

SHCHEPOT'YEVA, Ye.S.; ARDASHNIKOV, S.N.

Utilization of natural radioactive isotopes at health resorts
and in other conditions for therapeutic purposes. Med.rad. 5
no.6:3-11 '60. (MIRA 13:12)

(RADIOTHERAPY)

TRET'YAKOV, A. F.; SHCHEPOT'YEVA, Y. S.; FRENKLAKH, Kh. G.

Treatment of chronic eczema with radioactive bandages containing active substances of thoron decay products (alpha therapy). Vest. dermat. i ven. 34 no.1:35-41 Ja '60. (MIRA 11:12)

1. Iz radiologicheskoy laboratorii (zav. - prof. Ye. S. Shchepot'yeva) Gosudarstvennogo nauchno-issledovatel'skogo instituta kurortologii i fizioterapii (dir. - kandidat meditsinskikh nauk G. N. Pospelova) i Klinicheskoy kozhno-venerologicheskoy bol'nitsy imeni Korolenko (glavnyy vrach A. I. Pustovaya).

(ALPHA RAYS—THERAPEUTIC USE) (ECZEMA)
(THORIUM—THERAPEUTIC USE)

SHCHEPOT'YEVA, Yo.S.; ARDASHNIKOV, S.H.; LUR'YE, G.Ye.; RAKHMANOVA, T.B.

Specificity of the manifestation of oxygen effect under the action
of alpha rays. Izv. AN SSSR. Ser. biol. no.4:642-652 J1-Ag '61.
(MIRA 14:9)

1. Tsentral'nyy institut kurortologii i fizioterapii.
(ALPHA RAYS---PHYSIOLOGICAL EFFECT)
(PHYSIOLOGICAL CHEMISTRY)

TRET'YAKOV, A.F.; SHCHEPOT'YEVA, Ye.S.

Treatment of neurodermatitis circumscripta with radioactive bandages containing an active coating of daughter products of thorium (alphatherapy). Vest. dermat. i ven. Zh. 1963, 9: 14-16, 163.

(PAR. 17:6).

1. Radiologicheskaya laboratoriya (zav. - prof. Ye.S. Shchepot'yeva)
TSentral'nogo instituta kucrtologii i fizioterapii (dir. - kand. med. nauk. G.N. Pospelova).

SHCHEPTEV, N.F.; YUZHNAJA, Ye.A., redaktor; MEL'NIKOVA, N.V., tekhnredaktor.

[Equipment of peat enterprises and its care] Oborudovanie torfianyx
predpriyatii i ukhod za nim. Moskva, Gos. izd-vo mestnoi promyshl.
RSFSR, 1954. 216 p. (MLRA 8:5)
(Peat machinery)

BEZZUBOV, Nikolay Dmitriyevich; SOKOLOV, Aleksandr Alekseyevich; SHCHEPTEV,
N.F., redaktor; VORONIN, K.P., tekhnicheskiy redaktor.

[Winning chunk peat with a MPDK machine] Dobycha kuskovogo torfa
mashinoy MPDK. Moskva, Gos. energ. izd-vo, 1955. 95 p. (MLRA 9:4)
(Peat machinery)

GALYBIN, N.A., inzh.; SHCHERBETEV, N.F., inzh.; KOLOTUSHKIN, V.I., red.; LANGE,
V.I., red. izd-va; MEL'NIKOVA, N.V., tekhn. red.

[Organization of fuel depots] Organizatsiia toplivnykh skladov.
Moskva, Gos. izd-vo mestnoi promyshl. RSFSR, 1955. 210 p.
(Fuel--Storage) (MIRA 11:7)

SHCHEPTEV, N F

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1955

SHCHEPTEV, N F

SPRAVOCHNIK MEKHANIKA TORFOPREDPRIYATITY I TORFOERIKETNYKH ZAVOKOV
(HANDBOOK FOR THE MECHANIC IN PEAT AND PEAT BRIQUETTE FACTORIES) 2. IZD.,
ISPR. I DOP. MOSKVA, ROSSGIZMESTPROM, 1955.
471 P. ILLUS., DIAGRS., TABLES.

BEZZUBOV, Nikolay Dmitriyevich; SOKOLOV, Aleksandr Alekseyevich; SHCHEPTEV,
N.F., redaktor; LARIONOV, G.Ye., tekhnicheskiy redaktor

[The KDN-2 block peat machine] Dobycha kuskovogo torfa mashinoi
KDN-2. Moskva, Gos. energ. izd-vo, 1956. 68 p. (MIRA 10:1)
(Peat machinery)

SHCHEPTEV, N.F.

Trends in the development and mechanization of the peat industry
under the Ministry of the Fuel Industry of the R.S.F.S.R. Torf.
prom.33 no.2:28-31 '56. (MLRA 9:6)

1. Glavnyy inzhener Glavnogo upravleniya torfyanoy i briketnoy
promyshlennosti Ministerstva toplivnoy promyshlennosti RSFSR.
(Peat machinery)

SHCHEPTEV, N.F., inzhener.

Use of the PK-3 loading crane in nonelectrified peat diggings. Torf.
prom.34 no.1:37-38 '57. (MLBA 10:2)

1. Ministerstvo toplivnoy promyshlennosti RSFSR.
(Cranes, derricks, etc.)

SHCHE Tsk.

... .. increasing the productivity of peat excavators in
... .. of the fuel industry of the R.S.F.S.R.
... .. 27 '57.

... .. toplivnyy RSFSR.
... .. (Peat)

SHCHKAPTEV, N.F., inzh.; VOLOTSKOV, S.I., red.; LARIONOV, G.Ye., tekhn. red.

[Mechanization of heavy operations at small and middle-sized
peat enterprises] Mekhanizatsiia trudoemkikh robot na torfo-
predpriiatiiakh maloi i srednei moshchnosti. Moskva, Gos. energ.
izd-vo, 1958. 70 p. (MIRA 11:12)

(Peat machinery)

SHCHEPTEV, N.F., inzh.

Modernization of small peat-winning excavators. Torf. prom. no.1:29-32
'58. (MIRA 12:12)

1.Gosplan RSFSR.
(Peat machinery)

SHCHEPTEV, N.F.

Developments of the manufacture of peat briquets. Torf. prom. 35
no.3:23-26 '58. (MIRA 11:5)

1. Gosudarstvennyy nauchno-tekhnicheskii komitet Soveta Ministrov RSFSR.
(Peat) (Briquets (Fuel))

SHCHEPTEV, N.F., inzh.

E-156 universal excavator. Torf. prom. 36 no.5:31-32 '59.
(MIRA 13:1)

1. Gosudarstvennyy nauchno-tekhnicheskiy komitet RSFSR.
(Peat machinery)

SHCHEPTEV, N.F., inzh.

New machinery for the preparation of milled peat fields. Torf.
prom. 37 no.3:7-10 '60. (MIRA 13:9)

1. Gosudarstvennyy nauchno-tekhnicheskiy komitet RSFSR.
(Peat machinery)

SHCHEPTEV, N.F., inzh.

Techniques of the peat briquet production. Torf. prom. 37
no. 3:16-18 '60. (MIRA 14:1)

1. Gosudarstvennyy nauchno-tekhnicheskiiy komitet RSFSR.
(Peat) (Briquets (Fuel))

SHCHEPTEV, N.F.

New equipment designed by the technical design bureaus of peat
winning and transportation enterprises. *Biul.tekh.-ekon.inform.*
no.7:21-22 '61. (MIRA 14:8)
(Peat machinery)

SHCHPTEV, N.E.

Over-all mechanization of winning cut peat operations. Biul.tekh.-
ekon.inform. no.9:13-15 '61. (MIRA 14:9)
(Peat machinery--Technological innovations)

SOCHETEV, N.F.

Improving the equipment in peat-briquetting enterprises. *Biul.tekh.-*
ekon.inform. no.11:10-13 '61. (MIRA 14:12)
(Peat machinery)

SHEPTEV, N.F.

Present state of scientific research and experimental works on the
utilization of peat in metallurgy. Torf. prom. 38 no. 3:35-37 '61.
(MIRA 14:4)

(Peat) (Metallurgy)

SHCHEPTLV, N.F.

In the State Scientific and Technical Committee of the
Council of Ministers of the R. S. F. S. R. Torf. prom.
38 no.4:35-36 '61. (MIRA 14:9)
(Peat industry)

SHCHEPTEV, N.F.

Seminar on better equipment for Russian peat briquet factories.
Torf. prom. 38 no.5:36-37 '61. (MIRA 14:10)
(Peat machinery)

SHCHEPTEV, N.F.

Over-all mechanization of peat transportation and handling.

Biul,tekh.-ekon.inform. no.1:16-19 '62.

(MIRA 15:2)

(Peat machinery)

SHCHINTEV, N. F.

*Organization of a scientific council for over-all utilization
of peat and peat deposits. Biul. tekhn.-ekon. inform. Gos. nauch. -
issl. inst. nauch. i tekhn. inform. no. 3:70-71 '62. (MIRA 15:5)
(Peat industry)*

SHCHEPTEV, N.F.

The BPD-1 (2) peat-briquet double-die press without a bed. Biul.tekh.-
ekon.inform.Gos.nauch.-issl.inst.nauch. i tekh.inform. no.7:16-18
'62. (MIRA 15:7)

(Briquets (Fuel)) (Power presses)

SHCHEPTEV, N.

Prospects of peat utilization in metallurgical plants.
Torf.prom. 39 no.4:37-38 '62. (MIRA 15:7)
(Peat industry)
(Coke)

SHCHEPTEV, N. F.

Production of peat-moss litters and peat-mineral-ammoniac fertilizers for agriculture. Biul.tekh.-ekon.inform.Gos.nauch.-issl. inst.nauch. i tekh.inform. no.10:55-59 '62.

(MIRA 15:10)

(Fertilizers and manures) (Peat)

SHCHEPTEV, V.F. (Moskva)

Private on constant watch. Zdorov'ie 7 no. 5:32 My '61.

(MIRA 14:4)

(MEDICAL CARE)

СИЧЕР ТЕВ, В.Н.

SA

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3777. CALCULATION OF THE ELECTROMAGNETIC SYSTEM OF AN ELECTRIC CUTTING TOOL [ELECTRIC SPARK LATHE]. V.N. Shoheptov. Elektrichestvo (No. 6) 26-30 June 1960) In Russian.

The author deals mainly with the solenoid drive which provides the working movement of the spark electrode. The movement is controlled according to the varying electrode spacing during the course of operation and should be kept constant as far as possible. A further difficulty is variation of the operating current, which again depends upon the electrode spacing. The solenoid current can be derived only from the operating current (this being the only possible means of automatic regulation). Further difficulty resides in the square-law relation between the attractive force of the solenoid and current, and the dependence of the force on the position of the core. The theory has enabled the existing method of electromagnetic control (due to A.I. Livshits and P.N. Rosenthal) to be improved.

I.F. Kraus

ASST. SEC. METALLURGICAL LITERATURE CLASSIFICATION

E2

VINOGRADOV, V.; SHCHERB, A.; YURIN, B.A., red.; KOROBOVA, N.D.,
tekh. red.

[The trade unions of Cuba; collected articles, addresses
and materials] Profsoiuzy Kuby; sbornik statei, vystuplenii
i materialov. Moskva, Profizdat, 1963. 166 p.
(MIRA 17:2)

SHCHERBA, A.

Lida encounters. Rab. i sial. 36 no.1:12-13 Ja '60.
(MIRA 13:5)

(Lida--Industries) (Women--Employment)

ACC NR: ARG035061 SOURCE CODE: UR/0058/66/000/008/H002/H002

AUTHOR: Shcherba, A. M.

TITLE: Frequency conversion in p-n junctions

SOURCE: Ref. zh. Fizika, Abs. 8Zh11

REF SOURCE: Tr. uchebn. in-tov svyazi. M-vo svyazi SSSR, vyp. 27, 1965, 55-60

TOPIC TAGS: frequency conversion, pn junction, spectral distribution, amplitude distribution, nonlinear capacitance, nonlinear resistance, active component, reactive component

ABSTRACT: Spectral amplitude distribution of voltage combination components in a p-n junction is analyzed for the case when its equivalent circuit under frequency conversion conditions may be represented by the coupling of nonlinear capacitance and nonlinear active resistance. Expressions for cophasal and antiphase modulation of the active and reactive component of junction total conductivity are derived. [Translation of abstract] [DW]

SUB CODE: 12, 09/

Card 1/1

BUCHENAU, P.T.: MICHURIN, G.D.

Experimental indicator of the time. Hosp. no. 1. anest. 7 no. 1:
24-38 N-0 100. (MIRA 17:10)

1. Iz gosital'noy khirurgicheskoy kliniki inachal'nik - general-
major medicinskoy sluzhby prof. I.F. Kolesnikov, Voenno-meditsins-
koy ordena Lenina akademii imeni N. I. Pirogova.

KOLEBNEKOV, I.S.; VIKHRIYEV, B.S.; ORCHERBA, B.V.; POZDIN, B.I.;
PLESHAEV, V.T.

Differential diagnosis of lung cancer and abscess. Vop.onk. 11
no.11:3-7 '65. (MIRA 19:1)

1. iz kafedry gospital'noy khirurgii (zav. - laureat Leninskoy
premi, chlen-korrespondent AMN SSSR, zasluzhennyy deyatel' nauki
KSPSR prof.I.S.Kolesnikov) Voenno-meditsinskoy ordena Lenina
akademii imeni S.M.Kirova.

SHCHERBA, F.I.; POGORELKO, I.P.

Use of an electrophoretic method with streptomycin and anesthetics in treating tuberculous and trophic lesions of the bladder. Sov. med. 18 no.9:32-33 S 1954. (MLRA 7:11)

1. Iz fizioterapevticheskogo otdeleniya (zav. - prof. V.A.Ivanov) i urologicheskoy kliniki (dir. - prof. A.P.Frumkin) Tsentral'nogo instituta usovershenstvovaniya vrachey na baze Klinicheskoy ordena Lenina bol'nitsy imeni S.P.Botkina (glavnyy vrach - prof. A.N. Shabanov)

(BLADDER, diseases

trophic lesions, electrophoresis of streptomycin ther. & anesthetics)

(STREPTOMYCIN, therapeutic use

tuberc., venal & trophic lesions of bladder, electrophoresis)

(ANESTHETICS, therapeutic use

same)

(TUBERCULOSIS, RENAL, therapy

anesthetics & streptomycin electrophoresis)

SHCHERBA, F.I.; KOGAN, S.A.

▲ method of inductothermy in the treatment of diabetic polyneuritis.
Sov.med. 21 no.5:109-112 My '57. (MLRA 10:7)

1. Iz fizioterapevticheskogo otdeleniya (nauchnyy rukovoditel' -
prof. V.A.Ivanov) i endokrinologicheskogo otdeleniya (zav. - N.I.
TSyganova) Moskovskoy gorodskoy klinicheskoy ordena Lenina bol'nitsy
imeni S.P.Botkina (glavnyy vrach - prof. A.N.Shabanov)

(DIABETES MELLITUS, compl.
polyneuritis, ther., inductothermy)
(FEVER THERAPY, in various dis.
inductothermy in diabetes mellitus)
(POLYNEURITIS, etiol. and pathogen.
diabetes mellitus, inductother.)

СН ВПБА, т. 1.

20584 СНОУПБА, т. 1. Советский президиум Казахстана. Исследования. науч. казах. ССР, №. 70, Серия 1-й, вып. 11, 1949, с. 87-97. - Резюме на казах. яз. - Библиогр: 14 назв.

30: ЛЕТОПИСЬ ЗЕМЛЯНОГО УЧАСТКА - Vol. 28, Moskva, 1949

1. SHCHERBA, G. N.
2. USSR (600)
4. Rocks, Igneous - Altai Mountains
7. Concerning the article "Magma of small intrusions of the Altai." A. P. Nikol'skiy. Reviewed by G. N. Shcherba. Izv. SN SSSR. Ser. geol. No. 2, 1953.

9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

SHOKHBA, G. N.

"Experience Gained in the Study of the Internal Contacts of the Granite Massifs", Izv. An Kazakh SSR, Ser. Geol, No 17, 93-104, 1953 (Kazakhstani resume).

Using certain granite massifs of Central Kazakhstan and Altay as an example, the author generalizes the facts which are the proof for the diverse ages of the rocks of the massif: presence of sharp contacts, change of structure of younger rocks in contact with older rocks, nonconformity of the elements of prototectonics, gradual contact, intersection of lines of contact. (RZhGeol, No 5, 1954). SO: Sum. No. 443, 5 Apr. 55

SHCHERBA, G. N.

"Vulcanic Cupola of the Region of Leninogorsk," *Izv. AN KazakhSSR, ser. geol.*, No 18, 42-49, 1954

On the basis of a study of the structure of dislocated Devonian volcanic formations in the region of Leninogorsk in Rudnyy Altay, the author proposes the technical term "vulkanokupola" (vulcanic cupola) to designate the unique structures occurring as a result of the imposition of plicative and partly disjunctive deformations on primary cones of stratovolcanoes.

RZhGeol, No 1, 1955

SHCHERBA, G.N.

Fine-grained granites of certain massifs of Central Kazakhstan.
Izv.AN Kazakh.SSR.Ser.geol. no.19:146-151 '55. (MLRA 9:8)
(Kazakhstan--Granite)

Shcherba, G. N.

15-1957-7-9176

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 7,
p 54 (USSR)

AUTHOR: Shcherba, G. N.

TITLE: Deep Mobile Zones of Central Kazakhstan (Glubinnyye
podvizhnyye zony Tsentral'nogo Kazkhstana)

PERIODICAL: Izv. AN KazSSR, ser. geol., 1955, vol 20, pp 52-59

ABSTRACT: Five geological structural units are differentiated
in central Kazakhstan, characterized by distinctive
structural features during the period of their develop-
ment from Precambrian to Mesozoic time. The author
considers the central anticlinorium extremely impor-
tant; it can be traced through Precambrian outcrops in
Yeremantau, Atasu, Mointy, and Bulattau, and it sepa-
rates two regions of different tectonic form and ore
mineralization. The structural development of central
Kazakhstan was controlled by deep mobile zones and by
the mosaic pattern of the basement associated with

Card 1/2

15-1957-7-9176

Deep Mobile Zones of Central Kazakhstan (Cont.)

these zones. Mobile zones do not always appear at the surface; for the most part they are distinguishable because of elongated belts of contemporaneous intrusions, which may be traced for hundreds of kilometers. The deep mobile zones are divided into four age groups: early Caledonian, late Caledonian, early and middle Variscan, and late Viriscan. The occurrence of widespread mobile zones may be used in predicting endogenic mineralization. A map shows the distribution of several deep mobile zones of central Kazakhstan.

Card 2/2

A. L. Knipper

SHCHERBA, G.N.

Geological conditions of the formation of some stockworks and the
zonality of mineralization. Izv.AN Kazakh.SSR.Ser.geol. no.21:
3-13 '55. (MLRA 9:8)

(Ore deposits)

1236

15-57-4-4836

Metallogeny of Central Kazakhstan (Cont.)

Variscan, late Variscan, and Meso-Cenozoic. The most important stage for the development of rare metals is the late Variscan. Endogene deposits of vein quartz-greisen, skarn, and secondary quartzite formations were formed during this stage. Deposits of the vein quartz-greisen are of greatest importance. They are listed as follows: the Shalgiinskoye, the Karaoba, the Akchatauskoye, the Baynazarskoye, the Verkhne-Kayraktinskoye, the Zhanetskoye, and the Kounradskoye. The ore-bearing rocks of the late Variscan stage represent intrusions of leucocratic granites which formed small masses of complex structure. Most of the rare metals deposits (62 percent) were contained in granites. The following genetic classification of rare metals deposits is proposed for Central Kazakhstan: 1) endogene deposits: a-epimagmatic dispersions of mineralization in volcanic rock, b-pegmatite formation, c-skarn formation with a superimposed type of mineralization, d-vein quartz-greisen formation, e-formation of secondary quartzites; 2) exogene deposits: a-original sedimentary formation, b-deluvial, deluvial-proluvial, alluvial, and
Card 2/5

Metallogeny of Central Kazakhstan (Cont.)

15-57-4-4836

places of superimposition of later zones on the earlier ones and at the junction of zones. The principal rare-metal ore concentrations are associated with the junctions of mobile zones. Ores are localized either at the contact planes or in the various fissured zones; the latter may be of parallel, stockwork, ring, or interformational type. Many deposits are located on the end of sandstone-shale strata which are unconformed with the effusive-pyroclastic Devonian and Carboniferous overlying complexes. Zoning is observed in the complex deposits--tin and molybdenum ores are found closer to the sources of mineralization, while the tungsten deposits are located farther from the sources. A territory of 800 000 sq km was mapped for mineral potential on the basis of these investigations. Areas of mineral potential were distinguished on the basis of: 1) geological criteria; 2) actual distribution of deposits and of hydrothermally altered rock carrying ore concentrates and metal-bearing aureolas. Four categories of areas were distinguished during the investigation. Basic directions of further exploration for rare
Card 4/5

Metallogeny of Central Kazakhstan (Cont.)

15-57-4-4836

metals in Central Kazakhstan should be: 1) continuation of exploration for the major deposits of rare metals; 2) organizing exploration for deposits of favorable genetic types located at the inter-sections of deep mobile zones; 3) geological surveys and exploration of other areas with mineral potential.

Card 5/5

Ye. P. M.

SHCHERBA, G.N.

Paleozoic zone of deep tectonic movements in eastern
Kazakhstan. Izv.AN Kazakh.SSR. Ser.geol. no.24:3-7
'56.

(MLBA 10:2)

(Kazakhstan--Geology)

15-1957-10-13923

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 10,
p 80 (USSR)

AUTHOR: Shcherba G. N.

TITLE: An Example of the Relation Between Aplites and Quartz
Veins (Odin iz primerov sootnosheniya aplitov i kvar-
tsevykh zhil)

PERIODICAL: Izv. AN KazSSR, ser. geol. 1956, Nr 25, pp 20-26 (Summary
in Kazakh)

ABSTRACT: The Kuu intrusive mass is located at the western end of
a belt of intrusions associated with the Kuu-Kzyl-tau-
Mamantasskaya deep mobile zone of central Kazakhstan,
along which acid magmas were intruded in the middle Her-
cynian and late Hercynian stages. The intrusive mass
has a form approaching a flattened ellipsoid and its em-
placement took place in three stages: 1) intrusion of
porphyritic coarse-grained granites, forming the great-
est areal extent of the mass; 2) intrusion of granitic
magma in the central zone, with the formation of medium-
grained granites; and 3) intrusion of fine-grained gran-

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15-1957-10-13923

An Example of the Relation Between Aplites and Quartz Veins

ites. After the fine-grained granites were emplaced, aplite dikes, pegmatites, and granite porphyry bodies were formed. There are interrelations among the dikes of aplite, pegmatite, and greisen, and the quartz veins. Aplites I are confined to three systems of steeply inclined fractures and are cut by the later aplites II, pegmatites, and quartz veins, and also by bands of mica-quartz greisen. Aplites II, confined to the same systems of fractures as aplites I, are distinguished from the first group by the rather high content of quartz and plagioclase. They intersect and displace dikes of aplites I, pegmatites, and high-temperature quartz veins. After the intrusion of the magma into the dikes of aplites II, there followed two generations of quartz veins. Postmineralization intrusive activity appears most extensive in the rare-metal deposits of Kuu and Shalgiy. At the Shalgiy deposit nine generations of hydrothermal veins have been identified. The origin of the subsequent series of granitic dikes--with their systematic association of aplites and pegmatites, and later of ore as well--is considered by the author to be the result of active magmatic

Card 2/3

SHCHERBA, G.N.; SERGIYEV, N.G., otvetstvennyy redaktor; RZHONKOVSKAYA, L.S.
redaktor; ALFEROVA, P.F., tekhnicheskiiy redaktor

[Geology of the Naryn Range granitoids in Southern Altai] Geologiya
Narynskogo massiva granitoidov na IUznom Altae. Alma-Ata, Izd-vo
Akad.nauk Kazakhskoi SSR, 1957. 213 p. (MLRA 10:7)

1. Chlen-korrespondent Akademii nauk KazSSR (for Sergiyev)
(Naryn Range--Granitoids)

SHCHERBA, G.N.; YERMOLAYEV, K.Ye.; KAYUPOV, A.K.; KIM, V.A.; NIKITINA, L.G.;
FLEROV, Ye.A.; SATPAYEV, K.I., akademik, red.; BOK, I.I., red.;
SEMENOVA, M.V., red.; POPOV, N.D., tekhn.red.

[Geology of the Leninogorsk and Zyryanovsk mine regions in the
Altai Mountains] Geologiya Leninogorskogo i Zyrianovskogo
rudnykh polei na Altae. Pod red.K.I.Satpaeva. Moskva, Gos.
nauchno-tekhn.izd-vo lit-ry po geoli okhrane neдр, 1957. 370 p.
(MIRA 11:1)

1. Akademiya nauk Kazakhskoi SSR, Alma-Ata.
(Kazakhstan--Geology, Structural)

BOCHAMBA, G.K.

Defects in the scientific discussion on the Altai Mountains.
Izv. AN Kazakh. Ser. Ser.geol. no.1.102-104 57. (MLA 10:7)
(Altai Mountains--Ore deposits)

SHCHERBA, A. M.

A few plutonic mobile belts in southwestern Altai. Izv. AN Kazakh
SSR, Ser. geol. no.2 105-106 1977. (MLBA 10:8)
(Altai Mountains--Geology, Structural)

SHCHERBA, G.N.

Concerning "New data" on the magmatic nature of the Cherdoiak region.
Izv. AN Kazakh.SSR. Ser.geol.no.3:129-131 '57. (MIRA 10:10)
(Narym Range--Rocks, Igneous)

SATPAYEV, K.I.; BORUKAYEV, R.A.; AKHMEDSAFIN, U.M.; BOK, I.I.; KUSHEV, G.L.;
SMRGIYEV, N.G.; SHLYGIN, Ye.D.; SHCHERBA, G.N.; MONICH, V.K.;
LOMONOVICH, I.I.; LAVROV, V.V.; MEDOYEV, G.TS.; NOVOKHATSKIY, I.P.;
BARBOT-DE-MARNI, A.V.; GALITSKIY, V.V.; KOLOTILIN, N.F.; ZHILINSKIY,
G.B.; KAYUPOV, A.K.; KAZANLI, D.N.; SATPAYEVA, T.A.; ABDULKABIROVA,
M.A.; GAZIZOVA, K.S.; VEYTS, B.I.; KHAYRUTDINOV, D.Kh.; MUKHAMEDZHANOV,
S.M.; CHOLPANKULOV, T.Ch.; PARSHIN, A.V.; TAZHIBAYEVA, P.T.; YANULOVA,
M.K.; BYKOVA, M.S.; VOLKOV, A.N.; BOLGOV, G.N.; MITRYAYEVA, N.M.;
CHOKABAYEV, S.Ye.; KUNAYEV, D.S.; YARENSKAYA, M.A.; REBROVA, T.I.

Tireless explorer of the depths of the earth's crust; on the 65th
birthday and 40th anniversary of the scientific engineering ac-
tivities of Academician M.P. Rusakov. Vest. AN Kazakh. SSR 13
no.12:96-97 D '57. (MIRA 11:1)

(Rusakov, Mikhail Petrovich, 1892-)

3(5) PHASE I BOOK EXPLOITATION SOV/1886

Ob'zhechnennaya nauchnaya sessiya po metallogenicheskim i prognomnym kartam, Alma-Ata, 1958.

Materialy nauchnoy sessii po metallogenicheskim i prognomnym kartam i doklady. (Materials Presented at the Scientific Session on Metallogenetic and Postulated Ore Occurrence Maps, Reports on Alma-Ata, Iss. vo AN Kazakhskoy SSR, 1958. 310 p. Errata slip inserted. 3,850 copies printed.)

Ed.: A.S. Pogoshev; Tech. Ed.: P.Y. Alferova.

Sponsoring Agencies: (1) Akademiya nauk SSSR, (2) Akademiya nauk Kazakhskoy SSR, Alma-Ata, (3) USSR, Ministerstvo geologii i obratny nedr, (4) Kazakh SSR, Ministerstvo geologii i obratny nedr.

PURPOSE: This book is intended for exploration geologists, mining engineers, and cartographers.

Materials Presented (Cont.) SOV/1886

COVERAGE: This collection of reports was presented at the United Scientific Session on Metallogeny and Postulated Ore Occurrence Maps convoked by the Academy of Sciences in Alma-Ata, December, 1958. The reports deal with various aspects of compiling metallogenetic and ore occurrence maps and also with the methodology and techniques of correlating geophysical exploration data. These reports deal only with non-ferrous metals. Three other reports delivered at the conference, but not included in this work were read by Ye. Ye. Zhabayev, M.S. Shatalskiy, and Yu.K. Gorstalskiy. References accompany each article.

TABLE OF CONTENTS:

Materials Presented (Cont.)	SOV/1886
Duklin, N.V. [Ural'skiye GU MOON]. Principles of Compiling Metallogenetic Maps for the Magmatic Deposits of the Urals	80
Aliekhin, M.M., V.O. Pervov. [Ural'skiye GU MOON]. Technique of Compiling of Copper and Iron Metallogenetic and Postulated Occurrence Maps for the Urals	88
Lazarev, P.V., I.V. Lemykh [GU MOON]. Copper and Nickel Postulated Occurrence Maps for Certain Districts of the Southern Urals	100
Ivankin, P.P., A.K. Kayupov, and O.M. Shcherba. [AN KazSR]. Metallogenetic Postulated Occurrence Maps of Heavy Alloy in Central Kazakhstan	110
Shcherba, O.M. Postulated Occurrence Maps for Rare Minerals	119
Book, I.I., and L.A. Miroshnichenko [ISS AN KazSR]. Postulated Metallic Deposits of Central Kazakhstan and Guides for Predicting Their Occurrence and Exploration	131
Card 4/6	

SHCHERBA, G.N.

Rare metals and genetic types of deposits in eastern Kazakhstan.
Izv.AN Kazakh.SSR.Ser.geol. no.4:20-37 '58. (MIRA 12:4)
(Kazakhstan--Ore deposits)

AUTHORS: Shcherba G. N., Ivanov, A. I. SOV/7-58-6-13/16

TITLE: Discussion (Diskussiya) - On the Age of Some Granite Intrusions in Central Kazakhstan Bearing Rare Metals (Po povodu vozrasta nekotorykh redkometal'nykh granitnykh intruziy Tsentral'nogo Kazakhstana)

PERIODICAL: Geokhimiya, 1958, Nr 6, pp 607 - 609 (USSR)

ABSTRACT: L. V. Komlev, S. I. Danilevich, K. S. Ivanova and collaborators believe the intrusions of Akchatau, Maytas and Zhanet to have Postcaladonian but not Posthercynian age (Refs 1 and 2). The authors investigated these regions and carried out additional age determinations for Akchatau and Zhanet. The assumptions of L. V. Komlev and others are in contradiction to the geological conditions. In their investigations Komlev and his collaborators used age determinations according to the helium, lead and argon method which resulted in an average of 300 - 317 million years. A. I. Ivanov and N. I. Zamyatin on the other hand found in the Laboratoriya IGM AN Kaz.SSR according to the argon method 240 - 248 million years. Komlev's determination for Zhanet was 320 million years, the authors, however, find 207-243

Card 1/2

Discussion - On the Age of Some Granite Intrusions
in Central Kazakhstan Bearing Rare Metals

SOV/7-58-6-13/16

million years (Table 2). The sequence in the region of
Zhanet was investigated in detail by R. N. Mal'kova,
V. F. Murav'yeva, V. L. Mel'nikova. There are 2 tables
and 2 references. which are Soviet.

SUBMITTED: May 20 1958

Card 2/2

SATPAYEV, K.I.; POLOSUKHIN, A.P.; BAISHEV, S.B.; CHOKIN, Sh.Ch.; BORUKAYEV, R.A.;
AKHMEDSAFIN, U.M.; KUSHEV, G.L.; SHCHERBA, G.N.; MONICH, V.K.; MEDOYEV,
G.TS.; LAVROV, V.V.; BARBOT-DE-MARNI, A.V.; GALITSKIY, V.V.; ZHILINSKIY,
G.B.; KAYUPOV, A.K.; KAZANLI, D.N.; KOLOTILIN, N.F.; MUKHAMEDZHANOV, S.M.;
SATPAYEVA, T.A.; VEYTS, B.I.; GAZIZOVA, K.S.; CHOLPANKULOV, T.Ch.;
PARSHIN, A.V.; BYKOVA, M.S.; MITRYAYEVA, N.M.; VOLKOV, A.N.; CHAKABAYEV,
S.Ye.; YARENSKAYA, M.A.; KHAYRUTDINOV, D.Kh.

On the 60th anniversary of the birth of I.I. Bok, Academician of the
Academy of the Kazakh S.S.R. Vest.AN Kazakh.SSR 14 no.10:95-96
0 '58. (MIRA 11:12)

(Bok, Ivan Ivanovich, 1898-)

БАНДАЛЕТОВ, С.М.; БЕСПАЛОВ, В.Ф.; БОГАТЫРЕВ, А.С.; БОК, И.И.; ГАЛИТСКИЙ,
В.В.; ЗИЛИНСКИЙ, Г.Б.; ИВШИН, Н.К.; КАЗАНЛИ, Д.Н.; КАЙУПОВ,
А.К.; КОНЕВ, А.К.; КУШЕВ, Г.Л.; ЛЯПИЧЕВ, Г.Ф.; МЕДОЙЕВ, Г.Т.С.;
МОНИЧ, В.К.; МЯГКОВ, В.М.; НИКИТИН, И.Ф.; НОВОКХАТСКИЙ, И.П.;
САТПАЙЕВ, К.И.; ШЛЫГИН, Ye.D.; ШЧЕРБА, Г.Н.

Eminent geologist of Kazakhstan. Vest AN Kazakh SSR 15 no.1:
94-95 Ja '59. (MIRA 12:1)
(Borukaev, Ramazan Aslanbekovich, 1899-)

AVROV, P.Ya.; AYDINOV, Zh. A.; AUEZOV, M.O.; AKHMEDSARIN, U.M.; BATISHCHEV-
PARASOV, S.D.; BAZANOVA, N.H.; BAIKHEV, S.B.; BAYKONUROV, A.B.;
BEKTUROV, A.B.; BOGATYREV, A.S.; BOK, I.I.; BORGALAYEV, R.A.; BUTLICHEN,
N.L.; BYKOVA, N.S.; ZHILINSKIY, G.R.; ZYKOV, D.A.; IVANKIN, P.F.;
KAZANLI, D.H.; KAYUPOV, A.K.; KENESBAYEV, S.K.; KOLOTILIN, N.F.;
KUNAYEV, D.A.; KUSHEV, G.L.; LAY, V.V.; MASHAROV, O.Zh.; MEDOVA,
G.TS.; MONICH, V.K.; MUKANOV, S.; MUSREPOV, G.; MUKHAMEDZHANOV, S.M.;
PARSHIN, A.V.; POFROVSKIY, S.M.; POLOSUKHIN, A.P.; RUSAKOV, M.P.;
SERGIYEV, N.P.; SEYFULIN, S.Sh.; TAZHIBAYEV, P.T.; ESSENKOV, V.G.;
SHLYGIN, Ye.D.; SHCHERBA, G.N.; CHOKIN, Sh.Ch.; CHOLPANKULOV, T.Ch.

Sixtieth birthday of Academician Kanysh Iwantaevich Satpaev. Vest.
AN Kazakh. SSR 15 no.4:58-61 Ap '89. (MIRA 12:7)
(Satpaev, Kanysh Iwantaevich, 1899-)

SHCHERBA, Grigoriy Nikiforovich; AYTALIYEV, Zh.A., otv.red.;
RZHONDKOVSKAYA, L.S., red.; ALFEROVA, P.F., tekhn.red.

[Formation of rare metal deposits in central Kazakhstan]
Formirovaniye redkometal'nykh mestorozhdenii Tsentral'nogo
Kazakhstan. Alma-Ata, Izd-vo Akad.nauk Kazakhskoi SSR,
1960. 373 p. (MIRA 14:1)

1. Chlen-korrespondent AN KazSSR (for Aytaliyev).
(Kazakhstan--Metals, Rare and minor)

SHCHERBA, G.N.; KUDRYASHOV, A.V.

One of the criteria of genetic association in ore formation. Izv.
AN Kazakh.SSR.Ser.geol. no.3:116-119 '60. (MIRA 13:11)
(Feldspar--Optical properties)

SHONIN, G.N.

Heavy-metal belts. Sakon.razn.polezn.iskop. 37511-349 '80.
(MIRA 1981)

1. Institut geologicheskikh nauk AN Kazakhskoy SSR.
(Kazakhstan - Metals, Rare and minors)

SHCHERBA, G.N.

Conference on the metallogeny of the Pacific ore belt. Izv. AN
Kazakh. SSR. Ser. geol. no.1:80-85 '61. (MIRA 14:6)
(Soviet Far East—Ore deposits)

SHCHERBA, G.N.; KOLMAGOROV, Yu.A.; KUMINGVA, M.V.; MIROSHNICHENKO, L.A.

Subsurface mobile zones in central Kazakhstan. Izv. AN Kazakh.
SSR.Ser.geol. no.1:8-22 '02. (MIRA 15:5)
(Kazakhstan--Geology, Structural)

SHCHERBA, G.N., POPOV, A.A.

Some data on the thickness of the earth's crust in the southern
part of eastern Kazakhstan. Izv. AN Kazakh, SSR, Ser-geol.
no. 3-13-27 '62. (MIRA 15:7)

(Kazakhstan--Earth--Surface)

SHCHERBA, G.N.

Some problems in prospecting for hidden W. Mo, Bi deposits as
revealed by prospecting in central Kazakhstan. Izv. AN Kazakh.SSR
Ser.geol. no. 5-12 '62. (MIRA 16:5)
(Kazakhstan--Ore deposits) (Kazakhstan--Prospecting)

MITRYAYEVA, N.M.; KOZHNOV, A.A.; SHCHERBA, G.N.

Genesis of complex metal ores of the Atasu region (central
Kazakhstan). Izv. AN Kazakh.SSR. Ser.geol. no.6:53-64
'62. (MIRA 16:5)
(Atasu region--Ore deposits)

SHCHERBA, G.N.; YERSHOV, B.V.; IVANOV, A.I.; KUDRYASHOV, A.V.;
SENCHILO, N.P.

Possible Mesozoic age of the Khorgos intrusive complex in the
Dzungarian Ala-Tau. Trudy Inst.geol.nauk AN Kazakh.SSR 6:226-236
'62. (MIRA 16:6)

(Dzungarian Ala-Tau--Geological time)

SHOEBABA, G.N.

All-Union Conference on the Ore Potential of Volcanic Sedimentary Formations. Izv. AN Kazakh SSR Ser. geol. nauk no. 4:111-112 '63. (MIRA 16:9)

1. Institut geologicheskikh nauk AN Kazakhskoy SSR, Alma-Ata.

SHCHERBA, G.N., doktor geologo-mineralog. nauk

Frequent types of relations between mineralization and magmatic processes. Vest. AN SSSR no.9:17-20 S '64.

(MIRA 17:10)

SATPAYEV, K.I. [deceased]; SHCHERBA, G.N.

Methods and basic results of the combined investigation of the
Espensk mobile depth zone in central Kazakhstan. Izv. AN Kazakh.
SSR. Ser. geol. 21 no.3:3-10 My-Je '64. (MIRA 17:11)

1. Institut geologicheskikh nauk im. K.I. Satpayeva AN KazSSR,
Alma-Ata.

SHCHERBA, Grigoriy Nikiforovich, prof.; doktor geol.-mineral. nauk,
zasluzhennyy deyatel'nauki KazSSR, GUKOVA, Vera Dmitriyevna;
KUDRYASHOV, Arkadiy Vasil'yevich; SENCHILO, Nikolay
Panteleyevich; NESTEROVA, I.I., red.

[Greisens, vein quartz, and potassic feldspar in molybdenum-
tungsten deposits of Kazakhstan.] Greizeny, zhil'nyi kvarts i
kalishpaty molibdeno-vol'framovykh mestorozhdenii Kazakhstana.
Alma-Ata, 1964. 306 p. (Akademiia nauk Kazakhskoi SSR. Institut
geologicheskikh nauk. Trudy, vol.8) (MIRA 17:6)

SHCHERBA, G.N., doktor geologo-mineralogicheskikh nauk; MARGSHNICHENKO, L.A.,
kand. geologo-mineralog. nauk

Endogenic ore formations of Siberia and the Far East. Vest. AN
Kazakh. SSR 20 n. 7:85-86 J1 '64. (MIRA 17:11)

SHCHEREA, G.N.

Some characteristics of studying Atasu-type deposits. Izv. AN
Kazakh. SSR. Ser. geol. 21 no.5:15-33 S-0 '64. (MIRA 18:5)

1. Institut geologicheskikh nauk im. Satpayeva AN KazSSR, Alma-Ata.

... of the pathology
... (MIR 18:8)
... of the pathology ...

SHISHKIN, N., DEMINA, M. Ye.; SHCHERBA, G.N.

Reviews and bibliography. Zap. Vses. min. ob-va 94 no.4:477-
489 '65. (MIRA 18:9)

1. Nauchno-issledovatel'skiy i proyektnyy institut "Gipronikel",
Leningrad (for Shishkin). 2. Leningradskoye otdeleniye
Matematicheskogo instituta AN SSSR imeni Steklova (for Demina).

10

Shcherba, I.A.

S/169/63/000/003/006/042
D263/D307

AUTHORS: Alekseyev, P.P., Besyadovskiy, Ye.A., Biryukova, L.A.,
Golyshev, G.I., Ivanovskiy, A.I., Izakov, M.M.,
Kokin, G.A., Kurilova, Yu.V., Livshits, N.S., Petrov,
A.A., Rozhdestvenskiy, B.G., Solov'yev, N.V., Speran-
skiy, K.Ye., Khvostikov, I.A., Shvidkovskiy, Ye.G.
and Shcherba, I.A.

TITLE: Study of the upper layers of the atmosphere with the
aid of meteorological rockets

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 3, 1963, 28,
abstract 3.1166 (Tr. Vses. nauchn. Meteorol. sovesh-
chaniya. T.I.L., Gidrometeoizdat, 1962, 91-103)

TEXT: In the present review-type article the authors give
the results of studies carried out at Tsentralnaya aerologicheskaya
observatoriya (Central Aerological Observatory) on atmospheric sound-
ing with meteorological rockets. Measuring methods are described and
the main points are given for obtaining such atmospheric character-

Card 1/2

Study of the upper layers ...

S/169/63/000/003/006/042
D263/D307

istics as pressure, temperature, and wind. Certain results are given: data of seasonal temperature variations at heights up to 50 km in the middle latitudes of the USSR and in polar regions, cases of sudden warming up, characterization of temperature distribution curves, a table characterizing the temperature inversion below the stratopause under the conditions of polar night, and data regarding the circulation in the upper atmospheric layers. Information is given on the constructed meridional sections of temperature fields and on the zonal component of the gradient wind. (25 references).

[Abstracter's note: Complete translation]

Card 2/2

LUK'YANOV, A.V.; SHCHERBA, I.G.

Overthrust in the region of Kenebek-Zhondyttau Mountains in central
Kazakhstan. Izv. AN SSSR. Ser.geol. 26 no.8:105-109 Ag '61.
(MIRA 14:9)

1. Geologicheskii institut AN SSSR, Moskva.
(Kazakhstan--Faults (Geology))

KOPEVA, V.V.; SHCHERBA, I.G.

Some characteristics of the magmatic penetration zones
in the Northern Balkhash Synclinorium. Trudy GIN no.80:
275-311 '63. (MIRA 17:6)

PETROV, K. A., NIFANT'YEV, E. Ye.; KHORKHOYANU, L. V.; SHCHERBA, I. G.

Phosphites and phosphinites of triols and their derivatives. Zhur.ob.
khim. 34 no.1:70-77 Ja '64. (MIRA 17:3)

SHCHERBA, I.I., aspirant

Designing a seven-bar lever mechanism with a circular discontinuous motion of the follower having a given degree of the angular deviation during its function period. Izv. vys. ucheb. zav.; mashinostr. no.8: 10-15 '65. (MIRA 18:10)

SMOCHERBA, I.I., aspirant

Designing a seven-bar crank linkage with a circular
intermittent motion of the follower and a most favorable
transmission angle. Izv. vys. ucheb. zav.; mashinostr.
no. 10:5-19 '65 (MIRA 19:1)

1. Submitted February 29, 1964.

BLYUM, I.A.; DUSHINA, T.K.; SEMENOVA, T.V.; SHOHERBA, I.Ya

Determination of boron with crystal violet. Zav.lab. 27
no.6:644-650 '61. (MIRA 14:6)

1. Kazakhskiy institut mineral'nogo syr'ya, Tsentral'naya
laboratoriya Chelyabinskogo geologicheskogo tresta i Tsentral'naya
laboratoriya Yuzhno-Kazakhstanskogo geologicheskogo upravleniya.
(Boron--Analysis) (Crystal violet)

SHCHERBA, h. D.

Distr: 4E1d/4E4j

27

Preparation of silver chloride windows for cells. L. D. Shcherba and T. V. Yakovleva. *Pribory i Tekh. Eksperimenta* 1956, No. 3, 101.—A simple method for the prepn. of AgCl windows for obtaining infrared absorption spectra is offered. AgCl was pptd. from AgNO₃ and then filled into 20 cc. Pyrex glass ampuls, which were placed into muffles, slowly heated to 480°, and held there for 40-50 min. Then, in the course of 10-12 hrs. the temp. was very slowly lowered to 120-50°. Under such conditions relatively large AgCl crystals are formed. The cooled mass is removed from the glass mechanically and washed with HNO₃ and H₂O. The transparent mass is then pressed in Cr-plated molds. During 15-20 min. the pressure is gradually increased to 2000 atm. After release of pressure the mass is heat-treated at 100° for 2-3 hrs. The pressure is then slowly increased to 350 atm., held for 10-12 hrs., and gradually released. Transparency of the product is 70-80%. Av. crystal size is 0.5 mm. E. Ryshkewitch

4
2

1/1

PM RW

AUTHORS: Denisenkova, I. V. Shabatka, I. D. SV/48-22-9-30/40

TITLE: Modifications in the Infrared Spectrum of Ammonia at the Transition From the Gaseous to the Liquid State (Izmeneniye v infrakrasnom spektre ammiaka pri perekhode iz gazo-obraznogo v zhidkoye sostoyaniye)

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1958, Vol 22, Nr 9, pp 1122 - 1124 (USSR)

ABSTRACT: This is an investigation of the infrared spectrum of liquid ammonia and of ammonia solution in carbon tetrachloride. The spectra were taken with the spectrometer MKC-11, using LiF and NaCl prisms. The spectrum of liquid ammonia was recorded in the range $2 \frac{1}{4}$ - 15μ at -50° . The spectrum of the ammonia solution was only obtained in the range of the N-H valence oscillations. Synthetic ammonia was used in the experiments, which was dried by condensation above metallic sodium. On the basis of the conceived hydrogen binding in ammonia, greater modifications had to be expected in the spectrum of the liquid, that is to say the occurrence of a new band connected with the disturbed N-H oscillation

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Modifications in the Infrared Spectrum of Ammonia
at the Transition From the Gaseous to the Liquid State

SOV/48-22-9-30/40

and a decrease of the degeneration of the inequality of the three NH bindings. Actually no essential modifications were observed in the infrared spectrum with the exception of a strong increase of the relative intensity of the ν_3 band and a comparatively great displacement of the band (Table). This result can be explained by the assumption of an interaction between all three NH bindings of a molecule with the free pair of the other molecule. In such a case the NH bindings are all equivalent. For this conception, however, the formation of non-linear hydrogen bond is a prerequisite. There are 3 figures, 1 table, and 10 references, 2 of which are Soviet.

ASSOCIATION: Gos.institut prikladnoy khimii (State Institute of Applied Chemistry)

Card 2/2

25(6)

SOV/64-59-1-11/24

AUTHORS:

Vanyushina, Z. S., Vilesova, M. S., Shcherba, L. D.

TITLE:

Control of the Hydrogenation of Adiponitrile and of the Purification of Hexamethylenediamine by the Method of Infrared Spectroscopy (Kontrol' gidrirovaniya adiponitrila i ochistki geksametilendiamina metodom infrakrasnoy spektroskopii)

PERIODICAL: Khimicheskaya promyshlennost', 1959, Nr 1, pp 46-48 (USSR)

ABSTRACT:

At the Gosudarstvennyy institut prikladnoy khimii (State Institute of Applied Chemistry) an analytic method was developed which served the examination of the reaction mixture in the continuous hydrogenation of adiponitrile (I) (Ref 1) during the synthesis of hexamethylenediamine (II). This analysis takes, however, 2.5 - 3 hours. For a faster determination of the conversion of (I) in the hydrogenation the spectrometry by the $-C\equiv N$ group is suggested for the present case. The purity of (II) is particularly important for the production of nylon. It is stated that a judgment of the purity of (II) by the freezing temperature is inadequate, and that a perfect judgement is only possible on the basis of an infrared spectrum analysis in which no absorption band

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SOV/64-59-1-11/24
Control of the Hydrogenation of Adiponitrile and of the Purification of
Hexamethylenediamine by the Method of Infrared Spectroscopy

of the $\text{C}\equiv\text{N}$ group may be observed and in which the groups NH
and NH_2 appear. It is recommended to carry out the rectifica-
tion of raw (II) on a rectification column (under vacuum and
in nitrogen atmosphere). From the fraction $T_z = 40.0^\circ\text{C}$ a control
by the infrared spectrum by means of any spectrometer (e.g.
IKS-11) should be carried out whereby the required rectifica-
tion conditions can be established. 3 examples are given in
which a column with an efficiency of about 15 theoretical
bottoms in nitrogen atmosphere was applied. Results of
examinations of the freezing temperature of the individual
samples are indicated (Table). There are 1 table and 9 ref-
erences, 1 of which is Soviet.

Card 2/2

66850

SOV/76-33-11-3/47

5:4130

~~5(4)~~
AUTHORS:

Shcherba, L. D., Sukhotin, A. M.

TITLE:

Study of the Hydration of Ions by Means of Infrared Absorption Spectra

PERIODICAL:

Zhurnal fizicheskoy khimii, 1959, Vol 33, Nr 11, pp 2401-2404 (USSR)

ABSTRACT:

Investigations (Refs 1,2,5,7) of an absorption band shift at 4.7μ by dissolution of salts in water show that the shift increases with rising salt concentration. Ions with a small radius have an effect on the absorption band similar to a temperature drop and ions with a larger radius act on it like a temperature rise, which is in agreement with Bernal's and Fauler's findings (Ref 10). Waldron (Ref 8) studied the effect of dissolved salts on the infrared spectrum of HDO. In the present case the influence exercised by $LiClO_4$, LiJ , NaJ , $Mg(ClO_4)_2$, MgJ_2 , $(iso-C_5H_4)_4NJ$, and butyl quinoline iodide in a small quantity of water dissolved in acetonitrile (H_2O and D_2O) on the infrared spectrum was investigated. The authors

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SOV/76-33-11-3/47

Study of the Hydration of Ions by Means of Infrared Absorption Spectra

studied solutions of water and of the salts in the concentration range 0.01-0.1 mol, as the salts are practically completely dissociated at these concentrations and the water is associated with acetonitrile in the form of a monomer. The spectra were taken on the spectrometer IKS-11 (with an LiF prism) in the ranges 3300-3800 cm^{-1} (for H_2O) and 2400-2800 cm^{-1} (for D_2O).

It was found that in the spectra of salt solutions one may observe, besides the valency absorption bands of dissolved free water, new bands shifted toward lower frequencies, which are assigned to H_2O molecules penetrated into the solvate envelope of the cations. This shift is explained by the polarization of the H_2O molecules. Consequently it depends on the polarizability of the ions, it decreases in the order Mg^{2+} , Li^+ , Na^+ , $(\text{C}_5\text{H}_{11})_4\text{N}^+$ and is 120, 83, 103 and 108 cm^{-1} . Salts of the quaternary ammonium bases the cations of which have a lesser tendency to hydration do not cause the abovementioned effect. There are 4 figures and 10 references, 2 of which are Soviet.

Card 2/2

SHCHERBA, M. I.

DECEASED

1964

KIDNEYS - DISEASES

c/1963

VOLYNSKIY, Zinoviy Moiseyevich; GOGIN, Yevgeniy Yevgen'yevich;
SHCHERBA, M.M., red.

[Diseases of the pericardium] Zabolevaniia perikarda.
Leningrad, Meditsina, 1964. 303 p. (MIRA 18:1)

RYABOV. S.I.; SHCHERBA, M.M.; ROSHCINA, G.M.

Pathogenesis of anemia in rheumatoid arthritis. Terap. arkh. 35
no.5:82-86 My'63 (MIRA 16:12)

1. Iz kafedry fakul'tetskoy terapii (zav. - zasluzhennyy deyatel' nauki prof. T.S.Istamanova) i kafedry propedevtiki vnutrennikh bolezney (zav. - prof. M.L.Shcherba) I Leningradskogo meditsinsogo instituta imeni akademika I.P.Pavlova.