

DDBSP 2020

Educational Version

Feature Matrix

DDBSP - Dortmund Data Bank Software Package



DDBST

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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		67,800		67,800	
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		50,300	
Data Sets (all properties)	84,400		84,400		1,162,500	
Data Points (all properties)	614,500		614,500		8,765,400	
Systems (all mixture properties)	1045		1045		172,000	

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