pi	nu 0	e	h bar	m sub e	a0	c	mp
3.1415927E+00	1.2566371E-06	1.6021892E-19	1.0545888E-34	9.1095345E-31	5.2917706E-11	2.9979246E+08	1.6726486E-27
	epsilon 0	uB	eV/cm^-1		aH		md
	8.85E-12	9.27E-24	0.000123985		5.29465E-11		3.3435860E-27
			re	r C	aD		
			1.111 Å	1.20654	5.29321E-11		
a (m)	b (m)	c' (m)	2c' (m)	eccentricity	R of sp3		
8.67903E-11	6.68635E-11	5.53338E-11	1.10668E-10	0.63756	0.91771432		
1.64010	1.26354	1.04566	2.09132				
0.91771432							
1.83542864							
0.666666667							
	Ve (eV)	Vp (eV)	T (eV)	Vm (eV)	Et (eV)		
Evib CH2 (cm^-1)	-72.03287	26.02344	21.95990	-10.97995	-49.66437	E of sp3	
2865.86						14.63489	
Evib CH2 (eV)					-49.66493	E of H(a0)	
0.35532					match 2XH2+H	13.605804	
	C2c						
	w (s-1)	EK (eV)					
	2.52077E+16	16.59214					
		2XCH2 Eocs (eV)			Emag		
		0.15454			0.14803		
	EDoppler (eV)	CH2 Eocs (eV)	CH2 ET (eV)	CH2 ED (eV)	ED (kcal/mole)	Rel. Error	
	0.25493	0.07727	49.81948	4.36968	100.76879	-0.00901	
cm-1/eV							
1.239810E-04							
kcal/mole/eV			angle of intersection				
4.336340E-02			0.09523064				
kJ/mole/eV			1.475421157				
0.010364101			84.54				
		theta C	95.46				
			1.666171496				
			0.723004453				
Do H-CH3			0.808141445				
103.42		theta H2 MO	46.30				
432.70928		dH2 MO	1.13305	5.99585E-11			
4.48464		dC AO	0.08739	4.62472E-12			
ET CH4							
-86.03837							
Do H-CH2							
108.95							
455.8468							
4.72444							
ET CH3							
-67.95529							
Do H-CH							
417.85							
4.33064							
ET CH2							
-49.63241							
Do H-C	Do D-C						
3.47	3.52						
ET CH	ET CD						
-31.70333	-28.3833						