

Publication	Name in PySulfSat	T-sens?	P-sens?	H <sub>2</sub> O-sens?	Redox sensitive?	Sulfide comp?
SCAS models						
Chowdhury & Dasgupta (2019)	"calculate_CD2019_SCAS"	✓	✗	✓	✗	✗
Zajacz & Tsay (2019)	"calculate_ZT2022_SCAS"	✓	✗	✓	✗	✗
SCSS models						
Li and Zhang (2022)	"calculate_LZ2022_SCSS"	✓	✓	✓	✓	✓
O'Neill (2021)	"calculate_O2021_SCSS"	✓	✓	✗	✓	✓
Smythe et al. (2017)	"calculate_S2017_SCSS"	✓	✓	✗	✓	✓
Fortin et al. (2015)	"calculate_F2015_SCSS"	✓	✓	✓	✗	✗
Sulfide composition models						
O'Neill (2021)	"Calc_ONeill"	✗	✗	✗	✓	
Smythe et al. (2017) adaptation of Kiseeva et al. (2015) method	"Calc_Smythe"	✓	✗	✗	✓	
S6+ Correction/ SCSS total corrections						
Jugo et al. (2010)	"calculate_S6St_Jugo2010"	✗	✗	✗	✓	✗
Nash et al. (2019)	"calculate_S6St_Nash2019"	✓	✗	✗	✓	✗

## Other functions

"calculate_SCSS_Total"	Calculates S total for a S6St_Liq ratio, and a calculated SCSS value
"calculate_S_Tot_Kleinsasser2022_dacite"	Calculates S tot for an entered deltaFMQ value, and either a calculated SCSS2 or SCAS value
"crystallize_S_incomp"	Calculates S left in the melt for a given F_melt, assuming S is entirely incompatible
"calculate_mass_frac_sulf"	Calculates mass fraction of sulfide/sulfate removed for a fractional crystallization path where the SCSS or SCAS is modelled