

KnowItAll Mass Spectrometry Training

*Vendor Neutral Data Processing
Solution for Spectral Analyses*

WILEY



“Making User Library Using PubChem & MS Interpreter”

James Little

Mass Spec Interpretation Services

Handouts for Videos:

Website: Little Mass Spec and Sailing

<https://littlemsandsailing.wordpress.com>

NOTE: Series of other training videos/handouts for KnowItAll mass spectrometry software on my personal web site.

Sept 18, 2022

Skills Needed from Previous Videos and Handouts

- ProcessIt for obtaining an EI spectrum from a GC-MS file
- SearchIt/MinIt for searching a mass spectrum
- Tips for drawing structures using ChemWindow

NOTE: Internet links to my FREE course on using NIST MS Interpreter can be found in the associated handout for this video

Another Useful Reference on Databases

Quick Reference Guide



KnowItAll
Analytical Edition

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How to Use KnowItAll Mass
Spectrometry Applications

NOTE: Link to Quick Reference Guide found on my personal website

File Used for Demonstration

File supplied with AMDIS NIST Software in their Tutorial Folder

EAI008.D

Open

Look in: TUTORIAL

| | Date modified |
|---------------------|---------------|
| Recent Items | |
| Desktop | 9/16/2022 1 |
| Network | |
| Libraries | |
| James Little | 9/16/2022 1 |
| OneDrive - Personal | |
| This PC | 9/16/2022 1 |
| Downloads | 9/16/2022 1 |
| Desktop | 9/16/2022 1 |
| Documents | 9/16/2022 1 |
| Music | 10/19/2004 |
| Videos | 10/12/2004 |
| Pictures | |
| Windows (C:) | 9/16/2005 1 |
| NIST | |
| AMDIS32 | 10/12/2004 |
| TUTORIAL | 10/12/2004 |
| libs | |
| temp | |

File name:

Files of type: All Files (*.*)

Imported spectrum is

- 1ul of DMMP, DEMP, DIMP, & HCB

Data is 2D, only the TIC is shown.

min

Encoding: <default>

Process for Creating User Library (Database)

- Create a user library (database) in Minelt
- Obtain a spectrum for first entry using ProcessIt
- Transfer to Minelt
- Draw a structure in ChemWindow
- Transfer to Minelt and add to first record
- Check quality of spectrum using NIST MS interpreter in MinelT
- Add any fields of interest using PubChem option in Minelt
- Add a comment field
- Continue process to add a second record
- Check by picking one of the entries added and search

Training for NIST MS Interpreter to Understand EI Fragmentation

- The use of MS Interpreter can be found in links shown below
- Will take a little effort on user to become proficient

Links to References (click on them)

- [video tutorial](#)
- [handout for video tutorial](#)
- [other useful references](#)

Other Training of Newly Released Wiley KnowItAll Mass Spec Software on My Website

James Little

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<https://littlesandsailing.wordpress.com>