

PROPELLANT	HF	DENSITY	WEIGHT	MOLES	VOLUME
GRAPHITE	.0000	1.8000	.1500	.0125	.0833
SULFUR	.0000	2.0460	.1000	.0031	.0489
KN	-117.7600	2.1000	.7500	.0074	.3571

GRAM ATOMS/100 GRAMS
O 2.2254 N .7418 C 1.2488 K .7418 S .3119

ENTHALPY = -87.35309 DENSITY =2.044

	CHAMBER	EXH(SHIFT)
PRESSURE (PSIA)	100.000	14.700
EPSILON	.000	.000
ISP	.000	94.882
ISP (VACUUM)	.000	117.342
TEMPERATURE (K)	1841.403	1548.592
MOLECULAR WEIGHT	61.792	62.827
MOLES GAS/100G	1.618	1.592
CF	.000	.000
PEAE/M (SECONDS)	.000	22.460
GAMMA	1.127	1.126
HEAT CAP (CAL)	28.567	28.242
ENTROPY (CAL)	133.586	133.585
ENTHALPY (KCAL)	-87.353	-97.695
DENSITY (G/CC)	2.78270E-03	4.94550E-04
ITERATIONS	32	8

MOLES/100 GRAMS

N2	.37089	.37089
CO	.46138	.37730
CO2	.73348	.81948
K	.03918	.02093
K2	.00003	.00000
S2	.00091	.00023
COS	.00097	.00044
K2SO4	.00070	.00022
OS	.00063	.00007
OS2	.00004	.00000
O2S	.01011	.00211
S	.00002	.00000
CK2O3(L)	.05301	.05163
K2SO4(L)	.02833	.01215
K2S(L)	.26923	.29642

PROPELLANT	HF	DENSITY	WEIGHT	MOLES	VOLUME
GRAPHITE	.0000	1.8000	.1500	.0125	.0833
SULFUR	.0000	2.0460	.1000	.0031	.0489
KN	-117.7600	2.1000	.7500	.0074	.3571

GRAM ATOMS/100 GRAMS
O 2.2254 N .7418 C 1.2488 K .7418 S .3119

ENTHALPY = -87.35309 DENSITY =2.044

	CHAMBER	EXH(SHIFT)
PRESSURE (PSIA)	300.000	14.700
EPSILON	.000	.000
ISP	.000	116.233
ISP (VACUUM)	.000	132.755
TEMPERATURE (K)	1898.183	1420.513
MOLECULAR WEIGHT	63.503	63.953
MOLES GAS/100G	1.575	1.564
CF	.000	.000
PEAE/M (SECONDS)	.000	16.522
GAMMA	1.121	1.124
HEAT CAP (CAL)	28.944	28.180
ENTROPY (CAL)	130.105	130.105
ENTHALPY (KCAL)	-87.353	-102.873
DENSITY (G/CC)	8.32263E-03	5.48809E-04
ITERATIONS	5	10

MOLES/100 GRAMS

N2	.37089	.37089
CO	.46653	.33343
CO2	.70561	.85445
K	.01251	.00272
K2	.00001	.00000
S2	.00256	.00033
COS	.00243	.00088
K2SO4	.00036	.00004
OS	.00088	.00002
OS2	.00012	.00000
O2S	.01282	.00087
S	.00002	.00000
CK2O3(L)	.07427	.06008
K2SO4(L)	.02357	.00000
K2S(L)	.26644	.30942

PROPELLANT	HF	DENSITY	WEIGHT	MOLES	VOLUME
GRAPHITE	.0000	1.8000	.1500	.0125	.0833
SULFUR	.0000	2.0460	.1000	.0031	.0489
KN	-117.7600	2.1000	.7500	.0074	.3571

GRAM ATOMS/100 GRAMS
O 2.2254 N .7418 C 1.2488 K .7418 S .3119

ENTHALPY = -87.35309 DENSITY =2.044

	CHAMBER	EXH(SHIFT)
PRESSURE (PSIA)	500.000	14.700
EPSILON	.000	.000
ISP	.000	124.215
ISP (VACUUM)	.000	138.854
TEMPERATURE(K)	1911.699	1348.079
MOLECULAR WEIGHT	63.999	64.093
MOLES GAS/100G	1.563	1.560
CF	.000	.000
PEAE/M (SECONDS)	.000	14.640
GAMMA	1.120	1.124
HEAT CAP (CAL)	29.069	28.062
ENTROPY (CAL)	128.514	128.514
ENTHALPY (KCAL)	-87.352	-105.077
DENSITY (G/CC)	1.38807E-02	5.79558E-04
ITERATIONS	4	6

MOLES/100 GRAMS

N2	.37089	.37089
CO	.46575	.33268
CO2	.69640	.85390
K	.00652	.00077
S2	.00418	.00033
COS	.00387	.00131
CS2	.00001	.00000
K2SO4	.00024	.00001
OS	.00095	.00001
OS2	.00019	.00000
O2S	.01348	.00035
S	.00002	.00000
CK2O3(L)	.08283	.06096
K2SO4(L)	.02135	.00000
K2S(L)	.26322	.30955

PROPELLANT	HF	DENSITY	WEIGHT	MOLES	VOLUME
GRAPHITE	.0000	1.8000	.1500	.0125	.0833
SULFUR	.0000	2.0460	.1000	.0031	.0489
KN	-117.7600	2.1000	.7500	.0074	.3571

GRAM ATOMS/100 GRAMS
O 2.2254 N .7418 C 1.2488 K .7418 S .3119

ENTHALPY = -87.35309 DENSITY =2.044

	CHAMBER	EXH(SHIFT)
PRESSURE (PSIA)	1000.000	14.700
EPSILON	.000	.000
ISP	.000	133.621
ISP (VACUUM)	.000	146.238
TEMPERATURE(K)	1922.794	1251.490
MOLECULAR WEIGHT	64.565	64.182
MOLES GAS/100G	1.549	1.558
CF	.000	.000
PEAE/M (SECONDS)	.000	12.616
GAMMA	1.118	1.125
HEAT CAP (CAL)	29.245	27.888
ENTROPY (CAL)	126.371	126.370
ENTHALPY (KCAL)	-87.351	-107.862
DENSITY (G/CC)	2.78453E-02	6.25159E-04
ITERATIONS	4	19

MOLES/100 GRAMS

N2	.37089	.37089
CO	.46119	.33225
CO2	.68321	.85189
K	.00253	.00011
S2	.00811	.00035
COS	.00735	.00248
CS2	.00002	.00000
K2SO4	.00013	.00000
OS	.00100	.00000
OS2	.00039	.00000
O2S	.01393	.00009
S	.00002	.00000
CK2O3(L)	.09707	.06223
K2SO4(L)	.01735	.00000
K2S(L)	.25507	.30861