improving Horner's rule in such a way as to reduce the number of multiplications or additions required. Even a proof of the possibility of existence of such an improvement would be very useful. The reduction of the number of multiplications is the more important. In serial machines multiplication takes m times as long as addition where m is the greatest number of places required to represent a number in the machine. In parallel machines this ratio is rather less and is of the order of 3 to 5. It has been shown (Ref 1) that Horner's rule cannot in fact be improved upon. However, without contradicting this statement it is possible to make things easier; the evaluation of the polynomial can be carried out in two stages; in the first stage the coefficients are replaced by a second series of coefficients and in the second stage the number of multipliers using the new coefficients may be less than the minimum stipulated by the theorem. The economy in machine time is well worth while and is greater when the number of points to be evaluated is large. If we denote

A Method of Calculating Polynomials on Computers

the number of multipliers necessary to evaluate a polynomial of the n-th degree by λ_n then we can make three statements about the value of λ_n. (1) Its minimum value must be less than or equal to n-1 (this follows from Horner's rule). (2) If ψ_n is the minimum number of multiplications necessary to obtain x^n from x with the aid of multiplications only, then the minimum value of λ_n is greater than or equal to ψ_n. (3) Finally the minimum value of ψ_n is greater than or equal to (n+1)/2. This last condition is by no means obvious but may be seen from a number of specific examples, the first example is that of n = 4; the polynomial is given by P_4. A subsidiary expression N_2 is taken from which an expression giving N_4 is synthesised which has the same degree as the original polynomial. If the condition $N_4 = P_4$ is stipulated then the corresponding coefficients may be equated; the expression with the substituted coefficients enables any polynomial of the fourth degree to be evaluated using two

05497

AUTHOR: Ketkov, Yu.L. SOV/141-2-2-22/22

TITLE: A System of Simplified Division for Series-type Digital Computers

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Radiofizika, 1959, Vol 2, Nr 2, pp 322 - 323 (USSR)

ABSTRACT: The system proposed was described in detail by E.I. Klyamko (Ref 1) and M.A. Kartsev (Ref 2). However, if a scheme of simplified division were introduced into that system, it would be necessary to normalise the division. A scheme is therefore proposed where this procedure is not necessary. The scheme is as follows. The arithmetic registers are in the form of the re-circulation registers employing a magnetic drum. A set of dynamic flip-flops is introduced into the circuit of the re-circulation register which permit the change of the length of the re-circulation loop; in this way, it is possible to shift the register by a few orders. The system contains a dividend register P_1, a divisor register P_2, a register of the quotient P_3 and a control register P_4. The numbers in the register

Card1/3

05497
SOV/141-2-2-22/22
A System of Simplified Division for Series-type Digital Computers

circulate without signs. The sign of the quotient is formed by a special circuit and is ascribed to the quotient after the execution of the operation. Simultaneously, with the introduction of the numbers into registers P_1, P_2, a binary code having only one unit in the order corresponding to the position 2^0 is introduced into the control register P_4. The division is effected in two stages. During the first stage, the divisor is shifted to the left until its "major" order finds itself under the major order of the dividend. Simultaneously, the control code is shifted to the left by the same number of orders. If the divisor is greater than the dividend, the above process does not take place. The next stage corresponds to the division proper. Each subtraction is followed by a shift of the remainder (the register P_1) to the left by one order and the shift of the control code to the right by one order. The control code is used to carry the units into the corresponding orders of the

Card2/3

S/141/60/003/01/015/020
E031/E535

AUTHOR: Ketkov, Yu. L.

TITLE: Floating Point Subroutines

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Radiofizika, 1960, Vol 3, Nr 1, pp 142-145 (USSR)

ABSTRACT: A description is given of subroutines for floating point arithmetic on a computer which operates in fixed point working. The instructions for addition, subtraction and normalization are given, multiplication and division being omitted since, the author claims, the number of orders required for each is not greater than the number of orders required to enter and leave the subroutines. The representation of numbers in floating point form differs from the usual in that it is floating decimal instead of floating binary. The mantissa must be less than unity and greater than 0.0625. A footnote gives the normal representation of numbers in the computer for which the subroutines were written.

Card 1/2

S/141/60/003/01/015/020
E031/E535

Floating Point Subroutines

There are 2 figures and 1 table and 5 Soviet references.

ASSOCIATION: Nauchno-issledovatel'skiy fiziko-tekhnicheskiy institut pri Gor'kovskom universitete (Physics and Engineering Research Institute of the Gor'kiy University)

SUBMITTED: September 25, 1959

Card 2/2

KETKOV, Yu.L.

Floating point subprograms. Izv. vys. ucheb. zav.; radiofiz. 3 no.1:142-145 '60. (MIRA 13:12)

1. Nauchno-issledovatel'skiy fiziko-tekhnicheskiy institut pri Gor'kovskom universitete.
(Electronic calculating machines)
(Programming (Electronic computers))

S/141/60/003/005/026/026
E140/E335

AUTHORS: Ivanova, I.M., Ketkov, Yu.L. and Yampol'skaya, T.S.

TITLE: On the Existence of Barker Codes

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Radiofizika, 1960, Vol. 3, No. 5, pp. 911 - 913

TEXT: Given the matrix on p. 911, where each element has the value ± 1, a Barker code is given by the first line a_1, a_2, ..., a_n of the matrix, if conditions 1) and 2) :

$$1) \quad S(A_i) = 0 \qquad (i = 1, 2, \ldots) ;$$

$$2) \quad |S(N_i)| = 1 \qquad (i = 0, 1, 2, \ldots)$$

are satisfied, where the notation $S(N_i)$ indicates the sum of all elements in the diagonal N_i. Several properties of the matrix are discussed, after which it is shown that for

Card 1/4

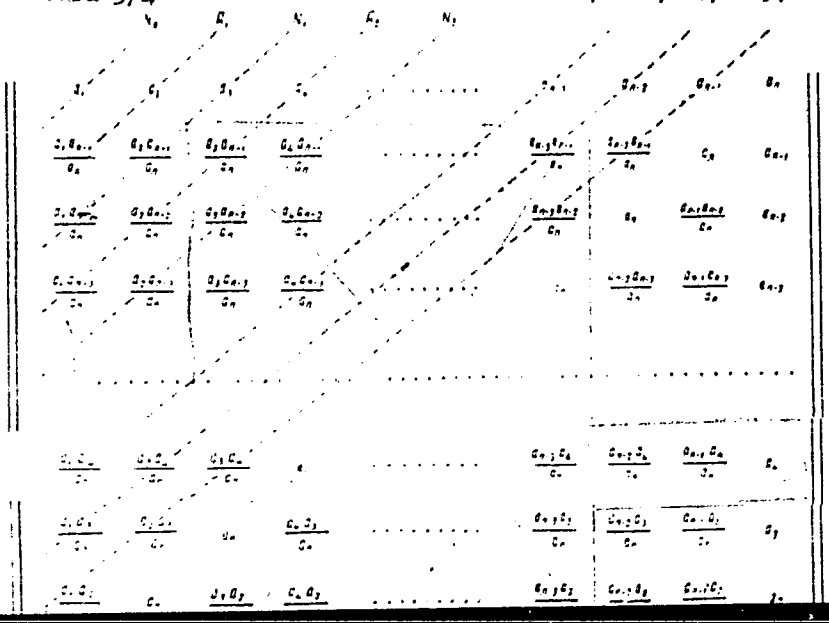
S/141/60/003/005/026/026
E140/E335

On the Existence of Barker Codes

$n = 4k + 2$ ($k = 1, 2, \ldots$) the Barker code does not exist. It has also been found that Barker codes for $n = 4k \pm 1$, $n > 13$, and for $n = 8, 12, 16, 20$, do not exist. The question of existence of Barker codes for the case $n = 4k$, $k > 5$ remains open.
There is 1 Soviet reference.

Card 2/4

S/141/60/003/005/026/026
E140/E335



On the Existence of Barker Codes

S/141/60/003/005/026/026
E140/E335

On the Existence of Barker Codes

ASSOCIATION: Nauchno-issledovatel'skiy fiziko-tekhnicheskiy institut pri Gor'kovskom universitete (Scientific Research Physico-technical Institute of Gor'kiy University)

SUBMITTED: June 4, 1960

modulo n (but writing n for zero), there exists a threading described by

$$a_{1,j}\, a_{2,j\oplus k}\, a_{3,j\oplus 2k} \cdots a_{n,j\oplus(n-1)k} \qquad (1)$$

$$(j = 1,2 \ldots, n;\ k = 1,2, \ldots, n-1)$$

For which we have the following theorem:

If n is a prime number, Eq.(1) is a full set of the order $n(n-1)$ where by full set is meant one to which no further term can be added without violating any of the four conditions cited above. This signifies that a threading exists with $P = n + 1$. For n non-prime, there exists a threading with $P = c + 1$, where c is the smallest factor of n (except 1).
There are 2 figures and 2 non-Soviet references. The two references to English language publications read as follows:
R.C.Minnick and R.L.Ashenhurst, J.Appl.Phys., 26, 575 (1955;
N.M.Blachman, Trans. IRE, EC-5, 1, 19 (1956).
Card 2/3

25956 S/141/61/004/001/016/022
Threading the coordinate matrix ... E140/E485

ASSOCIATION: Nauchno-issledovatel'skiy fiziko-tekhnicheskiy institut pri Gor'kovskom universitete (Scientific-Research Institute for Physics and Engineering at Gor'kiy University)

SUBMITTED: May 27, 1960

Card 3/3

GUSEV, [illegible], L.A.

Determination of cerium in magnesium alloys by means of a vanadium (II) salt. Zhur. anal. khim. 20 no.7:896-898 '65. (MIRA 18:9)

1. Perm Medical Institute.

KETOVA, L.A.; GUSEV, S.I.

Determination of bismuth by titrating with a solution of a divalent vanadium salt. Izv.vys.ucheb.zav.; khim.i khim.tekh. 3 no.1:59-61 '60. (MIRA 13:6)

1. Kafedra obshchey khimii Permskogo gosudarstvennogo meditsinskogo instituta.
(Bismuth--Analysis) (Vanadium salts)

KETKOVICH, A. [YA.]

Economic development and changes in Poland's foreign trade. Vnesh. torg. 27 no.7:7-10 '57. (MLRA 10:8)
(Poland--Commerce)

ZOLOTAREV, V.I.; AVSENEV, Yu.M.; KAPRANOV, I.A.; KISVYANTSEV, L.A.; PEKSHEV, Yu.A.; SHVETSOV, N.I.; TELEGIN, Ya.I.; POTAPOV, V.I.; KISVYANTSEV, L.A.; ZYKOV, A.A.; NETHUSOV, A.A.; SENIN, V.P.; MAKSIMOVA, A.P.; NIKOLAYENKO, Zh.I.; VOLKOV, N.V.; KALASHNIKOV, A.A.; PLAKSIN, S.V.; POPOV, N.N.; KARSHINOV, L.N.; YAKIMOVA, T.A.; BASHKANIKHIN, I.K.; KETKOVICH, A.Ya.; SHALASHOV, V.P.; VORONKOV, F.N.; VEKSHIN, G.K.; CHISTYAKOV, M.A.; IVANOV, N.I., red.; SLADKOVSKIY, M.I., red.; LEPNIKOVA, Ye., red.; MOSKVINA, R., tekhn.red.

[Development of the economy of the people's democracies; a survey for 1957] Razvitie ekonomiki stran narodnoi demokratii; obzor za 1957 g. Pod red.N.I.Ivanova i dr. Moskva, Izd-vo sotsial'no-ekon. lit-ry, 1958. 610 p. (MIRA 12:2)

1. Moscow. Nauchno-issledovat. kon"yunkturnyy institut.
(People's democracies) (Economic conditions)

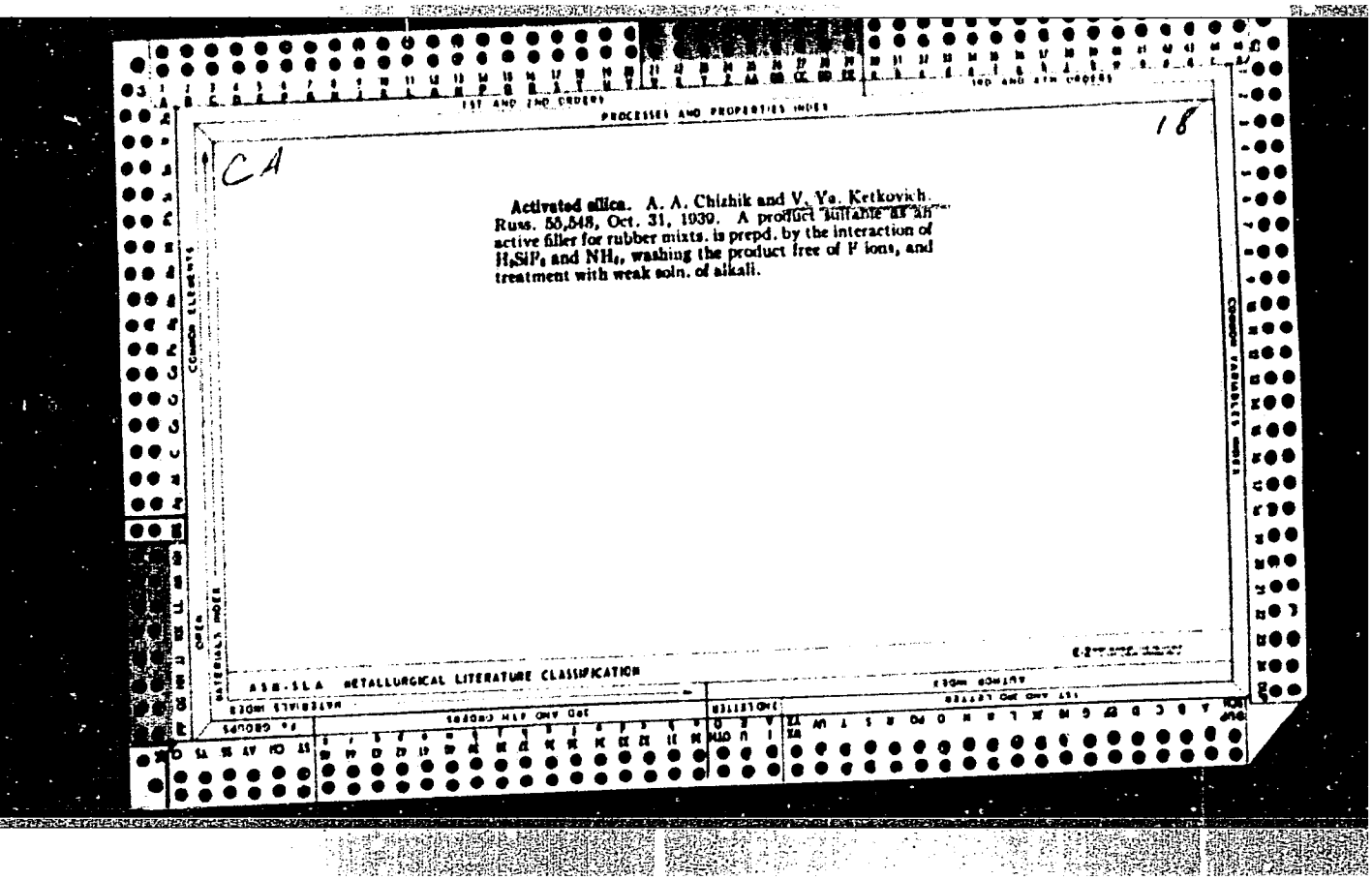
KETKOVICH, A.; ROMANOV, Yu.

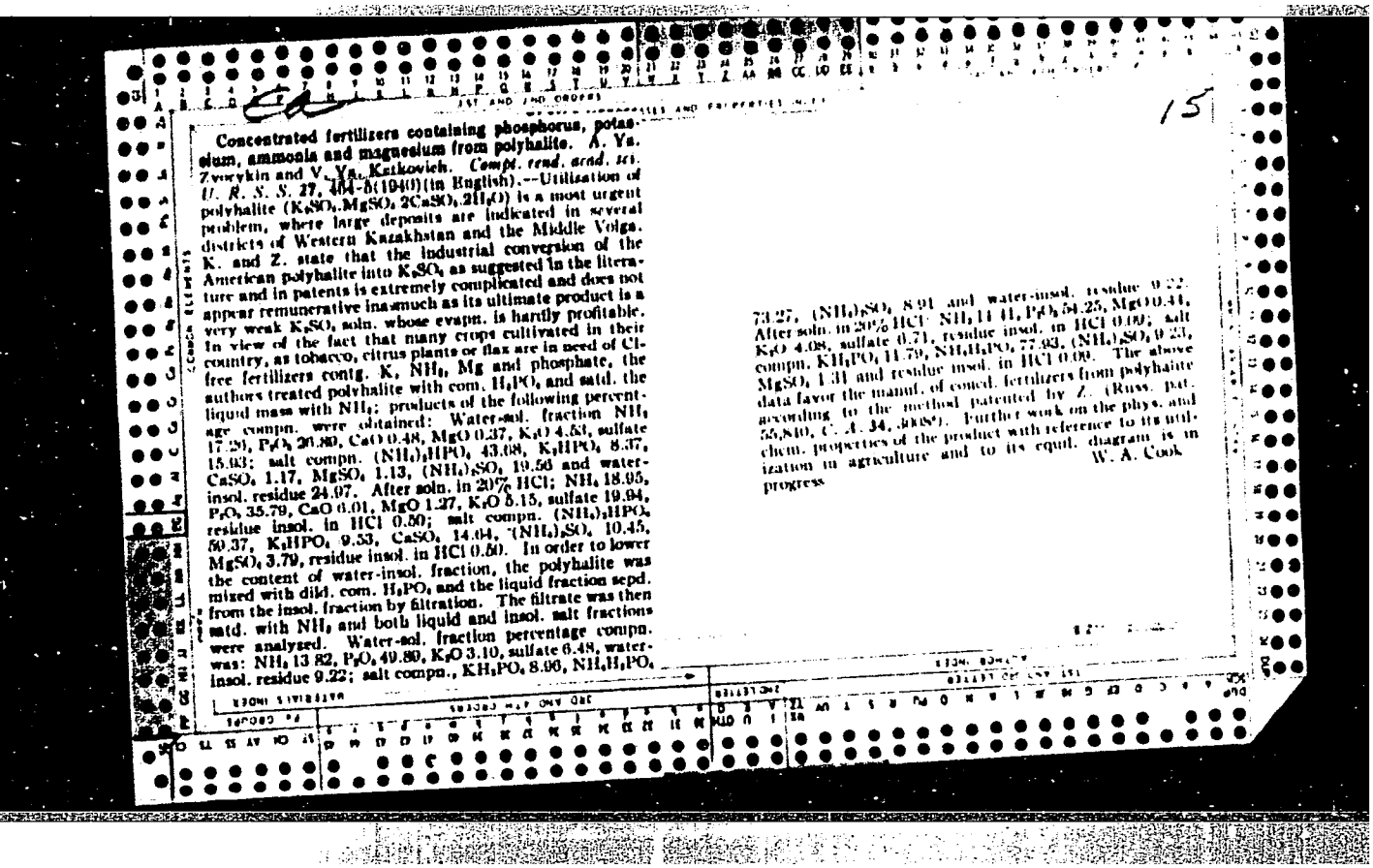
Soviet trade with the members of the Mutual Economic Assistance Council in 1958. Vnesh.torg. 29 no.9:2-8 '59. (MIRA 12:12)

(Russia--Foreign economic relations--Eastern Europe)
(Europe, Eastern--Foreign economic relations--Russia)

KETKOVICH, A. [Ya.]

Further development of Soviet-Polish economic cooperation.
Vnesh.torg. 28 [i.e. 29] no.1:25-26 '59. (MIRA 12:2)
(Russia--Foreign economic relations--Poland)
(Poland--Foreign economic relations--Russia)

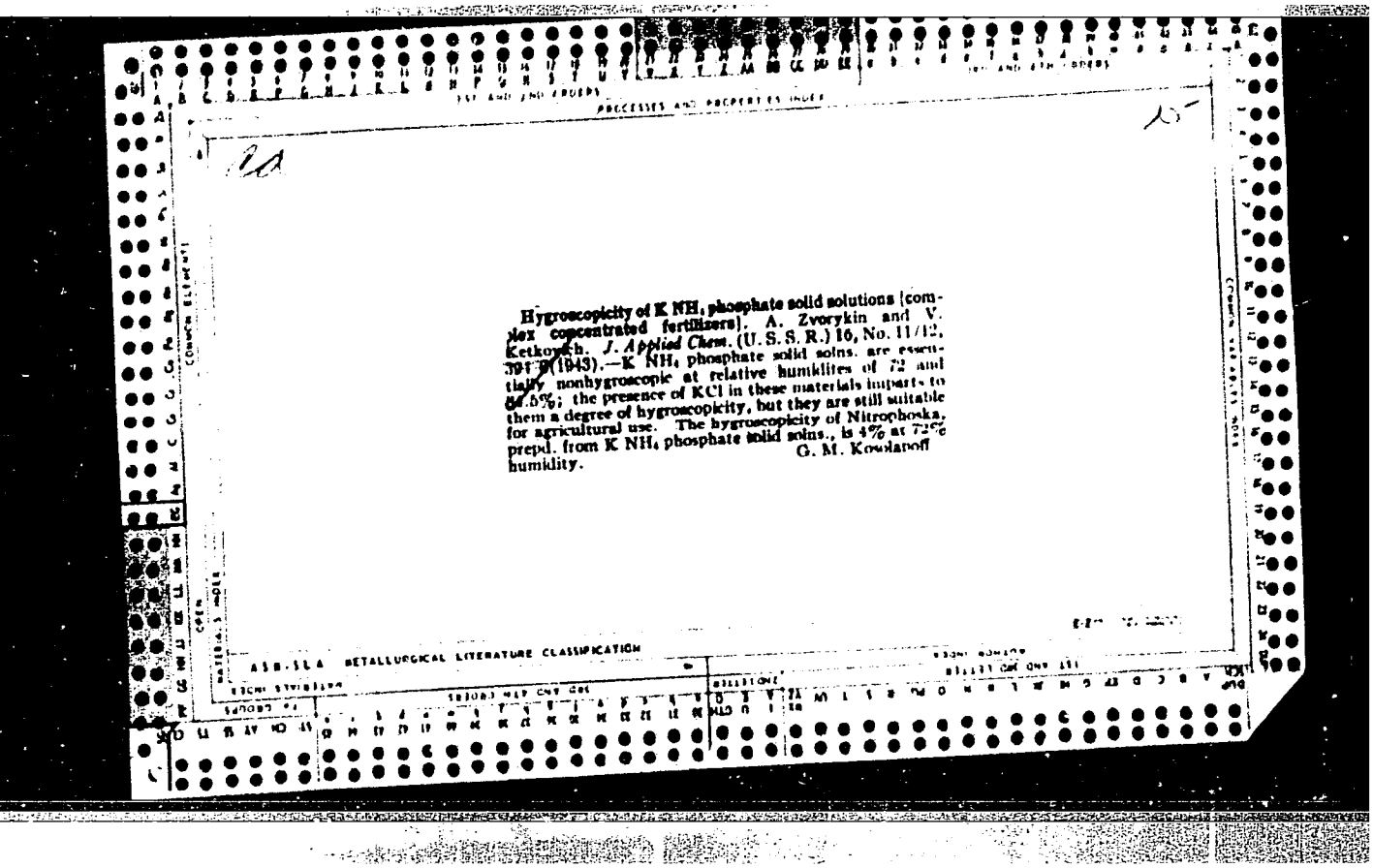




15

Concentrated fertilizers containing phosphorus, potassium, ammonia and magnesium from polyhalite. K. Ya. Zvorykin and V. Ya. Katkovich. *Compt. rend. acad. sci. U. R. S. S.* 27, 484-8(1940)(in English).--Utilization of polyhalite ($K_2SO_4.MgSO_4.2CaSO_4.2H_2O$) is a most urgent problem, where large deposits are indicated in several districts of Western Kazakhstan and the Middle Volga. K. and Z. state that the industrial conversion of the American polyhalite into K_2SO_4 as suggested in the literature and in patents is extremely complicated and does not appear remunerative inasmuch as its ultimate product is a very weak K_2SO_4 soln. whose evapn. is hardly profitable. In view of the fact that many crops cultivated in their country, as tobacco, citrus plants or flax are in need of Cl-free fertilizers contg. K, NH_3, Mg and phosphate, the authors treated polyhalite with com. H_3PO_4 and satd. the liquid mass with NH_3; products of the following percentage compn. were obtained: Water-sol. fraction NH_3 17.29, P_2O_5 20.80, CaO 0.48, MgO 0.37, K_2O 4.51, sulfate 15.93; salt compn. $(NH_4)_2HPO_4$ 43.08, K_2HPO_4 8.37, $CaSO_4$ 1.17, $MgSO_4$ 1.13, $(NH_4)_2SO_4$ 19.56 and water-insol. residue 24.97. After soln. in 20% HCl; NH_3 18.95, P_2O_5 35.79, CaO 0.01, MgO 1.27, K_2O 5.15, sulfate 19.94, residue insol. in HCl 0.50; salt compn. $(NH_4)_2HPO_4$ 50.37, K_2HPO_4 9.53, $CaSO_4$ 14.04, $(NH_4)_2SO_4$ 10.45, $MgSO_4$ 3.79, residue insol. in HCl 0.50. In order to lower the content of water-insol. fraction, the polyhalite was mixed with dild. com. H_3PO_4 and the liquid fraction sepd. from the insol. fraction by filtration. The filtrate was then satd. with NH_3 and both liquid and insol. salt fractions were analyzed. Water-sol. fraction percentage compn. was: NH_3 13.82, P_2O_5 49.80, K_2O 3.10, sulfate 6.48, water-insol. residue 9.22; salt compn., KH_2PO_4 8.96, $NH_4H_2PO_4$ 73.27, $(NH_4)_2SO_4$ 8.91 and water-insol. residue 9.22. After soln. in 20% HCl; NH_3 11.41, P_2O_5 54.25, MgO 0.44, K_2O 4.08, sulfate 0.71, residue insol. in HCl 0.09; salt compn. KH_2PO_4 11.79, $NH_4H_2PO_4$ 77.93, $(NH_4)_2SO_4$ 0.23, $MgSO_4$ 1.31 and residue insol. in HCl 0.09. The above data favor the manuf. of concd. fertilizers from polyhalite according to the method patented by Z. (Russ. pat. 55,810, C. A. 34, 3008⁸). Further work on the phys. and chem. properties of the product with reference to its utilization in agriculture and to its equil. diagram is in progress.

W. A. Cook



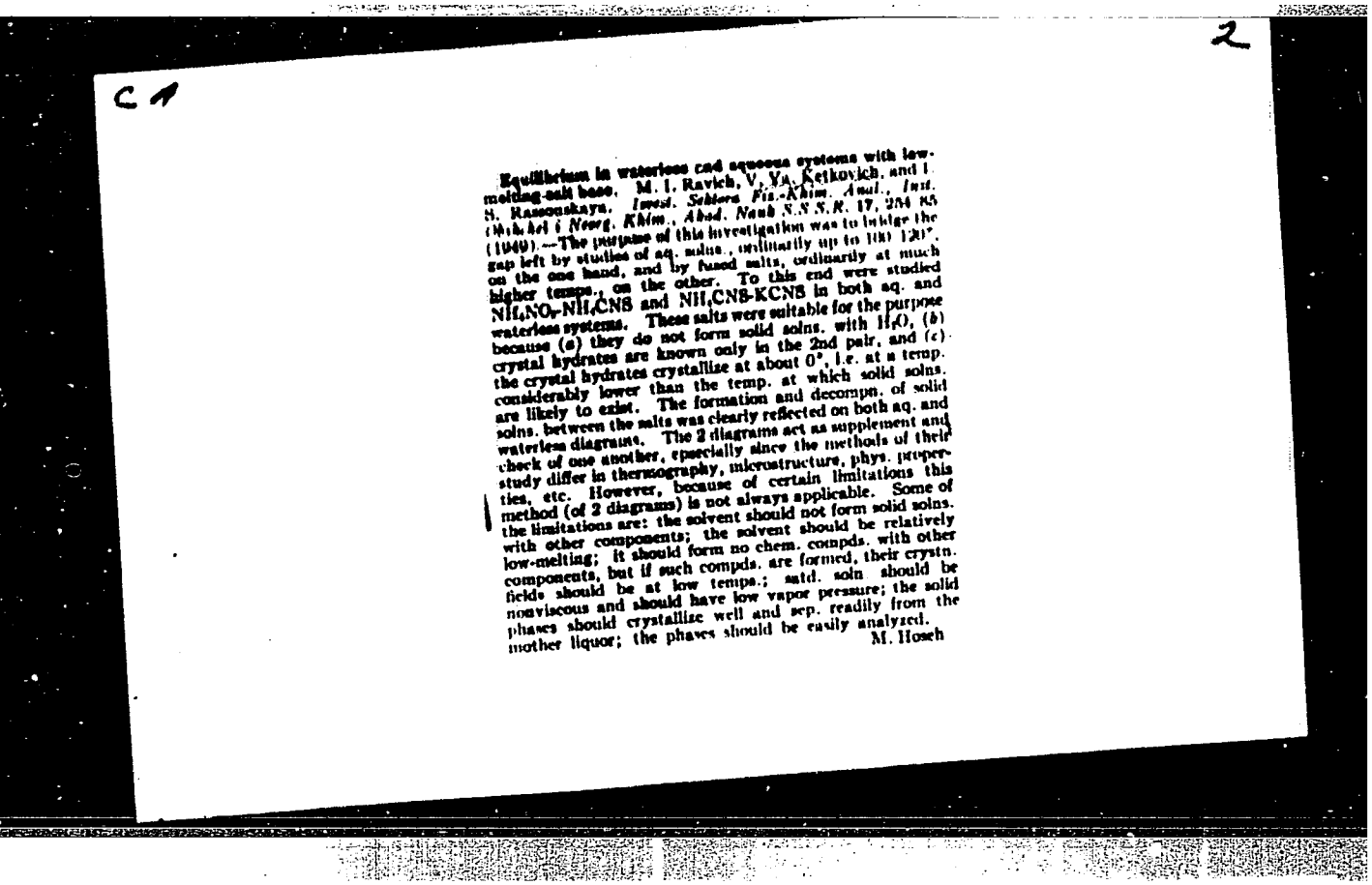
Hygroscopicity of K NH4 phosphate solid solutions [complex concentrated fertilizers]. A. Zvorykin and V. Ketkovich. *J. Applied Chem.* (U. S. S. R.) 16, No. 11/12, 391-9 (1943).—K NH4 phosphate solid solns. are essentially nonhygroscopic at relative humidities of 72 and 87.5%; the presence of KCl in these materials imparts to them a degree of hygroscopicity, but they are still suitable for agricultural use. The hygroscopicity of Nitrophoska, prepd. from K NH4 phosphate solid solns., is 4% at 72°C humidity.

G. M. Kosolapoff

KETKOVICH-POPOVA, V. Ya. Cand. Chem. Sci.

Dissertation: "The Physicochemical Analysis of Anhydrous and Aqueous Systems consisting of Ammonium Thiocyanate and Nitrate." Inst of General and Inorganic Chemistry imeni N. S. Kurnakov, Acad Sci USSR, 18 Jun 47.

SO: Vechernyaya Moskva, Jun, 1947 (Project #17836)



C 1

2

Equilibrium in waterless and aqueous systems with low-melting salt base. M. I. Ravich, V. Ya. Ketkovich, and I. S. Rassonskaya. *Izvest. Sektora Fiz.-Khim. Anal., Inst. Obshch. i Neorg. Khim., Akad. Nauk S.S.S.R.* 17, 204-85 (1949).—The purpose of this investigation was to bridge the gap left by studies of aq. solns., ordinarily up to 100–120°, on the one hand, and by fused salts, ordinarily at much higher temps., on the other. To this end were studied NH_4NO_3-NH_4CNS and NH_4CNS-KCNS in both aq. and waterless systems. These salts were suitable for the purpose because (*a*) they do not form solid solns. with H_2O, (*b*) crystal hydrates are known only in the 2nd pair, and (*c*) the crystal hydrates crystallize at about 0°, i.e. at a temp. considerably lower than the temp. at which solid solns. are likely to exist. The formation and decompn. of solid solns. between the salts was clearly reflected on both aq. and waterless diagrams. The 2 diagrams act as supplement and check of one another, especially since the methods of their study differ in thermography, microstructure, phys. properties, etc. However, because of certain limitations this method (of 2 diagrams) is not always applicable. Some of the limitations are: the solvent should not form solid solns. with other components; the solvent should be relatively low-melting; it should form no chem. compds. with other components, but if such compds. are formed, their crystn. fields should be at low temps.; satd. soln should be nonviscous and should have low vapor pressure; the solid phases should crystallize well and sep. readily from the mother liquor; the phases should be easily analyzed.

M. Hoseh

KETKOVICH, V. Ya.

Chem (3)

Chemical Abst.
Vol. 48 No. 4
Feb. 25, 1954
General and Physical Chemistry

Phase equilibria at high temperatures in the system NaCl-Na_2SO_4-H_2O. M. I. Ravich, F. E. Borovaya, and V. Ya. Ketkovich. *Doklady Akad. Nauk S.S.S.R.* 77, 817-20(1951).—Vapor pressures of satd. solns. of the salts and their crystn. temps. were detd. by previously-described methods (cf. *C.A.* 44, 9232*c*; 45, 4125*b*). The vapor pressure of satd. solns. of NaCl rises to a max. of 401 kg./sq. cm. at 600°, and then falls to 0 at 800° (m.p. of NaCl). When enough Na_2SO_4 is added to the NaCl, a 2nd max. appears at a lower temp., defining a region where Na_2SO_4 is the solid phase. This 2nd max. rises and the former diminishes with increasing Na_2SO_4 concn. When the eutectic mixt. (70% Na_2SO_4-30% NaCl) is reached, the Na_2SO_4 curve is almost superimposed on the curve for the vapor pressure of pure water. Approx. values for % Na_2SO_4, pressure (in kg./sq. cm.), and temp. of the Na_2SO_4 max., and pressure and temp. of the NaCl max. are, resp.: 0, —, —, 401, 600; 20, —, —, 350, 600; 35, 160, 375, 300, 590; 50, 320, 430; 250, 560; 70 (eutectic), —, —, 225, 500 (no data were given for the Na_2SO_4 max. at eutectic concn.). The m.-p. diagram for the ternary system is presented in triangular form, and is based on previously published data (cf. *C.A.* 26, 1500; 29, 7770[1]; 36, 3087[4]). A ternary eutectic m. 100° contains approx. 5% Na_2SO_4, 20% NaCl, 75% H_2O.

Arild J. Miller

MF 1-28-54

KETKOVICH, V. YA.

Solubility and vapor pressure of saturated solutions in the system KCl -- K_2SO_4 -- H_2O at high temperatures. Izv.Sekt.fiz.-khim.anal. 22:225-239 '53. (MLRA 7:5)

1. Institut obshchey i neorganicheskoy khimii im. N.S.Kurnakova Akademii nauk SSSR. (Solution (Chemistry)) (Salts)

KETKOVICH V.YA.

RAVICH, M.I.; BOROVAYA, F.Ye.; KETKOVICH, V.Ya.

Solubility and vapor pressure of saturated solutions in the system $NaCl - Na_2SO_4 - H_2O$ at high temperatures. Izv.Sekt.fiz.-khim.anal. 22:240-254 '53. (MLRA 7:5)

1. Institut obshchey i neorganicheskoy khimii im. N.S.Kurnakova Akademii nauk SSSR. (Solution (Chemistry)) (Salts)

SOV-117-58-8-5/28

AUTHOR: Ketler, G.V.

TITLE: Modernization of the Roller Packing in a Fan Motor (Modernizatsiya uzla uplotneniya vala motora ventilyatora)

PERIODICAL: Mashinostroitel', 1958, Nr 8, P 20 (USSR)

ABSTRACT: The Biyskiy zavod elektropechey (Biysk Plant of Electric Furnaces) produces cementation furnaces, type Ts-75. The roller packing of the fan motor in these furnaces has serious drawbacks. The lining is worn away and gas leaks through the packing. The packing has been improved in the plant "Kommunist" by increasing the cross section of packing rings and by replacing the adjusting screw by a spring. The spring exerts a pressure of 250 kg.
There are 2 diagrams.

ASSOCIATION: Zavod "Kommunist" (Plant "Kommunist")

1. Packings - Applications

Card 1/1

KETLER, V.O., kandidat tkhnicheskikh nauk, dotsent.

Calculating basic resistances of freight locomotives. Sbor. (MLRA 9:11)
no.150:5-9 '56.
(Locomotives)

KETLER, V.O., dotsent, kand.tekhn.nauk; VARENIK, M.L., inzh.

Improving and selection of a method for determining water consumption of locomotives. Trudy LIIZHT no.165:135-163 '59. (MIRA 13:6)

(Locomotives--Water supply)

VORONIN, M.I., dotsent; GRYAZNOV, V.I., dotsent; KETLER, V.O., dotsent; PRASOV, L.Z., dotsent; VOZNESENSKIY, G.D., dotsent, kand.tekhn.nauk; ZHABOTINSKAYA, L.A., dotsent, kand.tekhn.nauk; ISAKOV, I.M., dotsent, kand.tekhn.nauk; LAZEBNIKOV, Yu.S., dotsent, kand.tekhn.nauk; PROTSENKO, A.I., assistent

Manual on the design of railroads. Transp. stroi. 14 no.6:57-59 Je '64.

Through the pages of foreign magazines. Ibid.:55-56 (MIRA 18:2)

1. Leningradskiy ordena Lenina institut inzhenerov zheleznodorozhnogo transporta imeni akademika V.N.Obraztsova (for Voronin, Gryaznov, Ketler, Prasov). 2. Novosibirskiy institut inzhenerov zheleznodorozhnogo transporta (for Voznesenskiy, Zhabotinskaya, Isakov, Lazebnikov, Protsenko).

KETLEROV, V.K.

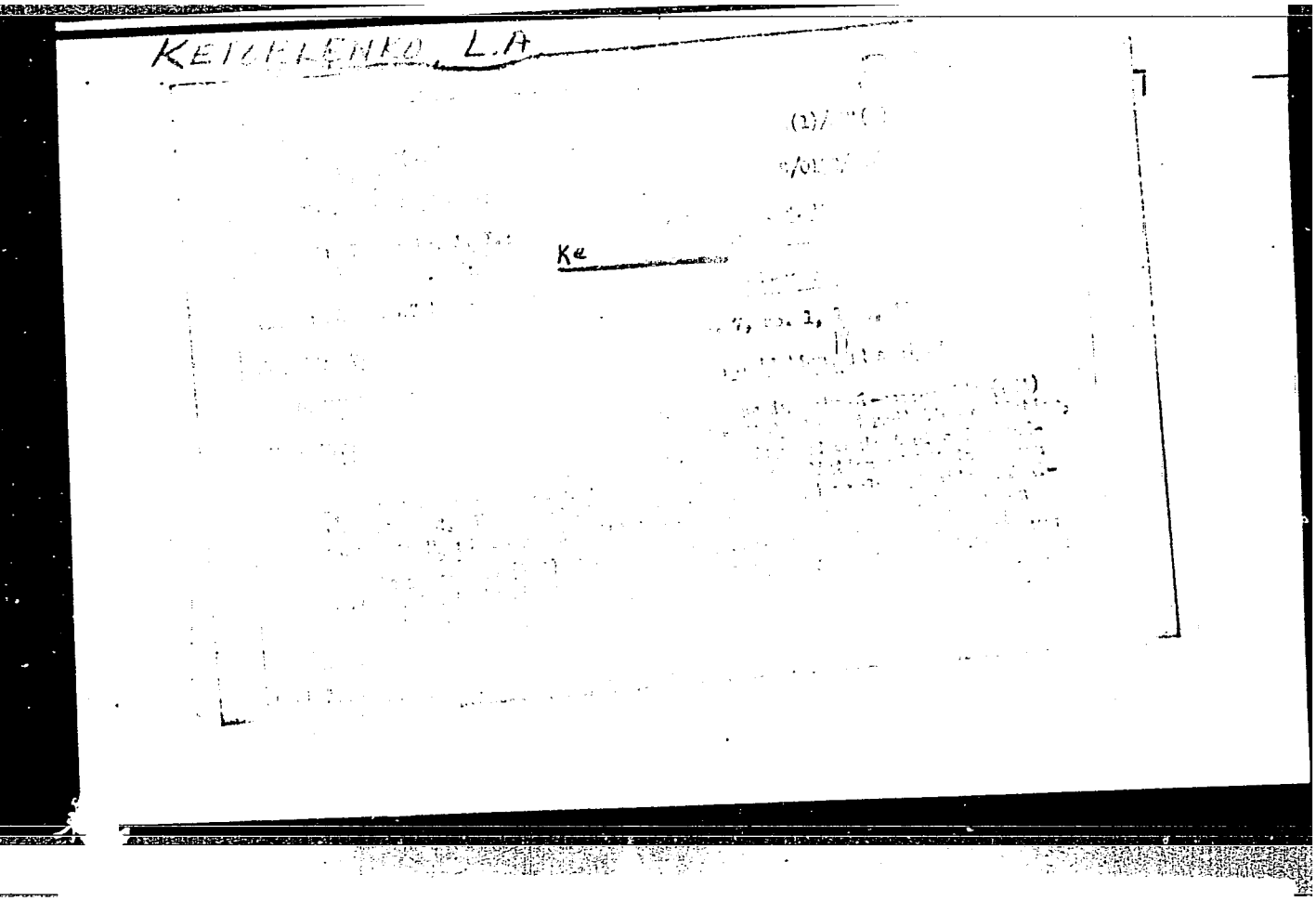
New universal instruments for linear measurements. Priborostroenie no.3:31-3 of cover Mr '56. (MLRA 9:8)
(Measuring instruments)

KETLINSKAYA, Vera Kazimirovna; AVRAMENKO, I.K., red.; BRUSILOVSKAYA, S.I., tekhn. red.

[China today and tomorrow] Kitai segodnia i zavtra. Leningrad, Sovetskii pisatel', 1958. 393 p. (MIRA 11:8)
(China--Description and travel)

KETNER, K.K., inzh.

Improve the quality of electric power. Elek. sta. 34 no.9: 6-8 S '63. (MIRA 16:10)



L 39715-65

ACCESSION NR: AP5003833

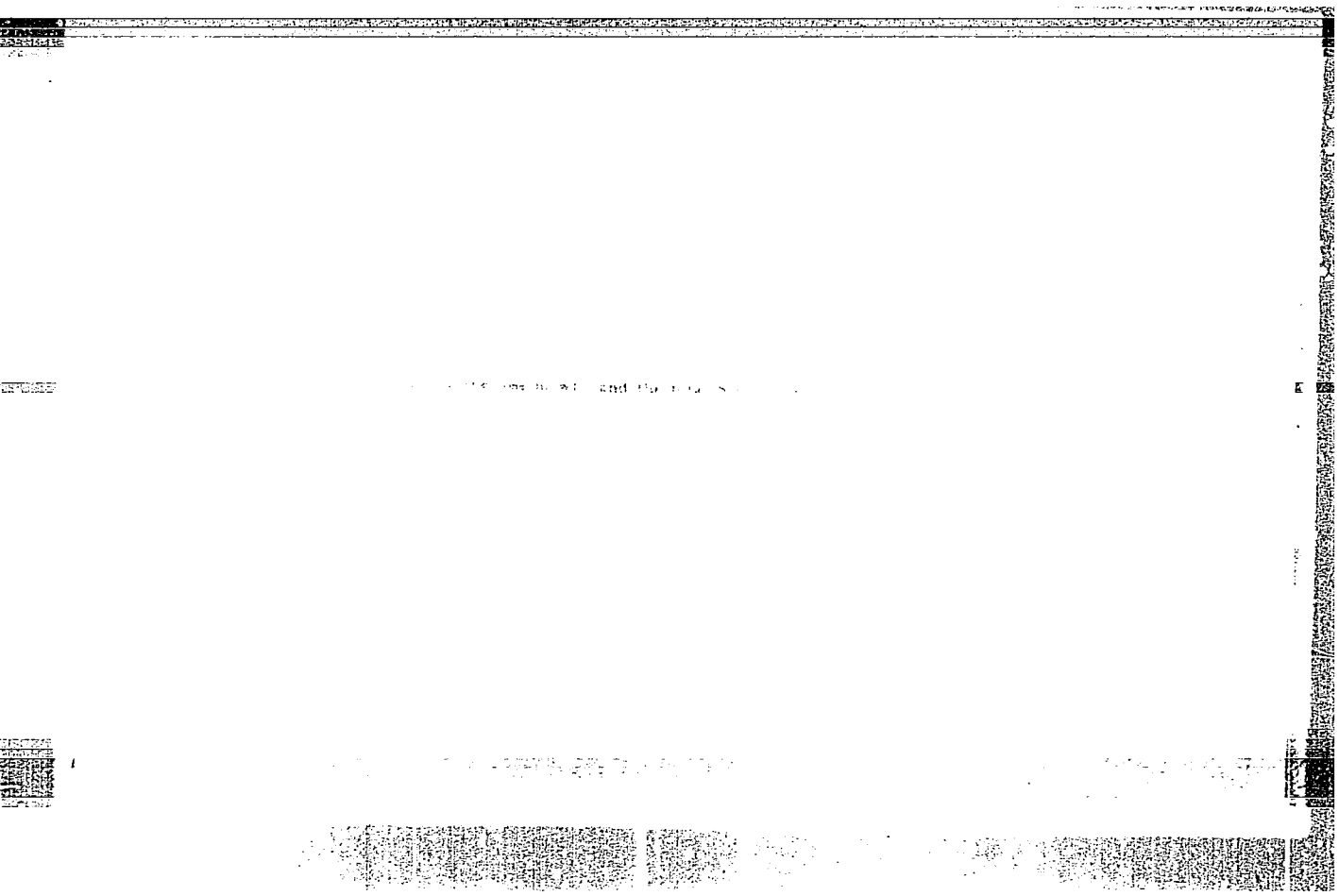
on the Enclosure. The IR spectra of a PKA film (see Fig. 2 on the Enclosure) agree well with previous results of N. D. Slovekhotova (Dokl. AN SSSR, 127, 811, 1959). The effects of different radiation regimes on viscosity are shown in Fig. 3 on the Enclosure, the formation of NH_2 and COOH end groups is given in Fig. 4 on the Enclosure, and the formation of peroxides is shown in Fig. 5 on the Enclosure. Orig. art. has: 6 figures.

ASSOCIATION: Institut fizicheskoy khimii im. L. V. Pisarzhevskogo AN UkrSSR (Physical Chemistry Institute, AN UkrSSR); Kievskiy filial Vsesoyuznogo nauchno-issledovatel'skogo instituta iskusstvennogo volokna (Kiev Section of the All-Union Scientific Research Institute of Synthetic Fibers)

SUBMITTED: 20Mar64 ENCL: 05 SUB CODE: OC

NO REF SOV: 004 OTHER: 000

Card 2/7



APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721610019-4"

AUTHORS: Ketov, A. N., Pechkovskiy, V. V. SOV/156-58-4-14/49

TITLE: On the Mechanism of the Thermal Decomposition of the Sulfites of Calcium, Strontium and Barium (O mekhanizme termicheskogo razlozheniya sul'fitov kal'tsiya, strontsiya i bariya)

PERIODICAL: Nauchnyye doklady vysshey shkoly. Khimiya i khimicheskaya tekhnologiya, 1958, Nr 4, pp 667-671 (USSR)

ABSTRACT: In the present paper investigations were carried out concerning the thermal decomposition of the sulfites of calcium, strontium and barium. This was done to explain the mechanism of this thermal decomposition. The composition of the solid and gaseous products of the above-mentioned sulfites were determined, as well as the decomposition in dependence on temperature, time of stay and the type of atmosphere. The investigations were carried out with specially synthesized and purified anhydrous sulfites. SO_2 and elementary sulfur were determined in the gaseous phase. In the solid phase sulfur was determined in the form of sulfite, sulfide, thiosulfate and sulfate. Within the temperature range of from 600° to 800°C no melting of the sulfites and their decomposition products occurs. The process

Card 1/3

On the Mechanism of the Thermal Decomposition of the Sulfites of Calcium, Strontium and Barium

of thermal decomposition of sulfites of calcium, strontium and barium can be expressed by the following equation:

$$2MeSO_3 = 2MeO + 2SO_2,$$

$$6MeSO_3 + 3SO_2 = 6MeSO_4 + 1\ 1/2\ S_2$$

$$2MeO + 1\ 1/2\ S_2 = 2MeS + SO_3$$

$$4MeSO_3 = MeS + 3MeSO_4.$$

The formation of the sulfites and sulfates takes place under direct action of the gaseous phase. The density of sulfates formed in the decomposition exerts a decisive influence upon the rate of thermal decomposition of the sulfites of calcium, strontium and barium. The dependence of thermal decomposition upon the time of stay in nitrogen current at 700° after 5, 10 and 15 minutes was investigated, and it was found that the strontium sulfite is decomposed most easily.
There are 3 tables and 5 references, 4 of which are Soviet.

ASSOCIATION: Kafedra tekhnologii neorganicheskikh veshchestv Permskogo gosudarstvennogo universiteta im. A. M. Gor'kogo (Chair of the

SOV/156-58-4-14/49

On the Mechanism of the Thermal Decomposition of the Sulfites of Calcium, Strontium and Barium

Technology of Inorganic Substances at the Perm' State University imeni A. M. Gor'kiy)

SUBMITTED: May 24, 1958

Card 3/3

KETOV, A.N.; PECHKOVSKIY, V.V.

Reaction of sulfur dioxide with calcium oxide and calcium carbonate. Zhur.prikl.khim. 31 no.12:1783-1787 D '58. (MIRA 12:2)

1. Permskiy gosudarstvennyy universitet imeni A.M. Gor'kogo.
(Sulfur dioxide) (Calcium oxides) (Calcium carbonates)

SOV/78-4-2-5/40

5(4)
AUTHORS: Ketov, A. N., Pechkovskiy, V. V.

TITLE: Investigation of the Thermal Decomposition of Magnesium Sulfite (Izucheniye termicheskogo razlozheniya sul'fita magniya)

PERIODICAL: Zhurnal neorganicheskoy khimii, 1959, Vol 4, Nr 2, pp 272-276 (USSR)

ABSTRACT: The velocity of the thermal decomposition of magnesium sulfite depending on the temperature, the type of the gaseous reducing agent, and on various additions as SiO_2, Fe_2O_3, Cr_2O_3, and ferriferous bauxite, were investigated. Sulfur dioxide, sulfur, magnesium thiosulfate, and magnesium sulfate are formed in nitrogen atmosphere in the temperature range of 300-500°. At temperatures > 500°C only sulfur dioxide, elementary sulfur and magnesium sulfate are formed. The formation of sulfur dioxide during the thermal dissociation of magnesium sulfite proceeds according to the following reaction:

$$MgSO_3 \rightleftharpoons MgO + SO_2 \quad (1)$$

The formation of elementary sulfur and of magnesium sulfate proceeds according to the following reaction:

Card 1/1

Investigation of the Thermal Decomposition of Magnesium Sulfite

$$2MgSO_3 + SO_2 = 2MgSO_4 + 1/2S_2 \quad (2)$$

At temperatures $< 500^0$ and in a nitrogen atmosphere magnesium sulfite reacts, during magnesium thiosulfate formation, with the sulfur being formed according to the following equation:

$$MgSO_3 + 1/2S_2 = MgS_2O_3 \quad (3)$$

On a rise of the oxygen concentration in the gaseous phase the formation of magnesium sulfate increases:

$$2MgSO_3 + O_2 = 2MgSO_4 \quad (4)$$

On an addition of iron and chromium oxide at 500^0 a quicker decomposition of magnesium sulfite takes place. The SO_2 formation decreases because SO_3 is formed under the catalytic influence of the oxides. This SO_3 reacts with magnesium oxide, in connection with the formation of magnesium sulfate, according to the following reaction equation:

$$MgO + SO_3 = MgSO_4 \quad (5)$$

The formation of magnesium sulfate, therefore, is no primary reaction. The influence of a gaseous reducing agent upon the

Investigation of the Thermal Decomposition of Magnesium Sulfite

thermal decomposition of magnesium sulfite does not show a considerable difference from the reaction in nitrogen atmosphere. Upon reduction of gaseous substances sulfuretted hydrogen appears:

$$S_2 + 2H_2 \rightleftharpoons 2H_2S \qquad (6)$$

The formation of elementary sulfur increases in hydrogen atmosphere on the effect of catalyzers, as is shown in the equation:

$$SO_2 + 2H_2 \rightleftharpoons 2H_2O + 1/2S_2 \qquad (7)$$

Thus, in the presence of bauxite in the hydrogen current, a large amount of the sulfur of magnesium sulfite turns into elementary sulfur and sulfuretted hydrogen and a small amount only into sulfur dioxide during the decomposition of magnesium sulfite in the temperature range of 400-500°. Therefore no magnesium thiosulfate is formed. The experimental results are of theoretical and practical importance. The method can be used for the production of elementary sulfur. There are 1 figure, 4 tables, and 5 Soviet references.

Card 3/4

KETOV, A. N., CAND TECH SCI, "~~INVESTIGATION~~ Study OF THE MECHANISM OF HIGH-TEMPERATURE REDUCTION OF CERTAIN SULFATES BY MEANS OF HYDROGEN AND CARBON MONOXIDE." LENINGRAD, 1960. (MIN OF HIGHER AND SEC SPEC ED RSFSR, LENINGRAD TECHNOL INST IM LENSOVET). (KL, 3-61, 216).

PECHKOVSKIY, V.V.; AMIROVA, S.A.; KETOV, A.N.

Reduction of iron, zinc, manganese, magnesium and calcium sulfates by hydrogen and carbon. Uch. zap. Perm. gos. un. 17 no.1:3-14 '60. (MIRA 14:11)

(Reduction, Chemical)
(Sulfates)

PECHKOVSKIY, V.V.; KETOV, A.N.

Thermography in studying topochemical reactions. Uch. zap. Perm. gos. un. 17 no.1:15-34 '60. (MIRA 14:11)
(Thermal analysis)
(Chemical reactions)

PECHKOVSKIY, V.V.; AMIROVA, S.A.; KETOV, A.N.

Intensification of the reduction of sulfates by adding sodium and potassium carbonates. Uch. zap. Perm. gos. un. 17 no.1:45-54 '60. (MIRA 14:11)

(Sulfates)
(Reduction, Chemical)

PECHKOVSKIY, V.V.; KETOV, A.N.

Reduction of barium sulfate with carbon monoxide at high temperatures. Zhur. prikl. khim. 33 no.8:1719-1723 Ag '60. (MIRA 13:9)
(Barium sulfate) (Carbon monoxide)

PECHKOVSKIY, V.V.; KETOV, A.N.

Thermal decomposition of zinc sulfite. Zhur. prikl. khim. 33 no.8:1724-1729 Ag '60. (MIRA 13:9)

(Zinc sulfite)

S/081/62/000/011/036/057
E071/E192

AUTHORS: Ketov, A.N., and Pechkovskiy, V.V.

TITLE: A study of the reactivity of carbonaceous materials using differential thermal analysis

PERIODICAL: Referativnyy zhurnal, Khimiya, no.11, 1962, 502, abstract 11 M 34. (Sb. nauchn. tr. Permsk. politekhn. in-t, no.10, 1961, 65-70).

TEXT: Using a Kurnakov pyrometer, heating rate curves of carbonaceous materials, heated in a stream of air and CO_2, filtering through the substance studied, were obtained. The heating rate was 25 °C/min., the fineness of materials 0.25-0.5 mm, the rate of gas flow 5 litres/hour. For charcoal the exothermic reaction with air was observed at 292 °C and for graphite at 348 °C. The temperatures of the beginning of interaction with CO_2 were found: charcoal 721 °C, semicoke 856 °C, coke 854 °C. A dilution of CO_2 with nitrogen does not change the temperature of the endothermic peak, but decreases its value. Saturation of charcoal with solutions of Na_2CO_3 and K_2CO_3

Card 1/2

A study of the reactivity of ...

(content of these additions 3-6%) decreased the temperature of the beginning of the reaction with CO_2 by 74 and 19 °C respectively.

[Abstractor's note: Complete translation.]

Card 2/2

KETOV, A.N.; PECHKOVSKIY, V.V.; STARKOV, N.P.; VARSKOY, B.N.

Preparation, composition, and certain properties of basic cadmium sulfate. Zhur.neorg.khim. 6 no.9:2009-2013 S '61. (MIRA 14:9)
(Cadmium sulfate)

PECHKOVSKIY, V.V.; KETOV, A.N.; MAL'TSEVA, T.G.; PRIDATCHENKOV, V.G.

Thermographic investigation of the interaction of sulfur dioxide with calcium carbonate in oxidizing atmosphere. Izv. vys.ucheb. zav.; khim. i khim. tekh. 6 no.6:991-996 '63. (MIRA 17:4)

1. Permskiy politekhnicheskiy institut, kafedra tekhnologii neorganicheskikh veshchestv.

KETOV, A.N.; PECHKOVSKIY, V.V.; KOSTIN, L.P.

Chlorination of magnesium oxide. Zhur. neorg. khim. 9 no.2: 467-469 F'64. (MIRA 17:2)

KETOV, A.N.; PECHKOVSKIY, V.V.; KOSTIN, L.P.

Investigating the interaction of cadmium oxide with various chlorination agents. Izv. vys. ucheb. zav.; tsvet. met. 7 no. 4: 107-111 '64 (MIRA 19:1)

1. Permskiy politekhnicheskiy institut, kafedra tekhnologii neorganicheskikh veshchestv.

KETOV, D.A.

AUTHOR: Ketov, D.A., Engineer 118-58-4-9/23

TITLE: The Mechanization of Lumber Transportation and Loading (Mekhanizatsiya rabot po otvozke i pogruzke pilomaterialov)

PERIODICAL: Mekhanizatsiya Trudoyëmkikh i Tyazhëlykh Rabot, 1958, Nr 4, page 25 (USSR)

ABSTRACT: At the Vakhtanskiy derevoobdelochnyy kombinat (the Vakhtan Wood Working Combine) the transportation of lumber from the sorting yards of lumber mills to the warehouses of the fabricators, or to railroad loading platforms, was previously done manually. Now the transportation of lumber is carried out by special trucks constructed for lumber transportation. The stacking and loading of lumber into railroad cars is done by fork lifts. There are 2 photographs.

AVAILABLE: Library of Congress

Card 1/1 1. Lumber-Handling 2. Lumber-Transportation

KETOV, F.Ya., fel'dsher (Molotovskaya oblast')

Pincers for applying clamps. Fel'd. i akush. no.8:51 Ag '54.
(MLRA 7:8)

(BANDAGING AND DRESSING
pincers for attaching braces)

ANDOZHSKIY, Vsevolod Dmitriyevich; KETOV, Kh.F., professor, retsenzent; DOBROVOL'SKIY, V.A., professor, doktor tekhnicheskikh nauk, zasluzhenyy deyatel' nauki i tekhniki, retsenzent; PYZH, O.A., inzhener, laureat Stalinskoy premii, retsenzent; SHAVLYUGA, N.I., kandidat tekhnicheskikh nauk, dotsent, redaktor; SOKOLOVA, L.V., tekhnicheskiy redaktor.

[Calculations for gear drives] Raschet zubchatykh peredach. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit. lit-ry, 1955. 266 p.
(Gearing) (MLRA 8:12)

KETOV, V., master radiosporta, chempion RSFSR po "Okhote na lis"

A "secret" of the Sverdlovsk Province radio amateurs. Radio no.6:13 Je '62. (MIRA 15:5)
(Sverdlovsk Province--Radio operators)
(Sverdlovsk Province--Radio direction finders)

KETOV, V.

"Indikator" radio receiver. Radio no.6:18-21 Je '63. (MIRA 16:7)

(Radio—Receivers and reception)

GUSEV, S.I.; KETOVA, L.A.

Reactions of thiourea and ureaselenium complexes of bismuth with picrolunic and picric acids. Zhur.neorg.khim. 6 no.8:1881-1884 Ag '61. (MIRA 14:8)

1. Permskiy meditsinskiy institut, kafedra obshchey khimii.
(Bismuth compounds) (Picrolonic acid) (Picric acid)

GUSEV, S.I.; KETOVA, L.A.

Potentiometric determination of trivalent thallium by means of bivalent vanadium. Zhur.anal.khim. 16 no.5:552-554 S-O '61. (MIRA 14:9)

1. Perm State Medical Institute. (Thallium--Analysis) (Potentiometric analysis)

GUSEV, S.I.; KETOVA, L.A.

Determination of thallium and antimony present simultaneously.
Zhur.anal.khim. 17 no.1:137-139 Ja-F '62. (MIRA 15:2)

1. Perm Medical Institute.
(Thallium--Analysis) (Antimony--Analysis)

GUSEV, S.I.; KETOVA, L.A.

Titrimetric determination of palladium with a bivalent vanadium salt solution. Zhur.anal.khim. 17 no.8:1018-1019 N '62. (MIRA 15:12)

1. Perm medical institute.
(Palladium--Analysis) (Vanadium salts) (Potentiometric analysis)

KETOVA, N., starshiy nauchnyy sotrudnik

New durable fabrics for working clothes. Okhr.truda i sots. strakh. no.2:68-69 Fe '59. (MIRA 12:4)

1. TSentral'nyy nauchno-issledovatel'skiy institut shersti.
(Clothing, Protective)

KETOVA, N. S.

36218

KETOVA, N. S. I GLONTI, G. V.
Urabotka i prit yazhka sukonnykh tkaney. Tekstil. prom-st', 1949, No. 11, s. 26-27

SO: Letopis' Zhurnal'nykh Statey, No. 49, 1949

BAYKOV, B.K.; MELKHINA, V.P.; Prinimali uchastiye: VASIL'YEV, A.S.; KATSENELENBAUM, M.S.; KOMAROVA, A.A.; ZHIGULINA, L.A.; TERNOVSKAYA, L.N.; YUSHKO, Ya.K.; CHUMAK, K.I.; GUSEL'NIKOVA, E.L.; KETOVA, O.N.

Hygienic characteristics of air pollution in Gubakha and its effect on health of the population. Uch. zap. Mosk. nauch.-issl. inst. san. i gig. no.6:21-25 '60. (MIRA 14:11)
(NIZHNYAYA GUBAKHA--AIR--POLLUTION)

KETOVA, V.P.; PAVLOV, V.A.

Effect of elastic waves on internal friction at low temperatures in aluminum alloys with 2 percent magnesium. Fiz. met. i metalloved. 10 no.3:445-452 S '60. (MIRA 13:10)

1. Institut fiziki metallov AN SSSR.
(Aluminum alloys—Testing) (Internal friction)

ZINOV'YEVA, L. A.; KETOVA, Yu. V.

Chufa

Chufa in the Molotov Botanical Garden. Biul. Glav. bot. sada No. 10, 1951.

Monthly List of Russian Accessions, Library of Congress, December 1952. Unclassified.

KETOVICH, V. L. 166T2

USSR/Biology - Seeds, Sprouting 21 Jul 50
Chemistry - Gutta-Percha

"Study of the Sprouting of the Seeds of the Warty Spindle Tree (Bereskiet Boradavchatyy)," V. L. Ketovich, T. I. Smirnova, A. A. Bundel', S. S. Pechnikova, Inst of Biochem imeni A. N. Bakh; Timber Inst, Acad Sci USSR

"Dok Ak Nauk SSSR" Vol LXXIII, No 3, pp 527-530,

Studies reasons for slow sprouting of this gutta-percha-producing tree. Investigates biochemical changes occurring when seeds undergo stratification, which consists of placing seeds in moist

166T2

USSR/Biology - Seeds, Sprouting (Contd) 21 Jul 50

turf under conditions of low temperature and good aeration. Finds subject process produces faster sprouting. Finds removal of small amount of capsule and endosperm at root end of seed provides better supply of moisture and oxygen to the embryo and produces faster sprouting. Includes five tables and two photographs. Submitted 16 May 50 by Acad A. I. Oparin.

166T2

KETRARU, N. A.

Study of paleolithic grottoes in northwestern Moldavia. Okhr. prir. Mold. no.3:60-77 '65. (MIRA 18:10)

L'VOV, B.K.; VETRIN, V.R.; KETRIS, M.P.

Geological position and petrographic characteristics of granitoids in the Dzhabyksko-Suunduk region (Southern Urals). Vop.magm.i metam. 2:54-95 '64. (MIRA 18:3)

KETROV, M.

A computing cylinder with the improved recording and regulating devices. p. 123.

GODISHNIK. Minno-geolozhki institut. Sofiia, Bulgaria, Vol. 5, no. 1, 1957/58 (published 1959).

Monthly List of East European Accessions (EEAI) LC, Vol. 9, No. 2, Feb. 1960.
UNCL

STREGULIN, A. I.; KETSIN, F. S.

Research on the Transformation of Austenite in High-Carbon Steel

Trudy UFAN 9, 137, 1937

STREGULIN, A. I.; KETSIN, F. S.

Mechanical Properties o f Carbon Steels in Isothermic and Common Hardening with Tempering

Trudy UFAN, 9th Edition, 89, 1941

STREGULIN, A. I.; KETSIN, F. S.

The Effect of the Partial Isothermic Disintegration of Austenite in Carbon Steels on the Position of the Martensitic Point.

Trudy UFAN 10, 65, 1941

STREGULIN, A. I.; KETSIN, F. S.

Chemical and Physical Properties of the Products of Isothermic Hardening and Common Hardening with Tempering in Carbon Steels

Trudy UFAN 10, 99, 1941

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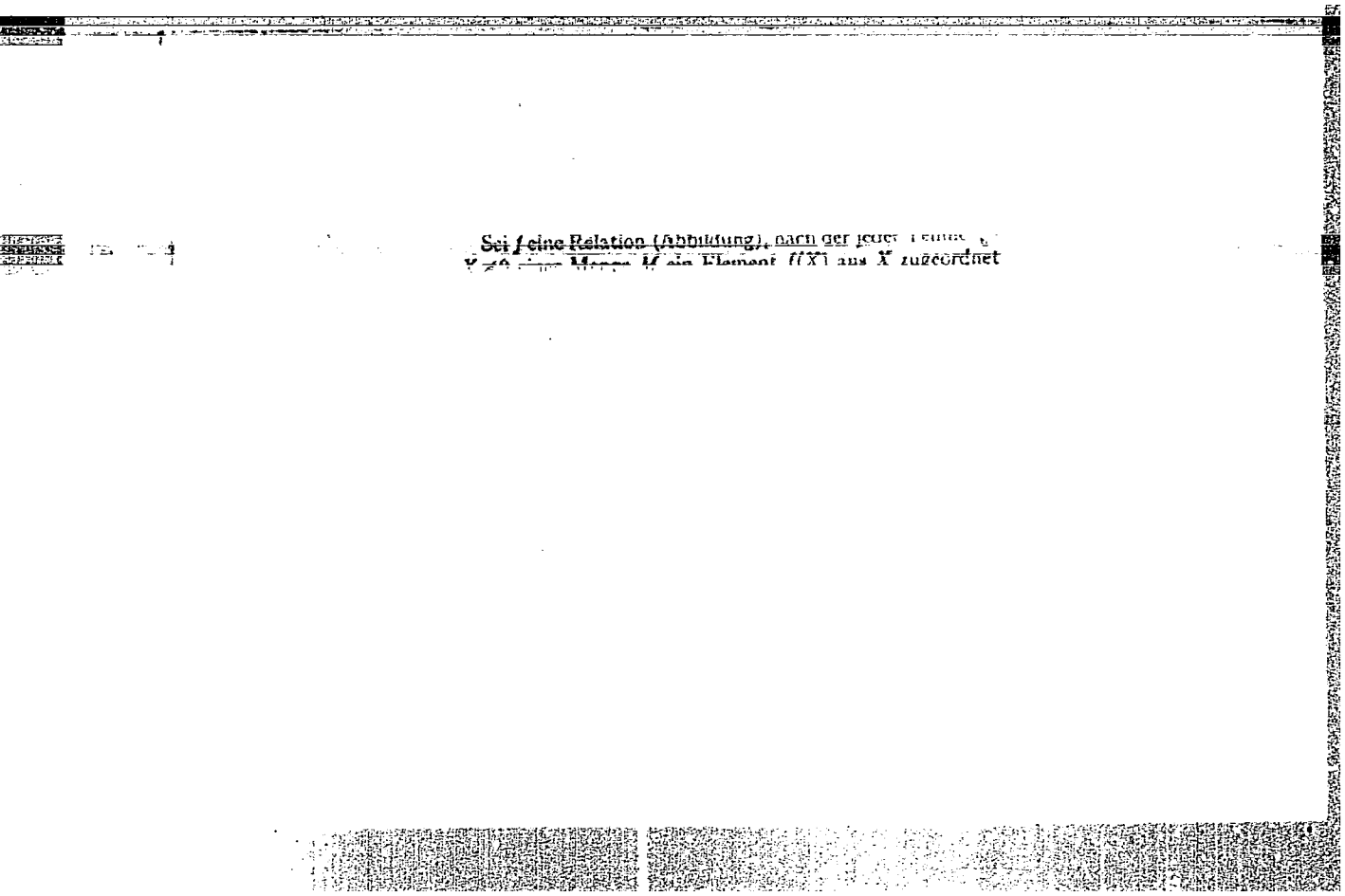


KETSKEMETY, I.

K-6

HUNGARY/Optics - Luminescence

Abs Jour : Ref Zhur - Fizika, No 11, 1958, No 26278

Author : Ketskemety I., Gergye L., Slakovits E.
Inst : The University, Szoged, Hungary
Title : On a New Photoelectric Measuring Setup for the Investigation of Polarization of Luminescence.

Orig Pub : Acta phys. et chem. Szoged, 1957, 3, No 1-4, 16-20

Abstract : Description of a setup for the measurement of the degree of polarization of the fluorescence of solutions, based on the principle of electric compensation using two photoelectric multipliers. This differs from the setup constructed by Weber (Referat Zhur Fizika, 1957, No 9, 23958) in that it makes it possible to investigate the fluorescence light in a direction parallel to the direction of the exciting light. This makes it possible to exclude the effect of depolarization of the secondary fluorescence (Referat Zhur Fizika, 1958, No 4, 9291). A method is given for taking into account the systematic errors that are introduced by the passing light and by the luminescence of the crossed filters of the setup.

Card : 1/1

KETSKEMETY, I

K-6

HUNGARY/Optics - Luminescence

Abs Jour : Ref Zhur - Fizika, No 6, 1958, No 14231

Author : Budo A., ~~Ketskemety I.~~
Inst : The University, Szeged, Hungary
Title : On the Influence of Secondary Fluorescence on the Radiation Spectra of Fluorescent Solutions.

Orig Pub : Acta phys. Acad. sci hung., 1957, 7, No 2, 207-223

Abstract : On the basis of the phenomenological theory, the authors have investigated the influence of secondary fluorescence, due to reabsorption, on the spectral distribution of the radiation from fluorescent solutions. This influence can be characterized with the aid of a function that depends on the wavelength, a function which must be multiplied by the distribution function after introducing corrections for reabsorption, in order to obtain the true spectrum. The relations obtained were checked in experiments with a solution of fluorescein. The spectra obtained at various thickness of the layer, taking account of reabsorption only, give considerable

Card : 1/2

3,

KETSKEMETY, I

HUNGARY/Physical Chemistry - Molecule, Chemical Bond. B-4

Abs Jour: Referat. Zhurnal Khimiya, No 3, 1958, 6907.

Author : A. Budo, I. Ketskemety.
Inst : Academy of Sciences of Hungary.
Title : Influence of Secondary Fluorescence on Emission Spectra of Fluorescent Solutions.

Orig Pub: Acta phys. Acad. sci. hung., 1957, 7, No 2, 207-223.

Abstract: Detailed exposition of results of the earlier published work (RZhKhim, 1957, 53679).

Card : 1/1 -7-

Ketskemety, I

Determination of the relative fluorescence intensity and fluorescence yield by means of polarization measurements. I. Ketskemety (Univ. Szeged, Hung.). [illegible] (Trans. Acta Phys. et Chem. (N.S.) 4, 18 [illegible] German); cf. C.A. 52, 19115g; preceding abstr. A method for detg. the relative quantum yield as a function of a parameter, such as concn., temp. and viscosity, which does not have an appreciable effect on the true emission spectrum of the solute is described. Light is passed through a cell K_1 contg. the soln., then through a polarizer and another cell K_2 contg. the soln. at a different parameter value. The linearly polarized light from K_1 and that partially polarized from K_2 are passed through a filter which absorbs all but the longest wave lengths. The angle of polarization is measured with K_1 and (or) K_2 in place. Expressions for calcg. the relative quantum yield are given. Values for fluorescein in alk. medium agreed within ±2% with those obtained by an absorption method used by Budó, et al. (C.A. 51, 15278d). E. M. Y.

[redacted]; DOMBI, J.; HORVAI, R.

The connection of the absorption fluorescence spectra of solutions. Preliminary report. Acta phys Hung 12 no.3:263-267 '60. (EEAI 10:5)

1. Institute for Experimental Physics, University of Szeged, Szeged.
(Fluorescence) (Spectrum analysis)

KETSKEMETY, I.

The Kirchhoff's law in case of heavy absorption media. Acta phys Hung 15 no.1:77-79 '62.

1. Institut fur Experimentalphysik der Universitat, Szeged.

BUDO, A.: KETSKEMETY, I.

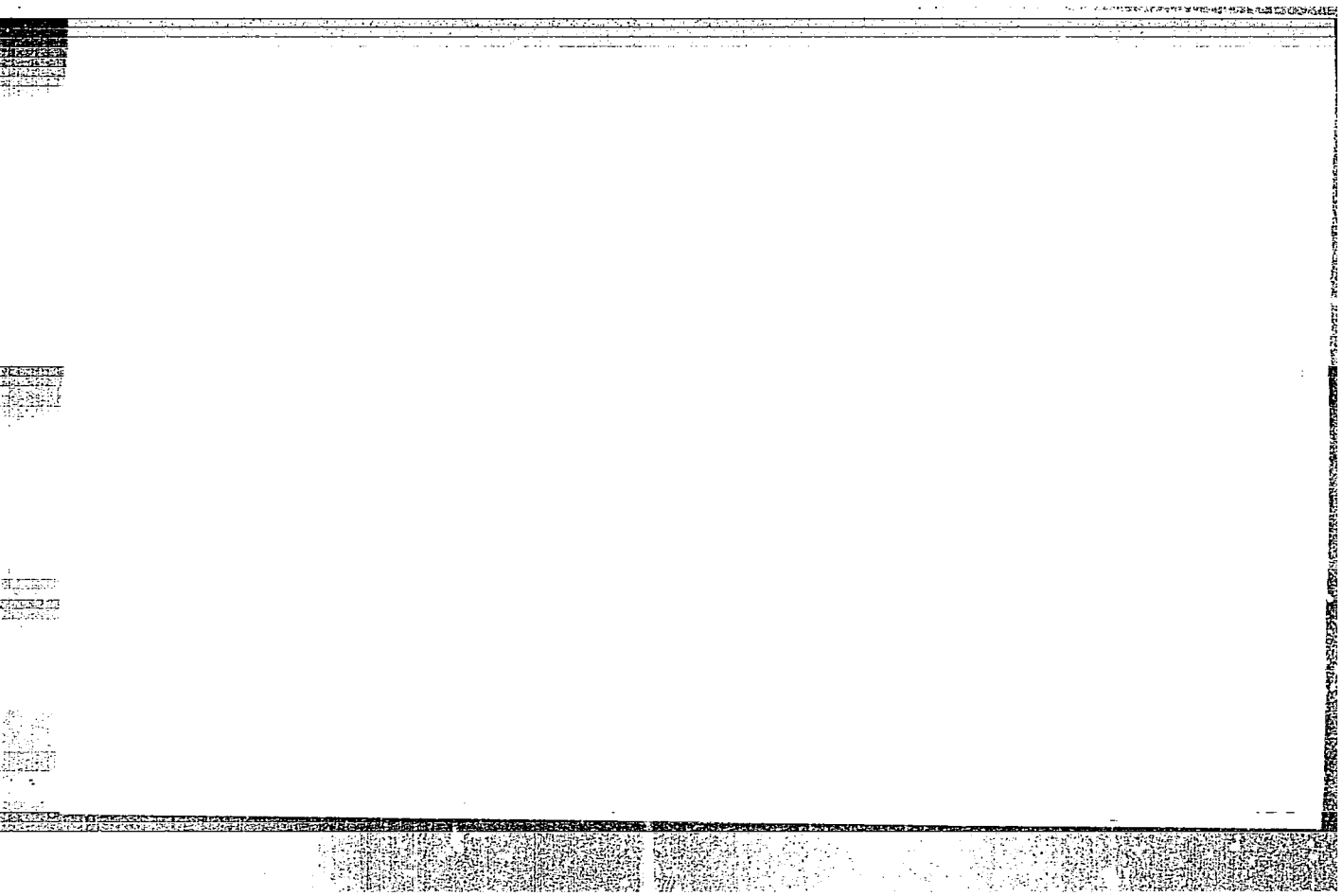
Energy transport phenomena in case of molecular fluorescence.
Acta phys Hung 14 no.2 3:167-176 '62.

1. Institutit fur Experimentalphysik der Universitat, Szeged.

[redacted] gives a satisfactory description of the frequency dependence

gion. The frequency dependence of the upper limit of the yield was also studied from the thermodynamical point of view and it is shown that the anti-Stokes drop in yield can be interpreted on the basis of the entropy principle. Orig. art. has: 3 figures and 6 formulas.

[redacted] Institute of Experimental Physics, Jozsef Attila



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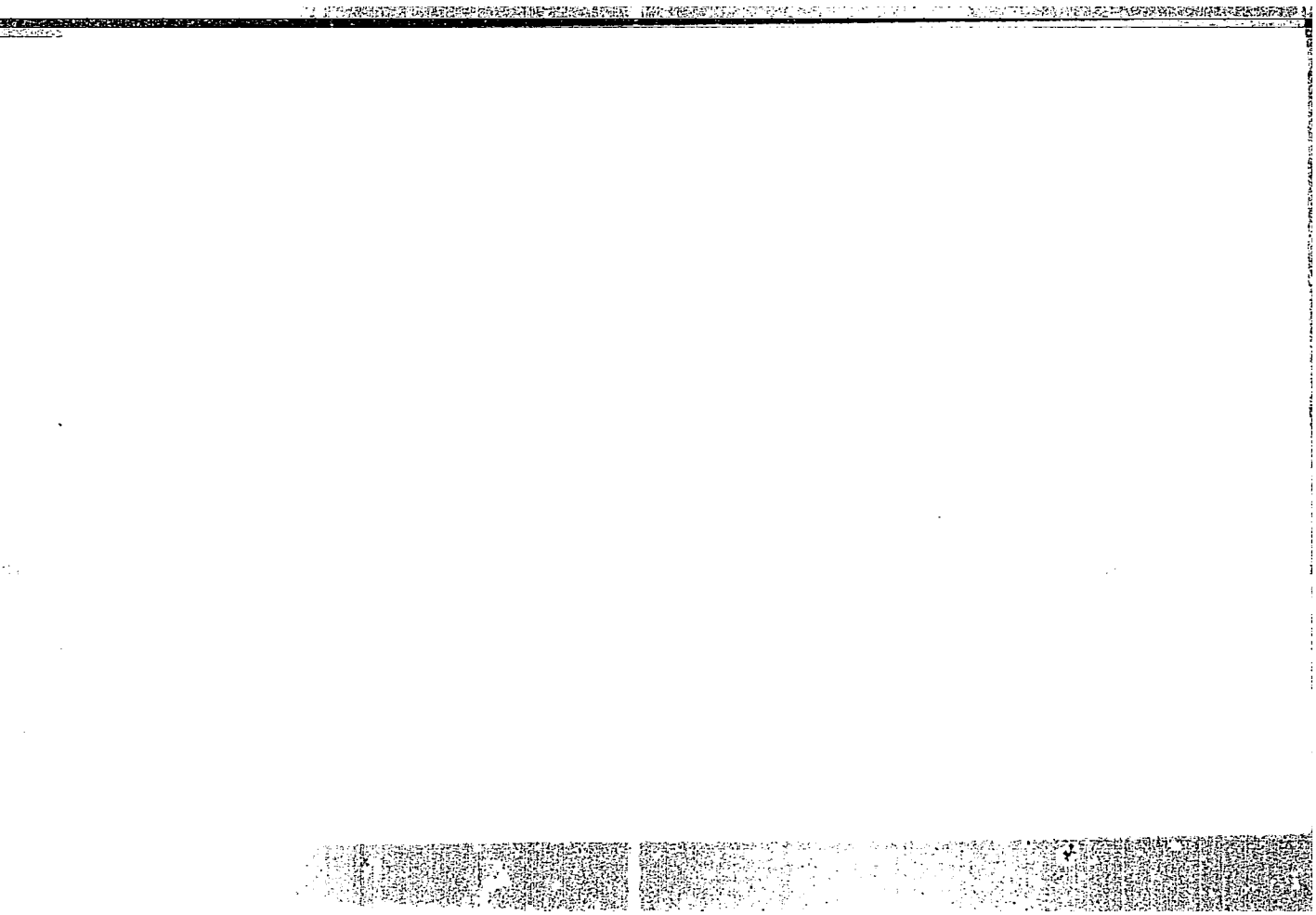

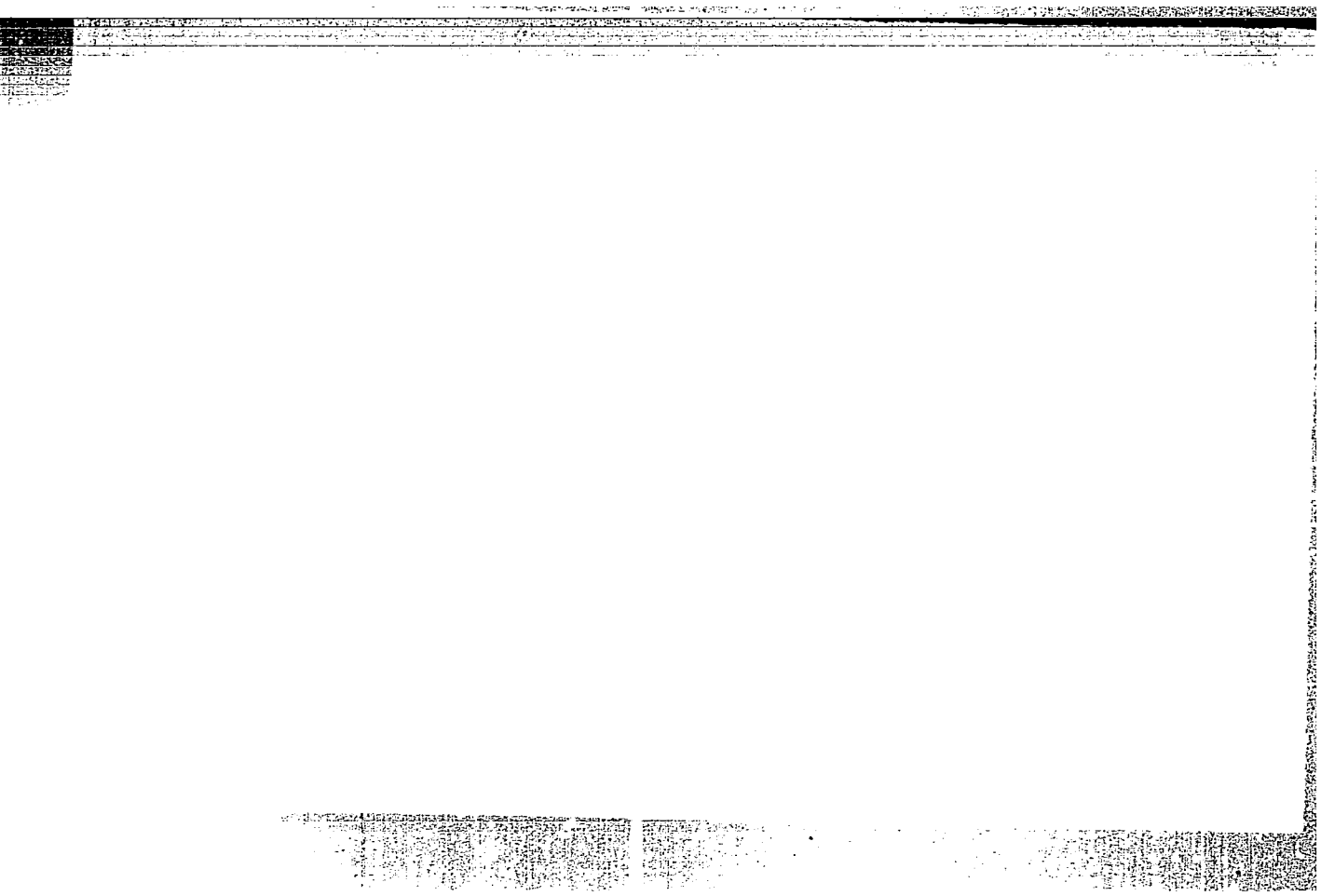

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721610019-4"

DOMBI, J.; KETSKEMETY, I.; KOZMA, L.

An analytic interpretation of absorption and fluorescence spectra of solutions. Acta phys chem Szeged 10 no.1/2:15-22 '64.

1. Institut fur Experimentalphysik der Attila Jozsef Universitat, Szeged.

KETSKEMETY, L.; DOMBI, J.; HORVAI, R.

Fluorescence, absorption and temperature radiation of solutions. Acta phys Hung 14 no.2 3:165-166 '62.

1. Institute of Experimental Physics, The University, Szeged. Presented by G. Szigeti [Gyorgy Szigeti]

KETSKHOVELI, E. N.: Master Biol Sci (diss) -- "Plastid phytochromes of bark and wood". Tbilisi, 1958, published by the Acad Sci Georgian SSR. 14 pp (Min Higher Educ USSR, Yerevan State U), 200 copies (KL, No 6, 1959, 129)

KETSKHOVELI, N.N.

Dynamics of vegetation in our steppes and thin forests. Trudy Tbil.bot.inst. 19:45-69 '58. (MIRA 12:8)
(Georgia--Forest ecology)

KETSKHOVELI, N.N.

Plastid phytochromes in the bark and wood. Trudy Tbil.bot. inst. 19:279-334 '58. (MIRA 12:8)
(Chromatophores) (Bark) (Wood)

KETSKHOVELI, E.N.

Plastid pigments in woody tissues of the grapevine. Soob. AN Gruz. SSR 20 no. 4:457-458 Ap '58. (MIRA 11:7)

1. Institut botaniki AN GruzSSR, Tbilisi. Predstavleno akademikom L. I. Dzhaparidze.

(Grapes)
(Chromatophores)

KETSKHOVELI, E.N.

Dynamics of the chlorophyll composition of bark in relation to age. Soob.AN Gruz.SSR 21 no.2:179-181 Ag '58. (MIRA 12:6)

1. AN GruzSSR, Institut botaniki, Tbilisi. Predstavleno akademikom L.I.Dzhaparidze.
(Bark) (Chlorophyll)

KETSKHOVELI, L.N.

Plastid phytochromes in the xylem of the grapevine and their relation with regenerative processes. Trudy Tbil.bot.inst. 20:143-159 '59. (MIRA 13:7)
(Grapes) (Regeneration(Botany)) (Chromatophores)

KETSKHOVELI, E.N.; KINKLADZE, D.Ch.

Chlorophyll a and chlorophyll b content of the bark and wood of some trees. Soob. AN Gruz. SSR 27 no.5:597-600 N '61. (MIRA 15:1)

1. AN Gruzinskoy SSR, Institut botaniki, Tbilisi. Predstavleno akademikom L.I. Dzhaparidze.
(Chlorophyll)
(Bark)
(Wood--Chemistry)

S/251/62/028/004/002/003
I042/I242

AUTHORS: Ketskhoveli, E.N., Kinkladze, D.Ch., Khakhutashvili, Ts. Ye.

TITLE: The dynamics of the chlorophyll in bark and leaves in connection with its transfer to the bark

PERIODICAL: Akademiya nauk Gruzinskoy SSR. Soobshcheniya, v.28, no.4, 1962, 455-460

TEXT: Previous work in the field is surveyed. The problem of the dynamics of chlorophyll and yello/phytochromes, as well as the distribution of phytochromes among the various organs require further study. The present investigation is the continuation of an earlier study by the authors. The following plants were considered: 1) Quercus castaniifolia, 2) Rubus sp., 3) Ligustrum lucidum, 4) Ilex colchica. Samples for measuring the chlorophyll content were prepared

Card 1/3

The dynamics of the chlorophyll...

by Sapozhnikov's method (Ref. 8: Tr. Bot. in-ta im. V.L. Komarov, v.8, 1951). The density of acetone-alcohol extracts of chlorophyll was measured with the ФЭК-М (FEK-M) unit. It was found that in Autumn the chlorophyll of leaf-shedding trees migrates from the leaves to the bark. Evergreen plants and those leaf-shedding plants which sometimes keep their green leaves through the Winter often fail to display the relation between the depletion of chlorophyll in the leaves and its simultaneous accumulation in the bark. The chlorophyll content of the bark of evergreen plants varies with changes in internal environment. There is 1 table.

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