

DDBSP 2019

Educational Version

Feature Matrix

DDBSP - Dortmund Data Bank Software Package



DDBST

Dortmund Data Bank
Software & Separation
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	Educational Basic		Educational Professional		DDBSP Full Version	
Retrieval						
Search, table, plot, print, data export	•		•		•	
Prediction						
Predict g^E models (NRTL, Wilson, UNIQUAC)	○ ¹		•		•	
Predict group contribution (UNIFAC, Mod. UNIFAC (Dortmund), ASOG)	○ ¹		•		•	
Predict EOS (PSRK, VTPR)	○ ¹		•		•	
Predict COSMO-RS, COSMO-SAC	○ ¹		•		•	
Predict with Aspen (VLE, LLE, h^E , v^E , cp^E , γ^∞)	○ ¹		•		•	
Predict with PRO/II, UniSim Design, Simulis Thermodynamics (VLE, LLE)	○ ¹		•		•	
Flash EOS (PSRK, VTPR, several mixing rules)					•	
Regression						
Simple fit g^E – temperature independent (NRTL, Wilson, UNIQUAC)	•		•		•	
Fit EOS – temperature dependent (several mixing rules and alpha functions)	○ ²		○ ²		•	
Extended fit PCP			○ ³		•	
RecPar (simultaneous correlation of temperature dependent parameters for g^E models)	○ ⁴		○ ⁵		•	
Pure Component Property Estimation with Group Contribution (GC) Models from Structures						
Artist (structure editor)	•		•		•	
Structures (components)	750		61,200		61,200	
GC models / properties	27	24	27	24	103	52
Process Synthesis						
Azeotropic point prediction, contour lines, residual curves					•	
Entrainer Selection					•	
Private Data Management						
Literature	•		•		•	
Components, Structures	•		•		•	
Mixture / Pure Component Data			•		•	
Included Parameters						
Antoine Constants (components)	30		6,840		6,840	
Included Experimental Data (DDB)						
Pure Component Data (components)	30		30		48,700	
Data Sets (all properties)	82,700		82,700		1,113,800	
Data Points (all properties)	600,500		600,500		8,323,700	
Systems (all mixture properties)	1040		1040		164,600	

¹for the included 30 components only²Redlich-Kwong EOS regression only³for selected properties and equations including Wagner 2-5, DIPPR 101, 102, 104, 105 and 106⁴3-Suffix-Margules regression only⁵NRTL, Wilson, UNIQUAC regression only