Percent Differences - Optimum Expansion

Oxidizer	Fuel	I_{opt}	r	T_c	d	C*
LOX	H_2	0.07%	-	0.53%	0.09%	0.13%
	H_2Be	0.90%	-	0.78%	253.35%	0.93%
	CH_4	0.15%	-	0.33%	18.42%	0.13%
	C_2H_6	0.09%	-	0.24%	1.90%	0.13%
	C_2H_4	3.44%	-	0.19%	1.90%	1.53%
	RP-1	0.16%	-	0.28%	0.57%	0.24%
	N_2H_4	0.06%	-	0.18%	1.54%	0.05%
	B_5H_9	0.36%	-	0.03%	2.44%	0.48%
	B_2H_6	0.37%	-	0.35%	1.14%	0.34%
	CH_4&H_2	0.90%	-	0.37%	2.85%	0.71%
	CH_3OH	0.08%	-	0.19%	0.15%	0.07%
	C_2H_5OH	0.07%	-	0.18%	0.59%	0.05%
GOX	CH_4	0.50%	-	0.57%	-	0.40%
	GH_2	0.05%	-	0.34%	-	0.12%

Percent Differences - Vacuum Expansion

Oxidizer	Fuel	I_{vac}	r	T_c	d	C*
LOX	H_2	0.05%	-	8.06%	9.45%	1.14%
	H_2Be	0.04%	-	1.19%	238.63%	1.53%
	CH_4	0.10%	-	5.43%	17.00%	0.88%
	C_2H_6	0.07%	-	5.41%	0.78%	0.74%
	C_2H_4	0.08%	-	5.50%	0.75%	0.90%
	RP-1	0.14%	-	5.43%	0.57%	0.65%
	N_2H_4	0.05%	-	6.08%	5.28%	0.57%
	B_5H_9	0.32%	-	5.24%	2.44%	0.43%
	B_2H_6	0.57%	-	5.46%	0.21%	0.42%
	CH_4&H_2	0.11%	-	5.58%	1.42%	1.01%
	CH_3OH	0.20%	-	5.30%	0.15%	0.20%
	C_2H_5OH	0.04%	-	5.17%	0.59%	0.55%
GOX	CH_4	0.35%	-	7.35%	-	0.88%
	GH_2	3.69%	-	19.39%	-	1.13%

OPTIMUM EXPANSION, P_c = 1000 psia -> P_e = 14.7 psia

Oxidizer	Fuel	I_{opt}	r	T_c	d	C*
LOX	H_2	389.1	4.13	4938	0.29	7917
	H_2Be	454.9	0.87	4672	0.81	9207
	CH_4	309.2	3.21	5880	0.97	6083
	C_2H_6	306.4	2.89	5994	0.92	6030
	C_2H_4	300.8	2.38	6295	0.90	6056
	RP-1	299.6	2.58	6140	1.02	5888
	N_2H_4	312.4	0.93	5661	1.06	6189
	B_5H_9	317.7	2.12	6935	0.90	6188
	B_2H_6	343.2	1.96	6334	0.75	6719
	CH_4&H_2	321.9	3.36	5852	0.73	6343
	CH_3OH	283.9	1.36	5443	0.96	5556
	C_2H_5OH	289.3	1.80	5729	0.98	5658
GOX	CH_4	315.8	3.10	5922	0.00	6217
	GH_2	407.7	3.29	4653	0.00	8356

VACUUM EXPANSION, P_c = 1000 psia -> ε = 40

Oxidizer	Fuel	I_{vac}	r	T_c	d	C*
LOX	H_2	455.1	4.83	4957	0.29	7917
	H_2Be	540.1	0.91	4636	0.81	9207
	CH_4	368.5	3.45	5631	0.97	6083
	C_2H_6	365.5	3.10	5736	0.92	6030
	C_2H_4	370.6	2.59	6019	0.90	6140
	RP-1	357.7	2.77	5866	1.02	5888
	N_2H_4	369.9	0.98	5337	1.06	6189
	B_5H_9	382.3	2.16	6619	0.90	6188
	B_2H_6	407.5	2.06	6093	0.75	6661
	CH_4&H_2	379.1	3.63	5617	0.73	6287
	CH_3OH	339.3	1.40	5174	0.96	5556
	C_2H_5OH	346.1	1.90	5461	0.98	5658
GOX	CH_4	373.2	3.40	5592	0.00	6171
	GH_2	474.6	3.92	4179	0.00	8356

optimum expansion, Pc = 1000 psia -> Pe = 14.7 psia

oxidizer	fuel	Iopt	r	Tc	d	C*
LOX	H2	389.4	4.13	4964	0.29	7927
	H2Be	459	0.87	4636	0.23	9293
	CH4	309.6	3.21	5900	0.82	6091
	C2H6	306.7	2.89	6008	0.9	6038
	C2H4	311.5	2.38	6307	0.88	6150
	RP-1	300.1	2.58	6157	1.03	5902
	N2H4	312.6	0.93	5671	1.08	6192
	B5H9	318.8	2.12	6933	0.92	6218
	B2H6	341.9	1.96	6312	0.74	6696
	CH4 H2	319	3.36	5873	0.71	6298
	CH3OH	284.1	1.36	5453	0.96	5560
	C2H5OH	289.5	1.8	5739	0.99	5661
GOX	CH4	314.2	3.1	5956	-	6192
	GH2	407.9	3.29	4669	-	8366

vacuum expansion, Pc = 1000 psia -> e = 40

oxidizer	fuel	Iopt	r	Tc	d	C*
LOX	H2	455.3	4.83	5392	0.32	7828
	H2Be	540.3	0.91	4692	0.24	9350
	CH4	368.9	3.45	5954	0.83	6030
	C2H6	365.7	3.1	6064	0.91	5986
	C2H4	370.9	2.59	6370	0.89	6085
	RP-1	358.2	2.77	6202	1.03	5850
	N2H4	370.1	0.98	5683	1.01	6154
	B5H9	383.5	2.16	6985	0.92	6215
	B2H6	409.8	2.06	6445	0.75	6689
	CH4 H2	379.5	3.63	5949	0.72	6224
	CH3OH	340	1.4	5464	0.96	5545
	C2H5OH	346.2	1.9	5759	0.99	5627
GOX	CH4	374.5	3.4	6036	-	6117
	GH2	457.7	3.92	5184	-	8263