

Na



1930

Na  
m-s given  
go 3000°K

Overstreet R.  
Master's Thesis, Univ Calif.

Работа не напечатана

I947

Na

Latimer W.M.

Ta3

T.°.

U.A. Atomic Energy Comm., Rep. MMDC-

2000-5000°K I462

Tables of free energy functions for  
elements and compounds in the temperature  
range 2000-5000°K.

Na

м-г. св-ва

до 2600°K

Воп-395-X  
Бейтон, Инатони

1952

Benton A, Inatoni T.H.  
J. Ch. Phys 20, 1946-8, 1952

м-г. св-ва паров натрия

Ф, S, H, Cr, Kp Всп-ли. для Na и Na<sub>2</sub>  
из спектров пост до 2600°K

метод Лайбер-Лайберс

Лайберс  поправка на атом

СА, 57494, 1953

Na, Na<sub>2</sub>  
u-g gynn

B9P-395-X

19522

Benton A. Inatomi T.H.  
J. Ch. Phys 20, 1946, 19522

$$R = 1,98719; \frac{hc}{R} = 1,438675.$$

$$\epsilon_1 = 0, p_1 = 2, \epsilon_2 = 16956,183, p_2 = 2$$

$$\epsilon_3 = 16973,379, p_3 = 4, \epsilon_4 = 25739,86$$

$$p_4 = 2, \epsilon_5 = 28172,855, p_5 = 6$$

$$\epsilon_6 = 29172,904, p_6 = 4.$$

TOK  $q_x$   $S^0$   $N^2$

|      |        |        |
|------|--------|--------|
| 298  | 31,744 | 36,712 |
| 1000 | 37,757 | 42,725 |
| 1400 | 39,429 | 44,397 |
| 1800 | 40,677 | 45,645 |
| 2200 | 41,674 | 46,642 |
| 2600 | 42,504 | 47,472 |

Na, Na<sub>2</sub>

m-g gas

go 2500 K

B92-19-X

(1955)

Evans W.H., Jacobson R., Munson  
T.R., Wajman DD  
J. Res NBS 1955, 55, N2, 83

методич. данные целочисл.  
алгебры ( $K, K_2, Na, Na_2, Li,$   
 $Li_2, Cs, Cs_2, Rb, Rb_2$ .)

X-56-9-  
- 25079

$A_b = 22,991$  (●)  $\frac{h_c}{T} = 1,43847$   
по с. взят из Moore

| T°R.   | φ.        | S.       |
|--------|-----------|----------|
| 238.15 | -31,7461. | 36,7141. |
| 500    | -34,3145. | 39,2825. |
| 1000   | -37,7580. | 42,7260. |
| 1500   | -39,7724. | 44,7404. |
| 2000   | -41,2016. | 46,1400. |
| 2500   | -42,3105. | 47,2819. |



Na

(1953)

н-г нум  
до 2000°K

Katz T. Margrave J.  
J. Ch. Phys 23, 983

q\* изотопных атомов  
дт H ( $z=1$ ) до Nb ( $z=41$ )  
нм t° 298, 500, 1000, 2000°K

T

8x

298

31,744

500

34,315

1,000

37,759

2,000

41,202

I956

No.

Stull D.R., Sinke G.C.

T.O.

The thermodynamic properties of

to 3000°K

the elements, 1956

|                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <div data-bbox="0 62 176 155">Na.</div> <div data-bbox="176 62 317 580">Оммуек 2902</div> <div data-bbox="0 631 352 984"> Ф-цм<br/>свободной<br/>мериле<br/>298,16-8000°K </div> | <div data-bbox="317 0 1762 62"> 205. H. A. M. O. S. I. N. T. I. C. 1957 </div> <div data-bbox="317 62 1762 186"> Laboratory Report LA-2110, 1957 </div> <div data-bbox="317 217 1762 621"> Наблюдения в <math>H_2^0 - H_2^0</math> <math>S_2^0</math> <math>Q^*</math> <math>C_p</math><br/> 54 элементов в равновесном<br/> состоянии при 150 ммме-<br/> ратуре 10°K до 8000°K. </div> <div data-bbox="317 621 1762 1036"> Оммуек (100.)<br/> и. J. Chem. Phys 27, 494, 1957<br/> Kalsky G., Gilmer. R.M<br/> и. GOTO K. O. I. T. O. </div> |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

Na

на основе не авторам

1960

Douglas T.B., Beckett C.F.

*M.G. G.*

Preliminary Report on the Thermodynamic Properties of Selected Light-Element Compounds.  
Washington, NBS Report 6928, 1960.

Na (2)

Юдин Б.Ф.

1960

т. ф.

Вар-3617-IV

г.р. Ленингр. Технол. ин-та  
им. Ленсовета,

1960, вып. 61, 9-20

(Сил. N<sub>2</sub>) II

1961

Na

Lewis G., Randall M.  
 Pitzer K., Brewer L.

T. f.  
 vafob

Thermodynamics, Ed. II

Equation  $G_T - H_{298}/T$

given  $T = 298, 500, 1000, 1500, 2000^\circ K$

$H_{298} - H_0$

$\Delta H_{298}$

1962

На

за

т. ф.

Гурвич Л.В. и др.

Москва, 1962

Термодинамические св-ва индивиду-  
альных веществ.



№

1962

Гурвич Л.В., Квливидзе В.А.,  
Ртицева Н.П.

Термод.  
ф-ции

Термодинамические ф-ции одноатомных  
и двухатомных газов в широком интер-  
вале температур. У. Щелочные металлы  
в состоянии идеального газа до  
10000°К. "Ж. физ. химии", 1962, 36,

X-1963-5

№1, 219

№ (2.)

ВФ - 51а -  $\bar{X}$  | 1962г.

( $C_p, \Delta S, \Delta H$ )  
расчет

Воляк Л. Д.

Инженерно-физический  
журнал, Том, № 3,  
51-57, 1962г.

(60 II)

1962

Na (vay)

Calculation of thermophysical properties of sodium. L. D. Volyak. *Inzh.-Fiz. Zh., Akad. Nauk Belorussk. SSR* 5, No. 7, 83-5(1962). Thermophys. properties of satd. Na vapor were studied up to  $1956^{\circ}\text{K}$ . and in the superheated vapor range up to  $2600^{\circ}\text{K}$ . Literature data are presented. P. N. Bellavin

Теплофизические свойства

C.A. 1963. 58. 2

9496

Na

Pomerantz y, Piacesi...

1963

Na<sub>2</sub>

Na<sup>+</sup>

NASA (Natl. Aeron Space Admin)  
Doc. NG3-22236, emp. 140

m. op.



Na (293)

McBride B. 4 gp.

1963

Thermodynamic properties...  
NASA SP-3001, Washington, 1963

|        | Cp     | H-H     | S'      |
|--------|--------|---------|---------|
| 298,15 | 4,9681 | 1481,3  | 36,740  |
| 3000   | 5,0883 | 14948,0 | 48,2006 |
| 6000   | 8.0974 | 33491,2 | 52,3709 |

Na (ray)

JANAF

1985

T.  $\phi$ .

100 - 6000°K

Na YANAF  
(Ideal gas)  $\Pi$  repy

100-60000°K

(1962)

1971



Na (2)

1973

Barin I, et al.

v. I; p. 513.

298-2000



cell. Ag F-I

Na

Einruen 1573

Reiter F.W.,

Z. Naturforsch., 1973,

28a, No 10, 1676-1686.

T.g. 9p.



(cat. Li<sub>2</sub>; II)

Na

onmuu 6149 a<sup>11</sup> 1978

Downey J. R., Jr.

JANAF Thermochemical  
tables.

m.g.p.

$C_p, \frac{Q^{\circ} - H^{\circ}}{RT}$

$H^{\circ} - H^{\circ}/RT$

Calculation of thermo-  
dynamic properties  
ideal  gases at high  
temperatures monoatomic  
gases.

1980

Na  
(m, 2.)m.g. q.  
m.g. cl-ba

① □

93: 102295n | Computer codes used in the calculation of high-temperature thermodynamic properties of sodium. Fink, J. K. (Argonne Natl. Lab., Argonne, IL USA). Report 1979, ANL-CEN-RSD-79-2, 267 pp. (Eng). Avail. NTIS. From *Energy Res. Abstr.* 1980, 5(10), Abstr. No. 16158. Three computer codes, SODIPROP, NAVAPOR, and NASUPER, were written to calc. a self-consistent set of thermodyn. properties for satd., subcooled, and superheated Na. These calcns. incorporate new crit. parameters (temp., pressure, and d.) and recently derived single equations for enthalpy and vapor pressure. The following thermodyn. properties were calcd. in these codes: enthalpy, heat capacity, entropy, vapor pressure, heat of vaporization, d., volumetric thermal expansion coeff., compressibility, and thermal pressure coeff. In the code SODIPROP, these properties are calcd. for satd. and subcooled liq. Na. Thermodyn. properties of satd. Na vapor are calcd. in the code NAVAPOR. The code NASUPER calcs. thermodyn. properties of superheated Na vapor only for low ( $< 1644$  K) temp. No calcns. were made for the supercrit. region.

C. A. 1980, 93 NW

$\text{Na}_2$

1982

Mies F. H., Julianne

P. S.

термод.

J. Chem. Phys., 1982,

функции.

77, N 12, 6162-6176.

● (ср.  $\text{Li}_2$ ; II)

Na(2)

1982

Par Kratz L. B.

(298-3000) Thermodynamic Properties  
of Elements and Oxides  
USA Bur. Mines Bull. 672.

● (y megbegeho)

Na<sup>+</sup>(17)

[OM. 24103]

1985

Grorvick L.V., Yorish V.S.,  
Khandamirova N.E.,

Yungman V.S.,

Handb. Thermodyn. and  
Transp. Prop. Alkali Metals,  
Oxford, 1985, 577-627.

первог.  
90-04,  
Do

Na (2)

[DM. 24103]

1985

Gurvich L.V., Yorish V.S.,  
Khandamirova N.E.,  
Yungman V.S.,

перевод.  
с-ва,  
До

Handb. Thermodyn. and  
Transp. Prop. Alkali Metals,  
Oxford, 1985, 577-627.



Na(g)

1985

JANAF

T. Sp. 3 Aug. 1985, стр 1569

расчет 1962      пересчет 1983