L 6451-66
ACCESSION NR: AP5019858

cm^{-1}. The estimate of this vibration to the static dielectric constant is estimated to be ~6. The temperature variation of the transmission coefficient was measured in the range 295--150K. Although the experimental setup did not make it possible to reach the phase transition temperature (123K), it is deduced from the shift of the absorption band (~10 cm^{-1} against the theoretical ~18 cm^{-1}) that the optical oscillations of KH_2PO_4 have an anomalous ferroelectric behavior near the Curie point. Orig. art. has: 2 figures and 2 formulas.

ASSOCIATION: Fizicheskiy institut im. P. N. Lebedeva AN SSSR, Moscow (Institute of Physics AN SSSR)

SUBMITTED: 09Mar65 ENCL: 01 SUB CODE: EM, OP

NR REF SOV: 007 OTHER: 008

Card 2/3

L 6451-66
ACCESSION NR: AP5019858

ENCLOSURE: 01

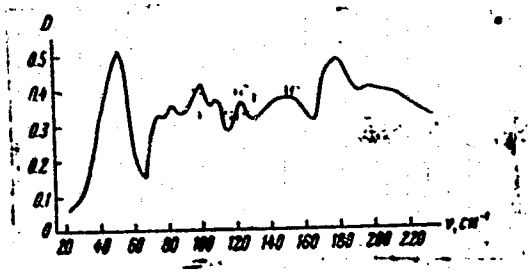

Fig. 1. Plot of optical density of KH_2PO_4.

nw
Card 3/3

AREF'YEV, I.M.; BAZHULIN, P.A.; ZHEIUDEV, I.S.

Long-wave infrared transmission spectra of $NH_4H_2PO_4$. Fiz. tver. tela 7 no.9:2834-2836 S '65. (MIRA 18:10)

1. Fizicheskiy institut imeni P.N.Lebedeva AN SSSR, Moskva.

L 10859-66 EWT(m)/EWP(j)/EWA(c) IJP(c) RM
ACC NR: AP5028255 SOURCE CODE: UR/0379/65/001/004/0536/0540

AUTHOR: Chekunov, A. V.; Sazhulin, P. A.

ORG: Moscow State University im. M. V. Lomonosov (Moskovskiy gosuniversitet)

TITLE: Study of intermolecular interaction between pyridine and iodine by means of infrared absorption spectra

SOURCE: Teoreticheskaya i eksperimental'naya khimiya, v. 1, no. 4, 1965, 536-540

TOPIC TAGS: pyridine, iodine, IR spectrum, intermolecular complex

ABSTRACT: The intensity, width, and shift of the most characteristic absorption bands of pyridine were studied in ternary systems (pyridine + iodine + solvent), and the data obtained were used to determine the equilibrium constant (K) and binding energy (U). Spectra of the solutions were recorded with an IKS-14 spectrometer with an NaCl prism. The solvents were CCl_4, methylene chloride, and bromoform. An increase in the intensity of the ν_{12} IR band of pyridine indicated the formation of a complex between the latter and iodine; this was confirmed by measurements of the binding energy. From the results obtained, some conclusions are drawn concerning the magnitude of the shift of the vibrational frequency ν_1; it is postulated that the degree of shift of ν_1 in the complex characterizes the strength of the

Card 1/2

L 10859-66

ACC NR: AP5028255

21,44,55

intermolecular bond. Orig. art. has: 4 figures, 1 table, and 6 formulas.

SUB CODE: 07/ SUBM DATE: 07Apr65 / ORIG REF: 004 / OTH REF: 011

Card 2/2

L 21222-66 EWT(m)/EWP(t) IJP(c) JD
ACC NR: AP6003812 SOURCE CODE: UR/0181/66/003/001/0272/0274

AUTHORS: Aref'yev, I. M.; Bazhulin, P. A. (deceased); Gavrilova, I. V.; Zheludev, I. S.

ORG: Physics Institute im. P. N. Lebedev AN SSSR, Moscow (Fizicheskiy institut AN SSSR)

TITLE: Temperature dependence of the intensity of light scattering in oriented single crystals of KH_2PO_4 and Rochelle salt

SOURCE: Fizika tverdogo tela, v. 8, no. 1, 1966, 272-274

TOPIC TAGS: ferroelectric crystal, phase transition, light scattering, temperature dependence, light polarization, elastic modulus, crystal lattice vibration, Curie point, paraelectricity, piezoelectric property

ABSTRACT: The purpose of the measurement of the temperature dependence was to check whether the ferroelectric phase transition in these crystals is connected with instability of the crystal against optical lattice vibrations. The experiment was made with a spectrometer

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ACC NR: AP6003812

(DFS-12) whose output was photoelectrically recorded. The illuminator and the sample-cooling system are described elsewhere (A. V. Rakov, Tr. FIAN v. 27, 111, 1964). The investigated crystals were transparent with cross sections 7.5 x 7.5 mm and lengths 20, 23, and 49 mm. The Rochelle-salt crystals measured 7.5 x 7.5 x 30 mm. The intensity of scattering was measured at the maximum of the Hg 4358 Å line under smooth variation of the temperature. The results were strongly dependent on the polarization, and in the case of one type of polarization the intensity of the scattered light had a variation similar to that of the reciprocal of the elastic constant. It is concluded on this basis that the scattering is produced by anomalous acoustic vibrations. In the case of Rochelle salt, the effect is less pronounced in KH_2PO_4, and no increase in the scattering intensity is observed at the second Curie point. This indicates that the structure of the Rochelle salt crystal is different in the two paraelectric phases. No low-frequency Raman scattering spectrum was observed, and it is therefore deduced that the increase in the scattering intensity of the Curie point is connected with the anomalous behavior of the acoustic lattice vibrations. It is concluded on the

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ACC NR: AP6003812

basis of these results and earlier data by the authors (FTT v. 7, 2413, 1965) that the ferroelectric phase transition in both salts is due to the instability of the crystal against the acoustic and optical vibrations of the lattice, which are interelated by the piezoeffect. The authors thank G. P. Motulevich and D. G. Sannikov for a useful discussion. Orig. art. has: 2 figures

SUB CODE: 20/ SUBM DATE: 02Aug65/ ORIG REF: 005/ OTH REF: 003

Card 3/3

L 04790-67 EWT(1)/EWT(m)/EWP(j) IJP(c) RM

ACC NR: AP6024483

SOURCE CODE: UR/0181/66/008/007/2163/2167

AUTHOR: Bazhulin, P. A.; Rakhimov, A. A.

ORG: Physics Institute im. P. N. Lebedev AN SSSR, Moscow (Fizicheskiy institut AN SSSR)

60
57
B

TITLE: Investigation of the long-wave infrared absorption spectrum of naphthalene, diphenyl, and p-dichlorobenzene

SOURCE: Fizika tverdogo tela, v. 8, no. 7, 1966, 2163-2167

TOPIC TAGS: ir spectrum, absorption spectrum, Raman spectroscopy, naphthalene, diphenyl compound, line width, temperature dependence, crystal symmetry, selection rule

ABSTRACT: This is a continuation of earlier work (FTT v. 7, 2088, 1965; Opt. i spektr. v. 16, 1027, 1964) of the natural-frequency lines of these substances by Raman spectroscopy. The present investigation used the ir absorption spectral method, which has not been extensively used in the past for the study of low-frequency spectra of molecular crystals. The absorption spectra were recorded with a long-wave spectrometer described elsewhere (Trudy kommissii po spektroskopii AN SSSR, no. 1, Materialy XV Vsesoyuz, soveshchaniye po spektroskopii (Minsk, 1963) v. 2, 650, 1964). The frequency change at 93 and 328K was investigated in the spectral interval 30 --

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L 04790-67

ACC NR: AP6024483

3

200 cm^{-1}. In addition, the temperature dependence of the line width of naphthalene was also measured in the Raman and infrared bands. Attempts are made to identify the transitions corresponding to the different spectral lines and to reconcile some discrepancies in earlier investigations. Possible violations of the selection rules and violations in the symmetry of the real crystal are discussed. The authors thank I. M. Aref'yev for help with work, and G. V. Peregudov and L. A. Shelepin for a discussion of the results. Orig. art. has: 2 figures and 1 table

SUB CODE: 20/ SUBM DATE: 24Dec65/ ORIG REF: 013/ OTH REF: 008/

Card 2/2 afs

ACC NR: AP6028340

SOURCE CODE: UR/0293/66/004/004/0601/0618

AUTHOR: Bazhulin, P. A. (deceased); Kartashev, A. V.; Markov, M. N.
ORG: none

TITLE: Study of the angular and spectral distribution terrestrial radiation in the infrared spectral range from the Kosmos-45 earth satellite

SOURCE: Kosmicheskiye issledovaniya, v. 4, no. 4, 1966, 601-618
TOPIC TAGS: atmospheric radiation, IR spectrometer, spectrometry, scientific satellite, optic albedo / Kosmos-45 scientific satellite

ABSTRACT: Summary. A scanning infrared spectrometer system is described which has an angular resolution of 2×10^{-3} radians, covering the spectrum from 0.8 to 36μ with spectral resolution of better than ±2μ. The characteristics and operation of the spectrometer and the associated data-recording equipment are given, together with the experimental data on infrared atmospheric radiation and the Earth's albedo collected during one orbit of the Kosmos-45 satellite.

P. A. Bazhulin and his associates describe a spectrometer intended for use in the study of the Earth's energy balance in the infrared region but which, through interpretation of the results, may also supply data on the molecular content and temperature of the atmosphere at various altitudes. The spectrometer is capable of measuring angular and spectral infrared radiation simultaneously; it was used for this purpose in October 1962 and June 1963, in vertically launched rockets which reached an altitude of 500 km [27].

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UDC: 551.521.2

ACC NR: AP6028340

As an extension of these studies, a spectrometer of the same type but with the addition of a recording system scanned seven regions of the Earth during one orbit of the Kosmos-45 satellite (launched on 13 September 1964). The atmosphere below the satellite was scanned in a direction perpendicular to the satellite's trajectory. Even though the experiment was of limited duration, a wide variety of conditions were encountered. Both illuminated and dark regions of the Earth were observed. Three of the seven regions covered were in the southern hemisphere, four were over ocean bodies, and one was above a spiral cloud formation near Japan. In general, the amount of cloud cover was different for each region.

The spectrometer employed in these studies comprises a scanning mirror and lens system, a filter arrangement, a bolometer, an amplifier, a recording system, and a programming unit (Figs. 1 and 2). The spectrometers launched in the rockets operated in conjunction with a telemetry system. In the satellite experiment, a magnetic oscillograph was used and the recorded film was recovered.

The spectrometer system operates as follows: A flat scanning mirror is rotated twice through π radians ($\pm\pi/2$ radians from the direction of the nadir) every 10—15 minutes, with a scanning speed of 2×10^{-2} rad/sec (determined by a hermetically sealed drive mechanism). The radiation

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ACC NR: AP6028340

from the scanned region enters a slotted rectangular iris diaphragm, whose sides are in the ratio of 1:10 and 1:30, passes through a Cassegrainian reflector lens (effective diameter, 33 mm; focal length, 200 mm), and falls on the bolometer detector. The path between the bolometer and the lens is periodically interrupted by filters arranged nonsymmetrically along the drum circumference and rotated at 7 rps. Such an arrangement produces pulsed signals at the output of the bolometer.

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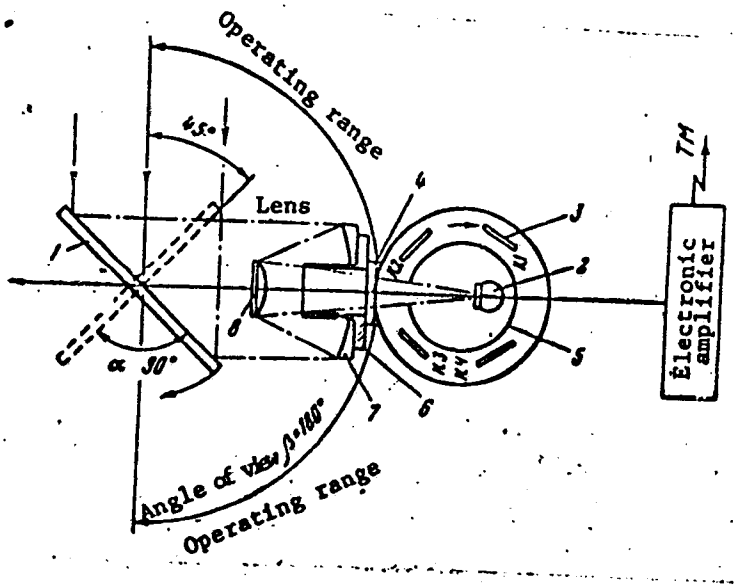
ACC NR: AP6028340



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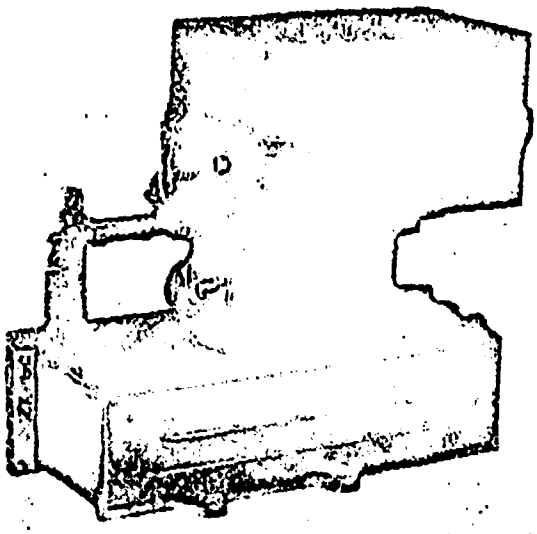
ACC NR: AP6028340

1a



1b

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ACC NR: AP6028340

Fig. 1. Diagram and photograph of spectrometer

1 - Scanning mirror; 2 - bolometer; 3 - modulating filter; 4 - concentrating window; 5 - slotted diaphragm; 6 - internal tube; 7 - spherical mirror 1; 8 - spherical mirror 2.

The filters — thin crystal plates — separate out different infrared spectrum bands. Four filters were used: a quartz crystal 1 mm thick with bandpass between 4.5 and 38 μ; a 0.7-mm lithium fluoride crystal (8.5 to 38 μ); a 0.7-mm fluorite crystal (12.5—38 μ), and a nontransparent metallic plate with bandpass between 0.8 and 38 μ. The bolometer has a sensing element made of a 0.3 x 9 mm calcium bromide crystal plate 1 mm thick which determines the upper cut-off wavelength. It has a time constant of 5—7 msec, a resistance of 1000 ohms, and a conversion factor of 40 v/w. At a modulating frequency of 30—40 cps, its detectivity is 1.5×10^9 $(cps \cdot cm)^{1/2}/w$.

The pulsed signals from the bolometer are amplified by a vacuum tube amplifier with two outputs. The permalloy-shielded amplifier has a voltage gain, passband, and sensitivity threshold of approximately 10^6, 0.5—200 cps, and 10^{-9} v/cps, respectively. To keep the sensitivity constant, tl detector-amplifier combination is periodically calibrated by means of light from an

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ACC NR: AP6028340

incandescent lamp. Calibration is accomplished at instants when the scanning mirror is directed at the horizon. The power consumption of the bolometer-amplifier combination is 0.5 w. The two outputs from the amplifier drive two magnetic oscillograph channels (see Fig. 2a) which record the infrared radiation in two sensitivity ranges. The recording film transport speed is 25 mm/sec; the roll contains 100 m of film. The length of scanning is controlled by a special unit (see Fig. 2b) which stops both the scanning system and the recorder during the intervals between recording sessions. The measurement accuracy for total radiation is ±1%, which corresponds to a change in effective temperature of the radiating object of only 0.8°K. However, the error in determining the radiation in narrow sub-bands (±2 μ) which were within the spectrum under investigation was ~±6%. The total weight of the equipment is approximately 10 kg.

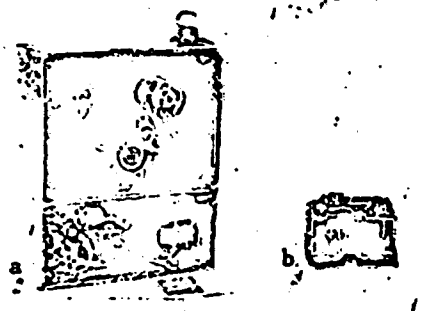

Fig. 2. Magnetic oscillograph (a) and control unit (b)

The experimental data obtained by the satellite were in the form of 10,000 high-quality spectroscopic samples. On the basis of these data, a

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ACC NR: AP6028340

table was prepared of the radiation flux corresponding to the radiation from 1 m^2 of the Earth's surface and the equivalent temperature corresponding to the black body temperature radiating the same flux. The readings from different spectra were subtracted to derive the following four narrow spectral bands especially tailored to trap different energies:

1) The 0.8—4.5-μ band, where half of the energy from the Sun is concentrated. The thermal radiation from the Earth is small, however (only a fraction of a percent of the total terrestrial radiation). When the upper layer of the atmosphere is scanned, hydroxyl radiation may be registered here.

2) The 4.5—8.5-μ band, where, for a black body temperature of 250°K, 10% of total terrestial radiation is found. The absorption bands of H_2O, NO, N_2O, CH_4, and OH fall within this range.

3) The 8.5—12.5-μ band (atmospheric window) covers the absorption band of water vapor and O_2 (10—15% of the total). In 75% of the cases, radiation from clouds is recorded in this band.

4) The 12.5—38 μ band overlaps the CO_2 absorption band. Of the total

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ACC NR: AP6028340

radiation registered here, 80—90% is due to water vapor.

The data obtained are subdivided into two types according to angle of view. On the basis of data of the first type (angle of view less than 1—1.5 rad from the direction of the nadir), radiation due to the Earth and the atmosphere, including clouds, may be analyzed. Data of the second type (angle of view close to the horizontal) make it possible to analyze the free atmosphere and, particularly, the effects of the ionosphere.

Type 1 Data

Table 1 shows the average radiation flux Q, equivalent temperature $T_{eq.}$, and the radiation spectrum density I for various climatological conditions and geographic locations. The view angle corresponding to this data was 0.6—0.8 rad from the direction of the nadir. It can be seen that there is no conspicuous variation in the table entries for different conditions. The variation in the radiation flux and temperature is greatest in the atmospheric window band. The average temperature in this band (276°K) is in good agreement with temperatures measured by the Tiros III satellite by Nordberg et al. (Nordberg, W., W. K. Bandeen, B. J. Conrath, V. Kunde, and I. Persano. Preliminary results of radiation measurements from the Tiros III Meteorological Satellite. Journal of the atmospheric sciences, v. 19, no. 1, 1962, 2 -30.

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ACC NR: AP6028340

The most interesting results were observed in the 4.5–8.5 μ band: in this band inversion attains values of 40–45°K, and the average equivalent temperature (277°K) is somewhat higher than expected if the main contribution is considered to be the radiation due to water vapor from the upper troposphere and stratosphere. The temperature in the 4.5–8.5 μ band was considerably higher in the Southern hemisphere and during the night. In 20–30% of the cases studied, the equivalent temperature in the 4.5–8.5 μ band exceeds the temperature in the atmospheric window band (8.5–12.5 μ).

From the temperature correlation data, it was established that the same atmospheric radiation components contribute to the radiation flux for both the 8.5–12.5 and 12.5–38 μ bands. However, the radiation registered in the 4.5–8.5 μ band was not recorded in the other bands. This gave rise to speculation that the radiation in this band is due to the products of dissociation of H_2O, NO, and N_2O.

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ACC NR: AP6028340

Table 1.

Spectrum band, μ	$Q_{1,2}$ w/m²	T_{eq}, °K	I_{λ} w/m²·μ
Northern hemisphere			
4,5—38	243	254,5	7,25
4,5—8,5	36	268	9
8,5—12,5	56	271	14
12,5—38	138	245,5	5,4
Southern hemisphere			
4,5—38	247	255,5	7,38
4,5—8,5	53	284	13,3
8,5—12,5	66	281	16,5
12,5—38	135	244,5	5,3
Day			
4,5—38	245	255	7,3
4,5—8,5	33	265	8,25
8,5—12,5	64	279	16
12,5—38	144	249	5,65
Night			
4,5—38	245	255	7,3
4,5—8,5	57	287	14,2
8,5—12,5	57	273	14,2
12,5—38	139	241	5,45
Land			
4,5—38	267	261	8
4,5—8,5	48	279	12
8,5—12,5	78	283	18,1
12,5—38	146	254	5,7
Oceans			
4,5—38	222	250	8
4,5—8,5	44,7	276	11,2
8,5—12,5	55,3	268	13,8
12,5—38	123	238	4,8
Average			
4,5—38	245	255	7,3
4,5—8,5	45	277	11
8,5—12,5	62	276	15,5
12,5—38	137	245	5,35

The average albedo for scanning angles of 0.3–0.8 rad was 39%, the average absorbed radiation from the sun was 600 w/m², and the radiation reflected into space was 230 w/m². In all cases except one, the incoming radiation was greater than the outgoing radiation. The exception was accompanied by a high value of the albedo and its variation (10–20%).

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ACC NR: AP6028340

The intrared radiation at altitudes of 280 km was studied, but the results must be considered only preliminary, since the experiment was of limited duration, the satellite trajectory was such that it covered both the illuminated and dark sides of the Earth, and the latitudes varied with height. Nevertheless, it was established that the infrared radiation is concentrated in the 4.5—8.5 μ band and that its maximum is somewhere between 250 and 300 km. The total infrared radiation measured in the 0.8—38 μ band was 150 w/m^2, a value which corresponds to a comparatively weak solar activity. Orig. art. has: 15 figures and 4 tables.
[FSB: v. 2, no. 10]

SUB CODE: 04,20,22 / SUBM DATE: 08Jan66 / ORIG REF: 007 / OTH REF: 005

Card 13/13

ACC NR: AP7007719

$K = \text{const}\ e^{-\Delta u/RT}$. This gave $\Delta u = -(8\pm1)$ kcal/mole and $-(7\pm1)$ kcal/mole for the complexes of pyridine with formic acid and acetic acid respectively. These values indicate that pyridine is capable of dissociating the acid molecules and forming complexes consisting of one molecule of acid and one molecule of pyridine. Orig. art. has: 2 figures, 2 tables and 1 formula.

SUB CODE: 20,07/SUBM DATE: 20Jun65/ ORIG REF: 006/ OTH REF: 008

Card 2/2

MOROZOV, Yu.V.; BAZHULINA, N.P.; IVANOV, V.I.; KARPEYSKIY, M.Ya.; KUKLIN, A.I.

Optic and luminescent properties of vitamin B_6 and its derivatives. Biofizika 10 no.4:595-601 '65. (MIRA 18:8)

1. Institut radiatsionnoy i fiziko-khimicheskoy biologii AN SSSR, Moskva.

MANUSADZHYAN, V.G.; SARKISYAN, G.S.; BAZHULINA, N.P.; VARSHAVSKIY, Ya.M.

Use of the infrared spectroscopy method in studying short peptides and their derivatives. Dokl. AN Arm. SSR 38 no.5:277-283 '64. (MIRA 17:6)

1. TSentral'naya nauchno-issledovatel'skaya laboratoriya AN Armyanskoy SSR. Predstavleno chlenom-korrespondentom AN Armyanskoy SSR N.M.Kocharyanom.

MANUSADZHYAN, V.G.; BAZHULINA, N.P.; SARKISYAN, G.S.; VARSHAVSKIY, Ya.M.

Infrared spectra of the hydrochloric salts of ethyl esters of di- and tripeptides and ethyl esters of N-acetyl of di- and tripeptides. Dokl. AN Arm. SSR 39 no.1:21-28 '64. (MIRA 17:8)

1. Predstavleno chlenom-korrespondentom AN ArmSSR N.M.Kocharyanom.

BAZHURA, Panteley Semenovich; SERGIYENKO, Ivan Terent'yevich [Serhiienko, I.T.], agronom, Geroy Sotsialisticheskogo Truda; ZYUZ'KO, Yevgeniy Petrovich; FEDULAYEV, Andrey Luk'yanovich; VINNITSKIY, S.[Vinnyts'kyi,S.], red.; MOLCHANOVA, T., tekhn. red.

[Additional crops] Dodatkovi vrozhai. Odesa, Odes'ke knyzhkove vyd-vo, 1959. 22 p. (MIRA 15:7)

1. Predsedatel' kolkhoza "Bat'kivshchyna" Kotovskogo rayona (for Bazhura). 2. Glavnyy agronom kolkhoza "Ukraina" Odesskogo rayona (for Zyuz'ko). 3. Glavnyy inspektor po rasteniyevodstvu Odesskogo oblastnogo upravleniya sel'skogo khokhozyaystva (for Fedulayev).

(Odessa Province—Forage plants)

BAZHUS, S.

GOFMAN, A.; FREY, A.I.; RUTSHMANN, I.; OTT, Kh.; SHEMYAKIN, M.M.; KISHFALUDI, L.; KOCHETKOV, N.K.; DEREVITSKAYA, V.A.; PROKOF'YEV, M.A.; SHABAROVA, Z.A.; FILIPPOVA, L.A.; SHANKMAN, S.; KHAYGA, S.; LIV, F.; ROBERTS, M.Ye.; GAVRILOV, N.I.; AKIMOVA, L.N.; KHLUDOVA, M.S.; MAKSIMOV, V.I.; IZELIN, B.M.; SHEPPARD, R.K.; SHKODINSKAYA, Ye.N.; VASINA, O.S.; BERLIN, A.Ya.; SOF'INA, Z.P.; LARIONOV, L.F.; KNUNYANTS, I.L.; GOLUBEVA, N.Ye.; KARPAVICHUS, K.I.; KIL'DISHEVA, O.V.; MEDZIGRADSKIY, K.; KAFTAR, M.; LEV, M.; KORENSKI, F.; BUASSONA, R.A.; GUTTMAN, St.; KHOYGENIN, R.L.; ZHAKENO, P.A.; BAZHUS, S.; LENARD, K.; DUAL'SKI, S.; SHREDER, Ye.; SHMIKHEN, R.; KHOKHLOV, A.S.

Results of the Fourth European Symposium on the chemistry of peptides. Abstracts of reports. Zhur. VKHO 7 no.4:468-476 '62. (MIRA 15:8)

1. Aktsionernoye obshchestvo "Sandos", Bazel', Shveytsariya (for Gofman, Frey, Ott, Rutshmann). 2. Farmatsevticheskaya fabrika "G.Rikhter", Budapesht, Vengriya (for Kishfaludi, Korenski, Dualski). 3. Institut khimii prirodnykh soyedineniy AN SSSR, Moskva (for Kochetkov, Derevitskaya, Shemyakin, Khokhlov). 4. Laboratoriya khimii belka Moskovskogo gosudarstvennogo universiteta (for Prokof'yev, Shabarova, Filippova, Gavrilov, Akimova, Khludova). 5. Fond meditsinskikh issledovaniy, Passadena, Kaliforniya, Sev.Soyed.Shtaty Ameriki (for Shankman, Khayga, Liv, Roberts). 6. Laboratoriya khimii belka Instituta organicheskoy

(Continued on next card)

Gofman, A.,—(Continued) Card 2.

khimii AN SSSR, Moskva (for Maksimov). 7. Aktsionernoye obshchestvo "TSiba", Bazel', Shveytsariya (for Izelin). 8. Liverpul'skiy universitet, Angliya (for Sheppard). 9. Institut eksperimental'noy i klinicheskoy onkolofii AMN SSSR, Moskva (for Shkodinskaya, Vasina, Berlin, Sof'ina, Larionov). 10. Institut elementoorganicheskikh soyedineniy AN SSSR, Moskva (for Knunyants, Golubeva, Karpavichus, Kil'disheva). 11. Institut organicheskoy khimii Budapeshtskogo universiteta, Vengriya (for Medzigradskiy, Kaftar, Lev). 12. Farmatsevticheskiy otdel Aktsionernogo obshchestva "Sandos", Bazel', Shveytsariya (for Buassona, Guttman, Khoygenin, Zhakeno, Rutshmann). 13. Issledovatel'-skiy institut farmatsevticheskoy promyshlennosti, Budapesht, Vengriya (for Bashus, Lenard). 14. Aktsionernoye obshchestvo "Shering", Zapadnyy Berlin (for Shreder, Shmikhen).

(Peptides—Congresses)

BAZHUTIN, A.N.

Method for calculating a sludge trap of the hydrocyclone type.
Izv. vys. ucheb. zav.; neft' i gaz 5 no.6:35-40 '62. (MIRA 16:5)

1. Sverdlovskiy gornyy institut imeni V.V.Vakhrusheva.
(Core drilling--Equipment and supplies)
(Separators (Machines))

BAZHUTIN, A.N.

Results of tests of a sinking pneumatic piston pump with a special pipe for removing mud from drilling fluid.
Razved. i okhr. nedr,28 no.10:54-57 O '62. (MIRA 15:11)

1. Sverdlovskiy gornyy institut.
(Air pump--Testing)

BAZHUTIN, A.N.

Using formation waters as flush fluids for increasing the stability of test-well walls. Izv. vys. ucheb. zav.; neft' i gaz 6 no.4:25-28 '63. (MIRA 16:7)

1. Sverdlovskiy gornyy institut imeni Vakhrusheva.
(Oil well drilling fluids)

BAZHUTIN, A.N.; GOLIKOV, S.I.; ZVERYUGA, A.A.; LUCHIKHIN, Yu.A.; VOLKOV, S.A., nauchn. red.

[Mechanization of lowering and hoisting operations in exploratory core drilling] Mekhanizatsiia spusko-pod"emnykh operatsii v razvedochnom kolonkovom burenii. Moskva, Izd-vo "Nedra," 1964. 110 p. (MIRA 17:5)

BAZHUTIN, V.V.

Mobile barrel unloader for tank farms. Transp. i khran. nefti pt. c no.2:28-30 '63. (MIRA 17:10)

1. Leningradskiy filial spetsial'nogo konstruktorskogo byuro "Transneft' avtomatika".

BAZHUTOV, F.N.

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(PROCTOSCOPY,
prep. of patients (Rus)

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(MUMPS)

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Atypical forms of epidemic parotitis. Zdrav.Belor. 5 no.9:53-54 S '59. (MIRA 12:12)

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(BREST--INFLUENZA)

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[Manual for bulldozer operators] Posobie bul'dozeristu. Moskva, Goslesbumizdat, 1958. 197 p. (MIRA 11:7)
(Bulldozers)

BAZICHENKO, Leonid Prokof'yevich; MITROFANOV, A.Ye., red.; SLUTSKER, M.Z., red. izd-va; POPOVA, V.V., tekhn. red.

[Manual for the bulldozer operator] Posobie bul'dozeristu. Izd.2., perer. i dop. Moskva, Goslesbumizdat, 1963. 210 p. (MIRA 17:3)

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Possibilities of utilizing copper flotation tailings. Rudy i metale 9 no. 3:150-152 Mr '64.

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p. 5, No. 12, Dec. 1956
Warszawa, Poland
Turysta

SOURCE: East European Accessions List (EEAL) Vol. 6, No. 4—April 1957

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(HYALURONIDASE ther) (VASCULAR DISEASES PERIPHEREAL)
(LYMPHATIC dis)

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"A new Czechoslovak automatic diesel-electric power plant."

Czechoslovak Heavy Industry. Prague, Czechoslovakia. No. 2, 1959.

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"The latest improvements in the universal electric indicator for oil engines."

Czechoslovak Heavy Industry. Prague, Czechoslovakia. No. 2, 1959.

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SHMAKOV, Aleksey Timofeyevich; BLINOV, O.S., retsenzent; BAZICHENKO, L.P., retsenzent; KROTOV, V.R., red.

[Manual for bulldozer, scraper, and grader operators] Posobie bul'dozeristu, skreperistu i greideristu. Moskva, Goslesbumizdat, 1963. 153 p. (MIRA 17:6)

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1. IV. vnitrni klinika KU v Praze, prednosta prof. MUDr. Mojmir Fucik.

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KRCILEK, A.; BAZIKA, V.; POKORNY, J.; SOUCKOVA, E.; TODOROVICOVA, H.
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Epidemiology of atherosclerosis in the agricultural population of Northern Bohemia. Cas. lek. cesk. 104 no.38:1029-1034 24 S '65.

1. Angiologicka laborator fakulty vseobecneho lekarstvi Karlovy University v Praze (vedouci prof. dr. Z. Reinis, DrSc.), IV. interni klinika fakulty vseobecneho lekarstvi Karlovy University v Praze (prednosta prof. dr. M. Fucik, DrSc.) a II. ocni klinika fakulty vseobecneho lekarstvi Karlovy University v Praze (prednosta akademik J. Kurz).

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On friends and comrades; readers' letters. Sov.profsoiuzy 7 no.9: 33-34 My '61. (MIRA 14:4)

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24039 BAZIKALOVA, A. G. Nakhodka na ozr baykal interesnogo rakoobraznogo. Priroda, 1949, No. 7, S. 63-64.

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Dok AN 53, No 4, 1946
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Dok. AN SSSR 55, No 7, 1947 Baykal Limnol. Sta. Acad. Sci.

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Amphipoda - Baikal, Lake

Notes on the amphipods of Lake Baikal. Trudy Baik. limnol. sta. 12, 1948.

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BEKMAN, M.Yu; BAZIKALOVA, A.Ya.

Biology and productive capacities of certain Baikal and Siberian amphipods. Trudy probl.i tem.sov.no.1:61-67 '51. (MLRA 9:7)
(Baikal, Lake--Amphipoda)

BAZIKALOVA, A.Ya.

Amphipoda of the Angara River. Trudy Baik. limnol. sta. 15:377-387 '57. (MIRA 10:8)

(Angara River--Amphipoda)

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Nutrition of bottom-feeding fishes in the Maloye More.
Trudy Baik.limnol.sta. 17:382-497 '59. (MIRA 12:12)
(Maloye More--Fishes--Food)

BAZIKALOVA, A.Ya.

New amphipod species from the Maloye More. Trudy Baik.limnol. sta. 17:512-519 '59. (MIRA 12:12)
(Maloye More--Amphipoda)

BAZIKALOVA, A.Ya.

Taxonomy, ecology, and distribution of the genera Micruropus Stebbing and Pseudomicruropus nov. gen. (Amphipoda, Gammaridea). Trudy Lim. inst. 2 pt. 1:3-140 '62. (MIRA 16:8)

BAZIKALO A., Y.A.

USSR (600)
Biology (Crustacea)

Candidate for Ph. D. in Biology

On- Crustacea Research and Freezing and Opening up of L. Baykal
IN: Vostodhno-Sibirskaya Pravda No. 136
10 Jul 45 Irkutsk

Bazirov, V. A.

Physical Properties of Substances

Form of condensed water vapour on metal surfaces at low temperatures, below 0°. V. A. Bazirov (*Compt. rend. Acad. Sci. U.R.S.S.*, 1941, 31, 232—234).—When a polished metal surface is cooled well below 0° in an atm. containing H_2O vapour, drops of H_2O form and disappear again on cooling through a further 0·1—0·2°. At lower temp. (< −20°) there is occasional spontaneous formation of the solid from the liquid phase, though this occurs only on definite small areas of the surface. If the condensate is in contact with light objects, such as cotton wool, the original liquid phase always passes into the solid. A. J. M.

BAZIKAYLO, V. A.

3

Meteorological Abst.
Vol. 4 No. 11
Nov. 1953
Part 2
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Thunderstorm Sferics

4K-229 551.501.83:551.594.21:551.594.7(09)(47)

Bazikallo, V. A., A. S. Popov—osnovopolozhnik sovremennoi radiometeorologii. [A. S. Popov—the originator of modern radio meteorology.] *Priroda*, Moscow, 40(11):70-72, Nov. 1951. 6 refs. DLC—In 1895, A. S. Popov exhibited a device capable of detecting thunderstorms within a radius of 40 km (*see* 4K-1 above), recorded processes leading to the formation of cumulus clouds and, in general, electrical disturbances in the atmosphere. The article describes Popov's activities in the field of radio meteorology and lists his papers in this field. (*Same item as* 3,8-36, Aug. 1952. *MAB.*) *Subject Headings:* 1. Radio meteorology 2. Atmospheric electricity 3. Sferics 4. Popov, A. S. 5. History of radio meteorology 6. U.S.S.R.—*I.L.D.*

KUZ'MENKIN, V.T.; BAZIKEYEV, Kh.G., master; PESHKIN, N.V., elektroslesar' (Ufa)

Redesigning the ASDP-500G unit for welding pipes in a carbon dioxide atmosphere. Stroi. truboprov. 7 no.10:24 O '62. (MIRA 15:11)

1. Glavnyy mekhanik stroitel'no-montazhnogo upravleniya No.74 tresta Nefteprovodmontazh (for Kuz'menkin).
2. Remontno-mekhanicheskaya masterskaya tresta Nefteprovodmontazh (for Bazikeyev, Peshkin).

(Pipe--Welding)

BAZIL, Popa, prof.

Using the low-quality liquid boiler fuels in marine diesel engines. Energomashinostroenie 6 no.5:17-20 My '60. (MIRA 13:9)

1. Kluzhskiy politekhnicheskiy institut, Rumynskaya Narodnaya Respublika.
(Marine diesel motors) (Fuel)

ARAPOV, V.A.; BAZIL', V.F.

Time ofthe postmagmatic process in the Kara-Mazar Mountains. "zb. geol.zhur. no.5:3-5 '59. (MIRA 13:5)

1. Karamazarskaya poiskovo-s"yemochnaya tematicheskaya ekspeditsiya.
(Kara-Mazar Mountains—Ore deposits)

BABAKHODZHAYEV, S.M.; BAZIL', V.F.

Some characteristics of the distribution of mineralization in the volcanic formations of the Karamazar Mountains. Uzb. geol. zhur. 9 no.1:35-40 '65. (MIRA 18:5)

1. Institut geologii g. Dushanbe Gosudarstvennogo geologicheskogo komiteta SSSR.

BAZHULIN, P.A.; DERKACHEVA, L.D.; DISTANOV, B.G.; PEREGUDOV, G.V.; PROKHOROV, A.M.; SOKOLOVSKAYA, A.I.; SHIGORIN, D.N.

Stimulated radiation in solutions of rare-earth chelates. Opt. i spektr. 18 no.3:526-529 Mr '65.

(MIRA 18:5)

L 4056-66 EWT(d)/FSS-2 RB

ACCESSION NR: AR5008076

S/0274/65/000/001/A005/A005
621.391.133

SOURCE: Ref. zh. Radiotekhnika i elektrosvyaz'. Svodnyy tom, Abs. 1A46

AUTHOR: Bazilenko, O. K.

TITLE: Speed and reliability of discrete-information transmission by a feedbackless system

CITED SOURCE: Tr. 3-y konferentsii molodykh uchenykh Moldavii. Yestestv.-tekhn. n. Vyp. 1. Kishinev, Kartya Moldovenyaske, 196[illegible], [illegible]29-32

TOPIC TAGS: information transmission, discrete information transmission, information transmission reliability, information transmission speed

TRANSLATION: By the method of conditional probabilities, the transmission of discrete information is analyzed in a transmission system consisting of an information source, which creates an input alphabet A (messages a_i with probabilities P_i, with $i = 1, 2, \ldots, m$); an encoder which forms an input vocabulary V (messages v_j, with $j = 1, 2, \ldots, m$); a channel with pulse noise

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L 4056-66

ACCESSION NR: AR5008076

and an output vocabulary U (messages u_k, with $k \geqslant m$); and a decoder which forms an output alphabet B (messages B_m). These formulas for the complete mutual information $I_{A \leftrightarrow B}$ and for the speed of information transmission of R bits of information per one character of the alphabet are developed:

$$I_{A \leftrightarrow B} = \sum_A \sum_B p_i \sum_U P(b_m/U_l) \cdot \sum_{U_l} \sum_V P(v_j/a_i) \times P(u_k/v_j) \times \log_2 \frac{\sum_U P(b_m/U_l) \cdot \sum_{U_l} \sum_V P(v_j/a_i) \cdot P(u_k/v_j)}{\sum_A p_i \sum_U P(b_m/U_l) \cdot \sum_{U_l} \sum_V P(v_j/a_i) \cdot P(u_k/v_j)},$$

$$R = \frac{I_{A \leftrightarrow B}}{\sum_A p_i l_i}.$$

Here, U_l is a subgroup at the decoder input, $l = 0, 1, 2, \ldots, m$; subgroup U_0 is particular and is not used in the feedbackless system; l_i is the message length, the probability of whose appearance at the encoder output upon applying the message a to the input is maximum. In addition to the speed of transmission R, these criteria of evaluation of the information transmission system can be adopted: either the specific probability of error, which is a ratio of the average

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ACCESSION NR: AR5008076

probability P_e to the complete mutual information, or the specific uncertainty probability P_u (with $P_u \geq P_e + P_{op}$, where P_{op} is the average probability of occurrence of a message corresponding to a particular decoding subgroup U_o) defined in a similar way.

SUB CODE: DP ENCL: 00

Card 3/3

L 32198-65 EED-2/EWT(d) GS

ACCESSION NR: AT5005427 S/0000/64/000/001/0129/0132

AUTHOR: Bazilenko, O. K.

28
B+1

TITLE: Speed and reliability of discrete information transmission by non-feedback systems

8

SOURCE: Nauchnaya konferentsiya molodykh uchenykh Moldavii, 3d. Trudy, no. 1: Yestestvenno-tekhnicheskiye nauki (Natural and technical sciences). Kishinev, Gosizdat Kartya Moldovenyaske, 1964, 129-132

TOPIC TAGS: communication theory, information transmission, transmission reliability, nonfeedback system, automation

ABSTRACT: Equations are derived for the speed (as a function of the characteristics of the transmitted information) and the probability of errors (as the ratio of the mean error probability to the total mutual information, or as the specific probability of uncertainty defined as the ratio of the mean uncertainty to the total mutual information) for a system without feedback. Both of these quantities may be used as criteria of the quality of the system. In most practical cases the derived quations may be significantly simplified to make them mathematically manageable. Orig. art. has: 11 formulas

Card 1/2

L 32198-65

ACCESSION NR: AT5005427

ASSOCIATION: None

SUBMITTED: 07Feb64 ENCL: 00 SUB CODE: IE, EC

NO REF SOV: 000 OTHER: 000

Card 2/2

BAZILENKO, O.K.

Conversion of information by finite probability automata. Izv. AN Mold. SSR. no.3:16-25 '63. (MIRA 17:12)

L 11074-66 EWT(d)/FSS-2

ACC NR: AR6000413 SOURCE CODE: UR/0271/65/000/009/A049/A049

SOURCE: Ref. zh. Avtomatika, telemekhanika i vychislitel'naya tekhnika, Abs. 9A370

AUTHOR: Bazilenko, O. K. 44 9 B

TITLE: Errors in an ARQ-equipped information-transmission system 4,44

CITED SOURCE: Izv. AN MoldSSR. Ser. fiz.-tekhn. i matem. n., no. 2, 1964, 52-59

TOPIC TAGS: information transmission, ARQ transmission

TRANSLATION: In ARQ-equipped information transmission systems, errors due to lack of reliability of the ARQ channel are possible. An error in this channel shifts the message forward or backward. A method is given for accurate calculation of the probability $p_s^{(k)}$ of erroneous reception that occurs after transmitting K words; this probability depends on k. Accurate calculation of the above probability is very complicated. A great number of messages should not be transmitted in a row over an ARQ system because this increases the probability of error. For a small number of transmitted messages, a simple formula suitable for practical computations is given.

SUB CODE: 17

Card 1/1 HW UDC: 621.398:621/622

L 11073-66 EWT(d)

ACC NR: AR6000409 SOURCE CODE: UR/0271/65/000/009/A014/A015

SOURCE: Ref. zh. Avtomatika, telemekhanika i vychislitel'naya tekhnika, Abs. 9A97

AUTHOR: Bazilenko, O. K. 44

41
B

TITLE: Unitized structure of tele-systems 44

CITED SOURCE: Izv. AN MoldSSR. Ser. fiz.-tekhn. i matem n., no. 2, 1964, 60-64

TOPIC TAGS: remote control, communication channel, coded information

TRANSLATION: Information transmitted over tele-channels can be subdivided into two kinds: information proper and information protecting from distortions. The first kind of information is produced (used) directly by the source (customer); the second kind is inserted into the signal in order to enhance the reliability of transmission and is not used by the customer. As the volume of processed information increases, the equipment becomes more complicated and the probability of its faults grows; hence, it is expedient to curtail the path of the second kind of information. This can be attained by designing the system on the principle of stepped encoding-decoding. In this case, the information sent into the channel by the encoder is

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L 11073-66

ACC NR: AR6000409

supplemented by a set of check symbols which are later eliminated by a checking unit at the receiver while the information proper is delivered to the customer. Application of this principle permits designing the system as a set of units with standardized primary-encoding (decoding) units and with a set of secondary units for ensuring various characteristics. Bib 4, figs 4.

SUB CODE: 13, 17

Card 2/2

BAZILEV, A.; IGNAT'YEV, I.

Simple radio receiver for "fox hunting" competitions. V pom. radioliub. no.13:3-10 '62. (MIRA 16:4)

(Radio direction finders)
(Radio—Receivers and reception)

BAZILEV, A.

Elimination of simplest faults in radio receivers. V pom. radioliub. no.14:43-63 '63. (MIRA 16:11)

IVANOV, Valentin Nikolayevich; BAZILEV, N.P., red.; GARMASH, L.M., otv. za vypusk; SUKHAREVA, R.A., tekhn.red.

[High precision casting in removable ceramic molds] Lit'e povyshennoi tochnosti v raz"emnye keramicheskie formy. Moskva, 1959. 57 p. (Moskovskii dom nauchno-tekhnicheskoi propagandy. Peredovoi opyt proizvodstva. Seriia: Progressivnaia tekhnologiia mashinostroeniia, vyp. 6). (MIRA 13:9)
(Precision casting)

PROSYANIK, Georgiy Vasil'yevich; LAKEDEMONSKIY, Anatoliy Vladimirovich; BAZILEV, N.P., nauchnyy red.; SIROTIN, A.I., red.; TOKER, A.M., tekhn. red.

[Making shell molds] Izgotovlenie obolochkovykh form. Moskva, Proftekhizdat, 1963. 270 p. (MIRA 16:7)
(Shell molding (Founding))

VOLYNSKIY, Aleksandr Yakovlevich; BAZILEV, N.P., nauchn. red.; SIROTINA, S.L., red.; IONOV, V.I., red.

[Foundry molds and their assembly] Liteinye formy i ikh sborka. Moskva, Vysshaia shkola, 1964. 290 p. (MIRA 17:10)

NABIYEV, M.N., akademik; VISHNYAKOVA, A.A.; RAZILEV, V.D.; AKMAYEV, Kh.M.; KAMILOV, A.; RASULEVA, Sh.; ARUTYUNOVA, N.M.

Increasing the degree of phosphate decomposition by a partial substitution of nitric acid for sulfuric acid and ammoniation of chamber superphosphate. Uzb.khim.zhur. no.4:3-10 '61. (MIRA 14:8)

1. Institut khimii AN Uzbekskoy SSR. 2. Akademiya nauk Uzbekskoy SSR (for Nabiyev).
(Phosphates)

BAZILEVICH, A.G.

Unit for automatic control of electroplating processes.
Mashinostroenie no.1:54-55 Ja-F '63. (MIRA 16:7)

(Electroplating) (Electronic control)

BAZILEVICH, A.I.

USSR/Chemistry of Colloids - Dispersed Systems. B-14

Abs Jour : Referat Zhur - Khimiya, No 6, 1957, 18782

Author : A.I. Bazilevich.
Inst : Lvov Polytechnical Institute.
Title : Physical Properties of Diphase Liquids.

Orig Pub : Dokl. L'vovsk. politekhn. in-ta, 1955, 1, No 2, 30-33

Abstract : The author points out the dependence of the stability of clayey solution used at drilling on the acidity. Heavy clayey solutions of pH about 11 are very stable. Sedimentation and, besides, equipment corrosion occur at low pH. On the other hand, the viscosity of solutions rises with the decrease of pH.

Card 1/1 - 337 -

SOV/124-58-3-3094

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 3, p 78 (USSR)

AUTHOR: Bazilevich, A. I.

TITLE: The Laws of Resistance During Pseudoplastic (Thixotropic) Motion of Two-phase Liquids (Zakony soprotivleniya pri strukturnom dvizhenii dvukhfaznykh zhidkostey)

PERIODICAL: Nauch. zap. L'vovsk. politekhn. in-t, 1955, Nr 31, pp 93-108

ABSTRACT: The article briefly reviews the established facts about physico-chemical properties of clay slurries and presents the Bingham law and well-known considerations pertaining to the laws of motion for two-phase liquids. Item IV presents the established solutions for the motion of a two-phase liquid in a round pipe, in an annular space, and between two parallel plates. The article does not contain new results.

A. Kh. Mirzadzhanzade

Card 1/1

BAZILEVICH, A. I.

124-57-2-2088

Translation from: Referativnyy zhurnal, Mekhanika, 1957, Nr 2, p 88 (USSR)

AUTHOR: ~~Bazilevich, A. I.~~

TITLE: The Laws Governing the Resistance in Turbulent Motion of Binary Fluids (Zakony soprotivleniya pri turbulentnom dvizhenii dvukhfaznykh zhidkostey)

PERIODICAL: Nauch. zap. L'vovsk. politekhn. in-ta, 1955, Nr 31, pp 114-126

ABSTRACT: A survey. The results of the works of R. I. Shishchenko [Gidravlika glinistykh rastvorov (The Hydrodynamics of Argillaceous Solutions). Azneftizdat, 1951] on the determination of the generalized Reynolds number for a visco-plastic flow by means of various methods of velocity-gradient determination are set forth. Also given are formulas by various authors for the determination of the head losses in a flow of argillaceous solutions, sewage, and wood and peat pulp. Bibliography: 8 references.

1. Fluid flow--Turbulence 2. Turbulence--Mathematical 3. analysis

I. I. Orlov

Card 1/1

SOV/124-58-8-8724

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 8, p 54 (USSR)

AUTHORS: Bazilevich, A.I., Levitskiy, B.F.

TITLE: On the Energy Transformation Associated With an Abrupt Flow Divergence (O preobrazovanii energii pri vnezapnom rasshirenii potoka)

PERIODICAL: Dokl. L'vovsk. politekhn. in-ta, 1957, Vol 2, Nr 1, pp 57-60

ABSTRACT: On the strength of experiments of their own, the authors confirm the experimental findings of other investigators to the effect that when the flow in a pressure conduit suddenly diverges the stretch of conduit in which the excess kinetic energy of flow undergoes attenuation measures 60-80 diameters. Neither the geometric dimensions of the conduits studied nor any data on the exact nature of the excess-energy attenuation that occurs along the length of the flow are included in the article.

M.E. Faktorovich

Card 1/1

124-58-9-9842

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 9, p 54 (USSR)

AUTHORS: Bazilevich, A. I., Levitskiy, B. F.

TITLE: On the Pressure Distribution During the Sudden Expansion of a Flow (O raspredelenii davleniya pri vnezapnom rasshirenii potoka)

PERIODICAL: Dokl. L'vovsk. politekhn. in-ta, 1957, Vol 2, Nr 1, pp 61-63

ABSTRACT: Presentation of the results of experimental investigations on the distribution of the hydrodynamic pressures on a suddenly diverging sector in a high-pressure conduit. The pressure measurements within the mass of the flow were performed with the aid of a Pitot-Prandtl probe. There are no data on the geometric dimensions of the conduits investigated; also lacking are direct observational data. Among the conclusions it is noted that the tests performed justify the statement that "the pressure distribution along the vertical sections may be assumed to be uniform". This deduction, as well as the pressure-distribution diagrams shown in Fig. 2 of the paper, contradicts the well-known propositions and experimental data of the hydrostatic or quasi-hydrostatic law governing the pressure distribution in a suddenly

Card 1/2

124-58-9-9842

On the Pressure Distribution During the Sudden Expansion of a Flow

diverging flow sector. The abovenoted contradiction may possibly be the result of an inadequate rigorousness in the language of the paper; the words "uniform pressure distribution" could perhaps be intended by the author to convey the meaning of a hydrostatic pressure distribution, and the contours shown in Fig. 2 may not be those of the hydrodynamic pressures but those of the hydrostatic head, $(p/\gamma + z)$.

M. E. Faktorovich

1. Fluid flow--Pressure 2. Hydrodynamics--USSR 3. Hydraulic conduits--Properties

Card 2/2

PHASE I BOOK EXPLOITATION SOV/4201

L'vov. Politekhnicheskiy institut

Mekhanika (Mechanics) L'vov, 1959. 49 p. (Series: Its: Doklady, tom 3, vyp. 1/2) 900 copies printed.

Editorial Board: A.I. Andriyevskiy, Doctor of Technical Sciences, Professor; Ya.F.Bardanov, Honored Scientist and Technologist UkrSSR, Doctor of Chemistry, Professor; K.B. Karandyrov, Corresponding Member, Academy of Sciences USSR and Academy of Sciences UkrSSR, Doctor of Technical Sciences, Professor; R.S. Kmarov (Resp. Ed.), Doctor of Technical Sciences, Professor; V.I. Kmarstov, Doctor of Geology and Mineralogy; B.J. Levitskiy (Deputy Resp. Ed.), Candidate of Technical Sciences, Dozent; V.S. Porfir'yev, Member, Academy of Sciences UkrSSR, Doctor of Geology and Mineralogy, Professor; V.A. Tikhonov (Resp. Secretary), Candidate of Technical Sciences, Dozent; Tech. Ed.: T. Veselovskiy.

PURPOSE: This booklet is intended for scientific workers and engineers.

COVERAGE: The booklet contains 12 articles on vibrations, impact stresses, transmission and slider-crank mechanisms, fluid mechanics, and strength of reinforced-concrete beams. No personalities are mentioned. References follow several of the articles.

Bazilevich, A.I., and B.J. Levitskiy. Analogy Between the Pressure Motion of Noncompressible Liquid and Liquid Containing Gas in a Porous Medium 38

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Mechanics

Bazilevich, A.I. Calculating Normal Sections of Stepped Beds of Mountain Rivers 44

Bazilevich, A.I. Reservoirs for Protecting Bottom Lands From Flooding 49

Klimenko, F.Ye. Taking Into Account the Action of a Transverse Force on the Carrying Capacity of the Cross Section of a Beam in Bending 53

Klimenko, F. Ye. Investigating the Work of Reinforced-Concrete Cantilever Variable-Section Elements in the Vicinity of the Maximum Moment During Bending

Orekhov, I.I. Carrying Capacity of Prestressed Reinforced-Concrete Elements in Bending 65

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Card 3/3

LESHCHIY, Nikolay Antonovich [Leshchyi, N.P.]; LEVITSKIY, B.F. [Levytskyi, B.F.]; BAZILEVICH, A.I.[Bazylevych, A.I.], dots., red.

[Problems on underground hydraulics; for students specializing in the development of oil and gas fields and in the geology and development of oil and gas fields] Zbirnyk zadach z pidzemnoi hidravliky; dlia studentiv spetsial'nostei rozrobka naftovykh ta gazovykh rodovishch i geologiia ta rozvidka naftovykh i gazovykh rodovishch. L'viv, L'vivskii politekhnichnyi in-t, 1962. 83 p. (MIRA 17:10)

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TECHNOLOGICAL TESTING OF THE KAOLINITE OF THE DONETS BASIN AS REFRACTORY RAW MATERIAL. A. S. Bazilevich, Ogneupory, 9, 153-57 (1941); Chem. Zentr., 1942, I, 2574; Chem. Abstracts, 37, 3492 (1943). -- Plant tests proved that the kaolinite lying between the coal measures of the Donets Basin made good refractories without grog. The kaolinite can be mined simultaneously with the pit coal and separated easily.

BAZILEVICH, A.V.; YEVDOKIMOVA, M.N.

Pulmonary air cyst. Vrach. delo no.1:77 '59. (MIRA 12:4)

1. Sanatoriy "Zhemchuzhina" g. Yalta.
(LUNGS--TUMORS) (CYSTS)

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HU-1 automatic feeder. Kons.i ov.prom. 15 no.3:13-16 Mr '60. (MIRA 13:6)

1. Simferopol'skoye spetsial'noye konstruktorskoye byuro prodovol'stvennogo mashinostroyeniya.
(Simferopol'--Canning industry--Equipment and supplies)