b3lyp/6-311++G(d,p) optimized geometries

****

C2H4...OH

H	0.000000	0.000000	1.245295
C	0.000000	0.665622	-1.189370
C	0.000000	-0.665622	-1.189370
O	0.000000	0.000000	2.225927
H	-0.922700	1.236884	-1.195070
H	0.922700	1.236884	-1.195070
H	-0.922700	-1.236884	-1.195070
H	0.922700	-1.236884	-1.195070

****

RCO=2.2 constrained optimization <-> saddle point; C1

C	1.156044	-0.470075	-0.032327
C	0.514093	0.718281	0.031983
O	-1.504068	-0.150893	-0.075543
H	1.339278	-0.960265	-0.980993
H	1.476080	-0.991559	0.863521
H	0.369864	1.232410	0.973875
H	0.260352	1.269196	-0.863446
H	-1.433846	-0.831872	0.613454

****

RCO=2.2 constrained optimization <-> saddle point; tau=0

C	-1.238325	0.320877	0.000000
C	0.000000	0.863807	0.000000
O	1.184121	-0.990339	0.000000
H	-1.752013	0.082909	0.925037
H	-1.752013	0.082909	-0.925037
H	0.482836	1.162236	-0.920922
H	0.482836	1.162236	0.920922
H	0.495336	-1.675686	0.000000

****

RCO=2.2 constrained optimization <-> saddle point; tau=180

C	-1.256791	0.337005	0.000000
C	0.000000	0.836751	0.000000
O	1.029416	-1.107549	0.000000
H	-1.767190	0.097253	0.925312
H	-1.767190	0.097253	-0.925312
H	0.473573	1.142239	-0.924836
H	0.473573	1.142239	0.924836
H	1.892654	-0.661131	0.000000

****

C2H4OH; C1

C	-1.236811	-0.270398	-0.009204
C	0.006284	0.539321	0.033059
O	1.196171	-0.257389	0.041016
H	-1.300253	-1.183470	0.571375
H	-2.130111	0.100560	-0.496721
H	0.024568	1.260684	-0.796105
H	0.064775	1.127215	0.960098
H	1.154815	-0.859416	-0.709904

****

C2H4OH; tau=0

C	-1.232887	-0.259131	0.000000
C	0.000000	0.567658	0.000000
O	1.211925	-0.235720	0.000000
H	-1.669178	-0.607495	0.928977

H	-1.669178	-0.607495	-0.928977
H	0.041096	1.206937	-0.886968
H	0.041096	1.206937	0.886968
H	0.958086	-1.164286	0.000000

****

C2H4OH; tau=180

C	-1.264181	-0.241713	0.000000
C	0.000000	0.537706	0.000000
O	1.116430	-0.383034	0.000000
H	-1.688213	-0.601374	0.929210
H	-1.688213	-0.601374	-0.929210
H	0.050118	1.178674	-0.889585
H	0.050118	1.178674	0.889585
H	1.929841	0.133720	0.000000