Thermo-Calc Software

Database name:	TCS Si- alloys Mobility Database
Database acronym:	MOBSI
Database version:	1.0
Database owner:	Thermo-Calc Software AB
Database segment:	Silicon-based alloys

Brief description

MOBSI1 is a kinetic database developed for calculating self and impurity diffusivities in both solid and liquid Si. Coupled together with TCSI, diffusion phenomena can be simulated by using DICTRA or TC-PRISMA for the production of solar grade cell Si.

Applications

Solar grade silicon materials

Included Elements (28)

Ag	Al	As	Au	B	Bi	C	Co	Cr	Cu	Fe	Ga	Ge	In
Li	Mn	N	Ni	O	P	S	Sb	Si	Sn	Te	Ti	V	Zn

Included Phases (84)

Diamond_A4   Liquid

Please note that apart from the above phases for which diffusion data are included in the database, other phases may also be included in a DICTRA simulation. However, these phases will be treated as so-called diffusion "NONE", i.e. there will be no diffusion considered in such phases. Phases which are not listed above will automatically be entered as diffusion "NONE" in DICTRA, provided a thermodynamic description for such phases has been retrieved prior to reading data from the mobility database.

Assessed Systems

All data are critically assessed except for that of some elements in liquid Si. For unassessed data, empirical rules have been used for estimation.

Scientific Models & References

See the Thermo-Calc Software reference list available at: http://www.thermocalc.com/resources/