

L 2261-66 EWT(m)/EPF(n)-2/EWA(h) DM

ASSIGNMENT NR: AP5016925

NR/0089/EE/018/006/0578/0583

AUTHOR: Kolesov, V. F.

TITLE: Effect of delayed neutrons¹⁴ on the time of establishment of a stable fission chain 15
B

SOURCE: Atomnaya energiya, v. 18, no. 6, 1965, 578-582

TOPIC TAGS: neutron flux, prompt neutron, nuclear fission, chain reaction

ABSTRACT: The article deals with stochastic multiplication of delayed neutrons in organic fission chains in a reactor which is supercritical with respect to prompt neutrons. Equations are derived for the probability of the first stable fission chain and the average time of establishment of the first stable fission chain. The effect of the reactivity and the strength of the source on the time of establishment of the first stable fission chain is investigated. The probability densities of the time of establishment of the first stable fission chain are presented. In the case of low reactivity and a weak source, the average time of establishment of the

Card 1/2

L 2281-66

ACCESSION NR: AP5016925

... stable fission chain can be reduced by the delayed neutrons by
... of ten or more. Orig. art. has: 3 figures and 23 formulas.

ASSOCIATION: None

SUBMITTED: 29Feb64

ENCL: 00

SUB CODE: NP

NR REF SOV: 002

OTHER: 009

Card 2/2

DP

EW(m)/EPF(n)-2/EWP(t)/EWP(b)/EWA(h) PO-4 (JP) JD/NW/JG/DM

AP5005811

S/0089/65/018/002/0181/0183

Kolinkin, A. A.; Nasyrov, F.; Kolezov, V. F.

Characteristics of asymptotic neutron spectrum in uranium

27
13

energiya, v. 18, no. 2, 1965, 181-183

uranium fission, neutron spectrum, asymptotic spectrum, fission cross section length

Purpose of the investigation was to determine more precisely the characteristics of the asymptotic neutron spectrum in natural uranium. Measurements of the fission cross sections of U^{235} and U^{238} , and of other

AP5075811

equilibrium state. The values obtained for the asymptotic cross section, diffusion length, and for the cross section ratios are listed in enclosure, and the asymptotic neutron spectrum is shown in Fig. 2.

~~Orig. ext. has: 1 figure and 2 tables.~~

None

872664

ENCL: 02

SUB CODE: NP

001

OTHER: 006

KOLESOV, V.F.

Effect of delayed neutrons on the stabilization time of a steady
chain of fissions. Atom. energ. 18 no.6:578-583 Je '65. (MIRA 18:7)

KOLESOV, V.G., inzh.

Wear resistance of hard facing alloys for work in an abrasive medium.
Svar. proizv. no.11:20-24 N '60. (MIRA 13:10)
(Hard facing) (Mechanical wear)

KOLESOV, V.G., inzh.

Increasing the durability of parts subjected to deterioration by
ground friction and the efficient selection of alloys for the
building-up of these parts. Vest.mash. 41 no.9:20-27 S '61.
(MIRA 14:9)

(Mechanical wear) (Electric welding)

KOLESOV, V.G., kand. tekhn. nauk; VALYGIN, A.A., inzh.

Methods of determining the technical and economic efficiency
of build-up welding in order to increase the life of machine
parts. Svar. proizv. no.9:13-15 S '64. (MIRA 17:12)

ISKOL'DSKIY, I.I. [deceased]; KOLESOV, V.G., kand. tekhn. nauk,
retsenzent

[Surfacing boride hard alloys] Naplavochnye boridnye tverdye
splavy. Moskva, Mashinostroenie, 1965. 70 p. (MIRA 18:3)

KOLESOV, V. I.

Kolesov, V. I. "Phagotherapy of wounds," Trudy VI Vsesoyuz. s'yezda det. varachey, posvyashch. pamyati prof. Filatova, Moscow, 1948, p. 98-107

SO: U-3264, 10 April 1953, (Letopis 'nykh Statelny, No. 3, 1949

KOLESDV, V. I.

"On Emboly of the Nephritic Artery," Khirurgiya, No. 2, 1948.

KOLESOV, V.I.

Nikolai Aleksandrovich Vel'iaminov. Vest.khir. 70 no.2:7-15 F '50.
(GML 19:3)

1. Of the Second Faculty Surgical Clinic of the Medical Military
Academy imeni S.M.Kirov (Head of Department -- P.A.Kupriyanov)

KOLESOV, V.I.

Chronic pulmonary suppurations following gunshot wounds. Khirurgia,
Moskva no. 11:32-38 Nov 1952. (GIML 23:3)

1. Professor.

KOLESOV, V. I.

Stranitsy iz istorii otechestvennoi khirurgii / Pages from the history of Russian surgery. Moskva, Medgiz. 1953. 284 p.

SO: Monthly List of Russian Accessions, Vol. 6 No. 12 March 1954.

KOLESOV, V. I., professor (Leningrad) , Reviewer

"Atlas of gunshot wounds." Vol. 9: Anaerobic infections after gunshot wounds.
Reviewed by Prof. V. I. Kolesov. Khirurgiia no. 5, 81-82, May '54

"Atlas of gunshot wounds." Vol. IV: Gunshort wounds of the pelvis and of the
genitourinary system. (Professor, zasluzhennyi deyatel' nauki) A. V. Smirnov,
(doktor meditsinskikh nauk) G. A. Gomzyakov, (professor) B. A. Shmukler. Reviewed
by V. I. Kolesov. Khirurgiia no. 4, 87-88, April '54

KOLESOV, V.I.

PETROV, B.D. (Moscow)

"Pages from the history of Russian surgery". V.I.Kolesov. Reviewed
by B.D.Petrov. Khirurgiia no.9:80-82 S '54. (MIRA 7:12)
(SURGERY--HISTORY) (KOLESOV, V.I.)

KOLESOV, V.I., professor; FEDOROV, D.H.; IOSSET, G.Ya.

Anton Martynovich Zabludovskii; first anniversary of his death.
Vest. khir. 74 no.5:94-96 J1-Ag '54. (MLRA 7:10)
(ZABLUDOVSKII, ANTON MARTYNOVICH, 1880-1953)

KOLESOV, V.I., professor

Discussion on the nature of sepsis. Vest.khir. 74 no.8:55-71
'54. (MLRA 8:10)

(INFECTION,
concept.)
(SEPTICEMIA AND BACTEREMIA,
concept.)

KOLESOV
EXCERPTA MEDICA Sec. 9 Vol. 11/3 Surgery Aug 1957

4184. KOLESOV V.L. *Surgical treatment of pulmonary haemorrhages (Russian text) *KHIRURGIJA* (Mosk.) 1955, 3 (18-24)
In average pulmonary haemorrhages, conservative treatment with haemostatic drugs, s.c. injection of normal serum and blood transfusions may be attempted. Further measures are the performance of pneumothorax, cauterization of intrapleural bands and extrapleural pneumolysis. According to the site of the source of haemorrhage, alcohol injected into the phrenic nerve and pneumoperitoneum may also be considered. Even in the presence of bilateral pathological foci, treatment should be conservative when the side from which the haemorrhage comes is uncertain. When conservative treatment is without success, or in the case of more severe haemorrhages, only surgical haemostasis has any chance of success. The method of choice is radical operation, such as lobectomy or pneumonectomy, in

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CONT.

which, together with the source of haemorrhage, the pathological focus is removed. The operation is preferably carried out under local anaesthesia. When radical operation is not possible because of a high degree of induration, intrapleural pneumolysis or ligation of the pulmonary artery should be carried out first, and, in the second stage after a short time, the radical operation. A report is given of 9 male patients with profuse pulmonary haemorrhages, among them 3 with tb. Of these patients, 8 were operated on; 2 died. In 1 case, pneumonectomy was performed (death), in another case, the patient survived lobectomy, but died on the 6th day of progressive aspiration pneumonia. In 2 patients, the pulmonary artery was ligated, and the haemorrhage first stopped. Then, the bleeding began again in one of them, and in the other the underlying suppurative process extended. In 2 further patients, intrapleural pneumolysis was carried out and this arrested the haemorrhage, but the pathological process persisted. In one patient decortication of the lung and in another opening of a lung cavity with musculoplasty was carried out.

KOLESOV, V.I., professor (Leningrad)

"Congenital defects of the heart and large vessels." Imre Littman,
René Fono. Reviewed by V.I.Kolesov. Vest.khir. 76 no.7:151-152
Ag '55 (MLRA 8:10)

(HEART-ABNORMALITIES AND DEFORMITIES)
(BLOOD VESSELS-- ABNORMALITIES AND DEFORMITIES)
(LITTMAN, IMRE)

KOLESOV, V.I., professor (Leningrad)

Surgical treatment of pulmonary hemorrhage. Khirurgia no.3:18-24
Mr '55. (MIRA 8:7)

(LUNGS, hemorrhage,
surg.)

(HEMORRHAGE,
lungs, surg.)

KOLESOV, V.I., professor

"V.A. Karavaev; his life and work" S.S. Mikha^llov, Reviewed by
V.I.Kolesov. Vest.khir.76 no.7:152-154 Ag '55 (MLBA 8:10)
(KARAVAEV, Vladimir Afanas'yevich, 1811-?)

~~III~~ Kolesov, V.I.

KOLESNIKOV, I.S., professor.

"Penetrating wounds of the thoracic cavity." V.I.Kolesov.
Reviewed by I.S.Kolesnikov. Vest.khir.76 no.9:145-150-55.
(CHEST--WOUNDS AND INJURIES) (MLRA 9:1)
(KOLESOV, V.I.)

KOLESOV, V.I., professor; GRIGOR'YEV, L.P.

Diagnosis and treatment of acute pancreatitis. Vest.khir.76
no.10:23-30 N '55. (MLRA 9:1)

1. Iz kliniki obshchey khirurgii (zav.--prof. V.I.Kolesov)
1-go Leningradskogo meditsinskogo instituta im. I.P.Pavlova.
(PANCREATITIS
diag. & ther. in acute cases)

KOLESOV, V. I.

KHROMOV, B.M., professor (Leningrad)

"Pages from the history of Russian surgery." V.I.Kolesov.
Reviewed by B.M.Khromov. Vest.khir.76 no.10:141-144 N^o 55.
(SURGERY--HISTORY) (KOLESOV, V.I.) (MLRA 9:1)

VOYNO-YASENETSKIY, Valentin Feliksovich, professor; KOLESOV, V.I., professor,
redaktor; BULEVA, M.S., tekhnicheskii redaktor

[Surgery in cases of suppuration] Ocherki gnoinoi khirurgii. Izd.
3-e, [Leningrad] Gos. izd-vo med. lit-ry, Leningradskoe otd-nie,
1956. 630 p. (MLRA 9:8)
(SURGERY) (SUPPURATION)

KOLESOV, V.I., professor.

Minutes of meeting no.1154 of the N.I. Pirogov Surgical Society.
Vest. khir. 77 no.2:144-147 F '56 (MLRA 9:6)

(SURGERY--SOCIETIES)

KOLESOV, V.I., prof. (Leningrad)

Surgical and conservative treatment of pulmonary hemorrhage.
Klin.med. 34 no.8:43-48 Ag '56. (MIRA 12:8)
(LUNGS, hemorrhage
ther.)

KOLESOV, V.I., referent, professor

Proceedings of the N.I.Pirogov Surgical Society; meeting no.1155.
Vest.khir. 77 no.3:143-144 Nr '56. (MLRA 9:7)
(SURGERY--SOCIETIES)

KOLISOV, V.I., referent, professor

Proceedings of meetings nos. 1156 and 1157 of the Pirogov Surgical
Society. Vest.khir. 77 no.4:135-140 Ap '56. (MIRA 9:8)
(SURGERY--SOCIETIES)

KOLESOV, V.I., referent, professor

Minutes of the Pirogov Surgical Society's meeting no.1158. Vest.
khir. 77 no.5:134-139 My '56. (MLRA 9:8)
(SURGERY--SOCIETIES)

KOLESOV, V.I., professor, referent

Minutes of sessions of the no.1159 and 1160 Pirogov Surgical
Society. Vest.khir. 77 no.6:150-156 Ja '56. (MLRA 9:8)
(RUSSIA--SURGERY--SOCIETIES)

KOLESOV, V.I.

"Preservation of Blood in Plastic Bags," by A. Ye. Kiselev,
Leningrad Institute of Blood Transfusion, from "Proceedings
of Meetings of the Pirogov Surgical Society," by Prof V. I.
Kolesov, Vestnik Khirurgii imeni Grekova, Vol 77, No 12, Dec
56, 125-145)

A series of experiments has been conducted at the Leningrad Institute of Blood Transfusion on the preservation and transfusion of blood from plastic bags. On the basis of the results obtained the following preliminary conclusions were reached:

a. Plastic bags have an advantage over glassware; they have a non-wettable internal surface which simplifies their handling, they are lightweight and durable, do not break on being dropped, and can be hermetically sealed. Pressure can be used without accessory apparatus for accelerating blood flow to the recipient. The plastic bag reduces the possibility of pyrogenic reactions.

b. Biochemical studies of blood preserved in plastic bags and glassware show no differences in the chemical processes taking place in the preserved blood. (U)

54M.1345

KOLASOV, V.I., professor (Leningrad, ul. Kuybysheva, d.3, kv.5)

~~Surgical schools of Petersburg-Petrograd-Leningrad; 250th anniversary
of the city. Vest.khir. 78 no.6:7-14 Ja '57. (MLRA 10:8)~~

(SURGERY, educ.

Schools in Leningrad)

KOLESOV, V.I., professor

Vil'gel'm Adol'fovich Shaak. Vest.khir. 78 no.6:155-156 Je '57.

(MLRA 10:8)

(SHAAK, VIL'GEL'M ADOL'FOVICH, 1886-1957)

KOLESOV, V.I., professor (Leningrad, ul. Kaphylova 3, kv. 5); MAKAROVA,
Yel'n.; SARATYVA, A.H.

Efficient use of antibiotics and bacterioid control during the
treatment of infected wounds [with summary in English]. Vest.khir.
76 no.6:1)-21 Ap '57. (MIRA 10:9)

1. Iz fakul'teta khirurgicheskoy kliniki (adv. - prof. V.I.Kolesov)
1-ya Leningradskogo meditsinskogo instituta im. akad. I.P.Pavlova
(WOUNDS AND INJURIES, complications,
infect. antibiotic & bacteriolytic ther. (Rus))
(ANTIBIOTICS, therapeutic use,
wds. infect. (Rus))

KOLESOV, V.I., prof., FIGURINA, T.D., SARAYEVA, A.N.

Clinical and bacteriological observations of the use of antibiotics
in purulent surgical diseases [with summary in English]. *Khirurgiia*
24 no. 4:131-36 Ap '58 (MIRA 11:7)

1. Is fakul'tetskoy khirurgicheskoy kliniki (zav. - prof. V.I.
Kolesov) i Leningradskogo meditsinskogo instituta imeni akademika
I.P. Pavlova.

(ANTIBIOTICS, therapeutic use
purulent dis., abscesses & infected wds., indic. (Rus))

(INFECTION, therapy
antibiotics in purulent dis., abscesses & infected
wds. (Rus))

KOLESOV, V.I., prof. (Leningrad)

Vasilii Nikolaevich Parin, (1877-1947) . Khirurgia, Moskva 34 no.11:
135-138 N '58. MIRA 12:1)

(BIOGRAPHIES

Parin, Vasilii N. (Rus))

KOLESOV, Vasily Ivanovich, red.

[Acute appendicitis] Ostryi appenditsit. Leningrad, Medgiz,
1959. 289 p. (MIRA 14:2)

(APPENDICITIS)

KOLESOV, V.I., prof.; BOMASH, N.Yu.

Coincidence of clinical and morphological diagnoses of acute
appendicitis. *Khirurgiya* 35 no.2:50-56 F '59. (MIRA 12:5)

1. Iz kafedry fakul'tetskoy khirurgii (zav. - prof. V.I.Kolesov)
i kafedry patologicheskoy anatomii (zav. - prof. M.A.Zakhar'yev-
skaya) I Leningradskogo meditsinskogo instituta im. I.P.Pavlova.
(APPENDICITIS, diag.

clin. & morphol. diag. (Rus))

KOLESOV, Vasilii Ivanovich, prof., red.; DREVINA, A.I., red.; ROLEVA, M.S., tekhn.red.

[Problems in surgery of the heart, lungs, and the abdominal organs; works of the Department of Facultative Surgery of the First Leningrad Medical Institute] Voprosy khirurgii serdtsa, legkikh i organov briushnoi polosti; raboty kafedry fakul'tetskoi khirurgii I LMI. Pod red. V.I.Kolesova. Leningrad, Gos.izd-vo med.lit-ry Medgiz, Leningr.otd-nie, 1960. 414 p.

(MIRA 14:3)

1. Zaveduyushchiy kafedroy fakul'tetskoy khirurgii I Leningradskogo meditsinskogo instituta im. akad.I.P.Pavlova (for Kolesov).

(SURGERY)

ANICHKOV, M.N., dots.; ANELAVA, N.V., prof.; BISENKOV, N.P., kand. med. nauk; BOGUSH, L.K., prof.; GRIGOR'YEV, M.S., prof.; DYSKIN, Ye.A., kand. med. nauk; KEVESH, Ye.D., prof.; KOLESOV, A.P.; KOLESOV, V.I., prof.; KUPRIYANOV, P.A., prof.; LINBERG, B.E., prof.; MAKSIMENKOV, A.N., prof.; OSIFOV, B.K., prof.; SAVITSKIY, A.I., prof.; UVAROV, B.S.; UGLOV, F.G., prof.; Kholdin, S.A., prof.; PETROVSKIY, B.V., prof., otv. red.; BAKULEV, A.N., akademik, red.; GULYAYEV, A.V., prof., red.; YEGOROV, B.G., prof., red.; PANKRAT'YEV, B.Ye., prof., red.; PYTEL', A.Ya., prof., red.; RIKHTER, G.A., prof., red.; FILATOV, A.N., prof., red.; CHAKLIN, V.D., prof., red.; RYBUSHKIN, I.N., doktor med. nauk, red.; RULEVA, M.S., tekhn. red.

[Multivolume manual on surgery] Mnogotomnoe rukovodstvo po khirurgii. Moskva, Medgiz. Vol.5. [Chest surgery; thoracic wall, pleura, and lungs] Khirurgiia grudi; grudnaya stenka, plerava i legkie. 1960. 727 p. (MIRA 15:3)

1. Chlen-korrespondent Akademii meditsinskikh nauk SSSR (for Antelava, Bogush, Maksimenkov, Savitskiy, Kholdin, Chaklin).
 2. Deystvitel'nyy chlen Akademii meditsinskikh nauk SSSR (for Kupriyanov, Petrovskiy, Yegorov).
- (CHEST—SURGERY)

KOLESOV, V.I.

Physiological features and results of treatment of chronic
coronary insufficiency with bilateral ligation of the internal
mammary artery. Klin.med. 38 no.6:71-77 Je '60. (MIRA 13:12)
(CORONARY HEART DISEASE) (BREAST--BLOOD SUPPLY)

KOLESOV, V.I., prof. (Leningrad, ul. Kuybysheva, d.3, kv.5);
KOLESOV, Ye.V.

Upper extended transverse laparotomy. Vest.khir. no.6:3-11
'62. (MIRA 15:11)

1. Iz fakul'tetskoy khirurgicheskoy kliniki (zav. - prof. V.I.
Kolesov) 1-go Leningradskogo meditsinskogo instituta imeni
I.P. Pavlova.

(ABDOMEN--SURGERY)

KUPRIYANOV, Petr Andreyevich, prof., red.; KOLESOV, V.I., red.;
KHARASH, G.A., tekhn. red.

[Artificial blood circulation in surgery of the heart and
the great vessels] *Iskusstvennoe krovoobrashchenie v khirurgii
serdtsea i magistral'nykh sosudov. Leningrad, Medgiz, 1962.*
303 p. (MIRA 16:1)

1. Deystvitel'nyy chlen Akademii meditsinskikh nauk SSSR
(for Kupriyanov).

(BLOOD—CIRCULATION, ARTIFICIAL) (SURGERY)

KOLESOV, V.I.

Minutes of the 1276th session of the Pirogov Surgical Society.
Vest.khir. 87 no.11:146-148 N '61. (MIRA 15:11)
(SURGICAL SOCIETIES)

KOLESOV, V.I., prof. (Leningrad, ul. Kuybysheva, d.3, kv.5)

Results of surgical treatment of stenocardia and acute myocardial infarct. Vest.khir.90 no.2:87-95 F'63.

(MIRA 16:7)

1. Iz fakul'tetskoy khirurgicheskoy kliniki (zav. - prof. V.I. Kolesov) 1-go Leningrad'skogo meditsinskogo instituta imeni Pavlova.

(ANGINA PECTORIS) (HEART— INFARCTION)
(CARDIOVASCULAR SYSTEM—SURGERY)

KOLESOV, V.I.; (Leningrad, ul. Knybysheva, d.3, kv.5); LEVIN, A.O.;
VINOGRADOV, A.G.; DANILOVA, L.D.; LEOSKO, V.A.

Changes in the morphological and functional properties of the blood and hemodynamics during work with artificial circulation apparatus of the systems of the Scientific Research Institute of Experimental Surgical Apparatus and Instruments (AIK-59) and Baliuzek (ISL-2). Grud. khir. 5. no.6:34-40
N-D'63 (MIRA 17:2)

1. Iz kliniki fakul'tetskoy khirurgii (zav. - prof. V.I. Kolesov) I Leningradskogo meditsinskogo instituta imeni I.P.Pavlova.

KOLESOV, V.I. (Leningrad P-46, ul. Kuybysheva, d.3, kv.5); TATARSKIY, N.E.
PAVLOVA, N.M.

Use of objective apnoea tests in detecting respiratory insufficiency in congenital and acquired heart defects. Grud.khir.
5 no.2:54-60 Mr-Ap'63 (MIRA 17:2)

1. Iz fakul'tetskoy khirurgicheskoy kliniki (zav. - prof. V.I.Kolesov) I Leningradskogo meditsinskogo instituta imeni akademika I.P.Pavlova.

KOLESOV, V I.; DREVINA, A.I.

Results of surgical treatment of stenocardia. Trudy Inst.
klin. i eksper. kard. AN Gruz. SSR 8:667-672 '63. (MIRA 17:7)

1. Iz fakul'tetskoy khirurgicheskoy kliniki I leningradskogo
meditsinskogo instituta imeni akademika Pavlova.

KOLESOV, V.I., prof. (Leningrad)

Surgeon and scientist P.A. Kupriianov. Khirurgia 39 no.8:
3-8 Ag '63. (MIRA 17:6)

PETROVSKIY, B.V., prof. (Moskva); KOLESOV, V.I. (Leningrad)

The 20th International Congress of Surgeons and the 6th
International Cardiovascular Congress. Khirurgiia 40 no.3:
3-9 Mr '64. (MIRA 17:9)

KOLESOV, V.I., prof.; PAVLOVA, R.V.

Treatment of myocardial infarction by ligation of the internal thoracic artery associated with block of the preaortic nerve plexus. Vest. khir. 94 no.2:13-19 F '65.

(MIRA 18:5)

1. Iz fakul'tetskoy khirurgicheskoy kliniki (zav. - prof. V.I. Kolesov) 1-go Leningradskogo meditsinskogo instituta imeni Pavlova.

KOLESOV, V.I., prof. (Leningrad P-46, ul. Kuybysheva, d.5, kv.3);
LEVIN, A.O.; KOSTROMOV, I.I.

Regional perfusion in treating vascular occlusions of the
extremities. Ortop. travm. i protez. 26 no.6:19-22 Je '65.

(MIRA 18:8)

1. Iz kafedry fakul'tetskoy khirurgii (zav.- zasluzhennyy
deyatel' nauki prof. V.I. Kolesov) I Leningradskogo meditsinskogo
instituta imeni akademika Pavlova.

KOLESOV, V.I., prof.; DEMIN, V.N., prof.; LEVIN, A.O.; SHAL'NEVA, T.S.;
BOGASH, N.Yu., VINGHRADOV, A.G.; LEGSKO, V.A.; SIDGRENKO, L.N.;
YARITSYN, S.S.

Regional perfusion of chemotherapeutic substances in malignant
tumors of the extremities. Vest.khir. 93 no.8:58-64 Ag '64.

(MIRA 18:7)

1. Iz fakul'tetskoy khirurgicheskoy kliniki (zav. - prof. V.i.
Kolesov) 1-go Leningradskogo meditsinskogo instituta imeni
Pavlova.

Kolesov, V.I.

YELETSKAYA, O.I., dots.

Dyskinesia of the biliary tract as a cause of pain simulating
cholecystitis. Trudy LMI 2:152-160 '55 (MIRA 11:8)

1. Kafedra obshchey khirurgii (zav. - prof. V.I. Kolesov) Pervogo
Leningradskogo meditsinskogo insituta imeni ~~akademika~~ I.P. Pavlova.
(BILIARY TRACT--DISEASES)

KOLESOV, V.I.

CHERNOSVITOVA, T.N., kandidat meditsinskikh nauk (Leningrad, Muchnoy per.
d.1/38, kv. 35)

Rare forms of goiter. Vest.khir. 77 no.12:99-105 D '56. (MLBA 10:2)

1. Iz fakul'tetskoy khirurgicheskoy kliniki (sav. - prof. V.I.
Kolesov, rukovd. raboty - prof. A.V.Mel'nikov) 1-go Leningradskogo
meditsinskogo instituta I.P.Pavlova.

(GOITER

rare forms, etiol. and ther.)

Kolesov, V.I.

KOLESOV, V.I., professor (Leningrad, ul. Kuybysheva 3, kv. 5); MAKAROVA,
Ye.M.; SAGUYEVA, N.N.

Efficient use of antibiotics and bacteriostatic control during the
treatment of infected wounds [with summary in English]. Vest.khir.
76 no.4:13-21 Apr '57. (MIRA 10:9)

1. iz fakul'teta khirurgicheskoy meditsiny (sov. - prof. V.I. Kolesov)
1-go Leningradskogo meditsinskogo instituta im. akad. I.P. Pavlova

(WOUNDS AND INJURIES, complications,

infect. antibiotic & bacteriolytic ther. (Rus))

(ANTIBIOTICS, therapeutic use,

wds. infect. (Rus)).

Kolesov, V.I.

ALESKEYEVA, A.A., (Astrakhan', Teatral'nyy per., d.2, kv.28).

Postoperative changes in total protein and protein fractions of blood serum in thyreotoxicosis [with summary in English]. Vest.khir.81 no.8:58-63 Ag '58 (MIRA 11:9)

1. Iz fakul'tetskoy khirurgicheskoy kliniki (zav. - prof. V.I. Kolesov) i kafedry biokhimii (zav. - prof. Yu. M. Gefer) Leningradskogo meditsinskogo instituta im. I.P. Pavlova.
(HYPERTHYROIDISM, surg.)

postop. changes in total protein & protein fractions in blood (Rus))

(BLOOD PROTEINS, in various dis.)

hyperthyroidism. postop. changes (Rus))

Kolesov, V.I.

SHOR, L.M., zasluzhennyy vrach RSFSR (Kaliningrad obl., Bankovskaya ul.,
d.4, kv.2)

On repeated operations in peptic ulcer. Vest.khir. 83 no.8:9-17
Ag '59. (MIRA 13:1)

1. Iz Kaliningradskoy oblastnoy bol'nitsy (glavnyy vrach - zasluzhennyy
vrach RSFSR, kand.med.nauk V.V. Filippov, nauchnyy rukovod.raboty -
prof. V.I. Kolesov).
(GASTRECTOMY)

Kolesov, V.I.

FIGURINA, T.D.

On the use of antibiotics for patients with suppurative surgical diseases. Sov. med. 24 no. 7:74-78 JI '60. (MIRA 13:8)

1. Iz kafedry fakul'tetskoy khirurgii (zav. - prof. V.I. Kolesov)
I Leningradskogo meditsinskogo instituta im. I.P. Pavlova.
(ANTIBIOTICS) (SUPPURATION)

BOYEVA, M.P. (Leningrad, per. Savushkina, d.7., kv. 38)

Errors in the diagnosis and treatment of retroperitoneal tumors.
Vestn. khir. Grekov. 90 no.4:112-116 Ap'63 (MIRA 17:2)

1. Iz fakul'tetskoy khirurgicheskoy kliniki (zav. - prof.
V.I.Kolesov) 1-go Leningradskogo meditsinskogo instituta imeni
I.P. Pavlova.

ROMANKOVA, M.P.; RYZHENKOV, V.Ye.

Uropepsin content in the urine and 17-hydroxycorticosteroid
content in the blood plasma in thoracic surgery. Vest. khir.
93 no.11:43-48 N '64. (MIRA 18:6)

1. Iz fakul'tetskoy khirurgicheskoy kliniki (zav. - prof. V.I.
Kolesov) 1-go Leningradskogo meditsinskogo instituta imeni Pavlova
i otdela farmakologii (zav. - prof. S.V. Anichkov) Instituta
eksperimental'noy meditsiny AMN SSSR.

ROMANKOVA, M.P.; PAVLOVA, N.M.

Clinical aspects and diagnosis of disorders of the patency of the
great cervical vessels; a review of Soviet and foreign literature.
Khirurgiiia 40 no.11:133-138 N '65. (MIRA 18:7)

1. Fakul'tetskaya khirurgicheskaya klinika (zav. - prof. V.I.
Kolesov)-I Leningradskogo meditsinskogo instituta imeni Pavlova.

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000723820010-8

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000723820010-8"

KOLESOV, V.M., BREZNICHENKO, M.S.

Research on the structure and chemical composition of prolamins:
amino acids of the hordein of barley and the avenine of oats [with
English summary in insert]. Biokhimiia 21 no.6:643-646 H-D '56.

(MLBA 10:7)

1. Kafedra khimii Leningradskogo inatituta sovetskoy torgovli iuzeni
F.Engel'sa, Kafedra fizicheskoy i kolloidnoy khimii Tomskogo
meditsinskogo inatituta

(AVENINE)

(HORDEIN)

(AMINO ACIDS)

Kolesov, V.M.

KOLESOV, V.M.

Studying the structure and chemical composition of prolamins; amino acids in the prolamin (pyrein) of quack grass [with summary in English]. Biokhimiia 22 no.3:445-448 My-Je '57. (MIRA 10:11)

1. Kafedra khimii Leningradskogo instituta sovetskoy trgovli i kafedra fizicheskoy i kolloidnoy khimii Tomskogo meditsinskogo instituta.

(QUACK GRASS) (AMINO ACIDS)

KOLESOV, V.M.

Physicochemical properties of proteins of vegetable origin.
Trudy TGU 145:83-96 '57. (MIRA 12:3)

1. Kafedra fizicheskoy i kolloidnoy khimii Tomskogo meditsinskogo
instituta imeni V.M. Meletova.
(Proteins--Analysis)

KOLESOV, V.M.; GOL'DBERG, D.I., red.; MORDOVINA, L.G., tekhn. red.

[Comparative characterization of proteins in grain crops based on chemical physicochemical indices] Sravnitel'naia kharakteristika belkov zernovykh kul'tur po khimicheskim i fiziko-khimicheskim pokazateliam. Tomsk, Izd-vo Tomskogo univ., 1961. 45 p.
(MIRA 14:12)

(Proteins)

(Grain)

KOLESOV, V.M.; OVCHINNIKOV, A.K.; KHAYKOVICH, I.M.

Influence of uranium ore composition on the intensity of gamma radiation.
Vop.rud.geofiz. no.4:58-66 '64. (MIRA 18:1)

KOLESOV, V. P.

Physical Chemistry

Dissertation: "Determination of the True Heat Capacity of Solid Substances at Low Temperatures." Cand Chem Sci, Moscow State U. Moscow 1953. (Referativnyy Zhurnal--Khimiya, Moscow, No 3, Feb 54)

SO: SUM 213, 20 Sept 1954

KOLESOV, V. P.
USSR/Statistical Physics - Heat

D-4

Abs Jour : Referat Zhur - Fizika, No 5, 1957, 11445

Author : Popov, M.M., Kolesov, V.P.

Inst : Moscow State University, USSR.

Title : Determination of the True Specific Heat of Solid Substances at Low Temperatures.

Orig Pub : Zh. obshch. khimii, 1956, 26, No 9, 2385-2393

Abstract : A vacuum calorimeter with a shielding adiabatic sheath is constructed for the measurement of true specific heat of solid substances at low temperatures, 60 — 300° K. The setup was tested by measuring the specific heat of benzoic acid, for which the specific heat at these temperatures is known. The relative error in the measurement of the specific heat amounts to $\pm 0.3\%$. In the above

Card 1/2

5(4)

AUTHORS:

SOV/78-4-6-3/44
Kolesov, V. P., Popov, M. M. (Deceased), Skuratov, S. M.

TITLE:

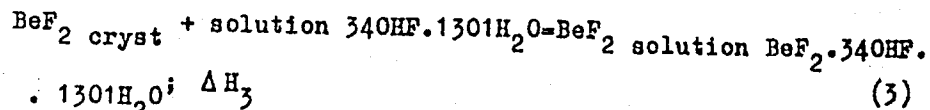
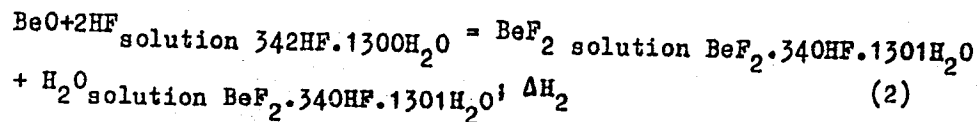
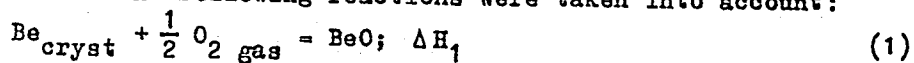
The Formation Enthalpy of Beryllium Fluoride (Ental'piya obrazovaniya fluoridogo berilliya)

PERIODICAL:

Zhurnal neorganicheskoy khimii, 1959, Vol 4, Nr 6, pp 1233-1236 (USSR)

ABSTRACT:

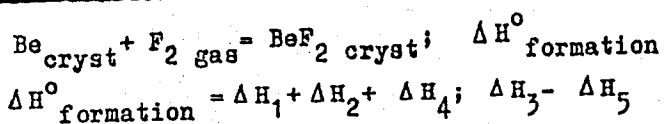
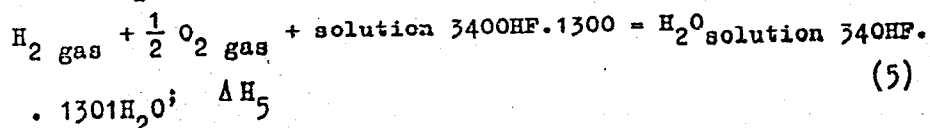
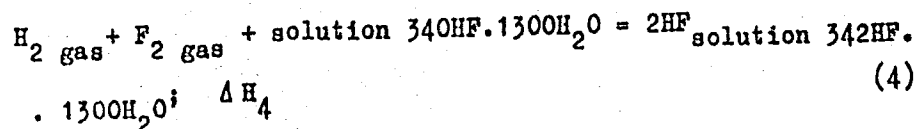
An experimental determination of the formation enthalpy of BeF_2 in crystalline modification was carried out. A direct method was used for the determination of the formation enthalpy of the crystalline beryllium fluoride from simpler components. The following reactions were taken into account:



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The Formation Enthalpy of Beryllium Fluoride

SOV/78-4-6-3/44



Beryllium fluoride was produced by thermal dissociation of ammonium beryllium fluoride in the argon current at 360-380°. The compound $(\text{NH}_4)_2\text{BeF}_4$ was produced by O. I. Vorob'yeva.

The calorimetric determinations were carried out in a platinum calorimeter. The temperature during the calorimetric determinations could be determined with an accuracy of 0.0002-0.0005°. The enthalpy of the reaction BeO with hydrofluoric acid

Card 2/3

SOV/78-4-6-3/44

The Formation Enthalpy of Beryllium Fluoride

HF.3.8H₂O at 21°, given in table 1, amounts to $\Delta H_2 = 24.17 \pm 0.12$ kcal/mol. The formation enthalpy of the reaction BeF₂ with hydrofluoric acid HF.3.8H₂O is given in table 2 and amounts to $\Delta H = +8.04 \pm 0.07$ kcal/mol. The formation enthalpy of BeF₂ was determined in the crystalline modification of the β -cristobalite from crystalline beryllium and gaseous fluorine and the following values were found:

$$\Delta H^{\circ}_{\text{formation}} = -241.2 \pm 0.8 \text{ kcal/mol.}$$

There are 2 tables and 14 references, 2 of which are Soviet.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova
(Moscow State University imeni M. V. Lomonogov).
Termokhimicheskaya laboratoriya im. V. F. Luginina
(Thermochemical Laboratory imeni V. F. Luginin)

SUBMITTED: March 5, 1958
Card 3/3

5(4)

SOV/78-4-6-4/44

AUTHORS: Kolesov, V. P., Skuratov, S. M., Zaykin, I. D.

TITLE: The Formation Enthalpy of Lithium Oxide (Ental'piya obrazovaniya okisi litiya)

PERIODICAL: Zhurnal neorganicheskoy khimii, 1959, Vol 4, Nr 6, pp 1237-1240 (USSR)

ABSTRACT: The enthalpy of the reaction of crystalline lithium oxide with water was calculated. Purest lithium oxide was used as initial material. The analysis results concerning the purity of lithium oxide are summarized in table 1. The calorimetric determinations were carried out with the apparatus mentioned in reference 6, the results are given in table 2. The reaction enthalpy of lithium oxide with water amounts to $\Delta H = 31.41 \pm 0.08$ kcal/mol at 20° , and that of Li_2O to $\Delta H = -142.8 \pm 0.3$ kcal/mol at 25° . There are 2 tables and 17 references, 3 of which are Soviet.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Moscow State University imeni M. V. Lomonosov). Termokhimi-cheskaya laboratoriya im. V. F. Luginina (Thermochemical Laboratory imeni V. F. Luginin)

SUBMITTED: March 5, 1958
Card 1/1

5(4), 24(8)
AUTHORS:

Kolesov, V. P., Skuratov, S. M.

SOV/76-33-1-6/45

TITLE:

Corrections for the Effects of Side-Processes in Calorimetric Measurements (Ob uchete vliyaniya pobochnykh protsessov v kalorimetricheskikh izmereniyakh)

PERIODICAL:

Zhurnal fizicheskoy khimii, 1959, Vol 33, Nr 1, pp 32-35 (USSR)

ABSTRACT:

The calculation of measurement results of calorimetric determinations is often rendered difficult, since the observed temperature changes of the calorimeter are influenced by the heat exchange of the calorimeter and medium as well as by other side-processes. It is stated that at a constant velocity of the side-processes a calculation of the correction in respect of the heat exchange based on the Regnault (Ren'0)-Pfaundler-Usov equation (Ref 1) can eliminate heat side effects on the measured results to almost 98%. An equation (6) for the calculation of errors occurring in the main part and towards the end of investigations with calorimeters with an isothermal cover is proposed. If the heat side effects are not more than 3% of the measured heat effects, these errors can be neglected. An equation for the correction of errors in the heat exchange in calorimetric investigations according to the adiabatic

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SOV/76-33-1-6/45

Corrections for the Effects of Side-Processes in Calorimetric Measurements

method is also given. There are 1 figure and 2 Soviet references.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova
(Moscow State University imeni M. V. Lomonosov)

SUBMITTED: May 25, 1957

Card 2/2

5(4)
AUTHORS:

Paukov, I. Ye., Kolesov, V. P.,
Skuratov, S. M.

SOV/20-126-2-27/64

TITLE:

The Variation of the Isobaric-Isothermal Potential Under Standard Conditions for the Reaction of the Polymerization of ϵ -Caprolactam (Izmeneniye izobarno-izotermicheskogo potentsiala pri standartnykh usloviyakh dlya reaktsii polimerizatsii ϵ -kaprolaktama)

PERIODICAL:

Doklady Akademii nauk SSSR, 1959, Vol 126, Nr 2, pp 325-326 (USSR)

ABSTRACT:

The present paper describes the results obtained by measuring the true specific heat of ϵ -caprolactam and poly- ϵ -caprolactam within the temperature range of 60 - 373°K. From these data ΔS and ΔZ (the significance of these quantities is not defined) are calculated for the polymerization reaction of ϵ -caprolactam under standard conditions. Measurements were carried out in an adiabatic vacuum calorimeter already described (Ref 5). A new calorimetric ampoule was constructed for the present investigation. Good agreement was, by the way, found to exist with the results obtained by other authors. The ϵ -caprolactam was distilled

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The Variation of the Isobaric-Isothermal Potential
Under Standard Conditions for the Reaction of the
Polymerization of ϵ -Caprolactam

SOV/20-126-2-27/64

5 times in an atmosphere of dry nitrogen, after which it was dried a long time over phosphorus pentoxide. The quantity of impurities in ϵ -caprolactam was 0.05 mol%. The poly- ϵ -caprolactam preparation was produced by dissolving the technical preparation in formic acid and by slow precipitation with water. Further treatment of the sample is briefly discussed. The values of the specific heat of ϵ -caprolactam and poly- ϵ -caprolactam are shown (in abridged form) in a table. For ϵ -caprolactam the deviation of some points from the smoothed curve $c_p - T$ usually amounted to not more than 0.1 %, and only in rare cases they amounted to 0.2 %. For poly- ϵ -caprolactam these deviations may attain a value of 0.4 %. When measuring specific heat, the value 3847 ± 8 cal/mol was obtained for the melting heat of ϵ -caprolactam, and for the melting point of pure ϵ -caprolactam the value 342.305°K was found. Neither the monomer nor the polymer shows an anomalous behavior of specific heat within the temperature range of from 60 to 373°K . The anomaly found in the course

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The Variation of the Isobaric-Isothermal Potential
Under Standard Conditions for the Reaction of the
Polymerization of ϵ -Caprolactam

SOV/20-126-2-27/64

of an earlier investigation (Ref 7) was not confirmed. The standard values of the absolute entropies ($S_{298.16}^{\circ}$) were computed by numerical integration from the curves

$c_p - \ln T$. For $S_{298.16}^{\circ}$ of ϵ -caprolactam and of poly- ϵ -caprolactam the authors found the values 40.26 and 41.36 entropy units respectively. In the polymerization of

ϵ -caprolactam at 298.16°K entropy is therefore varied by +1.1 entropy units. For this reaction the value of ΔH is -37 kcal/mol. Therefore, the isobaric-isothermal potential

of this reaction at 298.16°K is varied by $\Delta Z = -4.0$ kcal/mol. The amount of this variation is thus essentially determined by the variation of enthalpy. There are 1 table and 7 references, 4 of which are Soviet.

ASSOCIATION:

Card 3/4

Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova
(Moscow State University imeni M. V. Lomonosov)

The Variation of the Isobaric-Isothermal Potential
Under Standard Conditions for the Reaction of the
Polymerization of ϵ -Caprolactam

SOV/20-126-2-27/64

PRESENTED: February 6, 1959, by P. A. Rebinder, Academician

SUBMITTED: February 4, 1959

Card 4/4

5(4)

SOV/20-128-1-35/58

AUTHORS:

Kolesov, V. P., Paukov, I. Ye., Skuratov, S. M., Seregin, E. A.

TITLE:

The Standard Entropies of Some Lactams

PERIODICAL:

Doklady Akademii nauk SSSR, 1959, Vol 128, Nr 1, pp 130-132
(USSR)

ABSTRACT:

In spite of the numerous papers recently written on the measurement of the real specific heat of substances at low temperatures, data for organic substances are as yet rather sparse. Whereas the alkanes and alkenes have been investigated somewhat more thoroughly, data for heterocyclic compounds are lacking completely. Calculation of entropies according to semiempiric formulas (Refs 1-3) gives inexact values. The authors speak about measurements of specific heat at low temperatures (60 - 350°K) and of the melting heat of the following lactams: α -pyrrolidone, α -piperidone, ϵ -caprolactam, and δ -oenanthole-lactam. The synthesis and purification of these compounds was carried out by N. F. Yerofeyeva and V. N. Topchebasheva at the Vsesoyuznyy nauchno-issledovatel'skiy institut iskusstvennogo volokna (All-Union Scientific Research Institute for Artificial Fibers). Table 1 shows the measuring

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The Standard Entropies of Some Lactams

SOV/20-128-1-35/58

results, figure 2 the variation of specific heat with temperature. This variation is nearly linear, within the temperature interval measured, with different inclination towards the abscissa axis in the case of individual compounds. Table 2 mentions the melting temperatures and melting heats of the lactams investigated. For calculation of the absolute entropies, the curves of the specific heats were extrapolated from 60°K to 0°K by means of equations composed of Debye- and Einstein functions. These equations satisfy the experimental data within the interval of $60 - 170^{\circ}\text{K}$. Table 3 gives the absolute entropy standards of the solid lactams at 298.16°K and of liquid lactams at 350°K . There are 1 figure, 3 tables, and 5 references, 1 of which is Soviet.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova
(Moscow State University imeni M. V. Lomonosov)

PRESENTED: May 13, 1959, by P. A. Rebinder, Academician

Card 2/3

VOROB'YEV, A.F.; KOLESOV, V.P.; SKURATOV, S.M.

Standard enthalpy of formation of silicon tetrachloride.

Zhur.neorg.khim. 5 no.7:1402-1408 JI '60.

(MIRA 13:7)

1. Moskovskiy gosudarstvennyy universitet. Termokhimicheskaya
laboratoriya im. V.F.Laginya.

(Silicon chloride)

S/078/60/005/009/020/040/XX
B017/B058

5.4700

AUTHORS: Kolesov, V. P., Skuratov, S. M., and Uvarov, V. Ya.

TITLE: Determination of the Specific Heat¹ of Aqueous Hydro-²⁷fluoric Acid Solutions

PERIODICAL: Zhurnal neorganicheskoy khimii, 1960. Vol. 5, No. 9.
pp. 1934 - 1937

TEXT: For the determination of the specific heat of hydrofluoric acid, a calorimeter was designed which is schematically shown in Fig. 1. The temperature was measured by means of a Pt resistance thermometer, a KЛ-48 (KL-48) potentiometer, and an M-25/3 (M-25/3) mirror galvanometer as a balancing instrument. The specific heat of HF solutions with a molality from 0.0956 to 2.0095, determined at 20°C, is lower than that at 25°C. The values found at 20°C are lower by 0.1% than the data by Roth and Becker (4) and by 0.3% lower than those by Thorwaldson and Bailay (6). The results of determinations of the

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Card 1/2

Determination of the Specific Heat
of Aqueous Hydrofluoric Acid Solutions

S/078/60/005/009/020/040/XX
B017/B058

specific heat of aqueous solutions of hydrofluoric acid at different concentrations are given in Tables 1 and 2. The apparent specific heat F_s of HF exceeds that of other hydrohalic acids. The dependence of F_s on \sqrt{Ml} at 25°C is given in Fig. 2. The higher F_s value of hydrofluoric acid is probably due to partial depolymerization of the hydrofluoric acid molecules when heated. The concentration dependence F_s of hydrofluoric acid is given by the following formula:

$$F_s = 1,5 + 2,80 Ml^{1/2}$$

The specific heat of HF solutions at 25°C for $N = 20$ to $N = 100$ was tabulated. There are 2 figures, 3 tables, and 9 references: 1 Soviet, 2 US, 1 British, 1 Canadian, and 4 German.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M.V.Lomonosova
(Moscow State University imeni M. V. Lomonosov).
Termokhimicheskaya laboratoriya im. V. F. Luginina
(Thermochemical Laboratory imeni V. F. Luginin)

SUBMITTED: June 9, 1959

Card 2/2

S/078/60/005/009/020/040/XX
B121/B208AUTHORS: Kolesov, V. P., Skuratov, S. M., Uvarov, V. Ya.

TITLE: Determination of specific heat of aqueous hydrofluoric acid solutions

PERIODICAL: Zhurnal neorganicheskoy khimii, v. 5, no. 9, 1960, 1934-1937

TEXT: The determination of the specific heat of aqueous solutions of hydrofluoric acid described in publications gives inexact values. The authors therefore devised a calorimeter by which an exact measurement of the specific heat of aqueous hydrofluoric acid solutions is possible even in the range of low concentrations. Temperature was measured on a platinum resistance thermometer. The voltage at the ends of the thermometer was determined on a KJL-48 (KL-48) potentiometer using an M-25/3 (M-25/3) mirror galvanometer with a sensitivity of $0.3 \cdot 10^{-6}$ v/mm.m as the balancing apparatus. This sensitivity of the galvanometer permitted the measurement of temperature changes of 0.0003°C . The hydrofluoric acid solutions were obtained by dilution of 45% hydrofluoric acid which was free from SiF_6^{2-} , SO_4^{2-} , and Pb^{2+} . Their concentrations were determined by titration

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Determination of specific heat ...

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B121/B208

with NaOH in platinum vessels. The values obtained for the specific heat of aqueous hydrofluoric acid solutions of different concentrations are summarized in the Tables 1 and 2. It may be seen from these tables that the specific heat of hydrofluoric acid solutions is considerably lower at 20°C than at 25°C. The values obtained at 20°C are lower by nearly 0.1% than the values obtained by Roth and Becker (Ref. 4: W. A. Roth, F. Becker. Landolt-Börnstein Phys. Chem. Tabellen, 5 Ed., Erg. 2, p. 2, 1188 (1931)) and by 0.3% than those obtained by Thorwaldson and Bailay (Ref. 6: T. Thorwaldson, E. C. Bailay. Canad. J. Research, 24B, 51 (1946)). The values of the apparent specific heat F_s of aqueous hydrofluoric acid solutions are much higher than the corresponding values of the other hydrogen halides. This is explained by the partial depolymerization of hydrofluoric acid molecules by heating during the experiment. The dependence of the apparent specific heat F_s on the molality M_l of hydrofluoric acid is expressed by the formula: $F_s = 1.5 + 2.80 M_l^{1/2}$. By means of this formula, the specific heats of HF solutions at 25°C were calculated for $N = 20$ to $N = 100$, and summarized in Table 3 ($N =$ number of H_2O moles per mole HF).

Card 2 ~~1~~ 3

Determination of specific heat ...

S/078/60/005/009/020/040/XX
B121/B208

There are 2 figures, 3 tables, and 9 references: 1 Soviet-bloc and 8 non-Soviet-bloc. The two references to English-language publications read as follows: R. S. Ray. Proc. Roy. Soc. (London) A 101, 509 (1922); T. Thorwaldson, E. C., Bailay. Canad. J. Research, 24B, 51 (1946).

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Moscow State University imeni M. V. Lomonosov).
Termokhimicheskaya laboratoriya im. V. F. Luginina (Thermochemical Laboratory imeni V. F. Luginin)

SUBMITTED: June 9, 1959

Legend to Table 1: Measurement results of the specific heat of aqueous HF solutions at 25°C. 1) Molality (Ml); 2) \sqrt{Ml} ; 3) specific heat c_p , cal/g. degree; 4) apparent specific heat (F_s) cal/mole-degree; a) experiment; b) calculated from the formula $F_s = 1.5 + 2.80 Ml^{1/2}$. ✓

Card 3/8 2

5.4800
3.2420

255d1

S/078/61/006/008/001/018
B121/B203AUTHORS: Kolesov, V. P., and Skuratov, S. M.

TITLE: Standard formation enthalpy of lithium fluoride

PERIODICAL: Zhurnal neorganicheskoy khimii, v. 6, no. 8, 1961, 1741-1744

TEXT: To determine the standard formation enthalpy of LiF, the authors experimentally found the quantities ΔH_3 (enthalpy of neutralization of $\text{Li(OH)}_{\text{aq}}$ in HF_{aq}) and ΔH_4 (solubility enthalpy of $\text{LiF}_{\text{cryst}}$ in water). The concentration of the LiF solutions was 1 mole of LiF in 3800 moles of H_2O at 21.5°C. The calorimetric determinations were made in an apparatus according to V. P. Kolesov, M. M. Popov, and S. M. Skuratov (Ref. 5: Zh. neorgan. khimii 4, 1233, 1959) described earlier. For determining the solubility enthalpy of LiF, isothermal and adiabatic methods were used. A value of -16.45 ± 0.03 kcal/mole was found for ΔH_3 , and a value of 1.25 ± 0.02 kcal/mole for ΔH_4 . A value of $+1.18 \pm 0.02$ kcal/mole had been found earlier for the solubility enthalpy of LiF in water by A. F. Kapustinskiy and M. S. Stakhanov (Ref. 12: Trudy Moskovsk. khim. Card 1/2

Standard formation enthalpy...

S/078/61/006/008/001/018
B121/B203

tekhnol. in-ta im. D. I. Mendeleeva, vyp. 22, 21, 1956). A value of
-146.2 ± 0.3 kcal/mole was calculated for ΔH° formation LiF_{cryst} at 25°C.

There are 2 tables and 12 references: 5 Soviet-bloc and 7 non-Soviet-bloc. ✓

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova
Termokhimicheskaya Laboratoriya im. V. F. Luginina (Moscow
State University imeni M. V. Lomonosov, Thermochemical
Laboratory imeni V. F. Luginin)

SUBMITTED: April 8, 1960

Card 2/2

S/078/61/006/012/001/011
B110/B147

AUTHORS: Kolesov, V. P., Martynov, A. M., Skuratov, S. M.

TITLE: Standard enthalpy of aluminum-fluoride formation

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TEXT: The enthalpy $\Delta H_{\text{form}}^{\circ} \text{AlF}_3$ according to P. Gross, C. Hayman, D. L. Levi (see below) was determined experimentally: $2\text{Al} + 3\text{PbF}_2 = 2\text{AlF}_3 + 3\text{Pb}$ (1). To find out the effect of various factors, the experimental conditions were varied. Lead fluoride was precipitated from pure $\text{Pb}(\text{CH}_3\text{COO})_2$ by 40% H_2F_2 (free of SO_4^{2-} , SiF_6^{2-} , and Fe^{2+}), filtered off, dried at 150-200°C, and molten in a dry Ar stream. The purity of Al was 99.99 or 99.60% (≤ 0.1 and 0.2 mole% of Fe content). Experiments were made in a Crocker bomb whose mantle temperature was kept constant with an accuracy of $\pm 0.01 - 0.02^{\circ}\text{C}$. The accuracy of measurement of the calorimeter (heat value with empty bomb = 2867.4 ± 1.6 cal/degree) was 0.0003°C . The Card 1/3

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particle size of the PbF_2 - Al mixture (Al excess: 50 - 500%) was $\ll 0.3$ mm.

The bomb was filled with Ar (1.5 - 2 atm). At 25°C , the enthalpy change of (1) was -117 ± 0.6 kcal. The assumption that the reaction was incomplete or that side reactions took place proved to be wrong.

Impurities in Ar, however, hardly affect the results. The cause for inaccuracy (± 0.6 kcal) in the enthalpy measurement could not be found, nor could the accuracy of measurement be improved. There is no systematic error in the result of measurement. Inaccuracy is due to the sum of error sources. The ΔH of (1) obtained by the authors in 24 experiments was

-117.7 ± 0.6 kcal, ΔH obtained by Gross et al. in 6 experiments was -117.7 ± 0.1 kcal. $\Delta H_{\text{form}}^\circ \text{AlF}_3 \sim 357.0$ kcal/mole was calculated from ΔH of

(1) determined, and from $\Delta H_{\text{form}}^\circ \text{PbF}_2 = -159.5$ kcal/mole with a probable

accuracy of ± 2 kcal/mole. The slight deviation from the value calculated by Gross et al. is explained by the use of another $\Delta H_{\text{form}}^\circ \text{PbF}_2$ value.

There are 15 references: 2 Soviet and 11 non-Soviet. The three most recent references to English-language publications read as follows: P. Gross, C. Hayman, D. L. Levi. Trans Faraday Soc., 50, 477 (1954);

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ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova Termokhimicheskaya laboratoriya im. V. F. Luginina (Moscow State University imeni M. V. Lomonosov, Thermochemical Laboratory imeni V. F. Luginin)

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