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**TTZR1: ThermoTech Zr-based Alloys Database**

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*Database name:* ThermoTech Zr-based Alloys Database      *Database acronym:* TTZR

*Database owner:* ThermoTech      *Database version:* 1.0

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TTZR1 is suitable database for calculation of phase equilibria in multicomponent Zr-based alloys.

**Included Elements (12)**

C   Cr   Fe   H   Hf   N   Nb   Ni   O   Si   Sn   Zr

**Included Phases**

A5B3	LAVES	ZR2SI	ZR4SN	ZRSN2
ALPHA	LIQUID	ZR3FE	ZR5FE4NB	
BETA	MH2	ZR3SI	ZR7FESN2	
C15_FCC	ZR2M	ZR3SI2	ZRCN	

**Assessed Systems**

All phases have been critically assessed and treated by some appropriate thermodynamic models (e.g. the Sublattice Model for solid solutions and liquid mixture phases), which are applicable over a wide temperature-pressure-composition range.

**Limits**

As in the spirit of the CALPHAD method, predictions can be made for multicomponent systems by extrapolation into multicomponent space of data critically evaluated and assessed based on binary, ternary and in some cases higher order systems. However, critical calculations must always be verified by equilibrium experimental data; it is the user's responsibility to verify the calculations but Thermo-Calc Software AB is interested to know about any significant deviations in order to improve any future release.