

Table 14.2 Comparison of thermodynamic software used for modelling of hypersaline solutions.

No.	Software model	Aspen plus	Fact Sage	HSC chemistry	MINTEQ	PHREEQC	OLI stream analyzer
i	Solid-liquid equilibria	Yes	Yes	Yes	Yes	Yes	Yes
ii	Concentration range	6M	6M?	6M?	1M (dilute aqueous streams)	Dilute	6M
iii	Temperature range	-263 °C to 200 °C	>0 °C	-269 °C to 300 °C	0 °C to 99.99 °C	25 °C	-200 °C to 225 °C
iv	Comprehensive databank (low temp. Hydrates)	No	Yes	Yes	No	No	Yes
v	Use as an electro-neutrality reconciliation tool	No	Yes	No	Yes	No	Yes
vi	Use as a predictive tool	Yes	No	No	Yes	No	Yes
vii	Convergence	Depends on complexity of stream	Fast	Depends on complexity	Fast	Depends on complexity	Fast
viii	User friendly interface/ debugger	Yes	Yes	No	No	Yes	Yes
ix	Ease of input	Complex	Simple	Complex	Complex	Simple	Simple