Table A.5 Equilibrium constants W of con-

The proposition Produce gas Formation of Water gas Dissociation Produce gas Formation Garbon Ga	1		The state of the state of	Table A.5 Equ	Illibrium constan	ts, K, of some co	mbustion reaction			
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	remperature, K		Dissociation of carbon dioxide	Producer gas equilibrium	Formation of carbon monoxide	Water gas equilibrium	Dissociation of hydrogen		Dissociation of water vapour	Formation of nitric
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	OF A	Kp=	Kp=	Kp=	Kp=	Kp=	= 43	7	into H, and OH	oxide
$\begin{array}{cccccccccccccccccccccccccccccccccccc$, rao	Poss	8,8	Ъ	P_XP	d d	= dv	Kp=	Kp=
1.11 × 10°		P _{N2} × P _{O2}	PoxPos	P	P & G	P × P	E E	8 8	P ROOM	OH OH
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		大学した	776000000000000000000000000000000000000	2000	200	OOF N2	H.	L°	P X P ES	Pas X Pas
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	298.16	1.11×1040	1.11×1045	101 > 10-21	112.11034					
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	300	6.12×1039	5.49×10*	1.55 × 10-21	8.48 × 102	1.01 × 10-3	- 023	1	1	1
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	400	1.74×10°	2.57×10 ³²	5.21 × 10-14	1.34 × 1019	676×104	5.50 × 10 ⁴	1.23 × 10%	1.95×10*	8.14×10-16
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		7.68×10 ²²	1.01×10 ²⁵	1.77×10°	1.79 × 1016	7.60 < 10-3	-DIX OCC	3.24 × 10°	8.13×10 33	6.99 × 10-12
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		4.29 × 1018	1.16×1020	1.87×10-6	2.17×10 ¹⁴	3.60 × 10-2	A 27 ~ 1032	7041036	- 100	1
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		3.83 × 1015	3.45×1016	267×10⁴	9.22×1012	1.11×10-1	017/77	1.44×10-	7.93 × 10-	6.04×10*
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		1.94×1013	7.85×1013	1.09×10-2	8.55×1011	2.48 × 10-1	118×10 ²³	0 77 ~ 1025	1 66 - 1015	20000
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		3.14×10"	6.93×10 ¹¹	1.92×10-1	1.33×10"	4.53 × 10-1		2.11.7.10		2.62 × 10°
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	7	1.15×1010	1.58 × 1010	1.90	3.00×1010	7.29 × 10-1	1.94×1017	2.75 × 1019		8 55 ~ 10-5
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		7.63×10°	7.21×108	1.22×101	8.80×10°	1.06				017700
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		7.92×107	5.52×107	5.71×101	3.15×10°	1.44	2.57×10 ¹³	1.15×1015		525×10+
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		1.16×107	6.29×10°	2.08×10°	1.31×10°	1.84	1			27
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		2.23×10°	9.81×10°	6.29×10²	6.17×108	2.27	4.24×1010	8.55×1011	1.31×107	1.92×10-3
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		5.32×105	1.97×10 ⁵	1.62×10³	3.19×10°	2.70	1	1		+
$\begin{array}{cccccccccccccccccccccccccccccccccccc$.50×10°	4.83×104		1.80×108	3.09	3.39×108	3.76×10°		5.08 × 10-3
$\begin{array}{cccccccccccccccccccccccccccccccccccc$.83×10°	4.70×10³		6.75×107	3.90	7.82×10°	5.50×107		1.08 × 10-2
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	2,000 3	.40×10°	7.30×10°		3.06×107	4.66	3.79×10°	1.86×10°		1.98 × 10-2
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	2,200 8	.53×10²	1.61×10²		1.59×107	5.31	3.16×10 ⁴	1.16×10°		3.25 × 10 ⁻²
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	2,400 2	.69×10²	4.59 × 101		9.14×10°	5.85	3.96×10³	1.14×10°		4.91 × 10 ⁻²
$\begin{array}{cccccccccccccccccccccccccccccccccccc$.01×101	1.60×101		5.74×10°	6.31	6.81 × 10 ²	1.61×10°		6.97 × 10-2
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		35×101	6.41		3.78×10°	6.78	1.50×10²	2.99×10°		9.38 × 10-2
$\begin{array}{cccccccccccccccccccccccccccccccccccc$.10×101	2.94	The state of the s	2.62×10°	7.13	4.02×101	6.92×101		1.22 × 10-1
$\begin{array}{cccccccccccccccccccccccccccccccccccc$.11×101	1.50		1.88×10°	7.43	1.27×101	1.93×10°	29.6	1.52 × 10-1
$1.66 2.00 \times 10^{-1} 6.93 \times 10^5 8.32 3.93 \times 10^{-1} 4.13 \times 10^{-1}$		4.93	6.30 × 10-1		1.24×10°	7.83	2.87	3.72	3.78	2.05 × 10 ·
	4,000	1.66	2.00×10-1		×	8.32	3.93 × 10-:	4.15×10°	1.00	4.70 × 10

ote: Carbon, where involved, is in the form of solid 5- graphi

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Table A.3 Enthalpy of gases above 0°C (Mass basis, kcal/kg)

Propane	40.7	91.2	151.3	221.2	300.7	390.0	488.9	597.6	715.9	844.0							8		The Party	1 325	1.184	STORY.	0.503							
Benzene	27.3	63.1	106.5	156.1	210.6	269.2	331.2	396.1	463.5	533.0																				
Ethane	45.0	100.1	164.5	237.5	318.2	405.5	499.2	598.6	702.3	809.4							7,005			Code										100000000000000000000000000000000000000
Ethylene	38.8	86.1	141.2	202.9	270.9	344.2	421.7	502.4	585.7	671.2																				
Methane	54.5	118.0	190.4	270.7	359.3	454.6	555.9	664.3	9.777	896.1													40.7							- Inner
H,O vapour	44.5	90.2	136.8	185.1	235.1	286.4	339.0	394.7	451.5	509.5	569.0	629.5	691.3	755.4	8193	884.5	952.2	1019.1	1086.3	1155.7	1226.2	1295.6	1367.3	1437.4	1508.4	1581.7	1653.0	1700.1	1870.0	
°00'	20.8	43.8	68.6	94.5	122.1	150.3	179.3	209.9	239.1	269.8	301.0	332.2	363.7	395.8	427.9	460.0	492.2	524.9	557.5	590.0	622.9	656.0	0.689	721.7	755.1	7.187.7	821.1	854.0	88/.8	241.14
Н,	344	689	1037	1386	1734	2087	2442	2802	3166	3533	3902	4287	4670	5057	5448	5842	6242	6653	7061	7473	7887	8318	8741	9170	1096	10037	10463	10905	11352	11/00
000	24.9	50.0	75.6	101.7	128.3	155.7	183.4	212.2	241.0	270.0	300.0	329.8	360.1	390.3	420.3	451.2	481.8	512.7	543.9	574.7	606.4	637.7	1.699	8.007	732.6	764.7	796.1	827.5	859.2	891.0
Air	24.0	48.4	73.1	98.4	124.1	150.4	177.2	204.8	232.5	260.7	289.1	317.8	346.6	375.7	405.6	434.9	464.4	494.2	523.6	554.0	583.8	613.1	644.2	673.9	705.3	735.4	766.4	T.96T	827.2	827.8
N,	24.8	49.8	75.0	100.7	127.0	153.6	180.8	208.9	237.2	266.1	295.4	324.8	354.1	384.4	414.5	444.3	474.6	505.7	535.8	566.8	597.4	629.0	0.099	690.5	722.8	754.5	785.4	817.4	848.7	880.1
60	22.0	44.7	68.0	92.2	117.0	142.2	167.9	194.2	220.6	247.4	274.2	301.3	329.3	356.8	384.2	411.8	439.6	468.3	497.3	526.0	554.3	582.7	612.0	641.7	F.079	7.007	729.5	759.1	789.8	820.8
2.1	100	200	300	400	500	009	700	800	006	1,000	1,100	1,200	1,300	1,400	1,500	1,600	1,700	1,800	1,900	2,000	2,100	2,200	2,300	2,400	2,500	2,600	2,700	2,800	2.900	3,000

Note: Values for the undissociated gas. At term

Table A.4 Enthalpy of gases above 0°C

Appendix

Table A.1 Mean specific heat of gases at constant pressure between O'C and T'C

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Butane		0.342	0.390	0.438	0.486	0.53	0.58	0.63	0.67	.T.0	0.774	0.8																				-	
Propane		0.359	0.407	0.456	0.504	0.553	0.601	0.650	0.698	0.747	0.795	0.844																					
Benzene		0.224	0.273	0.316	0.356	0.390	0.422	0.448	0.474	0.494	0.514	0.534																					
Ethane		0.397	0.450	0.501	0.548	0.594	0.636	979.0	0.713	0.748	0.780	0.810																					
Ethylene		0.342	0.387	0.431	0.470	0.508	0.542	0.574	0.602	0.628	0.651	0.671																				-	
Methane	2000	0.490	0.545	0.590	0.634	719.0	0.719	0.758	0.794	0.830	0.864	968.0																				-	- Constitute
H,0	0 110	0.443	0.445	0.450	0.456	0.462	0.470	0.477	0.485	0.494	0.501	0.510	0.517	0.525	0.531	0.540	0.546	0.552	0.560	0.566	0.572	0.577	0.583	0.588	0.595	0.598	0.603	0.608	0.612	0.617	0.621	0.623	State of Street, Street,
600	0.105	0.195	0.208	0.219	0.228	0.236	0.244	0.250	0.256	0.261	0.266	0.270	0.274	0.277	0.280	0.283	0.285	0.288	0.290	0.292	0.293	0.295	0.297	0.298	0.300	0.301	0.305	0.303	0.304	0.305	0.306	0.307	The same
H,	2.40	5.40	3.44	3.45	3.46	3.46	3.47	3.48	3.49	3.50	3.51	3.53	3.55	3.57	3.59	3.61	3.63	3.65	3.67	3.69	3.71	3.74	3.76	3.78	3.80	3.82	3.84	3.86	3.87	3.89	3.91	3.93	The same of
00	0 240	0.240	0.249	0.250	0.252	0.254	0.257	0.259	0.262	0.265	0.268	0.270	0.273	0.275	0.277	0.278	0.280	0.282	0.283	0.285	0.286	0.287	0.289	0.290	0.291	0.292	0.293	0.294	0.295	0.295	0.296	0.297	The same of
Air	0.240	0240	0.240	0.242	0.243	0.246	0.248	0.250	0.253	0.256	0.258	0.260	0.263	0.265	0.267	0.269	0.271	0.272	0.273	0.274	0.276	0.277	0.278	0.279	0.280	0.281	0.282	0.283	0.284	0.284	0.285	0.286	
N ₂	0.748	0.248	0.240	0.249	0.250	0.252	0.254	0.256	0.258	0.261	0.264	0.266	0.268	0.271	0.272	0.275	0.276	0.278	0.280	0.281	0.282	0.284	0.285	0.286	0.288	0.288	0.289	0.291	0.291	0.292	0.293	0.294	
0,	0218	0220	0770	0.223	0.227	0.230	0.234	0.237	0.240	0.243	0.245	0.247	0.249	0.251	0.253	0.255	0.256	0.258	0.258	0.260	0.262	0.263	0.264	0.265	0.266	0.267	0.268	0.269	0.270	0.271	0.272	0.274	
2.1	0	100	200	2007	300	400	200	009	700	800	006	1,000	1,100	1,200	1,300	1,400	1,500	1.600	1.700	1.800	1.900	2.000	2,100	2,200	2,300	2,400	2 500	2,600	2700	2.800	2,900	3,000	-

Table A.2 Mean specific near of gases - volume process

ies at 25°C, 0.1 MPa [1]

O₂ Oxygen Gas 247.4 O Element oxygen Gas 247.4 O Element oxygen Gas 218.1 H₂ Hydrogen Gas 218.1 H Element hydrogen Gas 42.3 OH Hydrogen Gas -242.0 OH Hydroxyl Gas -242.0 H₂O Water Liquid -187.5 H₂O₂ Hydrogen peroxide Liquid -187.5 H₂O₂ Hydrogen peroxide Gas -133.2 C Graphite Solid 0.0 CO Carbon monoxide Gas -110.5 CO Carbon dioxide Gas -394.0 CO₂ Carbon dioxide Gas -394.0 CO₂ Carbon dioxide Gas -394.0 CO₂ Carbon dioxide Gas -74.5 C₂He Ethane Gas -74.5 C₂He Ethane Gas -103.8 <th>Chemical fo</th> <th>ble 2.1 Heat of formation of some in a species name</th> <th>State</th> <th>Standard heat of formation (kJ/mol)</th>	Chemical fo	ble 2.1 Heat of formation of some in a species name	State	Standard heat of formation (kJ/mol)
O Element oxygen Gas 0.0 H ₂ Hydrogen Gas 218.1 H Element hydrogen Gas 218.1 H Element hydrogen Gas 2242.0 H ₂ O Water Gas -242.0 H ₂ O Water Liquid -187.5 H ₂ O ₂ Hydrogen peroxide Liquid -187.5 C Graphite Solid -10.0 CO Carbon monoxide Gas -394.0 CO Carbon dioxide Gas -74.5 CO ₂ Carbon dioxide Gas -74.5 CH ₄ Methane Gas -86.2 C ₃ H ₆ Propane Gas -103.8 C ₄ H ₁₀ Butane (n) Gas -124.7 C ₄ H ₁₀ Butane (iso) Gas -131.8 C ₂ H ₂ Acetylene Gas -226.9 CH _{1,30} H Methyl alcohol Gas -201.0 CH ₃ OH Methyl alcohol Liquid -51.6 CH ₃ OH Methyl alcohol Liquid -238.6 N ₂ Nitrogen Gas -0 N Element nitrogen Gas -71.8 CI Chlorine Gas -72.4 Hydrozine Liquid -171.8 CI Chlorine Gas -92.1 Hydrozine Liquid -30.4 Hydrozine Liquid -220.5 Hydrozine Liquid -171.8 CI Chlorine Gas -92.1 Hydrozine Liquid -290.5 Hydrozen chloride Gas -92.1 Hydrozine Liquid -315.6 Hydrozine Liquid -290.5 Hydrozen chloride Gas -92.1 Hydrozine Liquid -315.6 Hydrozen chloride Gas -92.1				0.0
O Element oxygen Gas 0.0 H₂ Hydrogen Gas 218.1 H Element hydrogen Gas 42.3 OH Hydroxyl Gas -242.0 H₂O Water Liquid -187.5 H₂O₂ Hydrogen peroxide Liquid -187.5 H₂O₂ Hydrogen peroxide Gas -133.2 C Graphite Solid 0.0 CO Carbon monoxide Gas -110.5 CO Carbon dioxide Gas -394.0 CC+4 Methane Gas -74.5 C2+6 Ethane Gas -74.5 C2+6 Ethane Gas -74.5 C3+6 Propane Gas -10.38 C4+10 Butane (n) Gas -124.7 C4+10 Butane (iso) Gas -131.8 C2+12 Acetylene Gas 226.9 CH ₁₈₄₂ Kerosene Liquid -51.6 <td>O₂</td> <td>Oxygen</td> <td>Gas</td> <td>247.4</td>	O ₂	Oxygen	Gas	247.4
H Element hydrogen Gas 42.3 OH Hydroxyl Gas -242.0 H₂O Water Liquid -286.0 H₂O Water Liquid -187.5 H₂O₂ Hydrogen peroxide Liquid -187.5 H₂O₂ Hydrogen peroxide Gas -133.2 C Graphite Solid -110.5 CO Carbon monoxide Gas -394.0 CCH₄ Methane Gas -74.5 C₂H₆ Ethane Gas -86.2 C₃H₆ Propane Gas -103.8 C₄H₁O Butane (iso) Gas -134.7 C₄H₁O Butane (iso) Gas -134.8 C₄H₂O Butane (iso) Gas -131.8 C₂H₆ Acetylene Gas -26.9 CH₁.842 Kerosene Liquid -51.6 CH₃OH Methyl alcohol Gas -201.0 CH₃OH Methyl alcohol Liquid -238.6 N¹ N Element nitrogen Gas -171.8 Cl Chlorine Gas -171.8 Cl Chlorine atom Gas -201.0 Chlorine atom Gas -201.0 Chlorine atom Gas -201.1 Chlorine atom Gas -201.1 Chlorine Ammonium per chlorate Solid -365.3 H₄CI Ammonium chloride Liquid -315.6 CH₃OJ₂N₂P4₂ UDMH Liquid -315.6	0			0.0
OH Hydroxyl Gas −242.0 H₂O Water Liquid −187.5 H₂O Hydrogen peroxide Liquid −187.5 H₂O₂ Hydrogen peroxide Gas −133.2 H₂O₂ Hydrogen peroxide Gas −110.5 C Graphite Solid 0.0 CO Carbon monoxide Gas −110.5 CO₂ Carbon dioxide Gas −34.0 CH₄ Methane Gas −74.5 C₂H₆ Ethane Gas −74.5 C₂H₆ Ethane Gas −103.8 C₃H₁0 Butane (n) Gas −113.8 C₃H₁0 Butane (iso) Gas −131.8 C₂H₂ Acetylene Gas −26.9 CH₃H₂0 Acetylene Gas −20.1 CH₃OH Methyl alcohol Liquid −51.6 CH₃OH Methyl alcohol Liquid −238.6 CH₃OH Methyl alcohol Liquid	H ₂	Hydrogen		218.1
H₂O Water Liquid −286.0 H₂O Water Liquid −187.5 H₂O₂ Hydrogen peroxide Gas −133.2 H₂O₂ Hydrogen peroxide Gas −10.5 C Graphite Solid 0.0 CO Carbon monoxide Gas −110.5 CO₂ Carbon dioxide Gas −394.0 CH₄ Methane Gas −74.5 C₂H₀ Ethane Gas −74.5 C₂H₀ Ethane Gas −103.8 C₃H₀ Propane Gas −103.8 C₄H₁₀ Butane (iso) Gas −131.8 C₂H₀ Acetylene Gas −224.7 C₄H₁₀ Butane (iso) Gas −21.1 C₂H₂ Acetylene Gas −226.9 CH₁₃M₂ Kerosene Liquid −51.6 CH₃OH Methyl alcohol Liquid −238.6 N₂ Nitrogen Gas 0 <td></td> <td>Element hydrogen</td> <td></td> <td>42.3</td>		Element hydrogen		42.3
H₂O Water Liquid −286.0 H₂O₂ Hydrogen peroxide Liquid −187.5 H₂O₂ Hydrogen peroxide Gas −133.2 C Graphite Solid 0.0 CO Carbon monoxide Gas −110.5 CO₂ Carbon dioxide Gas −394.0 CH₄ Methane Gas −34.5 CH₄ Methane Gas −74.5 CH₄ Methane Gas −74.5 CH₄ Methane Gas −74.5 CH₄ Methane Gas −86.2 CH₄ Methane Gas −103.8 CH₄ Butane (iso) Gas −124.7 C₄H₀ Butane (iso) Gas −131.8 C₂H₂ Acetylene Gas 226.9 CH₃ Acetylene Gas 226.9 CH₃ Acetylene Gas −201.0 CH₃OH Methyl alcohol Gas −201.0 <		Hydroxyl		_242.0
H₂O₂ Hydrogen peroxide Liquid −187.5 H₂O₂ Hydrogen peroxide Gas −133.2 C Graphite Solid 0.0 CO Carbon monoxide Gas −110.5 CO₂ Carbon dioxide Gas −394.0 CC₂ Carbon dioxide Gas −394.0 CC₂ Carbon dioxide Gas −394.0 CC₂ Carbon dioxide Gas −34.5 CH₁ Methane Gas −74.5 C2H₂ Ethane Gas −86.2 C3H₂ Propane Gas −103.8 C4H₁0 Butane (n) Gas −124.7 C4H₁0 Butane (iso) Gas −131.8 C2H₂ Acetylene Gas 226.9 CH₁10 Butane (iso) Gas −211.8 C2H₂ Acetylene Gas −201.0 CH₃3OH Methyl alcohol Gas −201.0 CH₃3OH Methyl alcohol Liquid		Water		-286.0
H2O2 Hydrogen peroxide Liquid −133.2 H2O2 Hydrogen peroxide Gas 0.0 C Graphite Solid 0.0 CO Carbon dioxide Gas −110.5 CO2 Carbon dioxide Gas −394.0 CH4 Methane Gas −74.5 C2H6 Ethane Gas −74.5 C2H6 Ethane Gas −86.2 C3H6 Propane Gas −103.8 C4H10 Butane (iso) Gas −131.8 C4H10 Butane (iso) Gas −131.8 C2H2 Acetylene Gas 226.9 CH1.942 Kerosene Liquid −51.6 CH3.0H Methyl alcohol Gas −201.0 CH3.0H Methyl alcohol Liquid −238.6 N2 Nitrogen Gas 0 N2 Nitrogen Gas 471.8 Liquid 50.4 1.1		Water		
Hydrogen peroxide Gas Carbon monoxide Gas Co Carbon monoxide Gas Co Carbon dioxide Gas Carbon dioxide Carbon				
CO Carbon monoxide Gas -110.5 CO2 Carbon dioxide Gas -394.0 CC4 Methane Gas -74.5 C2H6 Ethane Gas -86.2 C3H8 Propane Gas -103.8 C4H10 Butane (n) Gas -124.7 C4H10 Butane (iso) Gas -131.8 C2PL2 Acetylene Gas 226.9 CH1.842 Kerosene Liquid -51.6 CH3OH Methyl alcohol Gas -201.0 CH3OH Methyl alcohol Liquid -238.6 N2 Nitrogen Gas 0 N Element nitrogen Gas 471.8 HNO3 Nitric acid Liquid 50.4 C12 Chlorine Gas 121.4 C14 Chlorine Gas -71.1 C15 Chlorine Gas -72.1 C16 Chlorine atom Gas 121.4 C17 Chlorine atom Gas 121.4 C18 Chlorine Gas 121.4 C19 Chlorine atom Gas 121.4 C19 Chlorine Ammonium nitrate Solid -365.3 C19 Chloride Liquid -290.5 C19 Chloride Gas 88.4 C19 Chloride Gas 96.3 C19 Nitrogen tetroxide Gas 96.3 C10 Nitrogen dioxide Gas 96.3 Nitric acid Gas 96.3 Nitric acid Gas 33.9				
CO ₂ Carbon dioxide Gas —394.0 CH ₄ Methane Gas —74.5 C ₂ H ₆ Ethane Gas —86.2 C ₃ H ₈ Propane Gas —103.8 C ₄ H ₁₀ Butane (n) Gas —124.7 C ₄ H ₁₀ Butane (iso) Gas —131.8 C ₂ H ₂ Acetylene Gas —226.9 CH _{1.842} Kerosene Liquid —51.6 CH ₃ OH Methyl alcohol Gas —201.0 CH ₃ OH Methyl alcohol Liquid —238.6 N ₂ Nitrogen Gas 0 N Element nitrogen Gas 471.8 HNO ₃ Nitric acid Liquid 50.4 Cl ₂ Chlorine Gas —171.8 Cl Chlori				
CH4 Methane Gas -74.5 C2H6 Ethane Gas -86.2 C3H8 Propane Gas -103.8 C4H10 Butane (n) Gas -124.7 C4H10 Butane (iso) Gas -131.8 C2H2 Acetylene Gas 226.9 CH1842 Kerosene Liquid -51.6 CH3OH Methyl alcohol Gas -201.0 CH3OH Methyl alcohol Liquid -238.6 N2 Nitrogen Gas 0 N Element nitrogen Gas 471.8 HNO3 Nitric acid Liquid 50.4 CI2 Chlorine Gas 0 CI Chlorine Gas 0 CI Chlorine Gas 0 CI Chlorine Gas 0 CI Chlorine Gas 121.4 CI2 Chlorine Gas 121.4 CI3 Chlorine Gas 121.4 CI4 Chlorine Ammonium nitrate Solid -365.3 CH4CI Ammonium chloride Liquid -315.6 CH3)2N2H2 UDMH Cliquid -315.6 CH4CI Ammonium chloride Gas 9.63 Nitric acid Gas 9.63 Nitric acid Gas 9.63 Nitric acid Gas 33.9				
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