

Table S1. Correlation matrix ( $R^2$  values).

	D <sub>1</sub>	D <sub>2</sub>	D <sub>3</sub>	D <sub>4</sub>	D <sub>5</sub>	D <sub>6</sub>	D <sub>7</sub>	D <sub>8</sub>	D <sub>9</sub>	D <sub>10</sub>	D <sub>11</sub>	D <sub>12</sub>	D <sub>13</sub>	D <sub>14</sub>
D <sub>1</sub>	1.00													
D <sub>2</sub>	0.99	1.00												
D <sub>3</sub>	0.89	0.86	1.00											
D <sub>4</sub>	0.00	0.00	0.00	1.00										
D <sub>5</sub>	0.03	0.01	0.00	0.01	1.00									
D <sub>6</sub>	0.40	0.43	0.31	0.15	0.00	1.00								
D <sub>7</sub>	0.41	0.46	0.38	0.05	0.05	0.44	1.00							
D <sub>8</sub>	0.04	0.07	0.04	0.04	0.25	0.16	0.64	1.00						
D <sub>9</sub>	0.10	0.07	0.02	0.03	0.56	0.01	0.01	0.20	1.00					
D <sub>10</sub>	0.13	0.09	0.04	0.02	0.57	0.01	0.00	0.18	0.97	1.00				
D <sub>11</sub>	0.00	0.01	0.02	0.04	0.81	0.03	0.13	0.37	0.60	0.59	1.00			
D <sub>12</sub>	0.03	0.01	0.00	0.02	0.85	0.00	0.05	0.31	0.74	0.75	0.87	1.00		
D <sub>13</sub>	0.00	0.00	0.03	0.03	0.81	0.00	0.12	0.36	0.53	0.47	0.77	0.74	1.00	
D <sub>14</sub>	0.64	0.59	0.61	0.03	0.02	0.42	0.13	0.00	0.02	0.02	0.00	0.01	0.01	1.00

Table S2. Descriptor intercorrelations ( $R^2$  values)

Equation (table/number)	Descriptors			
	D <sub>1</sub>	D <sub>5</sub>		
2-2	0.026	0.026		
2-3	D <sub>3</sub>	D <sub>9</sub>	D <sub>8</sub>	
	0.113	0.255	0.273	
2-4	D <sub>14</sub>	D <sub>12</sub>	D <sub>10</sub>	D <sub>7</sub>
	0.161	0.793	0.781	0.269
3-2	D <sub>6</sub>	D <sub>13</sub>		
	0.002	0.002		
3-3	D <sub>5</sub>	D <sub>6</sub>	D <sub>4</sub>	
	0.014	0.157	0.162	

## Description for Tables S1 and S2

- D<sub>1</sub> - Structural Information content (order 0)
- D<sub>2</sub> - Bonding Information content (order 0)
- D<sub>3</sub> - Structural Information content (order 1)
- D<sub>4</sub> - Molecular volume / XYZ Box
- D<sub>5</sub> - HACA-1 [Zefirov's PC]
- D<sub>6</sub> - Min net atomic charge
- D<sub>7</sub> - Tot dipole of the molecule
- D<sub>8</sub> - Image of the Onsager-Kirkwood solvation energy
- D<sub>9</sub> - HASA H-acceptors surface area [Semi-MO PC]
- D<sub>10</sub> - HBSA H-bonding surface area [Semi-MO PC]
- D<sub>11</sub> - HA dependent HDSA-1/TMSA [Semi-MO PC]
- D<sub>12</sub> - HACA-2/TMSA [Semi-MO PC]
- D<sub>13</sub> - RT:1 number of H-acceptors
- D<sub>14</sub> - CSA-2 of H atoms