********** Notes for GtfO2 and SpfO2 **********

These programs are simple and should be relatively obvious
even for the new user. The main steps involved are:

1) Create an input file; this may be done with your
favourite text editor.
The data file consists firstly of a line of 11 oxides (these
and ONLY these 11 are accepted currently, although
they can be placed in any order on the first line of the
data file - see the example below). Save it with a .txt
extension.

Each analysis is entered as a set of 5 of lines, the first
of which gives the rock title. The second line gives the
rock's assumed P and T (in kbar and deg C). The next three
lines give the oxide wt% values, in the SAME order as the
oxide names in the list at the top of the file, for spinel,
opx, and olivine for SpfO2. (Or gt, opx, ol for GtfO2). The
line must end with the phase name (g, sp, ol, opx).
Data must be as a space-delimited text file, and the
file is termnated with an asterisk.

An example for SpfO2 follows:

```
SiO2 TiO2 Al2O3 Cr2O3 Fe2O3 FeO MnO MgO CaO Na2O K2O
314-56
16.7 858
0.02 0.08 59.58 7.71 1.67 10.04 0.00 20.53 0.00 0.00 0.00 sp
55.27 0.17 5.06 0.34 0.00 6.69 0.00 32.86 0.46 0.04 0.00 opx
41.64 0.00 0.00 0.00 0.00 10.47 0.00 48.93 0.01 0.00 0.00 ol
*
```

and an example for the GtfO2 program follows:

```
SiO2 TiO2 Al2O3 Cr2O3 Fe2O3 FeO MnO MgO CaO Na2O K2O
F1
51.1 1153.4
42.48 0.35 20.66 3.39 0.62 6.97 0.33 21.42 4.77 0.06 0.00 g
58.11 0.07 0.64 0.21 0.00 5.29 0.13 35.50 0.71 0.17 0.00 opx
40.84 0.00 0.00 0.00 0.00 8.44 0.10 49.95 0.04 0.00 0.00 ol
*
```

2) Run the program. Double click the icon, and the opening
window panel is displayed, which allows you to run the
program. You may tick the checkbox for original Gudmundson
& Wood method (GtfO2) or Bryndzia & Wood method (SpfO2) if
you wish to use the earlier calibrations. Leave the boxes
unchecked to use the new calibration of Miller et al 2016.

When you hit the RUN button, you will be prompted to
navigate to your input file. You may use the example input
files provided to see how the program works.

Results will appear in the window as well as in an output file.
64-bit and 32-bit Linux versions provided

n.b.

For olivine all Fe should be entered as FeO with zero
entered for Fe2O3.

For opx, zero Fe2O3 will be the normal input and a default
value of 0.4wt% Fe2O3 will be allocated by the program.
If a non-zero Fe2O3 value for opx is entered, the default
(0.4wt% Fe2O3) is overridden by the user input value. Be sure
your reasons for overriding this are valid. Caveat emptor!

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