

Jammy Key for Configurational Sampling

| SCRIPT NAME | ARGUMENTS | DESCRIPTION | DEFAULT |
|------------------------------|--|---|---|
| JKCS0_copy | A SA -all | ammonia + sulphuric acid (A,SA,GD,W,H,DMA,TMA,Ar) | default = A SA |
| JKCS1_prepare | -lm 1000 -gen 100 -init 1000 -sc 4 | save 1000 local minima in ABC 100 generations in ABC 1000 initial structures in ABC 4 scout bees in ABC | default = 5000 default = 100 default = 5000 default = 4 |
| JKCS2_runABC | | | |
| JKCS3_runXTB | -sp | just SP calc. ... no optimization | |
| JKCS4_collect | -gibbs [folder] | collect also Gibbs energies analyzed folder | default = 10:00:00 default = XTB |
| JKCS7_filter | [file] -rg 10 -d 15 -dm 4 -s 100 -c3 4 | e.g.: resultsXTB.dat filter out str. with Rg>10 A filter out str. with E>15 kcal/mol -d 4*M, where M=# of molecules uniformly sample 100 str. perform 3D filtering: +column 4 | |
| JKCS5_runDFT | -f [folder] -r [NAME] -m “# wb97xd opt” -p “DLPNO” | name of new folder data from resultsNAME.dat method program (G16,XTB,DLPNO ..) | default = DFT default = XTB default = “# wb97xd 6-31+g* opt” default = G16 |
| sbatch JKsend JKCS6_commands | -m [mailaddress] | mail to sb in job end | |

ADDITIONAL ARGUMENTS FOR ALL JKCS SCRIPTS

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|--------------|---------------------------|------------------------|
| -help | print help | |
| -time | queuing time (10:00:00) | default = 72:00:00 |
| -par | partition (test, longrun) | default = serial |
| -programs | 2 | default = programs.txt |

QUEUEING

| | | | |
|---------------|------------------------|--|----------------------|
| sbatch JKrun | [file(s).com] | file to G16 (<i>file.log cannot exist</i>) | default = `ls *.com` |
| sbatch JKsend | [script.sh or command] | e.g.: echo ‘Hi’ or JKCS1_prepare | |

GAUSSIAN

| | | | |
|-------------|---|---|-------------------------------------|
| JKxyz2com | [file(s).xyz] -method “[method]” -char +1 | xyz file to be converted e.g.: “# HF 6-31+g* opt” charge | default = `ls *.xyz` default = 0 |
| JKlog2com | [file(s).log] | log file(s) to be converted | default = `ls *.log` |
| JKlog2xyz | [file(s).log] -abc | log file(s) to be converted create input for ABCluster | default = `ls *.log` |
| JKgaussstat | [file(s).log] -el -g -d -pol | log file(s) to be analyzed print electronic energy print Gibbs free energy print dipole moment print polarizability | default = `ls *.log` |

XTB

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|-------|---------------------|--------------------|--|
| JKxtb | -opt “-opt char +1” | options of GNF-XTB | |
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