chemselect_cont
selection chem ID from continious discharge data

versions rev := 36

z := 0

time1 := time(z)

Please move presently used file format description to be the last. Only last descriptor will be used by the program.

EVSW format for bq27500 tn := 2 voltage vn := 8 temper ttn := 7 curr in := 14 Number of serial cells Nser := 1
divider vdiv := 1000 divider idiv := 1000

EVSW format for bq27500 tn := 2 voltage vn := 8 temper ttn := 7 curr in := 14 Number of serial cells Nser := 1
divider vdiv := 1000 divider idiv := 1000

Arbin, Columns assignment: time tn := 1 voltage vn := 7 temper ttn := 17 curr in := 6 Number of serial cells Nser := 1
divider vdiv := 1 11 17 divider idiv := 1
ttn := 100

temperature used in simulation of voltage if no temperature is present in file. set ttn=100 if not temperature info present

T := 25 Tpres := T · 10

Tolerance to charging at different from ID data voltages. Increase from 0.03 to 0.1 (10%) if unusual charging voltage was used in the test.

dod_charge_maxdev := 0.1

Common functions and arrays

Fri Jul 20 1:41:02 PM 2012

Data import: load data file

Dont forget to set "Data range" to correct worksheet tab name if using Arbin data!

To skip points, set keepN to number of points you like to keep

$A :=$ READPRN("C:\Users\Chen\Desktop\sluc138bl\sluc138bl_sample.xls")

for z90, cut on 15,
for bq27500 cut on 6,
for Arbin cut on 2

Maximal voltage drop between points, V

$keepN := 40$

$dV := 0.2$

$cols(A) = 18$

$A =$

	0	1
0	"Data_Point"	"Test_Time(s)"
1	1	10.013007
2	2	20.028328
3	3	30.04369
4	4	40.059151
5	5	50.090059
6	6	60.136639
7	7	60.167812
8	8	70.201977
9	9	80.201584
10	10	90.23994
11	11	100.255395
12	12	110.270789
13	13	120.28589
14	14	130.301376
15	15	...

$end := rows(A) - 1$ enable this if nothing has to be cut

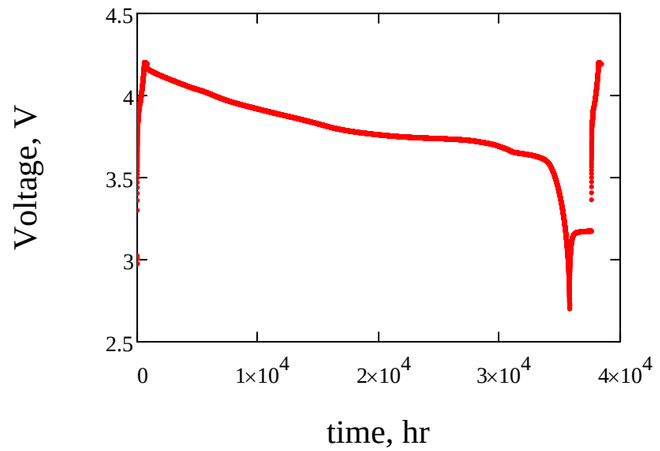
$start := fstart(A)$

$end := start + 27947$ enable this to cut points at the end

$A := submatrix(A, start, end, 0, cols(A) - 1)$

$i := 0 .. rows(A) - 1$

To cut a portion, click on the graph and chose "trace". Click on the point where you want to cut and copy X value into clipboard. Then place it either into
start = fstart(A) + X, or into end = start + X



Click to expand this section and edit it if necessary to adjust for different file format

End load tVIT file

Database

Chemdat will be updated automatically from server. If no internet connection, enter location of chemdat6. Leave empty if located in present directory

dir := ""

chemdat_status = ∎ chemdat_rev = ∎

Chemistry selection processing

Results analysis

Best chemistry ID

Max errors (%) for different chemistries. To be acceptable, best chemistry should have maximal error below 3% and maximal relative resistance deviation below 2. For LiFePO4 acceptable max. error is 10%. LiFePO4 IDs (4xx) should be only used with IT3 or above (for example bq20z4x,bq20z6x, bq30z5x)

Max DOD error % ID Max Ra deviation

bestchem =

maxerr =

Qualification for using generic IDs for bq274xx family. Required Max DOD error less then 5%. Other disqv. column should be zero to qualify.

ID	Chemistry	Max DOD error %	Ra deviation	Other disqv.

generr =