



- Step 1** Parse thermochemical database (set of Gibbs energy description per each phase) by *read_dat()* function.
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- Step 2** Define a python dictionary of input conditions which includes element name and composition (N), temperature (T), and pressure (P). By default, all relevant phases in the database will be considered. Optionally, users may pass a list of phases. The list of phases must be a subset of phases obtained by *list_phases()* function.
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- Step 3** Calculate phase equilibrium calculations by using *equilib()* function or Scheil-Gulliver cooling calculations by *scheil_cooling()* function.
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- Step 4** Output is a Result or ResultScheil object, which includes *.to_dict()* class method to transform the data into a dictionary.