT 289552348 M 5866 2018-11-19 17.14  
## 55 Control CPVT-HET 288863331 M 5710 2018-02-01 41.00  
## 56 Iso\_3' CPVT-HET 288863331 M 5710 2018-02-01 41.00  
## 57 Control CPVT-HET 288863331 M 5710 2018-02-01 41.00  
## 58 Iso\_3' CPVT-HET 288863331 M 5710 2018-02-01 41.00  
## 59 Control CPVT-HET 288863331 M 5710 2018-02-01 41.00  
## 60 Iso\_3' CPVT-HET 288863331 M 5710 2018-02-01 41.00  
## 61 Control CPVT-HET 288863331 M 5710 2018-02-01 41.00  
## 62 Iso\_3' CPVT-HET 288863331 M 5710 2018-02-01 41.00  
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## 64 Iso\_3' CPVT-HET 288863331 M 5710 2018-02-01 41.00  
## 65 Control CPVT-HET 289572802 M 7511 2018-02-15 41.00  
## 66 Iso\_3' CPVT-HET 289572802 M 7511 2018-02-15 41.00  
## 67 Control CPVT-HET 289572802 M 7511 2018-02-15 41.00  
## 68 Iso\_3' CPVT-HET 289572802 M 7511 2018-02-15 41.00  
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## 73 Control CPVT-HET 289572802 M 7511 2018-02-15 41.00  
## 74 Iso\_3' CPVT-HET 289572802 M 7511 2018-02-15 41.00  
## 75 Control CPVT-HET 289588606 M 7512 2018-02-15 42.00  
## 76 Iso\_3' CPVT-HET 289588606 M 7512 2018-02-15 42.00  
## 77 Control CPVT-HET 289588606 M 7512 2018-02-15 42.00  
## 78 Iso\_3' CPVT-HET 289588606 M 7512 2018-02-15 42.00  
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## 82 Iso\_3' CPVT-HET 289588606 M 7512 2018-02-15 42.00  
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## 88 Iso\_3' CPVT-HET 289588606 M 7512 2018-02-15 42.00  
## 89 Control CPVT-HET 289707887 M 5723 2018-07-15 26.57  
## 90 Iso\_3' CPVT-HET 289707887 M 5723 2018-07-15 26.57  
## 91 Control CPVT-HET 289707887 M 5723 2018-07-15 26.57  
## 92 Iso\_3' CPVT-HET 289707887 M 5723 2018-07-15 26.57  
## 93 Control CPVT-HET 289707887 M 5723 2018-07-15 26.57  
## 94 Iso\_3' CPVT-HET 289707887 M 5723 2018-07-15 26.57  
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## 96 Iso\_3' CPVT-HET 289707887 M 5723 2018-07-15 26.57  
## 97 Control CPVT-HET 289707887 M 5723 2018-07-15 26.57  
## 98 Iso\_3' CPVT-HET 289707887 M 5723 2018-07-15 26.57  
## 99 Control CPVT-HET 289707887 M 5723 2018-07-15 26.57  
## 100 Iso\_3' CPVT-HET 289707887 M 5723 2018-07-15 26.57  
## 101 Control CPVT-HET 289719458 M 5881 2018-11-19 13.29  
## 102 Iso\_3' CPVT-HET 289719458 M 5881 2018-11-19 13.29  
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## 104 Iso\_3' CPVT-HET 289719458 M 5881 2018-11-19 13.29  
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## 106 Iso\_3' CPVT-HET 289719458 M 5881 2018-11-19 13.29  
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## 113 Control CPVT-HET 289719458 M 5881 2018-11-19 13.29  
## 114 Iso\_3' CPVT-HET 289719458 M 5881 2018-11-19 13.29  
## 115 Control CPVT-WT 289662816 M 5884 2018-11-19 13.43  
## 116 Control CPVT-WT 289662816 M 5884 2018-11-19 13.43  
## 117 Iso\_3' CPVT-WT 289662816 M 5884 2018-11-19 13.43  
## 118 Control CPVT-HET 289707887 M 5723 2018-07-15 26.57  
## 119 Iso\_3' CPVT-HET 289707887 M 5723 2018-07-15 26.57  
## 120 Control CPVT-WT 289596506 M 5709 2018-02-01 42.00  
## 121 Iso\_3' CPVT-WT 289596506 M 5709 2018-02-01 42.00  
## 122 Control CPVT-WT 289654258 M 5714 2018-03-05 40.43  
## 123 Iso\_3' CPVT-WT 289654258 M 5714 2018-03-05 40.43  
## Fluorescent Dye 1 Waves T1 (ms) T2 (ms) DT (ms) Wave\_latency  
## 1 Fluo3 AM 5 uM Y 10903 26258 15355 15.355  
## 2 Fluo3 AM 5 uM Y 11443 12749 1306 1.306  
## 3 Fluo3 AM 5 uM Y 10558 33039 22481 22.481  
## 4 Fluo3 AM 5 uM Y 10944 27362 16418 16.418  
## 5 Fluo3 AM 5 uM N NA NA NA NA  
## 6 Fluo3 AM 5 uM Y 11442 30767 19325 19.325  
## 7 Fluo3 AM 5 uM Y 10463 39995 29532 29.532  
## 8 Fluo3 AM 5 uM Y 10579 10579 4413 4.413  
## 9 Fluo3 AM 5 uM N NA NA NA NA  
## 10 Fluo3 AM 5 uM Y 10584 25358 14774 14.774  
## 11 Fluo3 AM 5 uM Y 12695 26276 13581 13.581  
## 12 Fluo3 AM 5 uM Y 9821 21833 12012 12.012  
## 13 Fluo3 AM 5 uM Y 10865 42868 32003 32.003  
## 14 Fluo3 AM 5 uM Y 10815 13694 2879 2.879  
## 15 Fluo3 AM 5 uM N NA NA NA NA  
## 16 Fluo3 AM 5 uM Y 10657 22575 11918 11.918  
## 17 Fluo3 AM 5 uM N NA NA NA NA  
## 18 Fluo3 AM 5 uM Y 9675 13532 3857 3.857  
## 19 Fluo3 AM 5 uM N NA NA NA NA  
## 20 Fluo3 AM 5 uM Y 11903 14217 2314 2.314  
## 21 Fluo3 AM 5 uM N NA NA NA NA  
## 22 Fluo3 AM 5 uM Y 10794 12667 1873 1.873  
## 23 Fluo3 AM 5 uM Y 10244 29954 19710 19.710  
## 24 Fluo3 AM 5 uM Y 11075 17746 6671 6.671  
## 25 Fluo3 AM 5 uM Y 10576 44566 33990 33.990  
## 26 Fluo3 AM 5 uM Y 11585 16288 4703 4.703  
## 27 Fluo3 AM 5 uM Y 11555 24234 12679 12.679  
## 28 Fluo3 AM 5 uM Y 9715 10204 489 0.489  
## 29 Fluo3 AM 5 uM N NA NA NA NA  
## 30 Fluo3 AM 5 uM Y 12667 37129 24462 24.462  
## 31 Fluo3 AM 5 uM N NA NA NA NA  
## 32 Fluo3 AM 5 uM N NA NA NA NA  
## 33 Fluo3 AM 5 uM N 11621 50145 38524 38.524  
## 34 Fluo3 AM 5 uM Y 10680 14975 4295 4.295  
## 35 Fluo3 AM 5 uM N NA NA NA NA  
## 36 Fluo3 AM 5 uM Y 11044 21164 10120 10.120  
## 37 Fluo3 AM 5 uM N NA NA NA NA  
## 38 Fluo3 AM 5 uM N NA NA NA NA  
## 39 Fluo3 AM 5 uM N NA NA NA NA  
## 40 Fluo3 AM 5 uM Y 10712 15140 4428 NA  
## 41 Fluo3 AM 5 uM Y 11170 13162 1992 NA  
## 42 Fluo3 AM 5 uM N NA NA NA NA  
## 43 Fluo3 AM 5 uM N NA NA NA NA  
## 44 Fluo3 AM 5 uM Y 11066 13056 1990 NA  
## 45 Fluo3 AM 5 uM N NA NA NA NA  
## 46 Fluo3 AM 5 uM Y 10935 15519 4584 NA  
## 47 Fluo3 AM 5 uM Y 10746 38316 27570 NA  
## 48 Fluo3 AM 5 uM N NA NA NA NA  
## 49 Fluo3 AM 5 uM N NA NA NA NA  
## 50 Fluo3 AM 5 uM Y 10665 21790 11125 NA  
## 51 Fluo3 AM 5 uM Y 10141 42988 32847 NA  
## 52 Fluo3 AM 5 uM Y 11562 13666 2104 NA  
## 53 Fluo3 AM 5 uM N NA NA NA NA  
## 54 Fluo3 AM 5 uM Y 10972 12405 1433 NA  
## 55 Fluo3 AM 5 uM Y 11060 49257 38197 38.197  
## 56 Fluo3 AM 5 uM Y 11853 14484 2631 2.631  
## 57 Fluo3 AM 5 uM Y 11875 36490 24615 24.615  
## 58 Fluo3 AM 5 uM Y 11282 12986 1704 1.704  
## 59 Fluo3 AM 5 uM N NA NA NA NA  
## 60 Fluo3 AM 5 uM Y 11584 14301 2717 2.717  
## 61 Fluo3 AM 5 uM N NA NA NA NA  
## 62 Fluo3 AM 5 uM Y 11562 21589 10027 10.027  
## 63 Fluo3 AM 5 uM Y 10627 37862 27235 27.235  
## 64 Fluo3 AM 5 uM Y 15369 17876 2507 2.507  
## 65 Fluo3 AM 5 uM Y 10766 33802 23036 23.036  
## 66 Fluo3 AM 5 uM Y 9782 10377 595 0.595  
## 67 Fluo3 AM 5 uM Y 10554 31850 21296 21.296  
## 68 Fluo3 AM 5 uM Y 10893 14487 3594 3.594  
## 69 Fluo3 AM 5 uM Y 12042 22001 9959 9.959  
## 70 Fluo3 AM 5 uM Y 10970 12364 1394 1.394  
## 71 Fluo3 AM 5 uM N NA NA NA NA  
## 72 Fluo3 AM 5 uM Y 10925 17855 6930 6.930  
## 73 Fluo3 AM 5 uM Y 10616 16995 6379 6.379  
## 74 Fluo3 AM 5 uM Y 12267 14465 2198 2.198  
## 75 Fluo3 AM 5 uM N NA NA NA NA  
## 76 Fluo3 AM 5 uM Y 11029 23738 12709 12.709  
## 77 Fluo3 AM 5 uM N NA NA NA NA  
## 78 Fluo3 AM 5 uM Y 10083 10912 829 0.829  
## 79 Fluo3 AM 5 uM N NA NA NA NA  
## 80 Fluo3 AM 5 uM Y 10823 40065 29242 29.242  
## 81 Fluo3 AM 5 uM N NA NA NA NA  
## 82 Fluo3 AM 5 uM Y 12667 15033 2366 2.366  
## 83 Fluo3 AM 5 uM N NA NA NA NA  
## 84 Fluo3 AM 5 uM Y 11497 19589 8092 8.092  
## 85 Fluo3 AM 5 uM N NA NA NA NA  
## 86 Fluo3 AM 5 uM Y 11102 20314 9212 9.212  
## 87 Fluo3 AM 5 uM N NA NA NA NA  
## 88 Fluo3 AM 5 uM Y 11146 14407 3261 3.261  
## 89 Fluo3 AM 5 uM Y 10687 40779 30092 30.092  
## 90 Fluo3 AM 5 uM Y 12676 13965 1289 1.289  
## 91 Fluo3 AM 5 uM Y 10824 19972 9148 9.148  
## 92 Fluo3 AM 5 uM Y 11191 12323 1132 1.132  
## 93 Fluo3 AM 5 uM Y 10994 30004 19010 19.010  
## 94 Fluo3 AM 5 uM Y 10509 12311 1802 1.802  
## 95 Fluo3 AM 5 uM Y 11208 32187 20979 20.979  
## 96 Fluo3 AM 5 uM Y 10006 10493 487 0.487  
## 97 Fluo3 AM 5 uM Y 11372 21450 10078 10.078  
## 98 Fluo3 AM 5 uM Y 10233 12182 1949 1.949  
## 99 Fluo3 AM 5 uM Y 10358 28286 17928 17.928  
## 100 Fluo3 AM 5 uM Y 10697 11585 888 0.888  
## 101 Fluo3 AM 5 uM N NA NA NA NA  
## 102 Fluo3 AM 5 uM Y 11058 11814 756 0.756  
## 103 Fluo3 AM 5 uM N 11178 51319 40141 40.141  
## 104 Fluo3 AM 5 uM Y 10947 12656 1709 1.709  
## 105 Fluo3 AM 5 uM Y 11634 36941 25307 NA  
## 106 Fluo3 AM 5 uM Y 10904 15606 4702 NA  
## 107 Fluo3 AM 5 uM Y 10987 31226 20239 NA  
## 108 Fluo3 AM 5 uM Y 10480 11438 958 NA  
## 109 Fluo3 AM 5 uM Y 9762 49788 40026 NA  
## 110 Fluo3 AM 5 uM Y 11547 12054 507 NA  
## 111 Fluo3 AM 5 uM Y 10761 34116 23355 NA  
## 112 Fluo3 AM 5 uM Y 11054 13018 1964 NA  
## 113 Fluo3 AM 5 uM N NA NA NA NA  
## 114 Fluo3 AM 5 uM Y 11039 12606 1567 NA  
## 115 Fluo3 AM 5 uM Y 10912 45340 34428 NA  
## 116 Fluo3 AM 5 uM N NA NA NA NA  
## 117 Fluo3 AM 5 uM N NA NA NA NA  
## 118 Fluo3 AM 5 uM N NA NA NA NA  
## 119 Fluo3 AM 5 uM N NA NA NA NA  
## 120 Fluo3 AM 5 uM Y 10869 34118 23249 23.249  
## 121 Fluo3 AM 5 uM Y 10461 10678 217 0.217  
## 122 Fluo3 AM 5 uM Y 10916 36206 25290 25.290  
## 123 Fluo3 AM 5 uM N NA NA NA NA  
## Total waves before Caff (40s) Frequency (Hz)  
## 1 3 0.10000  
## 2 7 0.23333  
## 3 2 0.06667  
## 4 3 0.10000  
## 5 0 0.00000  
## 6 1 0.03333  
## 7 1 0.03333  
## 8 10 0.33333  
## 9 0 0.00000  
## 10 3 0.10000  
## 11 4 0.13333  
## 12 6 0.20000  
## 13 1 0.03333  
## 14 10 0.33333  
## 15 0 0.00000  
## 16 3 0.10000  
## 17 0 0.00000  
## 18 9 0.30000  
## 19 0 0.00000  
## 20 29 0.96667  
## 21 0 0.00000  
## 22 7 0.23333  
## 23 3 0.10000  
## 24 7 0.23333  
## 25 1 0.03333  
## 26 9 0.30000  
## 27 6 0.20000  
## 28 52 1.73333  
## 29 0 0.00000  
## 30 3 0.10000  
## 31 0 0.00000  
## 32 0 0.00000  
## 33 1 0.03333  
## 34 7 0.23333  
## 35 0 0.00000  
## 36 7 0.23333  
## 37 0 0.00000  
## 38 0 0.00000  
## 39 0 0.00000  
## 40 7 0.23333  
## 41 10 0.33333  
## 42 0 0.00000  
## 43 0 0.00000  
## 44 8 0.26667  
## 45 0 0.00000  
## 46 18 0.60000  
## 47 1 0.03333  
## 48 0 0.00000  
## 49 0 0.00000  
## 50 2 0.06667  
## 51 2 0.05000  
## 52 8 0.26667  
## 53 0 0.00000  
## 54 8 0.26667  
## 55 1 0.03333  
## 56 8 0.26667  
## 57 1 0.03333  
## 58 8 0.26667  
## 59 0 0.00000  
## 60 5 0.16667  
## 61 0 0.00000  
## 62 4 0.13333  
## 63 2 0.06667  
## 64 12 0.40000  
## 65 1 0.03333  
## 66 71 2.36667  
## 67 1 0.03333  
## 68 11 0.36667  
## 69 11 0.36667  
## 70 62 2.06667  
## 71 0 0.00000  
## 72 23 0.76667  
## 73 7 0.23333  
## 74 7 0.23333  
## 75 0 0.00000  
## 76 2 0.06667  
## 77 0 0.00000  
## 78 8 0.26667  
## 79 0 0.00000  
## 80 1 0.03333  
## 81 0 0.00000  
## 82 11 0.36667  
## 83 0 0.00000  
## 84 5 0.16667  
## 85 0 0.00000  
## 86 3 0.10000  
## 87 0 0.00000  
## 88 6 0.20000  
## 89 2 0.06667  
## 90 12 0.40000  
## 91 7 0.23333  
## 92 16 0.53333  
## 93 2 0.06667  
## 94 9 0.30000  
## 95 2 0.06667  
## 96 88 2.93333  
## 97 5 0.16667  
## 98 19 0.63333  
## 99 5 0.16667  
## 100 18 0.60000  
## 101 0 0.00000  
## 102 13 0.43333  
## 103 0 0.00000  
## 104 9 0.30000  
## 105 2 0.06667  
## 106 13 0.43333  
## 107 2 0.06667  
## 108 17 0.56667  
## 109 1 0.03333  
## 110 89 2.96667  
## 111 2 0.06667  
## 112 33 1.10000  
## 113 0 0.00000  
## 114 31 1.03333  
## 115 1 0.03333  
## 116 0 0.00000  
## 117 0 0.00000  
## 118 0 0.00000  
## 119 0 0.00000  
## 120 1 0.03333  
## 121 51 1.70000  
## 122 1 0.03333  
## 123 0 0.00000  
## notes1  
## 1 nice trace.  
## 2 lot of waves, nice trace. Nice response to ISO  
## 3 normal. A bit decreasing the signal.  
## 4 normal. Good response to Iso, few waves  
## 5 no waves, nice trace  
## 6 nice trace. Very little noise. Good ISO  
## 7 signal decreasing but ok  
## 8 nice response. Lot of waves  
## 9 no waves, nice trace  
## 10 waves. Nice  
## 11 nice trace. Waves  
## 12 nice. Waves  
## 13 nice. Waves  
## 14 nice. Lot of waves. Waves during the electeical field stimulation  
## 15 no waves, nice trace  
## 16 waves followed by Ectopic AP. Nice trace.  
## 17 low transient but huge caff response  
## 18 ectopic AP. Waves. Nice trace. Caffene came late in the following file.  
## 19 No Waves  
## 20 lot of waves. Lot of ectopic activity during field stimulation ans also after.  
## 21 nice trace. No waves  
## 22 normal. Good Iso. Waves. Ectopic AP  
## 23 waves  
## 24 waves and ectopic AP  
## 25 1 ectopic AP  
## 26 good signal  
## 27 waves. Cell exited already?  
## 28 non-stop burst of waves/EAP. no possible to analyze deltaF/F0, tau, etc  
## 29 no waves, nice trace  
## 30 waves, no Ectopic AP. Cell used for control to check waves before and after perfusion only with the NR using the regular protocol. Check notebook  
## 31 no waves  
## 32 no waves. Global perfusion was on during the ISO.  
## 33 A large EAP few seconds before caff. Probably the same caff  
## 34 waves. Good  
## 35 no waves  
## 36 waves + ectopic AP  
## 37 No waves. Nice trace, nice Caff  
## 38 No waves. Nice ISO. Nice trace, nice Caff  
## 39 No waves. Nice trace, nice Caff  
## 40 Waves and EAP. Good ISO. Good caff.  
## 41 Waves. Nice Iso, nice Caff  
## 42 No waves. Nice Trace, nice Caff  
## 43 no waves. Nice trace  
## 44 waves and EAPs. Nice iso. Nice Caff  
## 45 no waves, a bit low and noisy signal with slow decay (photobleaching?)  
## 46 burst of Ca2+ events at the end of the record right before caff application. Bust of calcium signals considered as EAP  
## 47 one EAP only. Nice caff  
## 48 No expontaneous calcium events. Nice Iso, Nice caff  
## 49 No Waves  
## 50 2 waves. Nice traces. Nice ISO. Problem to analyse the transients. Ask Miguel  
## 51 this file is a repetition from the 001 since the file 001 of this serie did no response to caff. However the waves from the file 001 will be use for the wave kinetics. Nice caff. Normal traces  
## 52 lot of waves. No EAP. Nice ISO. Nice caff.  
## 53 no waves. Good caff  
## 54 lot of waves. Good Iso. 1 EAP. Good caff  
## 55 The signal was extremally low. Slowly decreasing like bleaching? May be Not a good trace to analyse  
## 56 same as control  
## 57 normal. Waves  
## 58 waves, the signal was decreasing a bit. Fotobleaching? Poor loading?  
## 59 nice signal, no waves  
## 60 clear Iso effect  
## 61 nice signal, no waves  
## 62 clear Iso effect. EAP triggered by wave  
## 63 miniwaves. Low signal.  
## 64 many waves and miniwaves too. Nice signal  
## 65 nice trace. Very short caffeine  
## 66 a lot of waves an Ectopic AP even during the Electricalfield stimulation. Electrical stimulated transient individually calculated  
## 67 nice trace. Waves.  
## 68 nice. Ectopic AP  
## 69 strong expontaneous ectopic AP followed by a series os waves. Interesting  
## 70 similar to control but stronger.  
## 71 low signal, normal  
## 72 lot of waves and Ectopic AP. Nice  
## 73 No super clear Caffeine trnasient. Low signal. Waves  
## 74 weak signal, waves  
## 75 Nice signal, no waves  
## 76 nice signal. Waves with ectopic AP  
## 77 nice signal, no waves  
## 78 nice signal. Waves  
## 79 nice. No waves  
## 80 only one wave. Good Iso  
## 81 no waves  
## 82 waves, check for double waves colliding  
## 83 no waves  
## 84 waves and ectopic AP  
## 85 nice trace. No waves  
## 86 nice response  
## 87 a slow decreased signal. But good response  
## 88 normal response to ISO, waves.  
## 89 nice signal. Waves  
## 90 nice signal. Lot of waves. Good ISO response. Ectopic AP occurence  
## 91 lot of waves  
## 92 lot of waves  
## 93 nice signal. Waves  
## 94 nice signal. Waves  
## 95 nice signal, waves and Ectopic AP.  
## 96 non-stop busrt of waves. Did response to caff however.  
## 97 waves. Ectopic ap  
## 98 waves and ectopic AP  
## 99 Waves and miniwaves. Nice signal  
## 100 lot of waves and Ectopic AP. Nice  
## 101 no waves. Caffeine comes in the second file recorder  
## 102 waves and ectopic AP  
## 103 1 wave after 40 s  
## 104 lot of waves  
## 105 2 waves. Nice trace  
## 106 lot of waves. 1 EAP. But abnormal increased calcium signal in the next file  
## 107 2 waves. Nice trace. Nice caffeine  
## 108 lot of waves and Ectopic AP. Nice ISO response  
## 109 1EAP  
## 110 the cell was full of waves (just non-stop burst of waves), probably dying. No possible analyse caff. Neither electrical estimulated transient  
## 111 nice cell. A bit decreasing the signal, waves + EAP  
## 112 lot of waves and Ectopic AP. Nice  
## 113 no waves, nice trace  
## 114 lot of waves and Ectopic AP. Nice  
## 115 1 wave. This cell has to be discarted because at this point I realise that cells were getting intoxicated by the electrode during stimulation  
## 116 no waves  
## 117 no waves. No changes in the tau/DFF0 of the e-transient, so evident no Iso effect  
## 118 Weak signal, no waves. Could not fit the baseline properly with the fiji macro. Recheck analysis of delt F, tau, etc.  
## 119 No aparently effect of ISO. New solution prepared for the next cells.  
## 120 Normal trace. Variable decay time in the Ca2+transients  
## 121 Tetanic contraction-like after electrical field stimulation? Repetitive events even after stimulation. Difficult to analyse tau of calcium transient: only analysed the las transient of the "tetanic" transient. Worth to discuss. May be not for analysis  
## 122 nice signal. Waves  
## 123 no waves, nice trace. Late caffeine. No ISO Effect. No changes in the Amplitude, tau. New ISO prepared for the next cell.  
## For WL Analysis? For Occu Analysis? For EAP\_Occu Analysis? EAP occurrence?  
## 1 yes yes yes no  
## 2 yes yes yes yes  
## 3 yes yes yes no  
## 4 yes yes yes no  
## 5 no yes yes no  
## 6 no yes yes no  
## 7 yes yes yes no  
## 8 yes yes yes yes  
## 9 no yes yes no  
## 10 no yes yes yes  
## 11 yes yes yes no  
## 12 yes yes yes no  
## 13 yes yes yes no  
## 14 yes yes yes no  
## 15 no yes yes no  
## 16 no yes yes yes  
## 17 no yes yes no  
## 18 no yes yes yes  
## 19 no yes yes no  
## 20 no yes yes yes  
## 21 no yes yes no  
## 22 no yes yes yes  
## 23 yes yes yes no  
## 24 yes yes yes yes  
## 25 yes yes yes yes  
## 26 yes yes yes yes  
## 27 no no no no  
## 28 no no no no  
## 29 no yes yes no  
## 30 no yes yes no  
## 31 no yes yes no  
## 32 no yes yes no  
## 33 no yes yes yes  
## 34 no yes yes no  
## 35 no yes yes no  
## 36 no yes yes yes  
## 37 no yes yes no  
## 38 no yes yes no  
## 39 no yes yes no  
## 40 no yes yes yes  
## 41 no yes yes no  
## 42 no yes yes no  
## 43 no yes yes no  
## 44 no yes yes yes  
## 45 no yes yes no  
## 46 no yes yes yes  
## 47 no yes yes yes  
## 48 no yes yes no  
## 49 no yes yes no  
## 50 no yes yes no  
## 51 yes yes yes no  
## 52 yes yes yes no  
## 53 no yes yes no  
## 54 no yes yes yes  
## 55 yes yes yes no  
## 56 yes yes yes yes  
## 57 yes yes yes no  
## 58 yes yes yes no  
## 59 no yes yes no  
## 60 no yes yes no  
## 61 no yes yes no  
## 62 no yes yes yes  
## 63 yes yes yes no  
## 64 yes yes yes no  
## 65 yes yes yes no  
## 66 yes yes yes yes  
## 67 yes yes yes yes  
## 68 yes yes yes yes  
## 69 yes yes yes yes  
## 70 yes yes yes yes  
## 71 no yes yes no  
## 72 no yes yes yes  
## 73 yes yes yes yes  
## 74 yes yes yes yes  
## 75 no yes yes no  
## 76 no yes yes yes  
## 77 no yes yes no  
## 78 no yes yes yes  
## 79 no yes yes no  
## 80 no yes yes no  
## 81 no yes yes no  
## 82 no yes yes no  
## 83 no yes yes no  
## 84 no yes yes yes  
## 85 no yes yes no  
## 86 no yes yes yes  
## 87 no yes yes no  
## 88 no yes yes no  
## 89 yes yes yes yes  
## 90 yes yes yes yes  
## 91 yes yes yes no  
## 92 yes yes yes no  
## 93 yes yes yes no  
## 94 yes yes yes no  
## 95 yes yes yes yes  
## 96 yes yes yes yes  
## 97 yes yes yes yes  
## 98 yes yes yes yes  
## 99 yes yes yes no  
## 100 yes yes yes yes  
## 101 no yes yes no  
## 102 no yes yes yes  
## 103 no yes yes no  
## 104 no yes yes no  
## 105 yes yes yes no  
## 106 yes yes yes yes  
## 107 yes yes yes no  
## 108 yes yes yes yes  
## 109 yes yes yes yes  
## 110 yes yes yes yes  
## 111 yes yes yes yes  
## 112 yes yes yes yes  
## 113 no yes yes no  
## 114 no yes yes yes  
## 115 no no no no  
## 116 no no no no  
## 117 no no no no  
## 118 no no no no  
## 119 no no no no  
## 120 doubt doubt doubt doubt  
## 121 doubt doubt doubt doubt  
## 122 doubt doubt doubt yes  
## 123 doubt doubt doubt yes  
## EAP\_wave\_Latency\_ms N\_of\_EAP\_in\_30s Trans\_tau Trans\_t50 Trans\_deltaFF0  
## 1 NA 0 149.02 72.47 1.6797  
## 2 19996 1 68.51 37.30 3.0228  
## 3 NA 0 230.41 98.97 0.8624  
## 4 NA 0 68.81 37.22 1.9780  
## 5 NA 0 154.03 71.83 2.5810  
## 6 NA 0 99.49 48.58 4.3441  
## 7 NA 0 118.57 62.20 1.6516  
## 8 4413 7 64.90 36.20 2.2592  
## 9 NA 0 137.18 67.99 1.6372  
## 10 14802 2 71.17 38.75 2.9387  
## 11 NA 0 143.95 72.82 1.3129  
## 12 NA 0 79.06 41.04 2.2186  
## 13 NA 0 164.04 77.83 2.6035  
## 14 NA 0 74.57 39.43 6.1950  
## 15 NA 0 241.36 104.32 1.5201  
## 16 11918 3 80.91 42.31 5.5611  
## 17 NA 0 263.15 110.96 1.6630  
## 18 5203 5 74.50 41.04 6.8116  
## 19 NA 0 145.09 68.72 1.7977  
## 20 2314 29 65.02 34.17 2.6362  
## 21 NA 0 190.29 89.29 1.9391  
## 22 1873 1 63.86 35.21 4.9415  
## 23 NA 0 102.60 57.40 1.5261  
## 24 6671 5 71.70 38.61 2.4702  
## 25 33990 1 149.12 71.75 1.7893  
## 26 4703 7 71.82 39.63 3.9136  
## 27 NA 0 152.60 79.81 4.1626  
## 28 354 52 NA NA NA  
## 29 NA 0 136.66 64.77 1.8325  
## 30 NA 0 67.52 37.27 4.0210  
## 31 NA 0 159.51 74.49 2.6390  
## 32 NA 0 105.73 54.78 4.4964  
## 33 38524 1 171.93 82.86 1.5781  
## 34 NA 0 81.77 44.65 3.8933  
## 35 NA 0 171.49 83.11 2.8376  
## 36 10120 7 103.12 56.66 4.6627  
## 37 40000 0 182.54 79.55 2.1516  
## 38 40000 0 74.62 40.81 5.3016  
## 39 40000 0 142.42 68.51 0.8028  
## 40 4428 6 61.96 35.82 2.5108  
## 41 40000 0 67.53 36.92 4.7212  
## 42 40000 0 145.70 69.34 1.7599  
## 43 40000 0 130.31 66.40 1.7654  
## 44 23045 2 68.44 38.21 3.8742  
## 45 40000 0 127.58 63.45 0.8719  
## 46 31291 11 65.51 37.03 2.1167  
## 47 27570 1 157.39 68.08 1.1587  
## 48 40000 0 78.45 40.98 3.7392  
## 49 40000 0 154.65 74.81 1.5201  
## 50 40000 0 NA NA NA  
## 51 40000 0 122.40 59.25 1.3434  
## 52 40000 0 60.31 32.68 2.5778  
## 53 40000 0 121.69 63.10 1.5799  
## 54 4096 1 61.67 35.75 2.5632  
## 55 NA 0 132.46 65.32 0.6956  
## 56 2676 5 73.44 37.67 1.3162  
## 57 NA 0 185.64 80.12 0.7987  
## 58 NA 0 81.13 43.65 1.5891  
## 59 NA 0 189.51 86.75 2.5563  
## 60 NA 0 101.06 57.18 4.8140  
## 61 NA 0 193.16 88.97 2.0336  
## 62 10027 3 90.98 49.28 4.5402  
## 63 NA 0 230.01 96.65 1.4949  
## 64 NA 0 100.59 53.31 4.5347  
## 65 NA 0 164.81 79.16 2.6403  
## 66 595 71 73.31 40.64 4.0707  
## 67 21296 1 174.10 88.50 4.2888  
## 68 3594 11 86.37 47.23 7.0033  
## 69 9959 2 127.53 66.28 2.7667  
## 70 1394 60 68.62 39.35 4.3809  
## 71 NA 0 160.05 74.67 1.5103  
## 72 12609 15 66.73 38.45 3.5906  
## 73 6379 4 109.03 56.42 0.8590  
## 74 31687 1 66.91 38.10 1.3821  
## 75 NA 0 154.09 72.34 1.6896  
## 76 12709 2 70.88 39.50 3.3909  
## 77 NA 0 114.71 62.10 3.5138  
## 78 829 5 62.36 35.84 5.2977  
## 79 NA 0 136.54 68.09 1.8296  
## 80 NA 0 82.28 44.30 3.5121  
## 81 NA 0 156.60 73.85 1.1346  
## 82 NA 0 66.03 36.13 2.9678  
## 83 NA 0 139.01 67.84 0.9675  
## 84 8092 4 67.58 37.48 2.3219  
## 85 NA 0 202.96 90.64 1.9970  
## 86 9212 3 81.66 44.72 4.4927  
## 87 NA 0 130.68 62.30 1.0662  
## 88 NA 0 72.37 39.34 3.2926  
## 89 30092 2 152.70 78.92 3.3097  
## 90 7667 3 85.90 48.00 5.8319  
## 91 NA 0 199.83 95.86 3.8148  
## 92 NA 0 86.88 45.69 7.0635  
## 93 NA 0 123.74 67.21 2.9779  
## 94 NA 0 78.51 46.13 5.6762  
## 95 20979 1 118.50 65.54 2.7029  
## 96 487 88 60.91 33.07 4.0330  
## 97 10078 3 150.26 78.34 3.2417  
## 98 10336 7 72.55 41.70 5.9236  
## 99 NA 0 109.26 57.54 2.1274  
## 100 6964 2 72.53 40.90 3.4890  
## 101 NA 0 122.70 64.23 1.6869  
## 102 26992 1 70.38 37.24 3.2140  
## 103 NA 0 192.65 89.00 2.0951  
## 104 NA 0 79.42 44.27 6.6406  
## 105 NA 0 114.12 61.95 2.9274  
## 106 10798 1 81.73 46.28 4.5738  
## 107 NA 0 125.23 63.59 1.5919  
## 108 5794 1 57.92 32.86 3.3168  
## 109 40026 1 174.04 83.05 2.9438  
## 110 507 89 NA NA NA  
## 111 23355 2 125.01 63.94 1.2457  
## 112 7019 17 75.19 42.59 2.4300  
## 113 NA 0 125.38 65.46 2.8489  
## 114 1567 20 96.43 53.31 3.6740  
## 115 NA 0 167.57 84.71 1.8131  
## 116 NA 0 220.45 98.79 2.5282  
## 117 NA 0 215.29 93.14 2.4790  
## 118 NA 0 177.57 81.76 0.6897  
## 119 NA 0 164.34 74.96 0.8300  
## 120 NA 0 182.32 74.18 1.6856  
## 121 217 32 NA NA NA  
## 122 25290 2 108.76 58.05 3.1459  
## 123 42890 1 138.57 76.82 3.9656  
## Last\_Ca\_event\_to\_Caff\_transient\_time\_ms Caff\_tau Caff\_t50  
## 1 11338 5111.83 1096.0060000000001  
## 2 6133 4568.35 1008.177  
## 3 3914 1613.98 748.01099999999997  
## 4 4589 NA <NA>  
## 5 40000 1987.46 791.11099999999999  
## 6 24021 -7709.26 841.65800000000002  
## 7 13346 1624.71 871.14700000000005  
## 8 1892 NA <NA>  
## 9 40000 273.01 74.376000000000005  
## 10 8104 99.20 44.707999999999998  
## 11 9064 -6760.71 1055.0909999999999  
## 12 4323 781.79 47.914999999999999  
## 13 9236 -11944.01 1151.5619999999999  
## 14 5061 1921.28 996.57299999999998  
## 15 40000 1624.20 815.11699999999996  
## 16 8183 1788.66 910.798  
## 17 40000 4158.68 1062.0640000000001  
## 18 1159 1221.94 703.66200000000003  
## 19 40000 2655.18 887.75400000000002  
## 20 292 4352.64 1043.6690000000001  
## 21 40000 1194.75 485.87200000000001  
## 22 2518 1008.79 585.98  
## 23 7395 2640.57 1187.0340000000001  
## 24 668 5326.18 1291.9010000000001  
## 25 7255 1946.58 1204.3150000000001  
## 26 2805 18357.93 1510.7850000000001  
## 27 2003 -2743.45 1165.9169999999999  
## 28 489 -1195.96 1961.92  
## 29 40000 2390.54 491.47199999999998  
## 30 5934 2561.80 542.87400000000002  
## 31 40000 14.37 8.08  
## 32 40000 1542.70 724.52499999999998  
## 33 2200 2077.16 772.90800000000002  
## 34 9483 3475.33 1104.2159999999999  
## 35 40000 3493.34 901.755  
## 36 531 1806.09 614.34699999999998  
## 37 40000 1176.79 603.89  
## 38 40000 1668.46 825.85799999999995  
## 39 40000 1229.94 558.54499999999996  
## 40 4785 1321.06 <NA>  
## 41 1471 2699.70 961.28099999999995  
## 42 40000 2262.53 932.96199999999999  
## 43 40000 2057.09 827.73099999999999  
## 44 2273 -4907.58 1786.069  
## 45 40000 3223.49 1032.7660000000001  
## 46 380 NA <NA>  
## 47 13328 3564.09 <NA>  
## 48 40000 2696.24 <NA>  
## 49 40000 1795.01 814.90599999999995  
## 50 21497 2404.44 990.59500000000003  
## 51 8605 3662.11 1215.9570000000001  
## 52 1358 2966.94 <NA>  
## 53 40000 3100.33 1016.803  
## 54 10265 2820.57 1140.5440000000001  
## 55 2425 2973.25 1082.904  
## 56 6612 NA <NA>  
## 57 18004 1757.27 456.52600000000001  
## 58 3792 NA <NA>  
## 59 40000 7251.52 855.63300000000004  
## 60 8868 NA <NA>  
## 61 40000 2179.03 854.75800000000004  
## 62 1846 105.45 <NA>  
## 63 3721 NA <NA>  
## 64 6225 NA <NA>  
## 65 20983 301.49 159.72800000000001  
## 66 447 NA <NA>  
## 67 19832 423.86 101.94499999999999  
## 68 5587 0.00 0  
## 69 10146 3902.91 1154.693  
## 70 713 NA <NA>  
## 71 40000 1045.89 479.61399999999998  
## 72 708 1448.36 643.60900000000004  
## 73 NA NA <NA>  
## 74 917 -4920.64 677.17899999999997  
## 75 40000 0.92 NaN  
## 76 19300 2851.13 1117.095  
## 77 40000 3397.02 979.83399999999995  
## 78 6965 1646.02 849.97799999999995  
## 79 40000 2600.80 979.77300000000002  
## 80 12323 2420.10 968.69399999999996  
## 81 40000 1613.03 740.19  
## 82 715 NA <NA>  
## 83 40000 1249.93 678.56600000000003  
## 84 5799 2097.84 819.74800000000005  
## 85 40000 1895.41 719.62699999999995  
## 86 5464 1711.12 786.49099999999999  
## 87 40000 1935.89 748.75699999999995  
## 88 1626 2521.63 849.32899999999995  
## 89 6690 2553.37 914.35299999999995  
## 90 6823 NA <NA>  
## 91 4370 2942.05 745.28599999999994  
## 92 3223 0.00 0  
## 93 12527 4391.63 1148.0989999999999  
## 94 6054 2489.93 954.06100000000004  
## 95 10008 30637.50 1105.923  
## 96 326 NA <NA>  
## 97 8183 15838.30 1551.664  
## 98 1647 3555.78 1134.933  
## 99 12238 1749.99 708.09799999999996  
## 100 1468 1323.09 650.66  
## 101 40000 134.29 78.947000000000003  
## 102 1586 NA <NA>  
## 103 2781 2937.87 906.18299999999999  
## 104 7063 NA <NA>  
## 105 5219 151.63 90.09  
## 106 708 NA <NA>  
## 107 8035 2199.37 642.42999999999995  
## 108 2344 1845.38 710.327  
## 109 4528 3805.60 838.86  
## 110 507 NA <NA>  
## 111 8127 1905.81 748.14400000000001  
## 112 997 NA <NA>  
## 113 40000 1941.47 806.173  
## 114 922 19072.40 1742.07  
## 115 8632 4810.01 1455.7539999999999  
## 116 40000 14235.29 1579.3219999999999  
## 117 40000 -751.84 1259.9069999999999  
## 118 40000 NA <NA>  
## 119 40000 NA <NA>  
## 120 17871 3211.14 1009.734  
## 121 1616 24573.67 1568.501  
## 122 5150 1123.83 475.61500000000001  
## 123 5787 NA <NA>  
## Caff\_deltaFF0 For\_Caff\_Transient  
## 1 2.737 yes  
## 2 3.585 yes  
## 3 3.019 yes  
## 4 3.184 yes  
## 5 4.858 yes  
## 6 5.383 yes  
## 7 2.368 yes  
## 8 2.658 no  
## 9 3.080 no  
## 10 3.566 no  
## 11 2.535 yes  
## 12 2.934 no  
## 13 5.795 yes  
## 14 7.201 yes  
## 15 5.375 yes  
## 16 7.715 yes  
## 17 7.166 yes  
## 18 8.272 yes  
## 19 3.307 yes  
## 20 2.982 yes  
## 21 5.116 yes  
## 22 6.902 yes  
## 23 2.298 yes  
## 24 2.392 yes  
## 25 3.637 yes  
## 26 4.618 yes  
## 27 6.055 no  
## 28 2.396 no  
## 29 4.439 yes  
## 30 4.917 yes  
## 31 5.845 yes  
## 32 7.145 yes  
## 33 2.199 yes  
## 34 5.365 yes  
## 35 5.966 yes  
## 36 5.925 yes  
## 37 5.244 yes  
## 38 6.969 yes  
## 39 3.271 yes  
## 40 3.580 yes  
## 41 4.585 yes  
## 42 4.641 yes  
## 43 3.833 yes  
## 44 3.931 yes  
## 45 2.612 yes  
## 46 NA no  
## 47 4.440 yes  
## 48 5.556 yes  
## 49 3.411 yes  
## 50 4.830 yes  
## 51 2.929 yes  
## 52 3.272 yes  
## 53 3.171 yes  
## 54 3.613 yes  
## 55 2.312 yes  
## 56 2.159 yes  
## 57 2.254 yes  
## 58 2.623 yes  
## 59 6.370 yes  
## 60 6.246 yes  
## 61 4.738 yes  
## 62 5.453 yes  
## 63 NA no  
## 64 4.337 yes  
## 65 5.597 yes  
## 66 2.293 no  
## 67 5.917 yes  
## 68 8.177 yes  
## 69 4.718 yes  
## 70 3.914 yes  
## 71 3.799 yes  
## 72 3.692 no  
## 73 NA no  
## 74 1.813 no  
## 75 3.926 yes  
## 76 5.654 yes  
## 77 5.060 yes  
## 78 6.320 yes  
## 79 3.948 yes  
## 80 4.546 yes  
## 81 3.299 yes  
## 82 3.186 yes  
## 83 2.330 yes  
## 84 2.861 yes  
## 85 5.652 yes  
## 86 6.067 yes  
## 87 2.693 yes  
## 88 3.233 yes  
## 89 5.570 yes  
## 90 6.337 yes  
## 91 5.066 yes  
## 92 6.947 yes  
## 93 4.505 yes  
## 94 6.482 yes  
## 95 3.898 yes  
## 96 4.148 yes  
## 97 4.853 yes  
## 98 6.471 yes  
## 99 3.105 yes  
## 100 3.001 no  
## 101 3.012 yes  
## 102 3.242 yes  
## 103 4.707 yes  
## 104 6.781 yes  
## 105 4.615 no  
## 106 4.702 yes  
## 107 3.203 yes  
## 108 3.531 yes  
## 109 6.575 yes  
## 110 NA no  
## 111 2.801 yes  
## 112 2.896 yes  
## 113 4.803 yes  
## 114 4.034 yes  
## 115 3.668 no  
## 116 4.920 yes  
## 117 6.898 no  
## 118 2.661 no  
## 119 2.972 no  
## 120 2.733 no  
## 121 3.326 no  
## 122 4.628 no  
## 123 3.859 no  
## notes\_2  
## 1 normal auto fitting with no basal adjustment  
## 2 normal fitting with basal adjustment  
## 3 nice fitting, only narrow ROI selected analized due to large movement artifacts. Interestind decay phase  
## 4 manually calculated. No posible to calculate automaticaly  
## 5 nice. Automatic detected well  
## 6 nice. Automatic detected well  
## 7 nice fit.  
## 8 May be no good for analysis. No single calcium release.  
## 9 with more than one consecutive caff release. For analysis?. Look at the traces  
## 10 \*however with multiple caff calcium release  
## 11 good baseline fit.  
## 12 with two peaks. Baseline fit ok  
## 13 fit with no baseline adjustmen  
## 14 good baseline fit.  
## 15 nice fit  
## 16 nice fit  
## 17 fit with no baseline adjustmen  
## 18 good baseline fit.  
## 19 good baseline fit.  
## 20 good baseline fit.  
## 21 fit with no baseline adjustmen  
## 22 fit with no baseline adjustmen  
## 23 nice fit  
## 24 fit with no baseline adjustmen  
## 25 fit with no baseline adjustmen  
## 26 nice fit  
## 27 nice fit  
## 28 fit with no baseline adjustmen  
## 29 fit with no baseline adjustmen  
## 30 fit with no baseline adjustmen  
## 31 fit with no baseline adjustmen  
## 32 fit with no baseline adjustmen  
## 33 fit with no baseline adjustmen  
## 34 normal fitting with basal adjustment  
## 35 fit with no baseline adjustmen  
## 36 fit with no baseline adjustmen  
## 37 nice caff transient  
## 38 nice caff transient  
## 39 nice caff transient  
## 40 nice caff transient  
## 41 nice caff but  
## 42 nice caff  
## 43 nice caff. Automatically detected  
## 44 nice caff. Automatically detected  
## 45 signal a bit low  
## 46 Calcium events to close to Caff. No Analyzed  
## 47 nice caff but automatic fit failed. Manually calculated  
## 48 nice caff but automatic fit failed. Manually calculated  
## 49 nice caff. Automatic analyzed  
## 50 nice caff. Automatic analyzed  
## 51 automatic analysis with no baseline fit/adjustment  
## 52 manually calculated  
## 53 nice caff. Automatically analyzed  
## 54 nice caff. Automatically analyzed  
## 55 a calcium release preceeded to caff. Probably the same caff  
## 56 no good basal fit. Caff transient manually calculated  
## 57 nice. Automatic detected well  
## 58 problem in fitting baseline. Calculated manually  
## 59 nicely fitted. No spontaneous event in whole record  
## 60 manually calculated  
## 61 fit with no baseline adjustmen  
## 62 no need to align. Nice trace but preceeded by an EAP  
## 63 No possible to analyse properly. Large movement artefacts.  
## 64 DF/F0 Manually calculated  
## 65 short but robust caffeine  
## 66 caff preceeded too shortly for waves. Caff no for analysis. Manually calculated  
## 67 nice caff with two peaks.  
## 68 same, nice caff with 2 peaks. Manually calculated  
## 69 nice caff. Goof fit. No need to align  
## 70 manually calculated. To many events shortly before the caff. No good for analysis  
## 71 nice fit.  
## 72 calcium event just before Caff. No good for caff analysis  
## 73 no clear caffeine. No analyzed  
## 74 No goof decay fit. Only considered the amplitude  
## 75 automaticly detected without fitting baseline.  
## 76 nice fit.  
## 77 nice fit.  
## 78 Automaticly detected without fitting baseline.  
## 79 nice fit.  
## 80 nice fit.  
## 81 nice fit.  
## 82 manually calculated  
## 83 nice fit.  
## 84 with two peaks.  
## 85 nice fit.  
## 86 fit with no baseline adjustmen  
## 87 nice fit.  
## 88 nice fit.  
## 89 fit with no baseline adjustmen  
## 90 fit with no baseline adjustmen. Caffeine reanalized with original file. Only amplitude  
## 91 fit with no baseline adjustmen  
## 92 manually calculated. No posible to calculate automaticaly  
## 93 good baseline fit. New alignment  
## 94 fit with no baseline adjustmen  
## 95 fit with no baseline adjustmen  
## 96 manually calculated  
## 97 nice fit  
## 98 nice fit  
## 99 nice fit  
## 100 fit with no baseline adjustmen. Lon burst of relaesa before caff  
## 101 normal fitting with basal adjustment  
## 102 manually calculated. No posible to calculate automaticaly  
## 103 nice fit  
## 104 manually calculated  
## 105 Caff transient quite short. Is it a good one for analysis?  
## 106 manually calculated  
## 107 fit with no baseline adjustmen  
## 108 fit with no baseline adjustmen  
## 109 fit with no baseline adjustmen  
## 110 no possible to analyse caff. No clear effect, lot of waves  
## 111 nice caff. Goof fit. No need to align  
## 112 manually calculated. No posible to calculate automaticaly  
## 113 nice fit  
## 114 nice fit  
## 115 fit with no baseline adjustmen  
## 116 nice fit. Aligned  
## 117 no need tp align  
## 118 manually calculated  
## 119 FIt with no baseline adjustmen  
## 120 Automaticly detected without fitting baseline.  
## 121 no need to align. With several peaks  
## 122 nice fit  
## 123 incomplete Caff. Manually calculated  
## Wave\_speed\_mean Wave\_tau\_mean Wave\_t50\_mean Wave\_deltaFF0\_mean  
## 1 77.91 163.72 84.60 2.590  
## 2 111.32 75.63 38.55 3.142  
## 3 85.26 153.33 75.53 2.036  
## 4 89.66 91.67 46.40 2.346  
## 5 NA NA NA NA  
## 6 77.81 99.49 48.58 4.344  
## 7 82.40 136.48 71.22 2.234  
## 8 105.75 80.17 42.51 2.506  
## 9 NA NA NA NA  
## 10 115.00 99.02 55.59 3.436  
## 11 85.87 145.81 83.19 2.011  
## 12 102.46 91.49 52.17 2.734  
## 13 90.53 156.68 87.61 5.620  
## 14 91.61 77.97 41.75 6.303  
## 15 NA NA NA NA  
## 16 117.14 92.53 41.60 6.543  
## 17 NA NA NA NA  
## 18 104.23 87.18 46.64 8.104  
## 19 NA NA NA NA  
## 20 100.61 71.44 34.21 3.012  
## 21 NA NA NA NA  
## 22 107.16 67.14 36.72 5.454  
## 23 104.29 150.81 83.03 2.257  
## 24 152.67 88.73 48.54 2.694  
## 25 NA NA NA NA  
## 26 126.44 76.67 41.78 3.952  
## 27 91.70 173.60 101.72 5.338  
## 28 NA NA NA NA  
## 29 NA NA NA NA  
## 30 136.39 78.35 45.20 4.744  
## 31 NA NA NA NA  
## 32 NA NA NA NA  
## 33 NA NA NA NA  
## 34 89.26 99.13 56.23 3.849  
## 35 NA NA NA NA  
## 36 84.95 155.09 91.79 5.581  
## 37 NA NA NA NA  
## 38 NA NA NA NA  
## 39 NA NA NA NA  
## 40 138.65 75.44 40.43 3.534  
## 41 108.36 74.15 40.81 4.224  
## 42 NA NA NA NA  
## 43 NA NA NA NA  
## 44 102.05 80.18 44.37 3.785  
## 45 NA NA NA NA  
## 46 91.21 92.41 50.14 2.121  
## 47 NA NA NA NA  
## 48 NA NA NA NA  
## 49 NA NA NA NA  
## 50 95.38 99.53 52.15 3.802  
## 51 78.00 136.31 78.37 2.375  
## 52 91.50 65.34 35.65 3.463  
## 53 NA NA NA NA  
## 54 117.82 79.37 44.74 2.988  
## 55 NA NA NA NA  
## 56 134.23 208.92 66.64 1.655  
## 57 56.72 214.21 105.75 1.765  
## 58 127.51 100.77 54.59 2.202  
## 59 NA NA NA NA  
## 60 107.05 112.96 61.04 4.466  
## 61 NA NA NA NA  
## 62 NA NA NA NA  
## 63 NA NA NA NA  
## 64 70.88 116.02 60.39 4.318  
## 65 96.96 165.65 88.77 4.903  
## 66 145.74 72.13 37.31 3.655  
## 67 99.43 189.42 103.65 5.653  
## 68 110.72 743.29 -97.90 9.421  
## 69 117.02 132.48 81.64 3.876  
## 70 121.00 68.59 38.95 3.637  
## 71 NA NA NA NA  
## 72 109.22 70.21 37.43 4.016  
## 73 172.87 140.63 85.91 1.281  
## 74 130.65 71.72 40.72 1.804  
## 75 NA NA NA NA  
## 76 NA NA NA NA  
## 77 NA NA NA NA  
## 78 101.86 65.91 37.13 4.949  
## 79 NA NA NA NA  
## 80 94.97 102.60 55.22 4.089  
## 81 NA NA NA NA  
## 82 87.59 78.93 42.25 3.142  
## 83 NA NA NA NA  
## 84 99.87 80.69 46.04 2.638  
## 85 NA NA NA NA  
## 86 NA NA NA NA  
## 87 NA NA NA NA  
## 88 107.12 77.45 43.87 3.234  
## 89 129.20 208.71 127.01 4.999  
## 90 102.01 91.44 48.65 5.684  
## 91 66.69 292.46 162.45 4.911  
## 92 105.42 114.50 57.35 6.877  
## 93 85.85 136.84 78.39 4.134  
## 94 107.09 82.83 45.96 5.926  
## 95 85.24 142.93 77.83 3.623  
## 96 NA NA NA NA  
## 97 88.52 160.33 87.78 3.939  
## 98 113.49 77.57 42.00 5.914  
## 99 72.52 152.65 78.69 2.601  
## 100 87.55 80.42 43.78 3.147  
## 101 NA NA NA NA  
## 102 129.30 82.82 44.95 3.302  
## 103 72.21 210.59 112.08 4.536  
## 104 106.62 88.87 46.82 6.551  
## 105 96.46 146.88 87.43 4.643  
## 106 109.80 88.22 47.26 4.762  
## 107 74.41 133.50 77.05 3.022  
## 108 89.18 64.73 34.80 3.394  
## 109 NA NA NA NA  
## 110 NA NA NA NA  
## 111 95.60 228.22 119.00 2.126  
## 112 91.81 76.97 42.21 2.353  
## 113 NA NA NA NA  
## 114 101.03 74.79 41.44 3.530  
## 115 98.12 143.21 75.42 3.078  
## 116 NA NA NA NA  
## 117 NA NA NA NA  
## 118 NA NA NA NA  
## 119 NA NA NA NA  
## 120 60.07 161.89 86.86 2.142  
## 121 94.86 64.44 33.55 3.081  
## 122 148.14 166.82 92.82 4.602  
## 123 NA NA NA NA  
## For\_Wave\_Kinetics\_Analysis?  
## 1 yes  
## 2 yes  
## 3 yes  
## 4 yes  
## 5 no  
## 6 yes  
## 7 yes  
## 8 yes  
## 9 no  
## 10 yes  
## 11 yes  
## 12 yes  
## 13 yes  
## 14 yes  
## 15 no  
## 16 yes  
## 17 no  
## 18 yes  
## 19 no  
## 20 yes  
## 21 no  
## 22 yes  
## 23 yes  
## 24 yes  
## 25 no  
## 26 yes  
## 27 no  
## 28 no  
## 29 no  
## 30 yes  
## 31 no  
## 32 no  
## 33 no  
## 34 yes  
## 35 no  
## 36 yes  
## 37 no  
## 38 no  
## 39 no  
## 40 yes  
## 41 yes  
## 42 no  
## 43 no  
## 44 yes  
## 45 no  
## 46 yes  
## 47 no  
## 48 no  
## 49 no  
## 50 yes  
## 51 yes  
## 52 yes  
## 53 no  
## 54 yes  
## 55 no  
## 56 yes  
## 57 no  
## 58 no  
## 59 no  
## 60 yes  
## 61 no  
## 62 no  
## 63 no  
## 64 yes  
## 65 yes  
## 66 no  
## 67 yes  
## 68 doubt  
## 69 yes  
## 70 no  
## 71 no  
## 72 yes  
## 73 doubt  
## 74 yes  
## 75 no  
## 76 no  
## 77 no  
## 78 yes  
## 79 no  
## 80 yes  
## 81 no  
## 82 yes  
## 83 no  
## 84 yes  
## 85 no  
## 86 no  
## 87 no  
## 88 yes  
## 89 no  
## 90 yes  
## 91 yes  
## 92 yes  
## 93 yes  
## 94 yes  
## 95 yes  
## 96 no  
## 97 yes  
## 98 yes  
## 99 yes  
## 100 yes  
## 101 no  
## 102 yes  
## 103 yes  
## 104 yes  
## 105 yes  
## 106 yes  
## 107 yes  
## 108 yes  
## 109 no  
## 110 no  
## 111 doubt  
## 112 yes  
## 113 no  
## 114 yes  
## 115 no  
## 116 no  
## 117 no  
## 118 no  
## 119 no  
## 120 yes  
## 121 yes  
## 122 doubt  
## 123 doubt  
## notes\_3  
## 1 nice and clear waves for analysis.  
## 2 nice and clear waves for analysis.  
## 3 1 wave analyzed only  
## 4 2 waves analized nice waves. It was apparently not faster than control?  
## 5 no waves/calcium event in 40 s  
## 6 nicely alignned. Fast decay time but slow speed? Interesting!  
## 7 1 wave analyzed  
## 8 2 waves analized  
## 9 no waves/calcium event in 40 s  
## 10 1 wave analyzed. Wave with EAP followed together  
## 11 2 waves analyzed. nice and clear waves for analysis.  
## 12 2 waves analized  
## 13 1 wave analyzed  
## 14 after ISO, waves were larger and with tau faster but speed did not change. Interesting  
## 15 no waves/calcium event in 40 s  
## 16 \*difficult to analyzed tau decay because followed inmediatly by EAP  
## 17 no waves/calcium event in 40 s  
## 18 2 waves analized  
## 19 no waves/calcium event in 40 s  
## 20 2 waves analized. Short waves followed almost always by EAP  
## 21 no waves/calcium event in 40 s  
## 22 2 waves analized  
## 23 2 waves analized  
## 24 2 waves analized  
## 25 waves segments too small to be analyzed and folllowed by EAP  
## 26 2 waves analized  
## 27 2 waves analized nice waves.  
## 28 no possible to analyze this waves.  
## 29 no waves/calcium event in 40 s  
## 30 1 wave analyzed only  
## 31 no waves/calcium event in 40 s  
## 32 no waves/calcium event in 40 s  
## 33 no wave but just a strong Ectopic AP  
## 34 2 waves analized  
## 35 no waves/calcium event in 40 s  
## 36 pretty high tau in Iso treatment. May be movement artefacts  
## 37 no waves in the whole record  
## 38 no waves in the whole record  
## 39 no waves in the whole record  
## 40 one wave analyzed  
## 41 nice waves. 2 waves analyzed.  
## 42 no waves  
## 43 no Waves  
## 44 <NA>  
## 45 no Waves  
## 46 2 waves analyzed. Ok  
## 47 an EAP event only, no wave possible to calculate  
## 48 no expontaneous calcium event  
## 49 no Waves  
## 50 2 waves analyzed. Nice traces  
## 51 analysis of 2 waves: 1 from file 001 and second from file 002  
## 52 2 waves analyzed. Nice waves  
## 53 no waves/eap  
## 54 nice waves. 2 waves analyzed  
## 55 Wave too short and with movement artefacts? excluded wave for speed/amplitude analysis.  
## 56 Wave 2 no alnalyzed because to short/unclear  
## 57 1 wave analyzed. Signal too low. Removed from kinetics analysis  
## 58 2 waves analized  
## 59 no waves  
## 60 2 waves analized nice waves.  
## 61 no waves/calcium event in 40 s  
## 62 Only EAP trigered by waves events. Waves too short to be analyzed  
## 63 miniwave no taken for analysis  
## 64 nice and clear waves for analysis.  
## 65 1 wave analyzed  
## 66 2 waves analized. Short waves followed almost always by EAP  
## 67 1 wave followed inmediatly by EAP. For kinetcis it was analyzed the EAP region because overlaping events  
## 68 Bad decay phase fit. Do not take the tau value for analysis and only consider the Amplitude  
## 69 1 wave analyzed  
## 70 1 wave analyzed only. Many waves followed by EAPs  
## 71 no waves/calcium event in 40 s  
## 72 2 waves analized  
## 73 2 waves analyzed. Speed value Way too high. But DF/F0 ok  
## 74 2 waves analized  
## 75 no waves/calcium event in 40 s  
## 76 waves segments too small to be analyzed  
## 77 waves segments too small to be analyzed  
## 78 2 waves analized nice waves.  
## 79 no waves/calcium event in 40 s  
## 80 1 wave analyzed  
## 81 no waves/calcium event in 40 s  
## 82 2 waves analized nice waves.  
## 83 no waves/calcium event in 40 s  
## 84 1 wave analyzed  
## 85 no waves/calcium event in 40 s  
## 86 waves segments too small to be analyzed  
## 87 no waves/calcium event in 40 s  
## 88 2 waves analyzed. nice and clear waves for analysis.  
## 89 1 wave analyzed. Short wave followed by EAP . Way too fast  
## 90 2 waves analized  
## 91 2 waves analized  
## 92 2 waves analyzed. nice and clear waves for analysis. But very slow waves  
## 93 2 waves analized  
## 94 2 waves analized nice waves.  
## 95 1 wave analyzed  
## 96 waves segments too small to be analyzed  
## 97 2 waves analized  
## 98 2 waves analized  
## 99 2 waves analized  
## 100 2 waves analized  
## 101 no waves/calcium event in 40 s  
## 102 2 waves analized nice waves.  
## 103 1 wave analyzed  
## 104 2 waves analized  
## 105 2 waves analized  
## 106 2 waves analized nice waves.  
## 107 2 waves analized  
## 108 2 waves analized  
## 109 EAP event  
## 110 no possible to analyse waves. Burts of events  
## 111 average of 2 waves with short segment, cocatenated by EAP and a bit of movement?  
## 112 2 waves analized  
## 113 no waves/calcium event in 40 s  
## 114 2 waves analized nice waves.  
## 115 1 wave analyzed  
## 116 no waves/calcium event in 40 s  
## 117 no apparent efffect on Iso, discarted  
## 118 no waves/calcium event in 40 s  
## 119 no waves/calcium event in 40 s  
## 120 1 wave analyzed only  
## 121 2 waves analized  
## 122 2 waves analized but quite fast. No sure if include it in Analysis.  
## 123 waves segments too small to be analyzed

### Reformatting the dataset, repairing names, etc…