This Script, HirschmannZhangFePt2023Fig4Calc.m, calculates Figure 4 from

Hirschmann, M.M., Zhang, H.L. (2023) A revised model for activity-composition relations in solid and molten FePt alloys and a preliminary high pressure model for characterization of oxygen fugacity in high pressure experiments. European Journal of Mineralogy.

The script was written under Matlab version 2022b.

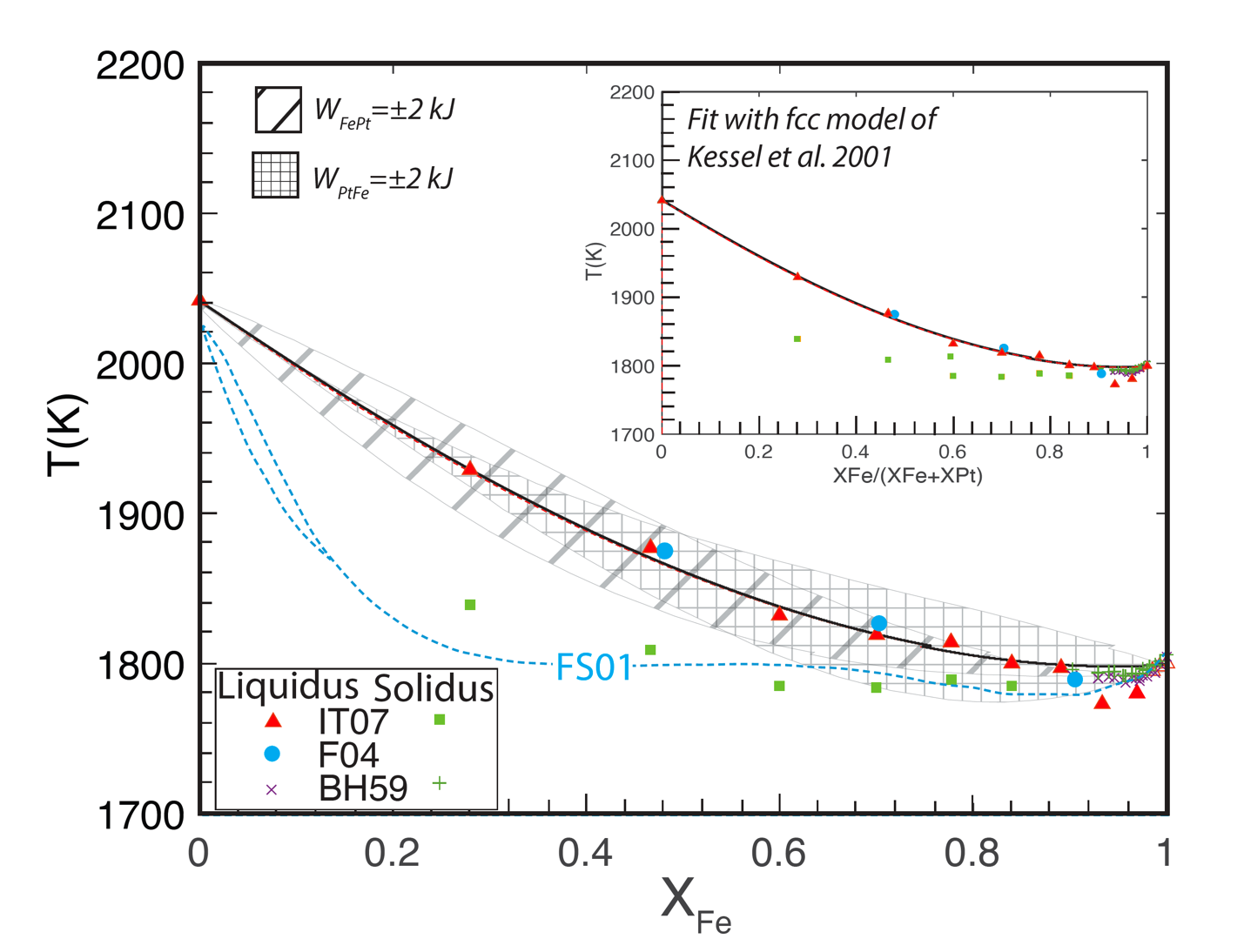
On execution, you will be prompted to select either the “new” model (Hirschmann&Zhang) or Kessel et al. (2001) for solid FePt, and the script will select the matching liquid FePt model (see Table 2).

The script will also ask you if you want to calculate the diagram at high or low resolution. Low resolution is choppy and doesn’t look so great. High resolution looks much better, but takes a long time to calculate.

The output will be a plot with the phase diagram.

The script requires the accompanying data file SGTEIronPlatinum.xlsx.

*mmh August, 2023*

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