

# DCIF NMR TRAINING SUMMARY

## 400 MHz

### BRUKER DRX "B401" & BRUKER DPX "B400"

last edit 20071101

## TOPSPIN COMMANDS

### Instrument Setup

- |   |                              |
|---|------------------------------|
| 1. Create dataset                       | <b>edc</b> or <b>new</b>     |
| 2. Turn on eject gas                    | <b>ej</b>                    |
| 3. Insert sample and turn off eject gas | <b>ij</b>                    |
| 4. Turn spin gas on at 20 Hz            | <b>ro on</b>                 |
| 5. Open lock display                    | <b>lockdisp</b>              |
| 6. Load bestshim file                   | <b>rsh best</b>              |
| 7. Turn lock on                         | <b>lock</b> & choose solvent |
| 8. Open BSMS display                    | <b>bsmsdisp</b>              |
| 9. Shim sample in BSMS                  |                              |
| 10. Close BSMS                          |                              |

### Experiment Setup and Acquisition

- |   |  |
|---|--|
| 11. Load parameter set ( <i>if not loaded in edc window</i> ) | <b>rpar</b> or <b>rpar *dcif</b>       |
| 12. Load prosol parameters (p1, pl1, etc)                     | <b>getprosol</b>                       |
| 13. Adjust parameters (ns, sw, d1, etc)                       | <b>ased</b>                            |
| 14. Set solvent   | <b>solvent</b>                         |
| 15. Setup console   | <b>ii</b>                              |
| 16. Check tuning  | <b>wobb</b>                            |
| 17. Set receiver gain   | <b>rga</b> or <b>xaua</b> (rga and zg) |
| 18. Start experiment  | <b>zg</b>                              |
| 19. Transfer acquired FIDS                                    | <b>tr</b>                              |
| 20. Add more scans to FID                                     | <b>go</b>                              |

### Data Processing

- |   |             |
|---|-------------|
| 21. Fourier Transform                           | <b>ft</b>   |
| 22. Autophase spectra                           | <b>apk</b>  |
| 23. Stop experiment and save data               | <b>halt</b> |
| 24. Invoke exponential function, FT and phasing | <b>efp</b>  |
| 25. Baseline correction                         | <b>abs</b>  |
| 26. Start calibration menu                      | <b>cal</b>  |
| 27. Start peak picking menu                     | <b>pp</b>   |
| 28. Start integration menu                      | <b>int</b>  |
| 29. Print                                       |             |
| a. print active screen                          | <b>prnt</b> |
| b. open plot editor                             | <b>plot</b> |

### Next Experiment on Same Sample

- |                                     |               |
|-------------------------------------|---------------|
| 30. Increment the experiment number | <b>iexpno</b> |
| 31. Repeat steps 11 -28             |               |

### When Finished

- |                        |  |
|------------------------|--|
| 32. Turn lock off      | <b>lock off</b>                            |
| 33. Turn spin off      | <b>ro off</b>                              |
| 34. Eject sample       | <b>ej</b>                                  |
| 35. Turn off eject gas | <b>ij</b>                                  |
| 36. Exit program       | <b>exit</b>                                |
| 37. Log off computer   | Right click desktop choose <b>[Logout]</b> |
| 38. Sign log book      |  |