Enumerate all possible equilibria of p=c+1 phases.

Test stability of each equilibrium.

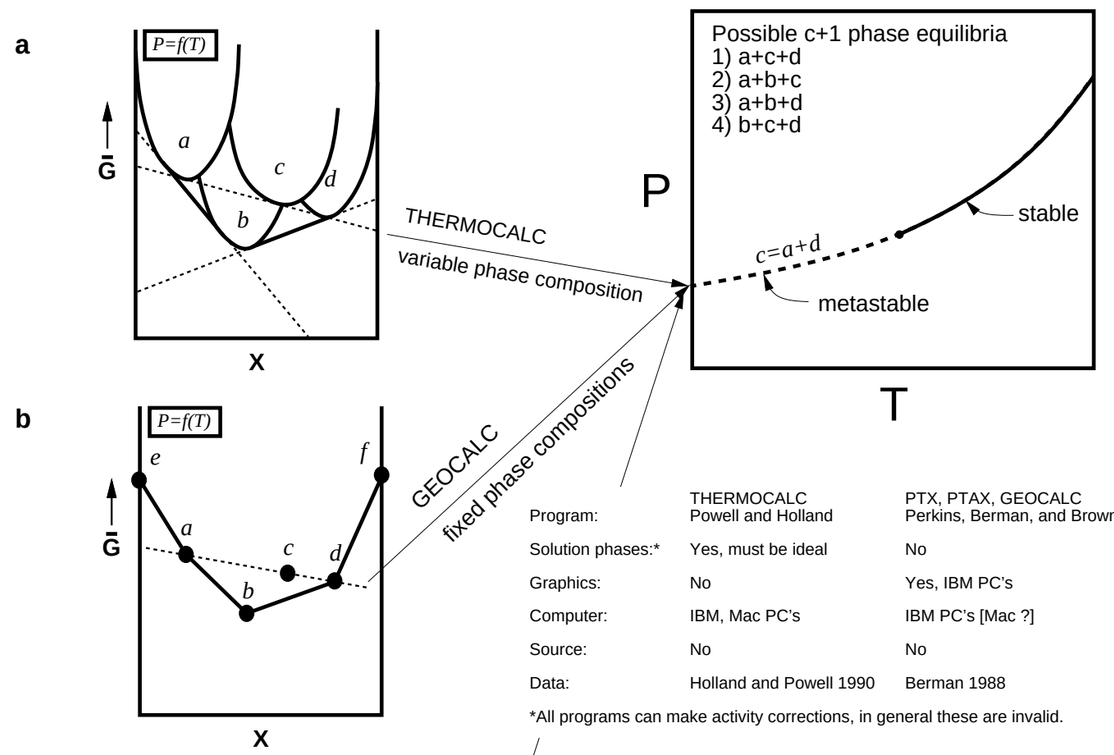
Disadvantages:

Inefficient, e.g. CASHC ca 300 000 000 equilibria.

Incomplete phase diagram, i.e., p<c+1 phase fields are unknown.

Figure 9

Combinatorial Phase Diagram Projection Methods

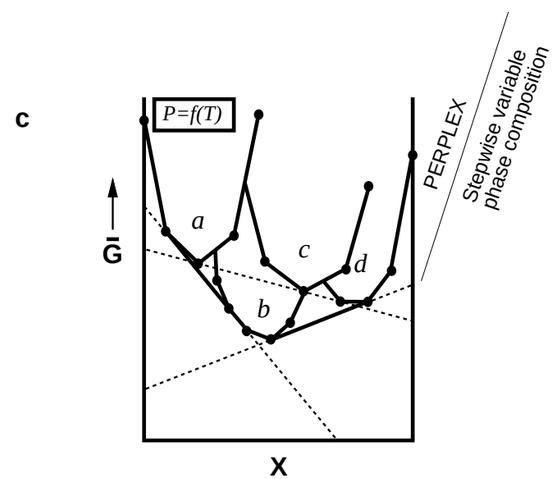


Program:	THERMOCALC Powell and Holland	PTX, PTAX, GEOCALC Perkins, Berman, and Brown
Solution phases:*	Yes, must be ideal	No
Graphics:	No	Yes, IBM PC's
Computer:	IBM, Mac PC's	IBM PC's [Mac ?]
Source:	No	No
Data:	Holland and Powell 1990	Berman 1988

*All programs can make activity corrections, in general these are invalid.

Infeasible for most problems, implemented by Powell and Holland (1990) for c+1 phase equilibria involving ideal solution models (Schreinemakers projections).

Non-combinatorial Phase Diagram Calculation



There are no restrictions on the solution models, computers, or data sources used for PERPLEX.