

KONSTANTINOVA-SHLEZINGER, M. A.

PA 18/49T3

USSR/Chemistry - Chromatography
Chemistry - Analysis

Jul/Aug 48

"The Theory of Chromatographic Analysis," M. A. Konstantinova-Shlezinger, N. A. Gorbacheva, Phys Inst imeni Lebedev, Acad Sci USSR, Moscow Phar Inst, 7 pp

"Zhur Analit Khimii" No 4

Presents basic theory of subject developed by M. S. Tavet. Derives equations representing chromatographic processes, and applies them to practical cases. Submitted 17 Apr 48.

18/49T3

KONSTANTINOVA-SHLEZINGER, M. A.

USSR/Physics
Phosphors
Luminescence

Jan/Feb 49

"The Luminescent Properties and Chemical Structure of Crystal Phosphors," M. A. Konstantinova-Shleziuger, Phys Inst Imeni P. N. Lebedev, Acad Sci USSR, 6 pp

"Iz Ak Nauk SSSR, Ser Fiz" Vol XIII, No 1

States that crystal structure may be divided into two basic types, with three subdivisions of the second type. First type includes crystal lattices of organic substances, while second is subdivided according to binding energies in crystal lattices. 36/49187

USSR/Physics (Contd)

Jan/Feb 49

Also classifies phosphors into two groups according to presence or absence of recombining luminescence. From these classifications, discusses possible factors influencing the luminescent characteristics of phosphors.

36/49187

PROCESSES AND PROPERTIES INDEX

16

B

Luminescent Analysis. (In Russian.) M. A. Kozlanti-nova-Shlesinger. *Izvestiya Akademii Nauk SSSR, Seriya Fizicheskaya* (Bulletin of the Academy of Sciences of the USSR, Physical Series), v. 13, Mar.-Apr. 1949, p. 237-240; discussion, p. 241.

Briefly reviews advances in the above field in the past 3 1/2 years, indicating both Soviet and foreign applications. Different spheres of application, from hygiene and criminology to biological research, are indicated. 27 ref.

METALLURGICAL LITERATURE CLASSIFICATION

A38.51.A

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50

KONSTANTINOVA-SHLEZINGER, N. A.

N/5
922.613
.K8

Referativnyy Sbornik Po Lyuminestsentnomu Analizu (Abstracts on Luminescent Analysis) Moskva, Akademkniga, 1951 -

V.

At head of title: Akademiya Nauk SSR. Otdeleniye Fiziko-Matematicheskikh Nauk.

Lib. Has: 1954

Centers of luminescence and factors influencing the processes of formation of crystal phosphors. N. A. Gorbacheva, M. A. Komarova-Shtromberg, R. G. Tsvetkovskaya, and E. A. Trapskova. *Izv. Akad. Nauk S.S.S.R., Ser. Fiz.* 19, 720-6 (1961).—The luminescent properties are attributed to the formation of "quasi-molecules" formed by the activator atoms and the components of the lattice. Intensity curves vs. phosphor temp. are shown for the following phosphors: $(Ca_2(PO_4)_2(Cl,F))$ -Mn; $MgWO_4$; $CdBr_2$ -Mn; $CdSO_4$ -Mn; Zn_2SiO_4 -Mn; $Cd_2P_2O_7$ -Mn; $Cd_2P_2O_7$ -Pb; $NaCl$ -Mn,Cr; KBr -Mn,Pb; $CdBr_2$ -Mn,Cr; KBr -Mn. The ratio of the temp. of the initial drop in intensity to the m.p. is 0.3 for NaCl-type phosphors, 0.34 for $CdBr_2$ -Mn and $CdBr_2$ -Mn,Cr type and 0.19-0.28 for all other phosphors. The influence of presence, absence, and type of halogen contg. flux on the spectral emission of $Cd_2P_2O_7$ -Mn is shown. ZnS without flux forms a yellow-green phosphor; Na_2SO_4 flux makes the radiation bright yellow when heated to 900° and less bright at 1150°. NaCl, NaBr, and NaI fluxes lead to blue luminescence. Washing ZnS in oxidation-preventing a/c. favors formation of Zn-Cl quasil. at 800°, giving brighter phosphors; partial oxidation lowers the brightness at 1150° formation temp. $Cd_2P_2O_7$ -Mn heated 3' at 700°C. has a yellow, over 8', a red luminescence color; the change is due to evapn. of CdCl₂. S. Pakstver

1. KONSTANTINOVA-SHLEZINGER, M. A.
2. USSR (600)
4. Fluorescence - Bibliography
7. Survey of works on luminescent analysis published in the past three years.
Izv. AN SSSR. Ser. fiz. 15, no. 6, 1951.

9. Monthly List of Russian Accessions, Library of Congress, January, 1953. Unclassified.

CA

3

Nature of luminescence centers. M. A. Konstantinova-Shlezinger (N. Lebedev Inst. Phys., Acad. Sci. U.S.S.R., Moscow). *Zhur. Eksp. Teoret. Fiz.* **21**, 252-68 (1951). The elements which act as activators in phosphors, Ti, V, Nb, Cr, Mo, W, Mn, Re, Fe, Co, Ni, Rh, Pd, Cu, Ag, Au, Zn, Cd, Hg, Tl, Sn, Pb, Sb, Bi, rare earths, Th, U, have in common the tendency to form predominantly covalent bonds with the surrounding anions in a crystal. The hypothesis is formulated that a luminescence center may be constituted by such a covalent-bonded complex of the activator atom with the surrounding anions. Such a complex can be viewed as a "quasi-molecule" rigidly lodged in the host lattice; it is characterized by its coordination no. n , i.e., the no. of surrounding anions, and the assumption is made that the ability to luminesce is limited by the n . An indirect confirmation of this point of view is seen in the similarity of the absorption spectra of solns. of $[\text{SnCl}_4]^{--}$ and the excitation spectra of Sn-activated phosphors (Hüniger and Rudolph, *C.A.* **36**, 6909) and a similar observation on TlCl solns. in the presence of excess Cl^- ions and Tl-activated alkali halide phosphors (Fromberg, *C.A.* **25**, 4183). Rigid location of the complex in the solid lattice is essential for luminescence on grounds similar to the conditions of fluorescence of org. molcs., namely, nonintersection of the potential curves of the excited and ground states; in org. compds. this condition is met in the presence of π -electrons, whereas in the solid state the requirement of non-interaction between electronic excitation and vibration is fulfilled by rigid fixation. The 1st inference from this hypothesis, namely, that luminescent properties should be assocd. with a definite coordination no. n of the activator,

is tested against data of luminescence of phosphors with the same activator in different host crystals of known structure and, consequently, known n ; mention is also made of hosts of unknown structure, and of exceptions to the rule, with explanations of the causes of the anomalies where adequate explanations can be given. With the activator Pb, in MgS , CaO , SrO , BaO , NaCl , and layer halides, $n = 6$; an apparent exception is ZnS ($n = 4$) but in this case Pb can be introduced only in the presence of NaCl as a flux which evidently creates the necessary environment with $n = 6$; thus, in this instance, the flux is an essential factor of the luminescence. For Ag, in ZnS , CdS , ZnS , ZnSe , ZnS , ZnSe , Zn_2SiO_4 , $n = 4$, and in CaWO_4 and CaMoO_4 , $n = 8$. An anomaly is KI, with $n = 6$, where according to Hilsch (*C.A.* **32**, 50) AgI keeps its own crystal structure, and the

sulfides (selenides) SrS , MgS , SrSe , $n = 6$, known to be complex systems, with obligatory presence of O. Unexplained anomalies are CaO and Al_2O_3 ($n = 6$) which show only weak cathodoluminescence. Mn, in Al_2O_3 , MgO , Ga_2O_3 , In_2O_3 , LiF , CaO , $n = 6$, and in CaAl_2O_4 and BeAl_2O_4 , $n = 6$ or 4, with mostly red and orange luminescence at $n = 6$ and mostly green and yellow at $n = 4$; an exception is Cr in BeO , $n = 4$. Rare-earth element activators, in a variety of hosts, have $n = 8$ or 6; Sm and Eu in ZnS have apparently $n = 4$, but their introduction into ZnS is known to require a flux. Soln. of the reverse problem, i.e., detn. of n in a host of unknown structure, is illustrated by $\text{Cd}_3\text{P}_2\text{O}_7$, which luminesces with the activators Mn, Pb, Cr, Sn, and Ni, and consequently has $n = 6$; this is further confirmed by the fact that $\text{Cd}_3\text{P}_2\text{O}_7$ does not luminesce with Bi ($n = 8$)

in CaF_2 , BaF_2 , SrF_2 , ZrO_2 , CaSO_4 , SrSO_4 , BaSO_4 , except in the presence of a sulfate flux. The 2nd inference from the necessity of rigid fixation is that the host crystal should have a high melting temp; this applies to ZnSiO_3 , Be_2SiO_7 , CaWO_4 , MgWO_4 , apatite, ZnS , CdS , CaS , Ca_3PO_4 . Among the compds. of Al, Mg, Ca, Cd, mostly only those melting above 700° are suitable hosts, and most of them are. An apparent contradiction are the relatively low-melting halides CdI_2 , CdBr_2 , ZnCl_2 , CaI_2 , PbI_2 , etc., which, however, are typical layer crystals with strong bonding within a layer but weak bonds between layers. A 3rd inference is that with rising temp. luminescence should become weaker as a result of diminished rigidity of fixation. This is in agreement particularly with the expts. of Yastrebov (*C.A.* 43, 3726) and with Randall's (*C.A.* 32, 50) observations of a crit. temp. above which luminescence decreases sharply. That temp. stands in the expected relation to the melting temp. of the crystal.

N. Thon

KONSTANTINOVA-SHLEZINGER, M. A.

PA 236T86

USSR/Physics - Luminophores

Nov. 52

"Characteristics of a Class of Photoluminophores on Sulfate Base," M. A. Konstantinova-Shlezinger, N. A. Gorbacheva and Ye. I. Panasyuk, Phys Inst imeni Lebedev, Acad Sci USSR

"Zhur Eksper i Teoret Fiz" Vol 23, No 5, pp 588-592

Curves of extinction and of thermal glowing time of phosphor $PbSO_4Sm$ with various fusibles and curves of glowing time of phosphor $CdSO_4$ with activators Mn, Pb, MnPb, and of phosphor $PbSO_4$ with double activator $SmCe$ were plotted. Indebted to Prof V. L. Levshin. Received 18 Jun 52.

236T86

Reference compilation on luminescence analysis. II.
M. A. Konstantinova-Shlezinger, *Izv. Nauk S.S.S.R.*
~~*Khim. i Mekh. Nov. Subst.*~~ 103 pp.; cf. C.A. 46,
8841g.—An annotated bibliography is given on luminescence analysis comprising 180 titles in different languages divided into the following headings: (1) chemical luminescence analysis, (a) inorg. compds., (b) org. compds., (c) biochem. processes; (2) luminescence analysis in medicine; (3) luminescence microscopy; (4) luminescence analysis in quality control; (5) methods; (6) miscellaneous. A subject index is appended. M. Hosh

✓ Crystalline magnesium-lithium tungstate phosphor with manganese activator. M. A. Konstantinova-Shlesinger, E. G. Vasil'eva, and Z. N. Reputkova. *Doklady Akad. Nauk S.S.S.R.* 95, 241-3(1954).—The red luminescence of the

Mg Li tungstate phosphor was caused by the Mn activator and is only developed after the addn. of the activator. The phosphor was prepd. by the ignition of 1 mole WO_3 :0.54 mole $MgCO_3$:1.35 moles Li_2CO_3 at 750° for 20 min. A max. luminescence is produced with 5.23×10^{-4} g. $MnSO_4/g.$ of the phosphor, or somewhat more if $MnCl_2$ is used instead of the sulfate. Only red phosphorescence was excited by the 436, 405, 366, and 334-m μ Hg lines. A fainter blue luminescence is excited by the resonance line and the 2 adjoining lines. The 313-280-m μ Hg lines excited a combined red and blue luminescence. No after-glow was observed during the irradiation at room temp. and at the temp. of liquid air. The activated-state duration was 4.1×10^{-4} sec.

W. M. Sternberg

(2)

KONSTANTINOVA-SHLESINGER, M.

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824420001-

Institutions & Conferences. Teaching. Problems of Bibliography and Scientific Documentation

Abs Jour : Referat Zhur - Khimiya, No 6, 25 March 1957, 18049

Author : Konstantinova-Shlesinger, M.

Inst :

Title : Academician S.I. Vavilov and the Part He Played in the Development of Luminescent Analysis

Orig Pub : An. Rom.-Sov. Scr, chim. 1956, 10, No 4, 111-115

Abstract : No abstract.
Translation.
See Tzhkhir, 1956, 38537.

73-3-6-3/30

AUTHORS: Konstantinova-Shlezinger, M. A., Osiko, V. V., Ulanovskaya, L. S.

TITLE: Luminophore of Zinc Lithium Silicate, Activated by Manganese
(**Lyuminofor** tsink-litii-silikat, aktivirovannyi margantsen)

PERIODICAL: Zhurnal Neorganicheskoy Khimii, 1958, Vol. 3, Nr 6,
pp. 1286 - 1294 (USSR)

ABSTRACT: The dependence of the emission spectrum and especially the part of the lithium component played in the process of production of the luminophore on the basis of zinc lithium silicate which is activated by manganese was investigated. The spectrum of photoluminescence zinc lithium silicate activated by manganese consists of two zones, a green and a red one. The intensity depends on the exchange of zinc by lithium. The spectrum of luminescence with smaller lithium content is more intensive. With higher content of lithium the intensity of the luminophore decreases since on this occasion lithium silicate forms which does not luminesce. In the luminophore Zn_2SiO_4 activated by manganese, manganese is surrounded tetrahedrally

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70-3-6-3/30

Luminophore of Zinc Lithium Silicate, Activated by Manganese

by four oxygen atoms and the color of luminescence is green. In the luminophore Mg_2SiO_4 activated by manganese, manganese is surrounded by six oxygen atoms and the color of luminescence is red. In some spinels in which the part of the cation is surrounded by six oxygen atoms and the other part by four oxygen atoms two peaks / red and green / are observed in the spectrum of luminescence. The occurrence of two zones in the spectrum of luminescence in the zinc lithium silicate system activated by manganese can probably be explained by the fact that the green zone surrounded by four oxygen atoms is caused by manganese. Due to the displacement of zinc in the zinc lithium silicate system the bivalent manganese atom is surrounded by six oxygen atoms which causes red luminescence. There are 8 figures, 1 table, and 10 references, 5 of which are Soviet.

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78-3-6-3/30

Luminophore of Zinc Lithium Silicate, Activated by Manganese

ASSOCIATION: Fizicheskiy institut im. P. N. Lebedeva, AN SSSR
Moskovskiy institut tonkoy khimicheskoy tekhnologii im.
M. V. Lomonosova (Physics Institute imeni P. N. Lebedev,
AS USSR. Moscow Institute of Fine Chemical Technology
imeni M. V. Lomonosov)

SUBMITTED: April 25, 1957

AVAILABLE: Library of Congress

1. Zinc lithium silicate--Luminescence--Analysis

Card 3/3

85771

S/048/59/023/011/005/012
B019/B060

24.3500 (1035, 1138, 1160)

AUTHOR: Konstantinova-Shlezinger, M. A.

TITLE: Crystal Phosphors With Heterodesmic Structure

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1959,
Vol. 23, No. 11, pp. 1304-1309

TEXT: It is stated by way of an introduction that the luminescent property of the luminophore type considered here is often accompanied by defects in the crystal lattice. The author reports on experimental results obtained by the scientific team N. A. Gorbacheva, Yu. S. Leonov, G. V. Maksimova, and V. V. Osiko. Gorbacheva (Ref. 3) showed that strong luminophores are obtained only under certain precipitation conditions of the initial phosphates. This author also investigated the heating curves of non-separate phosphates and with admixtures of other phosphates; respective results are shown in the diagrams of Fig. 1. G. V. Maksimova applied the method of the heating curves for the evaluation of the degree of separation in the synthesis of phosphate-cathodoluminophores (Fig. 2). A model of crystal phosphors was suggested, according to which the defects

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Crystal Phosphors With Heterodesmic
Structure

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consist in an interruption of the crystal periodicity by the partial substitution of ions (atoms) of the crystal by atoms of the activator. Yu. S. Leonov in his paper (Ref. 6) investigated luminophores intermixed with tungstates, and showed that in order to attain a maximum brightness of the luminophores $2\text{Li}_2\text{O}\cdot\text{MgO}\cdot\text{WO}_3 - \text{Mn}$ it is necessary for the mixture to have an excess of tungsten anhydride. G. V. Maksimova showed in her paper (Ref. 8) that the blackening of the phosphor $\text{CdSO}_4 - \text{Mn}$, which begins at a temperature of $250 - 300^\circ\text{C}$, corresponds to a polymorphous transformation. It may be observed from the values contained in Table 1 that heating of $\text{Zn}_3(\text{PO}_4)_2 - \text{Mn}$ done for three hours up to 800°C practically has no influence on the brightness of cathodoluminescence. G. V. Maksimova applied the method by F. Kröger (Ref. 10) to determine the valence of manganese. Manganese was found to be tetravalent only in those luminophores in which the cation of the crystal lattice was magnesium or lithium (i.e. cations with only short radius). A survey is then given of the data concerning the crystal phosphors. It is stated therein that the luminescent property of the majority of the experimentally investigated organic molecules excludes the possibility of an exchange of the excitation energy by

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KONSTANTINOVA-SHLETSKIY, M.

PHASE I BOOK EXPLOITATION

SOV/4973

Soveshchaniye po lyuminestsentsii, 8th, 1959

Metody lyuminestsentnogo analiza; materialy soveshchaniya (Methods for Luminescence Analysis; Materials of the 8th Conference) Minsk, Izd-vo AN BSSR, 1960. 147 p. 1,000 copies printed.

Sponsoring Agency: Akademiya nauk Belorusskoy SSR. Institut fiziki.

General Ed.: N. A. Borisevich; Ed.: L. Timofeyev; Tech. Ed.: N. Siderko.

PURPOSE: This collection of articles is intended for chemists and physicists interested in molecular luminescence, and for scientific personnel concerned with applications of this and related phenomena in research in the life sciences.

COVERAGE: The collection contains 28 papers read at the Eighth Conference on Luminescence, which took place 19-24 October, 1959 [place of conference not given]. These studies are concerned principally with the development of new luminescence methods for quantitative

~~Card 1/10~~

KONSTANTINOVA-SHLEZINGER, M.A., red.; MORGENSHTEIN, Z.L., red.;
AKHLAMOV, S.N., tekhn. red.; MURASHOVA, N.Ya., tekhn. red.

[Luminescence analysis] Luminestsentnyi analiz. Moskva, Gos.
izd-vo fiziko-matem. lit-ry, 1961. 399 p. (MIRA 15:2)
(Spectrum analysis) (Luminescence)

22152

S/048/61/025/004/001/048
B104/B201

24.3580

1138, 1155 1035

AUTHOR:

Konstantinova-Shlezinger, M. A.

TITLE:

Different types of crystallochemical systems of crystal phosphors and their luminescence properties

PERIODICAL:

Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, v. 25, no. 4, 1961, 442-445

TEXT: This paper has been read at the 9th Conference on Luminescence (Crystal Phosphors), Kiyev, June 20-25, 1960. Crystal phosphors are classified into five large groups on the basis of the following properties: lattice energy and types of bindings in the lattice; melting temperature which reflects the lattice energy; the degree of difficulty encountered when producing defects in the lattice; conductivity; absorption range. Alkali halide salts, indicated as the first group, have a particularly low lattice energy (230-138 kcal mol⁻¹) as their characteristic. They are binary compounds of ions possessing the structure of rare gases. As is well known, these crystal phosphors exhibit an exponential relationship.

X

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Different types of...

between the number of lattice defects and the lattice energy. They have an ion conductivity, and their absorption is in the shortwave ultraviolet region; they form F- and other luminescence centers, and are activated by a large number of elements. The luminescence spectra reflect the electron structure of the free ions. All other groups considered here have covalent ionic bonds. The second group comprises compounds of strongly electronegative anions with double- or multiple-charged cations which must not be transition elements. Ca-, Sr-, and Ba oxides, magnesium oxide, and others, belong here. The lattice energy of this group is by 3-4 times higher than that of the first group. Conductivity is low and absorption is in the ultraviolet region. In a number of cases, luminescence bands at low temperatures are split into narrow bands which reflect the lattice vibrations. The third group comprises such crystal structures, in which the anion, with high lattice energies, is weakly electronegative, and therefore possesses a covalent bond. Sulfides and selenides belong to this group. Lattice energies and melting temperatures are very high in this group; zinc- and cadmium sulfides are sublimated at temperatures that are considerably lower than their melting temperatures. They react very vigorously with atmospheric oxygen, and absorption is in the longwave

X

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
22152

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Different types of...

ultraviolet region. Moreover, they have different emission spectra which, as has been shown by Trapeznikova, are related to type and character of the activator. The luminescence yield is a nonlinear function of the excitation intensity. Further structures discussed in greater detail are such as associate the second with the third group. They exhibit higher lattice energies and two types of bonds. To these compounds belong silicates, phosphates, tungstates, etc. The formation of thermal vacancies in these crystals is very difficult due to the high binding energy. Zinc silicate, as an example, is more closely discussed here. The conductivity of this group is low, the forbidden-band width is large, and absorption takes place in the shortwave ultraviolet region. The compounds of the third group (sulfides) have the highest electrical conductivity, and the cathodoluminophores of this group attain an energy yield of 25 %.

V. F. Tsvetkova is mentioned. There are 11 references: 5 Soviet-bloc and 6 non-Soviet-bloc. The reference to the English-language publication reads as follows: Ref. 6: Ewles, J., Proc. Roy. Soc. A., 167, 94 (1938).



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22156

S/048/61/025/004/005/048
B104/B201

24.3500

AUTHORS: Gorbacheva, N. A., Gugel', B. M., Konstantinova-Shlezinger, M. A.,
Lapir, Ye. S., and Rutshteyn, T. G.

TITLE: Phosphate luminophores for luminescent lamps with improved
light emission

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, v. 25,
no. 4, 1961, 455-458

TEXT: The present paper has been read at the 9th Conference on
Luminescence (Crystal Phosphors), Kiyev, June 20-25, 1960. In addition to
the requirement that luminophores should have a "white" spectrum, also
that of the quantum yield to be as high as possible should be satisfied. X
Barium-titanium-phosphate (BTP) and strontium-magnesium-phosphate (SMP),
which satisfy these requirements best, are the object of the present study.
The temperature stability of SMP was improved by the introduction of B_2O_3
to such an extent as to make it suitable for correcting the color of high
pressure Hg lamps. BTP was prepared by a three-hour sintering of a

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Phosphate luminophores for...

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B104/B201

X

mixture of BaHPO_4 , TiO_2 , and BaF_2 at 1075°C . Data regarding the brightness and the stability of luminescence of the specimens concerned are presented in Tables 1 and 2. As may be seen from Table 1, Mn acts as an extinguisher. The spectral composition of emission is shown in Fig. 1. As may be noted from the tables, a BaO excess reduces brightness strongly, whereas a P_2O_5 excess (up to 5 mole%) has no effect whatever. A BaO excess leads to the formation of $4\text{BaO} \cdot 3\text{TiO}_2 \cdot \text{P}_2\text{O}_5$, whereby the activator concentration is reduced. It is found, furthermore, that the introduction of BaO first causes stability to be reduced, and not to increase again until a certain concentration is attained. SMP was prepared by three different sintering methods from mixtures SrCO_3 , MgCO_3 , $(\text{NH}_4)_2\text{HPO}_4$, and SnO_2 .

- 1) One-hour sintering at 600°C in air, and, after grinding, renewed two-hour sintering at 1200°C , and, finally, at 1200°C for 30 minutes in NH_3 .
- 2) Heating from room temperature to 1200°C in one hour, and a second sintering at 1200°C for 30 minutes in NH_3 or with addition of carbon.
- 3) Heating of phosphates and carbonates (without Sn) from 20 to 1200°C in one hour, crushing together with $\text{H}_3\text{C} \cdot \text{SnO} \cdot \text{OH}$ and sintering in a closed tube

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Phosphate luminophores for...

at 1200°C for 30 minutes. The luminophore had the composition $(\text{Sr}_{2.63}\text{Mg}_{0.34})(\text{PO}_4)_2\text{Sn}_{0.04}$. Spectra of different luminophores are graphically presented in Fig. 1. Data regarding the effect of the production method upon the luminophore quality are given in Table 2. Data of temperature stability are graphically presented in Fig. 2. 15 w luminescent lamps with improved light emission and a light temperature of 4500°K, possessing a Harrison factor of 86 % and a light yield of 34 lm w^{-1} , were prepared from a mixture of 50 % BTP and 50 % SMP. If a mixture of 70 % calcium halogen phosphate (activated with Sb) and 30 % SMP is used, a lamp with a light temperature of 6500°C, with equal Harrison factor, and equal light yield can be obtained as is the case in industrial luminescent lamps the luminophore of which is made of a mixture of 85 % calcium halogen phosphate (activated with Sb and Mn) and 15 % magnesium arsenate (activated with Mn). There are 2 figures, 2 tables, and 4 references: 1 Soviet-bloc and 3 non-Soviet-bloc.

Card 3/6

GORBACHEVA, N.A.; KONSTANTINOVA-SHLEZINGER, M.A.

Determining uranium by measuring the width of the luminescent
zone in a chromatogram. Zhur. prikl. spekt. 3 no. 2:172-174
Ag '65. (MIRA 18:12)

1. Submitted Oct. 13, 1964.

L 28347-66 EWI(m)/EWP(t)/ETI IJP(c) JD

ACC NR: AP6013038

SOURCE CODE: UR/0048/66/030/004/0707/0712

AUTHOR: Konstantinova-Shlezinger, M. A.

44
42
B

ORG: none

TITLE: Factors responsible for differences between the luminescence spectra of Mn²⁺ in crystal phosphors /Report, Fourteenth Conference on Luminescence held in Riga 16-23 September 1965/

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, vo. 30, no. 4, 1966, 707-712

TOPIC TAGS: crystal phosphor, luminescence spectrum, manganese, crystal lattice

ABSTRACT: Divalent manganese ions are of exceptional interest as activators in view of the fact that there have been prepared Mn²⁺ activated crystal phosphors with hetero-desmic structure exhibiting luminescence at different wavelengths in the visible region. Obviously, in preparing new phosphors it is desirable to be able to predict the approximate emission wavelength of Mn²⁺ in a given host. In general, Mn²⁺ activated phosphors fall into two large groups: "green" and "red" phosphors. Mention is made of a number of hypotheses that have been invoked to explain the different luminescence wavelengths of Mn²⁺, and objections to some of these hypotheses are raised. In collaboration with the author A. I. Kabakova recorded the excitation spectra of 5 lumino-phors with green luminescence and 5 with orange-red luminescence. Some of the curves

Card 1/2

~~TASKOVSKA, D. K.~~
YUGOSLAVIA / Physical Chemistry, Electrochemistry.

B-12

Abs Jour : Ref Zhur - Khimiya, No 1, 1958, No 561

Author : Pančo Kirkov, ~~Divna Konstantinova-Taskovska~~, Nada Cum-
belic-Gigova, ~~Aleksandra Vilarova-Babamova~~

Inst : Chemical Society (Yugoslav) - *Medical Faculty Skopje*,

Title : Experimental Study of Influence of Solution and Solvent Com-
positions on Mechanism of Electrochemical Processes on Ca-
pillary Mercury Electrode. I. Modification of Electrocapil-
lary Properties of Mixtures of 1,4-dioxane - Water and 1,4 -
dioxane - Water - HCl.

Orig Pub : Glasnik Hem. društva, 1956, 21, No 3, 129-139.

Abstract : The dependence of the electrocapillary behavior of the mix-
tures H₂O - 1,4-dioxane (I) and H₂O - I - HCl on their com-
position was investigated on a Hg drop-electrode. The a-
nalysis of curves expressing the dependence of the magnitude

Card : 1/2

YUGOSLAVIA / Physical Chemistry, Electrochemistry. **APPROVED FOR RELEASE: 06/19/2000** CIA-RDP86-00513R000824420001-0

Abs Jour : Ref Zhur - Khimiya, No 1, 1958, No 561.

Abstract : of maxima of the electrocapillary curves on the concentration
of I showed that the height of an electrocapillary maximum
varied together with the variation of I content in the mixtu-
re. 4 regions are clearly expressed in the curves; 2 of
these regions are characterized by the presence of inflexion
points and correspond to little contents of I and water, and
the other 2 have maxima and correspond to great concentrations
of I. Two equations, describing these two pairs of curves
corresponding to four different structures of liquid mixtures
are given. The first pair of curves characterizes the struc-
tures of pure liquids, and the other pair characterizes va-
rious molecular copolymers of water and I.

Card : 2/2

KONSTANTINOVA-TASKOVA DIVNA
Technology, Chemical Products

H-4

KONSTANTINOVIC, Ivan; LICHT, Antun; VIDAKOVIC, Helena

Alcoholism in school children in the Subotica District; Higijena,
Beogr. 9 no.2-3:147-153 1957.

(ALCOHOLISM, in inf. & child
school child. in Yugosl. (Ser))

KONSTANTINOVIC, Ivan; LICHT, Antun; VIDAKOVIC, Jelena

Alcoholism in school children in the Subotica District, Yugoslavia.
Beogr. 9 no.2-3:147-153 1957.

(ALCOHOLISM, in child,
school child, in Yugosl. (Ser))

DURIC, Dusan, dr., ing.; RAICEVIC, Petar, dipl. hem.; KONSTANTINOVIC,
Ivan, dr.

Urinary cyanides and thiocyanates in smokers. Vojnosanit.
pregl. 19 no.3:210-212 Mr '62.

1. Institut za medicinu rada NR Srbije.
(THIOCYANATES) (SMOKING) (CYANIDES)

ANTIC, Milovan, sanitetski pukovnik, docent. dr.; KONSTANTINOVIC, Ivan, dr;
KUSIC, Radivoje, sanitetski kapetan I klase; MARIC, Mihajlo,
sanitetski porucnik, dr.

Evaluation of the diagnostic value of the I-131 fixation test
in thyroid diseases. Vojnosanit. pregl. 21 no.9:533-539 S '64

1. Vojnomedicinska akademija u Beogradu, Klinika za unutrašnje
bolesti.

ZECEVIC, Ilijana; KARAKUSEVIC, Milica; KONSTANTINOVIC, Ivan;
MILJANIC, Milos

Effect of drinking of Bukovicka Banja mineral water on the
renal elimination of water and electrolytes. Srpski arh. celok.
lek. 90 no.9:833-838 S '62.

1. Balneo-klimatoloski institut NR Srbije u Beogradu Direktor:
doc. dr. Vlastimir Godis.

(WATER ELECTROLYTE BALANCE)
(MINERAL WATERS) (DIURESIS)

S

KONSTANTINOVIC, JOVAN M.

5

~~ZIVANOVIC, Miodrag, D.~~
 SURNAME (in case); Given Name

Country: Yugoslavia

Academic Degree: not given

Affiliation: Department of Reactor Physics, Institute of Nuclear Sciences
 "Boris Kidrich"

Source: Belgrade-Vinca, Bulletin of the Institute of Nuclear Sciences
 "Boris Kidrich", Vol 11, Mar 1961, pp 59-61.

Data: "Double-Crystal Neutron Spectrometer."

Co-authors:

JOVIC, Djordje, M., Department of Reactor Physics, Institute of
 Nuclear Sciences "Boris Kidrich".

~~KONSTANTINOVIC, Jovan, M., Department of Reactor Physics, Institute
 of Nuclear Sciences "Boris Kidrich".~~

The neutron two-crystal spectrometer. Bul Inst Nucl 11:59-65
161.

1. Institute of Nuclear Sciences "Boris Kidrich," Department of
Reactor Physics, Vinca.

SPOLJAR, Milan; PREMUZIC, Branko; GORKIC, Daroslava; KONSTANTINOVIC, Miodrag
GASPAR, Branko

Cutaneous reactions to superficial applications of beta rays emitted by
radium and radioactive strontium. Rad. med. fak. Zagreb 9 no.1:93-97
'61.

(SKIN radiation eff) (RADIUM)
(STRONTIUM radioactive)

VRŠALOVIC-SARAJLIC, Melita, dr.; PURETIC, Stefanija, dr.; KONSTANTINOVIC,
Miodrag, dr.

Kaposi's xeroderma pigmentosum with malignant changes. Liječn. vjesn.
83 no.12:1253-1260 '61.

1. Iz Očne klinike, Dermatovenerološke klinike i Radium zavoda Medicinskog fakulteta u Zagrebu.

(XERODERMA PIGMENTOSUM pathol)

KONSTANTINOVIC, Nikola.

The economic rule of trade-unions Beograd Stamparija "Graficki institut," 1934. 335 p.

KONSTANTINOVIC, Nikola

Agrarian policy. Beograd, izdanje odbora za udzbenike E.K.V.S., 1947
2 pts. in 1 v.

KONSTANTINOVIC, Olga, inz.

Corrosion of cast iron. Livarstvo 9 no.49/50 177-192 S-N '62.

1. Motor and Tractor Works, Belgrade.

KONSTANTINOVIC, Olga, inž. (Beograd, Kneza Milosa 13a)

Use of gray casting chippings in cupola furnaces. Tehnika Jug
18 no.7: Supplement: Rudarstvo metalurg. 14 no.7:1261-1269 J1'63.

1. Referent za metale u metalurskoj laboratoriji IRC-a, pri
IMT-u, Beograd.

SIMIC, S.; SEDLAR, D.; KONSTANTINOVIC, P.

Laparoscopy and culdoscopy in the diagnosis of extrauterine pregnancy. Med. arh. 18 no.5:99-103 S-0'64.

1. Ginekolosko-akuserska klinika Medicinskog fakulteta u Sarajevu (Sef: Prof. dr. Jelka Knezevic-Svarc).

KONSTANTINOVIC, Sava V., dr.; SKENDZIC, Mirjana, dr.

Contribution to the etiology of non-gonococcal urethritis.
Med. glas. 17 no.5:201-205 My '63.

1. Dermato-veneroloska klinika Medicinskog fakulteta u Beogradu
(Upravnik: prof. dr Sima Ilic).
(URETHRITIS)

S

LEVENTAL, Zdenko, Dr. ; KONSTANTINOVIC, Sava, Dr.

Circumscribed myxema. Lijec vjes. 81 no.1-2:27-34 1959.

1. Iz Interne klinike B i Dermato-venerološke klinike Medicinskog fakulteta u Beogradu. Klinik für innere Krankheiten B und Klinik für Haut- und Geschlechtskrankheiten der Universität, Beograd.

(MYXEDEMA, case reports
circumscribed (Ser))

YUGOSLAVIA

KONSTANTINOVIC, Dr Sava V., and Dr Mirjana SKRNDZIC, Clinic of Skin and Venereal Diseases (Dermato-veneroloska Klinika), Faculty of Medicine (Medicinski Fakultet), Belgrade.

"A Contribution to the Etiology of Non-gonococcal Urethritis"

Belgrade, Medicinski Glasnik, Vol 17, No 5, May 1963, pp 201-205.

Abstract: [Authors' Serbocroatian summary modified] The authors discuss the forms and causes of the disease and conclude that their research has shown that there have recently been more and more cases of non-gonococcal urethritis and fewer cases of gonorrheal inflammation of the urethra, that cases of trichomonas urethritis are rare (3.6 percent) in that the diagnosis of Trichomonas vaginalis is rather difficult in males, and that Staphylococcus albus cannot be considered a cause of urethritis in view of the fact that it is the most common bacterium found in both in healthy persons and in those suffering from the disease in question. Three tables, 9 Western and Yugoslav references.

1/1

RADAK, Branislav, dipl., fis., hem., saradnik (Beograd-Karaburma, Uralaska 48/4);
KONSTANTINOVIC, Stanimir, dipl., fis., hem., saradnik

Modern radiation units with isotope sources. Tehnika Jug 16 no.11:
1918-1923 '61.

1. Nuclear Science Institute "Boris Kidric", Radiation Chemistry
Division, Beograd-Vinca.

GAL, O.; FRIBICEVIC, S.; KONSTANTINOVIC, S.; DRAGANIC, I.

Radiation dosimetry of the RA reactor at Vinca. Measurements by chemical dosimeters. Bul Inst Nucl 13 no.1:53-75 Ap '62.

1. The Boris Kidrich Institute of Nuclear Sciences, Department of Radiation Chemistry, Vinca.

DORDESKI, goskoj KONSTANTINOVIC, Zorica

Railroad personnel and their influence on the amount
of proceeds. Zeleznice Jug 20 no.10:30-34 0 '64.

KONSTANTINOVICH B. M.
YUGOSLAVIA/Farm Animals. Honey Bee.

Q

Abstr Jour: Ref Zhur-Biol., No 20, 1958, 92678.

Author : Konstantinovich, B.M.

Inst : *[Faint, illegible text]*

Title : Poor Food Base is a Cause of Bee Diseases.

Orig Pub: Napr. pchelarstvo, 1957, 14, No 7-8, 182-184.

Abstract: Inadequate provision for the food supply of bees and poor care lead to diseases in the bee families. European foulbrood is successfully treated with streptomycin and the American foulbrood with sulfathiazole.

Card : 1/1

103

KONSTANTINOVICH, E. (Katovitsy, Pol'skaya Narodnaya Respublika)

Comments on the studying of copper ore deposits in the outer-Sudetic
syncline. Izv. vys. ucheb. zav.; geol. i razv. 3 no.8:130-135 Ag '60.
(MIRA 13:10)

(Sudetes region--Copper ores)

KONSTANTINOVICH, N. V.

S. KLYAR, B.S., professor; KONSTANTINOVICH N. V., dotsent

Phlebitis hepatica obliterans (Chiari's disease). Vrach.delo
no.9:911-913 S '57. (MLRA 10:9)

1. Klinika fakul'tetskoy terapii i kafedra patologicheskoy anatomii
Vinnitskogo meditsinskogo instituta
(HEPATIC VEINS--DISEASES)

KONSTANTINOVICH, N.V., dotsent

A case of conversion of lymphadenosis into reticulosis. Probl.gemat.
i perel.krovi 4 no.9:47-49 S '59. (MIRA 13:1)

1. Iz kafedry patologicheskoy anatomii Vinnitskogo meditsinskogo
instituta (direktor - dotsent S.I. Korkhov).
(LEUKEMIA LYMPHOCTIC pathol.)
(RETICULOENDOTHELIOSIS, etiol.)

KONSTANTINOVICH, N.V. (Vinnitsa)

Experimental meningococcal meningitis. Pat. fiziol. i eksp.
terap. 4 no. 6:67-68 N-D '60. (MIRA 14:2)

1. Iz Vinnitskogo meditsinskogo instituta.
(MENINGITIS)

PINEVICH, M.V.; KONSTANTINOVICH, N.V.

Teratoma of the perirenal cellular tissue with malignant degeneration.
Urologia 25 no. 4:56-57 J1-Ag '60. (MIRA 14:1)
(KIDNEYS—CANCER)

KONSTANTINOVICH, N.V., dotsent

Case history of cystic tumors of the radix linguae. Zhur. ush.,
nos. i gorl. bol. 19 no.5:77-78 S-0 '89. (MIRA 14:10)

1. Kafedra patologicheskoy anatomii Vinnitskogo meditsinskogo
instituta.

(TONGUE--TUMORS)

KONSTANTINOVICH, N. V., prof.; GOMENYUK, I. P., kand. med. nauk;
SHRAMKO, N. P., kand. med. nauk; ZHABIN, V. I., dotsent

Frequency of metastases of uterine cancer into the ovaries.
Akush. i gin. 38 no.3:74-78 My-Je '62. (MIRA 15:6)

1. Iz kafedry patologicheskoy anatomii (zav. - prof. N. V. Konstantinovich) i kafedry akusherstva i ginekologii (zav. - prof. M. K. Ventskovskiy) Vinnitskogo meditsinskogo instituta imeni N. I. Pirogova.

(UTERUS--CANCER) (OVARIES--CANCER)

KONSTANTINOVICH, T.V.

New data on the stratigraphy of Mesozoic sediments in the north-western part of the cis-Chingiztau region. Izv. AN Kazakh. SSR. Ser. geol. 21 no.4:63-65 Ji-Ag '64. (MIRA 17:11)

1. Tsentral'no-Kazakhstanskoye geologicheskoye upravleniye, gorod Karaganda.

MILLER, Ye.Ye.; KONSTANTINOVICH, T.V.

Volcanic spilitic-keratophyre formation of the Lower Cambrian
(Boahchekul' series). Trudy Inst. geol. nauk AN Kazakh. SSR 13:
51-75 '65. (MIRA 19:1)

KONSTANTINOVSKAYA, G.Ye.

Effect of infectious diseases on the course of orthoptic treatment
in strabismus. Probl.fiziol.opt. 12:462-463 '58 (MIRA 11:6)
(STRABISMUS)
(VISUALLY HANDICAPPED CHILDREN)

KONSTANTINOVSKAYA, K.Ye.

A. I. Sokolov's binocular phenomenon. Vest. oft., Moskva 31 no.6:
40-41 Nov-Dec 1952. (CJML 23:4)

1. Of the Eye Clinic (Director -- Prof. N. Ye. Braunshteyn) and of the
Department of the History of Medicine (Head -- Docent P. T. Petrov),
Khar'kov Medical Institute.

KONSTANTINOVSKAYA, K. Ye. Cand Med Sci -- (diss) "Treatment of concomitant strabismus and development of binocular vision." Khar'kov, 1959. 16 pp (Khar'kov State Med Inst), 200 copies (KL, 46-59, 140)

65
-4-

KATERBURGSKIY, A.M.; KONSTANTINOVSKAYA, L.A.; ZEMLYANOV, S.V.

Preservation of vitamins in vitamin preparations. Voen.-med.
zhur. no.3:55-56 '65. (MIRA 18:11)

L 36667-65 EWT(d)/FSS-2/EWT(1)/EEC(k)-2/EEC-L/EEC(t) En-L/Pp-L/Pac-L IJP(c)

ATTENTION NR: AP5008219

S/02P6/05/000/005/0081/0081

Skalia, A. A.; Konstantinovskaya, N. V.

46
B

TITLE: An interferometer. Class 42, No. 168915

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 5, 1965, 81

TOPIC TAGS: interferometer, inhomogeneity investigation, transparent inhomogeneity

ABSTRACT: This Author Certificate introduces an interferometer for the investigation of transparent inhomogeneities. To increase measurement accuracy, a double passage of light is used to localize the bands in view of the fact that the inhomogeneous structure of the object is imaged with two dividing plates located on the surfaces. Mirrors are used for aligning its tangents. One of the mirrors is perpendicular to the principal axis. The directions of all interferometer elements intersect at the point of tangency of the tangents to the all elements of the object. [JA]

SUBMITTED: 11Dec63

ENCL: 01

SUB CODE: OP

NO REF SOV: 000

OTHER: 000

ATD PRESS: 3224

Card 1/2

KONSTANTINOVSKIY, A. F. and GAV'YUK, S. P.

"Experience of the organization of the scientific research work of the medical personnel in the district" - p. 66

Voyenno Meditsinskiy Zhurnal, No. 3, 1962

KONSTANTINOVSKIY A.G.

Designing a paraphase amplifier. Radiotekhnika 8 no.6:23-35 H-D
'53. (MIRA 11:6)

(Amplifiers, Electron-tube)

107-5-32/54

AUTHOR: Konstantinovskiy, A.TITLE: Two-Channel TV Relaying Station
(Dvukhkanal'nyy retranslyatsionnyy televizionnyy uzal)PERIODICAL: Radio, 1956, No. 5, pp. 40-41 (USSR)

ABSTRACT: A new heterodyne-type tv relaying station was developed by a group of engineers of the Kiev tv studio #10. The principle used involves a direct amplification of the incoming tv signals, heterodyne conversion of frequency, and transmission of the signals at the frequency of an adjacent tv channel. This system permits of separate video and sound amplifications with AVC in each channel, eliminates fading in the sound channel, and considerably diminishes fading in the video channel. The through video band can be made as narrow as 3.5 to 3.7 mc, and the channel sensitivity 30 to 40 μ v; video transmitter output 30 w. The horizontal definition 350 lines.

It is recommended that the site of the station be 1 $\frac{1}{2}$ to 2 km away from highways and other street traffic. A two-tier cophased folded-dipole directional antenna having two active reflectors and 75-ohm radiation resistance is used for transmission. A four-tier diamond-shaped cophasal array is used for reception; rhomb side is equal to $15\lambda_{med}$, and its height is 50 m.

Card 1/2

SOV/58-59-12-28057

Translation from: Referativnyy zhurnal, Fizika, 1959, Nr 12, p 225 (USSR)

AUTHORS: Konstantinovskiy, A.G., Lipkin, R.A.

TITLE: On the Stabilization and Control of Oscillations of Some Relaxation Generators

PERIODICAL: Tr. Seksii poluprovodnik. priborov. Ukr. resp. pravl. Nauchno-tekhn. o-va radiotekhn. i elektrosvyazi, 1958, Nr 1, pp 63-73

ABSTRACT: Methods are described for stabilizing the pulse durations in relaxation generators, on semiconductor triodes, by means of an impact excitation circuit. Transitron generator, blocking generator and multi-vibrator circuits are investigated. Methods for calculating the stabilizing elements are suggested. The testing of the mentioned circuits was conducted with a change in the feed-voltage from 5 to 15 v, the temperature from +20°C to +70°C and with a change of the triodes. In stabilized circuits the duration of the pulse did not change by more than 3 to 8%. In unstabilized circuits the stated change amounted to 20 to 30%.

Card 1/1

K.S. Rzhevkin



SOV/142-58-5-4/23

9(2)

AUTHORS: Konstantinovskiy, A.G., and Chervetsov, V.V.

TITLE: Stabilization of Semiconductor Triode Multivibrators

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, radiotekhnika, 1958, Nr 5, pp 544-550 (USSR)

ABSTRACT: The authors present a method of temporal stabilization of semiconductor triode multivibrators. The stabilization is realized with the help of switched-in oscillatory circuits within the circuit of basic triodes. The diagram of a one-period multi-vibrator is shown in Fig.1. Until the output triode (KT₁) is closed, the primary current I₀ runs through the inductance of the oscillatory circuit. At the moment of locking the triode current, I₀ disappears, and by the accumulated induction of the magnetic energy a free damped wave appears in the circuit. This process is described by equation (1). $\frac{d^2 u_2}{dt^2} + \frac{1}{Cr} \frac{du_2}{dt} + \frac{1}{IC} u_2 = 0$. u₂ is in this

Card 1/3 equation the voltage on the circuit, r is the equivalent parallel

SOV/142-58-5-4/23

Stabilization of Semiconductor Triode Multivibrators

resistance of the losses within the circuit. The effectiveness of this method of temporal stabilization is tested by experiments. Triodes of type P6V were used. Data of switching were: $R_1 = 50 \text{ K}$, $R_2 = 8.9 \text{ K}$, $R_3 + R_4 = 4.7 \text{ K}$, $R_e = 1.5 \text{ K}$, $R_n = 5.6 \text{ K}$ and $C_1 = 1620 \text{ pfd}$. The tests were made under different conditions: Alternating the voltage from 5 to 15 V; replacing the triodes (Voltage $E_k = -15\text{V}$), and alternating the surrounding temperature from $+ 20 \text{ C}$ to $+ 70 \text{ C}$ (Voltage $E_k = -10\text{V}$) (Schedule 1). Analogous is the process of temporal stabilization in a "self-oscillating" multi-vibrator. The stabilization is applied for half of an oscillating period (Fig.4). The data were in this case: $R_1 = 62 \text{ K}$, $R_2 = 5.6 \text{ K}$, $R_e = 1.5 \text{ K}$, $R_n = 6.8 \text{ K}$ and $C_1 = 2000 \text{ pfd}$. The conditions were the same as in the first test. The results give a decreasing of $\frac{\Delta T}{T}$ of ca 15 - 40% to ca 3 - 9%. T is the given duration of im-pulse. The article is recommended by Kafedra teoreticheskikh osnov radiotekhniki L'vovskogo politekhnicheskogo instituta (Chair of the Theoretical Principles of Radio Engineering of the L'vov Polytechnical Institute). There are 2 Graphs, 2 block diagrams,

Card 2/3

KONSTANTINOVSKIY, Arkadiy Grigor'evich [Konstantynovs'kyi, A.H.];
KHOKHMALYUK, Viktor Petrovich; VAS'KOVSKIY, Yu. [Vas'kovs'kyi,
IU.], red.; KASPERSKAYA, O. [Kaspers'ka, O.], red.; GUSAROV,
K. [Husarov, K.], tekhn.red.

[Use and repair of television receivers] Eksploatatsiia i
remont televizoriv. Kyiv, Dersh.vyd-vo tekhn.lit-ry URSS,
1959. 67 p. (MIRA 12:8)
(Television--Receivers and reception--Maintenance and repair)

KONSTANTINOVSKIY, A. G.

A. S. Malozemov

Метод расчета излучения антенн без релятивистского поправки и числа элементов антенны.

B. O. Golovinskiy

Ширинно-высотные характеристики антенны с произвольными параметрами.

A. A. Zhelezovskiy

Расчет выходящей системы автоматического управления антенной.

P. G. Voronov

Расчет магнитного спектра антенны.

12 часов
(с 10 до 18 часов)

C. B. Aronov

H. C. Stepanov

Распределение тока в антенне с произвольными параметрами.

48

A. A. Fedotkin

A. P. Ivanov

Опыт в расчете радиочастотных антенн с произвольными параметрами.

B. B. Gurevich

Общая теория антенн произвольной формы.

A. G. Kuznetsov

Метод расчета антенны произвольной формы с произвольными параметрами.

12 часов
(с 18 до 22 часов)

A. B. Samoylov

Практические системы антенно-фидерных устройств.

A. Y. Kim

Влияние грунта на характеристики антенны.

H. A. Voronov

К численным характеристикам антенны произвольной формы.

paper submitted for the Confidential Meeting of the Scientific Technological Society of Radio Engineering and Electrical Communications En. A. S. Popov (VSEI), Moscow, 8-12 June, 1959

SHER, S. (Kiyev); KONSTANTINOVSKIY, A. (Kiyev)

Aperiodic wide-band f.m. detector. Radio no.1:38
Ja '60. (MIRA 13:5)
(Radio detectors)

82977

16.6800

S/142/60/003/002/017/022

E192/E382

AUTHOR: Konstantinovskiy, A.G.

TITLE: Cathode-coupled Adding Circuit

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy,
Radiotekhnika, 1960, Vol. 3, No. 2, pp 284 - 286

TEXT: A cathode-coupled adding circuit is shown in Fig. 1. First, an adding circuit consisting of two valves is considered. This is represented by the equivalent circuit given in Fig. 2. Assuming that the input signal is applied to one grid in this system, the gain is given by Eq. (5). This expression can be used to evaluate the gain of an n-stage adding circuit, provided the signal is applied to one grid only. If the parameters of all the tubes are equal, the gain of an n-stage adding circuit is expressed by:

$$K_n = \frac{\mu R_K}{R_i + n\mu R_K} \quad (6)$$

where the meaning of the symbols should be clear from Fig. 2. From this formula it is seen that the gain of the system is

Card 1/2

82977

S/142/60/003/002/017/022
E192/E382

Cathode-coupled Adding Circuit

lower than that of a normal cathode follower. The output resistance of an n-stage system is given by Eq. (9). This expression shows that the output resistance of the adding circuit is also lower than the output resistance of a cathode follower.

There are 4 figures and 2 Soviet references.

ASSOCIATION: Kafedra radiopriyemnykh ustroystv Kiyevskogo ordena Lenina politekhnicheskogo instituta (Chair of Radio-Receiving Equipment of the Order of Lenin Kiyev Polytechnical Institute)

SUBMITTED: January 30, 1959

Card 2/2

KONSTANTINOVSKIY, Arkadiy Grigor'yevich; POLYANSKAYA, L.O., red.;
GUSAROV, K.F., tekhn. red.

[Control of relaxation oscillators] Upravlenie relaksatsion-
nymi generatorami. Kiev, Gos.izd-vo tekhn. lit-ry USSR, 1962.
111 p. (MIRA 15:4)

(Oscillators, Electron-tube)

KONSTANTINOVSKIY, Arkadiy Grigor'yevich, inzh.; KROKHMALYUK,
Viktor Petrovich, inzh.; SLAVINSKIY, Yu.P., inzh.,
retsenzent

[Operation and repair of television receivers] Ekspluata-
tsiia i remont televizorov. Kiev, Tekhnika, 1965. 205 p.
(MIRA 18:4)

KOSTINSKIY, Aleksandr Davydovich, inzh.; MARCHENKO, Ivan Semenovich,
inzh.; TRAUBE, Leon Vladimirovich, inzh.; KONSTANTINOVSKIY,
A.G., inzh., retsenzent

[Kinescopes; design, technology and testing methods] Kine-
skopy; konstruktsiia, tekhnologiia i metody ispytani. Kiev,
Tekhnika, 1965. 279 p. (MIRA 18:6)

Konstantinovskiy, A. Ye.
AUTHOR: Konstantinovskiy, A. Ye.

SOV/19-58-4-465/523

TITLE: A Method for Remote Control and Signalization (Sposob tele-
upravleniya i telesignalizatsii)

PERIODICAL: Byulleten' izobreteniy, 1958, Nr 4, p 117 (USSR)

ABSTRACT: Class 74b, 8Q1. Nr 112391 (576272/7441, 6 August 1954). Sub-
mitted to the USSR Ministry of Power Plants. The method for
remote control and signalization on wire communication lines
is based on the application of the distribution method of
selections with time impulse indications.

Card 1/1

BERDICHEVSKIY, I.M., inzh. (Moskva); KONSTANTINOVSKIY, A.Ye., inzh.
(Moskva)

Schematic for effective use of communication channels in the
remote control systems of municipal cable networks. Elektrichestvo
no.12:77-79 D '64. (MIRA 18:12)

6.7000

S/104/60/000/002/002/003
EO41/E421

AUTHORS: Konstantinovskiy, A.Ye., Engineer and
Razgon, V.N., Engineer

TITLE: Application to Dispatcher Points of Common Remote-
Control Arrangements

PERIODICAL: Elektricheskiye Stantsii, 1960, No.2, pp.75-78

TEXT: The provision of separate remote-control sets at each control point leads to great complication. A typical urban cable network may require 40 type **BPT-53** (VRT-53) sets. However, examples do exist of up to 30 control points being controlled by a central installation for the purpose of collating measurements. There are, so far, no examples of sub-stations being controlled in this fashion. At present the installed communication links are very poorly used - in fact for only 0.1% of the time. Consideration has been given to the relative merits of automatic or manual grouping of the separate facilities. Manual operation is preferred because such operations can never be completely eliminated. There are 4 main problems to be solved:
(1) The connection of the complete dispatcher point to the communication channel. Fig.1 shows how this may be accomplished
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E041/E421

Application to Dispatcher Points of Common Remote-Control Arrangements

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with the VRT-53 equipment. Relay B_1 is shown for connection to a wire circuit and B_n for a high-frequency circuit. When the PCT (RST) equipment is used these relays are not required.

(2) Reproduction of the individual signals; this can be done two ways. In one place common to all sources or directly on a mimic diagram. These ways are shown in Fig.2a and 2b respectively. There is a similar two-fold choice for (3), the connection of the remote control circuits, as shown in Fig.3a and 3b. The remaining problem (4), the provision of ringing circuits, poses no great problem. It is concluded that the provision of central remote-control facilities is possible with existing standard units. There are 3 figures.

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HERDICHEVSKIY, I.M., inzh.; ~~KONSTANTINOVSKIY, A.Ya., inzh;~~ PIGGOT, S.G., inzh.

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(Remote control) (Electric cables)

KONSTANTINOVSEIY, A.Ye., inzh.; RAZGON, V.N., inzh.

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(MIRA 13:5)

(Remote control)

KONSTANTINOVSKIY, D., kand. tekhn. nauk

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KONSTANTINOVSKIY, D.Ya., kandidat tekhnicheskikh nauk.

~~Large natural stone blocks.~~ Nov. tekhn. i pered. op. v stroi.
18 no.9:12-14 S '56. (MLRA 9:10)

(Building stones)

ALTAYEV, S.S., dots., kand.tekhn.nauk; GOL'DIN, S.Yu.; ZAROVKINA, N.S.;
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[Handbook for the assembler in large-element housing construction]
Spravochnik montazhnika na krupnoelementnom zhilishchnom stroitel'-
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(Building) (Apartment houses)

KONSTANTINOVSKIY, David Yakovlevich; SKRIBKO, Vladimir Ivanovich;
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(Building, Brick)

KONSTANTINOVSKIY, G.A. (Kiyev, ul. Lenina, 3, kv. 27)

Problem of the innervation of the pia mater. Arkh.anat.gist.i embr.
39 no.11:97-101 N '60. (MIRA 14:5)

1. Kafedra gistologii i embriologii (zav. - chlen-korrespondent
AMN SSSR zaslughennyi deyatel' nauki prof. N.I.Zazybin) Kiyevskogo
meditsinskogo instituta.

(PIA MATER—INNERVATION)

KONSTANTINOVSKIY, G.A. [Konstantynovs'kiy, H.A.]

Specific features of the innervation of pia mater of the brain in middle-aged and old persons. Fiziol. zhur. [Ukr.] 7 no.1:107-112
Ja-F '61. (MIRA 14:1)

1. Department of Histology and Embryology of the Kiev Medical
Institute.

(PIA MATER—INNERVATION)
(NERVOUS SYSTEM—AGING)

BUSHMAKINA, Z.I.; VERKHRATSKIY, N.S.; KONSTANTINOVSKIY, G.A.; KOSTYUK, L.V.;
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Neurohumoral regulation of the cardiovascular system in experimental
arteriosclerosis. Vrach. delo no.1:3-11 Ja '62. (MIRA 15:2)

1. Institut gerontologii i eksperimental'noy patologii AMN SSSR,
Kiyevskiy meditsinskiy institut.
(ARTERIOSCLEROSIS) (CARDIOVASCULAR SYSTEM)
(REFLEXES)

POLYAKOV, M.F.; KONSTANTINOVSKIY, G.M. [Konstantinovskiy, H.M.];
YEMEL'YANOVA, N.O. [IEmel'ianova, N.O.]

Use of synthetic adhesives for pasting labels on beer bottles
Khar. prom. no.1:56-57 Ja-Mr '65. (MIRA 1964)

KONSTANTINOVSKLY, M.

AID Nr. 994-5 20 June
USE OF SUPERCONDUCTORS FOR RADIATION PROTECTION IN SPACE
(USSR)

Konstantinovskiy, M. Znaniye--sila, no. 4, Apr 1963, 19.
S/004/63/000/004/003/004

Two possible methods are proposed for the protection of space crews against radiation. One is the diversion of harmful radiation from the hull of a spaceship by means of so-called "magnetic armor," i. e., a magnetic field around the ship, whose depth could be varied according to need. The field could be created by coils wound with superconductors, which would make them light, compact, and relatively low in power consumption. Two possible superconductive materials for this purpose have been found--niobium and its alloy

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REF ID: A794-7 20 June

USE OF SUPERCONDUCTORS (Cont.)

S/004/63/000/004/003/004

with tin. The other method consists in surrounding the spaceship with a superconductor reflector, which would reflect charged particles away from the ship in the following manner. The electromagnetic field of a flying charged particle collides against a superconductor and excites currents within it. These currents in turn create an electromagnetic field which repels the particle. This so-called "mirror" would not use any power, since the energy of the attacking particles themselves would be used to divert them. With a shield of this sort the walls of the spaceship could be thinner. However, technological difficulties must first be overcome. It is essential that under no circumstances must the "mirror" lose its superconductivity. Possibly the shielding surface must be truly mirror-like, so that it will not be heated by solar or stellar radiation. The problem of insulating the superconductor shield from the hull of the rocket must also be solved. At present, superconductivity is observed only at temperatures approaching absolute zero. However, physicists assume that substances may exist that possess superconductivity even at room temperatures.

[TBT]

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KONSTANTINOVSKIY, M.

Sound in the ocean. Znan. sila 38 no.9:34-38 S '63.
(MIRA 16:12)

KONSTANTINOVSKIY, M.

Without fulcrum, without weight, and without friction. Znan.-
sila 38 no.5:44-46 My '63. (MIRA 16:11)

KONSTANTINOVSKIY, M., inzh.

Magnetic wings. Znan.-sila 37 no.12:22-25 D '62. (MIRA 16:2)
(Magnetism)

USSR :

#2
Annealing twinned crystals of iron. R. I. Garber, I. A. Gindin, M. G. Konstantinovskiy and V. I. Startsev (Phys. Tech. Inst., Acad. Sci. Ukr. S.S.R., Kharkov). *Doklady Akad. Nauk S.S.S.R.* 74, 643-4 (1950). — Specimens of C-free steel were annealed at 300° for 3 hrs., elongated 2-3% then annealed 8 days, increasing the temp. gradually from 400 to 850° to give an av. grain size of 1.5-2 mm. The specimens were then broken under tension at temp. of liquid N, forming twinned crystals in grains near the fracture. Twinned layers began to disappear after 10 hrs. annealing at 850°, and all had disappeared after 65 hrs. at 850° followed by 60 hrs. at 900°. H. W. Rathmann]

KONSTANTINOVSKIY, M.M., kandidat meditsinskikh nauk.

Otogenous arrosive hemorrhage from the internal carotid artery.
Vest. oto-rin. 17 no.6:65-66 '55. (MLRA 9:2)

1. Iz kliniki bolezney ukha, gorla, i nosa (sav.--prof. L.A. Lukovskiy)
Dnepropetrovskogo meditsinskogo instituta.

(HEMORRHAGE,
carotid artery, internal, otogenous arrosive)
(ARTERIES, CAROTID, hemorrhage,
arrosive otogenous)

