PROTOCOL

1. At the end of an ITC experiment the user will initially integrate the heat released or absorbed in each injection.

2. Following integration, a text file should be saved in ASCII format containing data series for the injection volume (V_i), macromolecule concentration (M_T), molar ratio (X_T/M_T), and heat of injection (ndh). E.g., 15C.DAT, 20C.DAT, 25C.DAT, 30C.DAT, 35C.DAT

3. The files generated in step 2, along with the active cell volume (V_0), syringe concentration of ligand (X_0), experiment temperature (T) and number of points to exclude (npd) are used as inputs into the Matlab fitting macro (Fcn_Fit_Cp_Ndil.m). These above-mentioned values are read from a text file written in a tab separated format:

File_name.DAT   T   V0   X0   npd

E.g. Listfile.txt,

```
15C.DAT              288      1427.47          0.3       2
20C.DAT              293      1427.47          0.3       1
25C.DAT              298      1427.47          0.3       1
30C.DAT              303      1427.47          0.3       2
35C.DAT              308      1427.47          0.3       1
```

Global Fitting

Syntax: Fcn_Fit_Cp_Ndil('list_file_text_format_from_step_3')

Example MATLAB command: `Fcn_Fit_Cp_Ndil('Listfile.txt')`

INPUTS:

   list_file_text_format_from_step_3: filename from step 3 ['Listfile.txt']

OUTPUTS:

   Fit.xxxxxxx.dat: Tab separated file containing: X_T/M_T, Fit, ndh
                 where xxxxxxx is the input DAT files
   OutputParSumm.txt: Text file containing $\Delta\varphi Cp$, $\Delta xH°$ and $\Delta xS°$ along with errors