ORT, M.; TICHY, V.

Measurement of permeability of plastic cable coverings. p. 211.

ELEKTROTECHNICKY CASOPIS, Bratislava, Czechoslovakia, Vol. 10, No. 4, 1959

Monthly list of East European Accessions. (EEAI) LC, Vol. 8, No. 10, Oct. 1959.
Uncl.

ORT, M. (Praha 12, Americka 37)

Metabolic disorders associated with increased urinary excretion of amino acids. Cesk. pediat. 13 no.2:134-139 Mar 58.

1. I. detska klinika KU v Praze, prednosta prof. Dr. Josef Svejcar.
(METABOLIC DISEASES, manifest.
increase of amino acids in urine, review (Cz))
(AMINO ACIDS, in urine
increase due to metab. disord., review (Cz))

ORT, M.; REZNIK, Z.; BOHACOVA, A.

Lowe's syndrome. Cesk. pediat. 16 no.9:816-822 S '61.

1. I detska klinika, prednosta prof. MUDr. J. Svejcar, a detske oddeleni OUNZ Kladno, prim. T. Adler.

(ABNORMALITIES) (KIDNEY abnorm)
(DWARFISM diagn)

ORT, M.; HANAK, J.; KOTTOVA, V.; REZNIK, Z.

Diagnosis and therapy of acute pyelonephritis in 279 children.
Cesk. pediat. 17 no.7/8:685-690 Ag '62.

1. I. detska klinika fakulty detskeho lekarstvi KU v Praze, prednosta prof. dr. J. Svejcar.
(PYELONEPHRITIS)

STASTNA, Jaroslava; ORT, Miroslav; RASKA, Blazej

Quantitative determination of urinary microbes by the membrane filter method. Cesk. pediat. 17 no.7/8:714-718 Ag '62.

1. Bakteriologicka laborator detske fakultni nemocnice v Praze, prednosta prof. dr. V. Kubelka I. detska klinika fakulty detskeho lekarstvi KU v Praze, prednosta prof. dr. J. Svejcar.
(URINE) (BACTERIOLOGICAL TECHNICS) (KIDNEY DISEASES)

HANAK, J.; ORT, M.

Chloroquine in internal medicine. Preliminary report. Cas.lek.cesk 101 no.7:34-37 16 F '62.

1. I detska klinika KU v Praze, prednosta prof. MUDr. Josef Svejcar.

(CHLOROQUINE ther)

2

CZECHOSLOVAKIA

RASKA, B., MD; POLACEK, E., MD; ORT, M., MD.

Chair of Hospital Pediatrics of Charles University (Katedra nemocnicni pediatrie KU), Prague (for all)

Prague, Prakticky lekar, No 4, 1963, pp 136-139

"Conservative Treatment of Acute Anuria in Children."

ORT, M.

Congenital disorders of renal tubular transport. Cesk. pediat. 18 no.5:417-421 My '63.

1. I detska klinika fakulty detskeho lekarstvi KU, prednosta prof. dr. J. Svejcar, DrSc.
(KIDNEY TUBULES) (KIDNEY CALCULI)
(METABOLIC DISEASES) (ENZYMES)
(PROTEINURIA) (GLYCOSURIA)
(CYSTINURIA)

ORT,M.; KUCERA,J.; JANSA,M.

Importance of chromatographic analysis of the urine for the diagnosis of congenital metabolism disorders. Cesk. pediat. 19 no.3:204-210 Mr'64.

1. I.detska klinika fakulty detskeho lekarstvi KU v Praze (prednosta: prof.dr. J.Svejcar) a Detske oddeleni UPMD v Praze (vedouci: doc.dr.K.Polacek).

ORT, M.; ANDRYSEK, O.

Use of radioisotopes in pediatrics. Cesk. pediat. 19 no.7: 636-639 Jl'64

1. I. detska klinika fakulty detskeho lekarstvi KU [Karlovy university] v Praze (prednosta: prof. dr. J.Svejcar, DrSc.); Biofyzikalni ustav fakulty vseobecneho lekarstvi KU [Karlovy university] v Praze (prednosta: doc. dr. Z.Dienstbier, CSc).

ANDRYSEK, O.; ANDRYSKOVA, J.; BENDL,J.; BLEKTA, M.; HRADCOVA, L.; CHYTIL,M.; ORT, M.; RASKA, B.; VALNICEK, J.

Isotope examination methods of the uropoietic system in pediatrics and obstetrics. Acta univ. Carol. [med] (Praha): Suppl. 18: 41-44 '64.

1. Biofysikalni ustav fakulty vseobecneho lekarstvi University Karlovy v Praze (prednosta: doc. dr. Z. Dienstbier); II. gynekologicko-porodnicka klinika fakulty vseobecneho lekarstvi University Karlovy v Praze (prednosta: prof. dr. J. Lukas); II. interni klinika fakulty vseobecneho lekarstvi University Karlovy v Praze (prednosta: prof. dr. F. Herles); IV. detska klinika fakulty vseobecneho lekarstvi University Karlovy v Praze (prednosta: prof. dr. F. Herles); IV. detska klinika fakulty vseobecneho lekarstvi University Karlovy v Praze (prednosta: prof. dr. F. Blazek) a I. detska klinika fakulty pediatricke University Karlovy v Praze (prednosta: prof. dr. J. Svejcar).

ORT, M.; HANAK, J.; DIEBELKOVA, M.

Long-term therapy of the nephrotic syndrome with chloroquine.
Cesk pediat. 19 no.10:890-893 O '64.

1. Katedra nemocnicni pediatrie fakulty detskeho lekarstvi KU v Praze; vedouci prof. dr. J. Sevejcar, DrSc.

ORT, P.M.

Socialist Competition

I challenge you to socialist competition. Sakh. prom 26 no. 6, 1952.

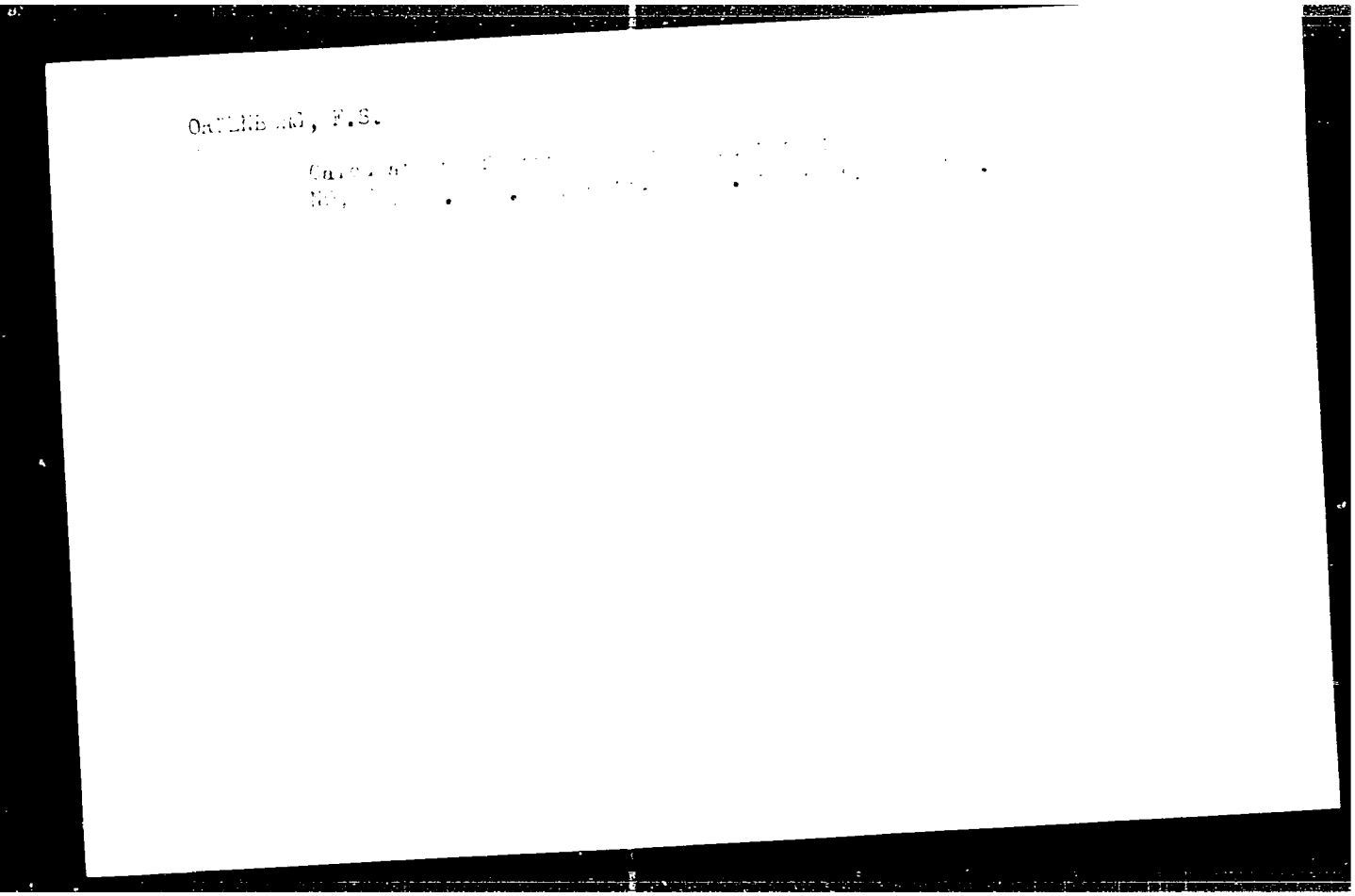
Monthly List of Russian Accessions, Library of Congress, August 1952. Unclassified.

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001238

ORTENBERG, F.S.; GLASKO, V.B.; SMIRNOV, A.I.

Probabilities of vibrational transitions for band systems of some diatomic oxides. Part 2. Astron.zhur. 41 no.2:332-335 Mr Ap '64. (MIRA 17:4)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut elektromekhaniki i Moskovskiy gosudarstvennyy universitet im. M.V.Lomonosova.



25 (6), 24 (7)

AUTHORS: Garger, K. S., Krivulya, G. D., Ortenberg, F. S., Trofimova, V. I.

SOV/32-25-5-18/56

TITLE: Investigation of the Spectrum of the Converter Flame in Different Types of Blowing (Issledovaniye spektra konverternogo plameni pri razlichnykh sposobakh produvki)

PERIODICAL: Zavodskaya Laboratoriya, 1959, Vol 25, Nr 5, pp 573-576 (USSR)

ABSTRACT: The authors had already investigated the flame spectrum (FS) of the Bessemer process in the wave range of 3700-10000 Å with a blast of air (Refs 1, 2), on the basis of which a photoelectric control method of blowing through rail steel was introduced (Refs 3, 4). In the present case the investigation results of (FS) of new converter processes with the use of oxygen are given. The (FS) on blowing through cast iron with a vapor-oxygen mixture was investigated at the Yenakiyevskiy metallurgicheskiy zavod (Yenakiyevo Metallurgical Factory) with the co-operation of N. I. Goncharenko, A. B. Minster, A. D. Stakhurskiy and V. D. Umnov on the spectrograph ISP-28 and styloscope SL-3 (with photographic attachment). The lines Na, K, Li, Rb, Fe, Mn, Ca, Cu, Cr and Ga were plotted and it was observed that the spectrum Fe I is considerably richer in lines than on

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blowing through with air (Fig 1). The (FS) on blowing through cast iron with oxygen from above was taken on the abovementioned styloscope and on a diffraction apparatus (with a replica) with the cooperation of V. M. Gorbovskiy and A. D. Stakhurskiy. A few investigation results are given concerning the spectrum in the case of air blowing through, which were obtained at the zavod im. Dzerzhinskogo (Factory imeni Dzerzhinskiy) on the spectrograph ISP-28, ISP-51, styloscope SL-3 and diffraction spectrograph. Measurements of flame temperature were made according to the method by Scholev (Ref 6), in which the spectrum was taken on films "Izoorto 45 Units GOST" and "Izopankrom" and photometry was made on the MF-2 apparatus. In evaluating the results obtained the authors mention that the increase of the intensity of the ultraviolet range in (FS) of the water vapor-oxygen blowing process according to (Ref 12) may be explained by a collision of O and CO corresponding to $CO + O \longrightarrow CO_2 + h\nu$ (1). There are 3 figures and 14 references, 11 of which are Soviet.

Investigation of the Spectrum of the Converter Flame in Different Types of Blowing

SOV/32-25-5-18/56

ASSOCIATION: Dneprodzerzhinskiy vecherniy metallurgicheskiy institut (Dneprodzerzhinsk Metallurgical Institute (Evening School)

Card 3/3

ORTENBERG, F.S.

Possibility of measuring temperature by the relative intensity of bands of the $B'\Sigma^+ \rightarrow X'\Sigma^+$ system of the BeO molecule. Urk. fiz. zhur. 5 no. 5:645-649 S-O '60. (MIRA 14:4)

1. Dneprodzerzhinskiy vecherniy metallurgicheskiy institut.
(Beryllium oxide--Spectra)
(Temperature--Measurement)

GARGER, K.S.; KRIVULYA, G.D.; ORTENBERG, F.S.

Spectrum obtained from the flame of a converter in which cast iron is blown by a steam oxygen mixture. Inzh.-fiz.zhur. no.6:72-75 Je '60. (MIRA 13:7)

1. Vecherniy metallurgicheskiy institut, g. Dneprodzerzhinsk.
(Flame--Spectra) (Converters)

GARGER, K.S.; KUZNETSOV, M.P.; ORTENBERG, F.S.; GERASIMCHUK, R.V.; LYAUDIS, B.V.

Burning up of carbon during the converter process. Izv.vys.ucheb. zav.; chern.met. no.7:32-36 '60. (MIRA 13:8)

1. Dneprodzerzhinskiy vecherniy metallurgicheskiy institut i Dneprovskiy metallurgicheskiy zavod im. Dzerzhinskogo.
(Bessemer process) (Carbon)

ORTENBERG, F.S.

Intensity distribution in the bands of the α-system of the TiO molecule. Opt. i spektr. 9 no.2:147-150 Ag '60. (MIRA 13:8)
(Titanium oxide--Spectra)

ORTENBERG, F.S.

Calculating the relative probabilities of a transition for certain band systems of oxides and hydrides of group II elements. Opt. i spektr. 9 no.2:151-155 Ag '60. (MIRA 13:8)
(Spectrum, Molecular)

87251

S/033/60/037/006/010/022
E032/E514

3.1570 (1062, 1129, 1172)

AUTHOR: Ortenberg, F.S.

TITLE: On the Possible Determination of the Temperature of M and S Type Stars using the Relative Intensity of ZrO Bands

PERIODICAL: Astronomicheskiy zhurnal, 1960, Vol.37, No.6, pp. 1008-1011

TEXT: The relative transition probabilities $P_{v'v''}$ for the α- and γ-systems of ZrO molecular bands are calculated, using the method described by Fraser and Jarmain (Ref.7) and Nicholls and Jarmain (Refs.8,9 and 10). According to the latter authors, the relative probability can be expressed in terms of the Frank-Condon factors

$$q_{v'v''} = \left| \int \psi_{v'} \psi_{v''} dr \right|^2 \qquad (1)$$

using the expression

$$P_{v'v''} = R_{\ell}^2 (\bar{r}_{v'v''}) q_{v'v''} \qquad (2)$$

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On the Possible Determination of the Temperature of M and S Type Stars using the Relative Intensity of ZrO Bands

In the numerical calculations the molecular constants ω_e, $\omega_e x_e$ and r_e were taken from the paper of Afar (Ref.11). The Frank-Condon factors for the transitions $C^3\Pi - X^3\Pi$ (α-system) and $A^3\Sigma - X^3\Pi$ (γ-system) were calculated using the Morse "simplified" potential method (Ref.7). The Frank-Condon factors obtained in this way are in good agreement with results obtained using numerical integration. The values of $r_{v'v''}$ (the internuclear distance) were calculated using the graphical method of Nicholls and Jarmain (Ref.8). The dependence of the electron transition moment R_e on the internuclear distance was obtained semi-empirically and the results are:

$$R_e(r) = e^{-6.97\, r} \; ; \; 1.43 \text{ Å} < r < 1.60 \text{ Å} \qquad (3)$$

and

$$R_e(r) = -1 + 0.788\, r \; ; 1.37 \text{ Å} < r < 1.55 \text{ Å} \qquad (4)$$

Table 1 gives the Frank-Condon factors, the values of $\bar{r}_{v'v''}$ and

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S/033/60/037/006/010/022
E032/E514

On the Possible Determination of the Temperature of M and S Type Stars using the Relative Intensity of ZrO Bands

the relative transition probabilities $P_{v'v''}$ for the α-system of ZrO, and Table 2 gives the corresponding values for the γ-system:

Table 1

v'		v'' = 0	1	2	3	4
0	$q_{v'v''}$	0.115	0.278	0.302	0.195	0.083
	$\bar{r}_{v'v''}$	1.472	1.500	1.529	1.562	1.596
	$P_{v'v''}$	0.372	0.608	0.443	0.181	0.049
1	$q_{v'v''}$	0.221	0.156	0.043	0.115	
	$\bar{r}_{v'v''}$	1.448	1.475	1.503	1.533	
	$P_{v'v''}$	1.000	0.482	0.091	0.159	
2	$q_{v'v''}$	0.235	0.009	0.111	0.048	
	$\bar{r}_{v'v''}$		1.452	1.478	1.507	
	$P_{v'v''}$		0.039	0.330	0.094	
3	$q_{v'v''}$	0.184	0.028	0.104		
	$\bar{r}_{v'v''}$		1.430	1.454		
	$P_{v'v''}$		0.162	0.434		
4	$q_{v'v''}$	0.107				

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On the Possible Determination of the Temperature of M and S Type Stars using the Relative Intensity of ZrO Bands

Table 2

v'		v'' = 0	v'' = 1	v'' = 2	v'' = 3
0	$q_{v'v''}$	0.462	0.380	0.110	0.019
	$\bar{r}_{v'v''}$	1.450	1.497	1.546	
	$P_{v'v''}$	0.766	1.000	0.427	
1	$q_{v'v''}$	0.335	0.023	0.264	0.170
	$\bar{r}_{v'v''}$	1.412	1.453	1.501	
	$P_{v'v''}$	0.347	0.039	0.719	
2	$q_{v'v''}$	0.170	0.268	0.068	0.046
	$\bar{r}_{v'v''}$	1.377	1.415	1.457	1.500
	$P_{v'v''}$	0.100	0.290	0.122	0.124
3	$q_{v'v''}$	0.061	0.248	0.105	
	$\bar{r}_{v'v''}$		1.380	1.418	
	$P_{v'v''}$		0.154	0.118	

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S/033/60/037/006/010/022
E032/E514

On the Possible Determination of the Temperature of M and S Type Stars Using the Relative Intensity of ZrO Bands

These values of $P_{v'v''}$ can be used to measure the excitation temperature of the atmospheres of type M and S stars. It is well known that the total absorption $K = \int K_\nu \, d\nu$ can be expressed in terms of the transition probability $P_{v'v''}$ by the formula:

$$K = C\nu P_{v'v''} e^{-E(v'')/k'T_{vibr}} \quad (5)$$

where C is a constant which is the same for all the bands of a given system, ν is the transition frequency and E(v") is the magnitude of the vibrational term of the lower electron state. This equation holds for low intensity bands and provided the molecules are distributed over the vibrational levels of the lower state in accordance with the Boltzmann distribution. The relation can be used to obtain a further relation for the vibrational temperature T_{vibr}, namely

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On the Possible Determination of the Temperature of M and S Type Stars Using the Relative Intensity of ZrO Bands

$$0.624 \frac{E_1(v'') - E_2(v'')}{T_{vibr}} = \lg \frac{\nu_1}{\nu_2} + \lg \frac{P_1}{P_2} + \lg \frac{k_2}{k_1} \qquad (6)$$

where the energies are expressed in cm^{-1}. There are 2 tables and 15 references: 2 Soviet, 13 non-Soviet.

SUBMITTED: April 6, 1960

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S/170/61/004/005/010/015
B111/B214

AUTHOR: Ortenberg, F. S.

TITLE: The problem of thermodynamic equilibrium in arc discharge

PERIODICAL: Inzhenerno-fizicheskiy zhurnal, v. 4, no. 5, 1961, 94-95

TEXT: In thermodynamic equilibrium the energy is equally divided among all degrees of freedom of the various components. This equilibrium is established when all components have the same temperature. The present paper gives a comparison between the temperatures obtained from two different pairs of vibration bands of the electronic-vibrational band of CN and MgO molecules. For this purpose, the occupation of the vibrational levels in the discharge channel was investigated. An a.c. arc between carbon and magnesium electrodes was studied for air at atmospheric pressure. The voltage source was a generator of the type ДГ-2 (DG-2). The current strength was 4 amperes, and the electrode gap was 2 mm. The spectroscopic investigation was made by an apparatus of the type ИСП-28 (ISP-28). The spectrograms were taken on isoortho plates of 65 GOST units and isochromic plates of 45 GOST units. The temperature of the arc was determined from the relative

The problem ...

intensities in the maximum of the band pairs of CN 4167/4216 and 4181/4216. Its value was found to be (3900 ± 80)°K, where the error is the root mean square error of 10 measurements. The vibrational temperature of MgO was obtained by applying the pyrometric formula for the relative intensities of the green band groups of MgO derived in "Opt. i spektroskop., IV, 168, 1958":

$$\frac{508}{T} = 0{,}017 + \lg \frac{I_{4967}}{I_{5007}}, \qquad (1), \text{ and}$$

$$\frac{1011}{T} = 0{,}04 + \lg \frac{I_{4988}}{I_{5007}}. \qquad (2).$$

There are 4 Soviet-bloc references.

ASSOCIATION: Vecherniy metallurgicheskiy institut im. Arsenicheva g. Dneprodzerzhinsk (Evening Institute of Metallurgy imeni Arsenichev, Dneprodzerzhinsk)

SUBMITTED: August 6, 1960

Card 2/2

ORTENBERG, F.S.

Dependence of the electronic moment of the $^1\Sigma^* \rightarrow {}^1\Sigma$ transition on the internuclear distance for BaO, CaO, and MgO molecules. Ukr. fiz. zhur. 6 no.1:145-147 Ja-F '61. (MIRA 14:6)

1. Dneprodzerzhinskiy metallurgicheskiy zavod-vtuz imeni Arsenicheva.

(Nuclei, Atomic)
(Spectrum, Molecular)

88676

S/051/61/010/002/003/003
E201/E291

11.5100

AUTHORS: Ortenberg, F. S. and Nosterko, N. A.

TITLE: The Effective Vibrational Temperature of the Acetylene-Air Flame

PERIODICAL: Optika i spektroskopiya, 1961, Vol. 10, No. 2, pp. 270-272

TEXT: The present paper deals with the vibrational energy distribution of various radicals in acetylene-air flames. The energy distribution is deduced from the vibrational bands of the flames which are assigned an effective vibrational temperature. This can be done only if reliable values of transition probabilities are available. The authors studied the intensity distribution of the vibrational bands of C_2 and BaO molecules which were located, respectively, in the inner and outer "cones" of acetylene-air flames (11% C_2H_2) burning at atmospheric pressure. The BaO bands were obtained by introducing solutions of $BaCl_2$ (0.1 molar conc.) by means of an atomizer. The spectra were recorded with a glass Zeiss spectrograph of medium dispersion; the slit width was 0.03 mm. Isochromatic plates were used; their

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The Effective Vibrational Temperature of the Acetylene-Air Flame

sensitivity was 65 ГОСТ (GOST) units. The exposures were such that the BaO and C_2 band edges were of easily measurable optical densities. The band intensities were taken to be the intensities of the band edges, after subtraction of the continuous background and other bands near the edge. The effective vibrational temperature, T_{vib}, was deduced from

$$I = \frac{CP_{v'v''}}{\lambda^4} e^{-\frac{E(v')}{kT_{vib}}} \qquad \text{Equation 1}$$

where C is a coefficient which is constant for all bands in one electronic-vibrational system; $P_{v'v''}$ is the relative probability of the relevant transition; λ is the wavelength of the transition; E(v') is the energy of the upper vibrational term. The dependence of $[\log I - \log (P_{v'v''}/\lambda^4)]$ on E(v') should be a straight line (for Boltzmann or pseudo-Boltzmann distribution of energy in vibrational levels) whose slope gives T_{vib}. The relative values of the transition probabilities $P_{v'v''}$ for the C_2 and BaO bands were taken from published work. The straight lines used to find

The Effective Vibrational Temperature of the Acetylene-Air Flame

T_{vib} were constructed by the least-squares method. Typical results for the BaO bands (the lower line) and the C_2 bands (the upper line) are given in Fig. 2. The mean value of T_{vib} obtained from the BaO bands was 2200°K. The equality of this value with the result obtained by one of the authors and Rossikhin (1959) for the same flame using reversal of the resonance sodium line, and the small scatter of the experimental points (Fig. 2) both indicate that the outer "cone" (situated about 0.5 cm above the reaction zone of the flame) is in thermodynamic equilibrium. The value of T_{vib} deduced from the BaO bands in a region which included the tip of the inner "cone" gave a somewhat smaller value of temperature with a larger scatter of the experimental results, indicating some departure from thermodynamic equilibrium. The value of T_{vib} deduced from the C_2 bands in the inner "cone" of the flame was 3000°K. This high value and the 3600°K effective rotational temperature, deduced from the rotational structure of the C_2 bands in the inner "cone" of a stoichiometric acetylene-air mixture flame, both indicate that there is no thermodynamic

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E201/E291

The Effective Vibrational Temperature of the Acetylene-Air Flame

equilibrium in the reaction zone of the flame. Acknowledgement is made to V. S. Rossikhin for his advice. There are 2 figures and 10 references: 4 Soviet and 6 non-Soviet.

SUBMITTED: July 13, 1960

Fig. 2

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Ortenb[illegible]

TITLE: On the [illegible] transition prob[illegible] in the band system $\Delta \rightarrow \Delta$ [illegible] molecule

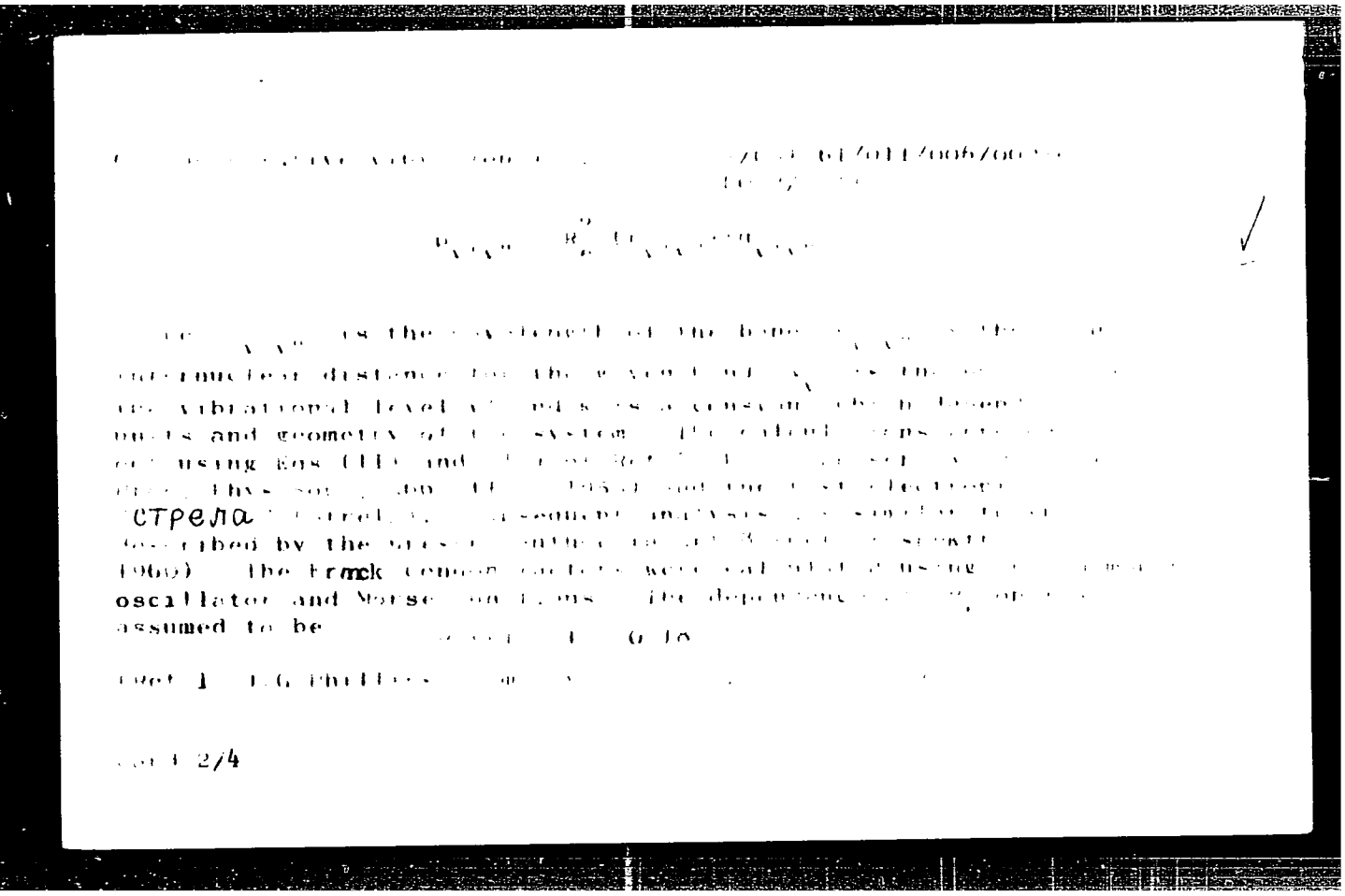
PERIODICAL: Optika i spektroskopiya, v. 11, no. 6, 1961

[illegible] It is stated that there is a considerable discrepancy between the experimental and theoretical values for the [illegible] transition probabilities obtained by different methods. [illegible] is therefore reported to elucidate the reasons for this [illegible]. The Franck-Condon factors [illegible] calculated [illegible] approximation than that reported by [illegible] 1955 [illegible]), the dependence of [illegible] transition moment [illegible] is determined and [illegible] evaluated [illegible] are [illegible] relation between these quantities is [illegible]

$J_{v'v''}$ k [illegible]

Card 1/4

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123



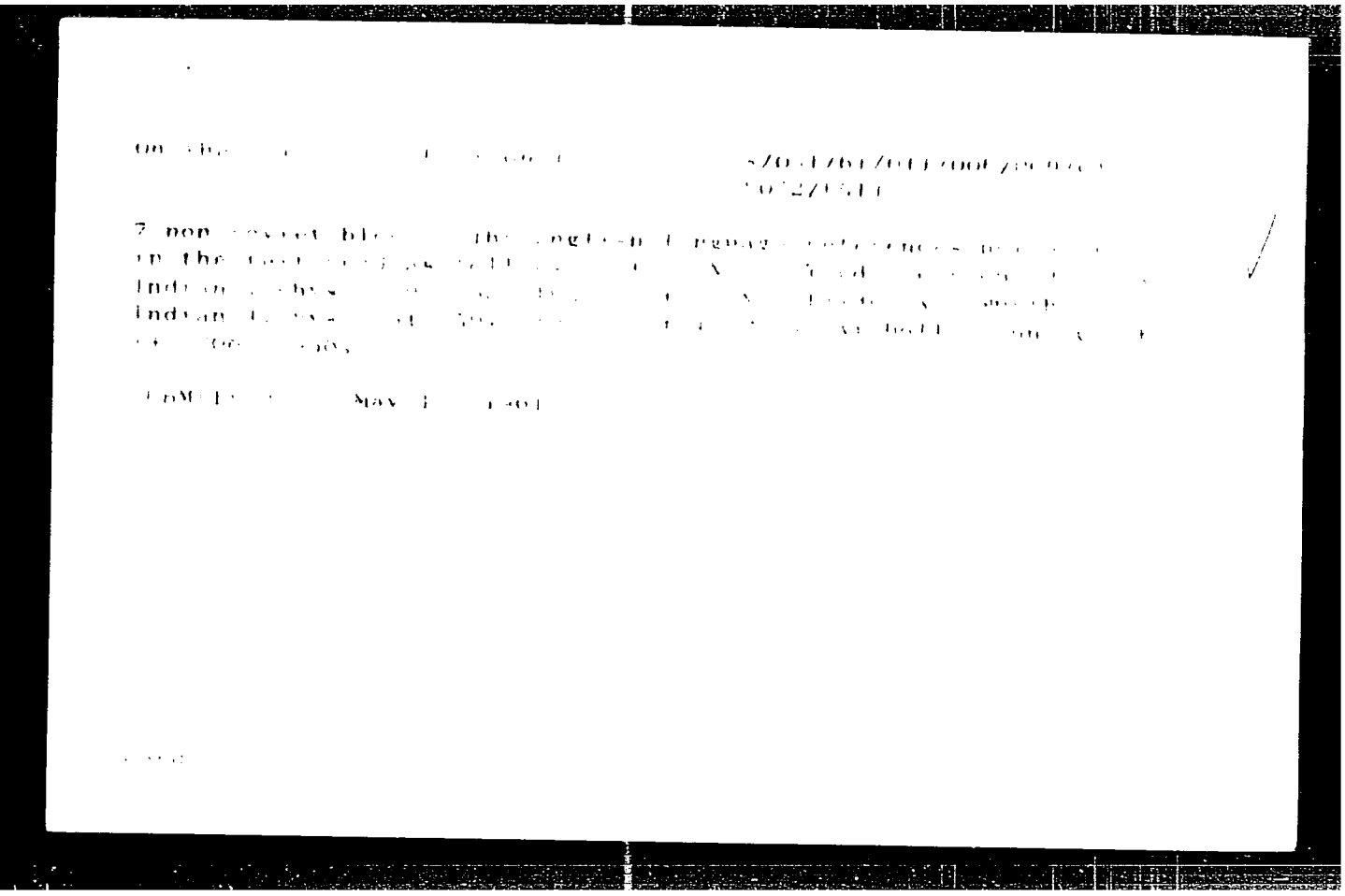
стрела

4.0	5286.3	1.539
4.1	5179.6	1.541
4.2	5226.3	1.561
4.3	5517.8	1.602
4.4	5833.[illegible]	1.654
4.5	5010.6	1.530
4.6	5275.[illegible]	1.550
4.7	5056.6	1.532
4.8	5324.2	1.577

Acknowledgements are expressed to I. G. Trelkov for [illegible] work and to V. D. Glasko for [illegible] on the computations.

There are 1 figure, 1 table and 6 references, 3 [illegible]

Card 3/4



ORTENBERG, F.S.

Relative intensity of α bands and γ systems of the ZrO molecule.
Astron.zhur. 38 no.4:776 Jl-Ag '61. (MIRA 14:8)

1. Institut teplofiziki AN SSSR.
(Zirconium oxide--Spectra)

S/185/62/007/011/011/019
D234/D308

AUTHOR: Ortenberg, F.S.

TITLE: Investigation of electron-vibrational band systems of some diatomic molecules

PERIODICAL: Ukrayins'kyy fizychnyy zhurnal, v. 7, no. 11, 1962, 1223-1225

TEXT: Graphs of the Frank-~~Gordon~~ Condon factors are given for the 0,0 band, as functions of $\overline{\alpha}\Delta r_e$ and $(\omega_{el}/\omega_{es})\exp(\overline{\alpha}\Delta r_e)$ computed by α-averaging Morse potentials; also graphs of $\overline{r}_{v'v''}$ as a function of wavelength for the green band system of MgO, and the electron moment of the $^1\Sigma^* \rightarrow {}^1\Sigma$ transition as a function of internuclear distance for CaO. There are 3 figures.

ASSOCIATION: Instytut teplofizyky SV AN SRSR (Institute of Heat Physics, SV AS USSR)

SUBMITTED: March 24, 1962

Card 1/1

ORTENBERG, F.S.

Spectroscopic work in Siberia. Vest. AN SSSR 32 no.5:118-119 My '62. (MIRA 15:5)

(Siberia--Spectroscopy)

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001238

BR

ACCESSION NR: AP4035471 S/0051/64/016/005/0729/0734

AUTHOR: Ortenberg, F.S.

TITLE: Calculation of the Franck-Condon factors for some band systems of NO, C_2, and CO

SOURCE: Optika i spektroskopiya, v.16, no.5, 1964, 729-734

TOPIC TAGS: Franck-Condon factor, vibrational spectrum, vibronic transition probability, nitrogen oxide, carbon, carbon monoxide

ABSTRACT: The vibrational probability in vibronic transitions is determined by the Franck-Condon factor $q_{v'v''}$, which is equal to the square of the integral of overlapping of the vibrational wave functions. Various approaches have been used for obtaining more accurate values of the factors; these are based on different potential functions, theoretical and experimental. In the present work the $q_{v'v''}$ were calculated using the solution adduced by F.S.Ortenberg and V.B.Glasko (Astronomicheskiy zhur.39,921,1962) on the basis of Morse potentials. This approach has certain advantages, which are set forth briefly. The necessary integrals were calculated with the aid of an M-20 computer, using Simpson's formula. The values of the molecular con-

Card 1/2

ACCESSION NR: AP4035471

stants used in the computations are tabulated. Further tables present the Franck-Condon factors for different v'/v" ratios for the Beta band system of NO, the Gamma system of NO, the Swan system of C_2, the Phillips system of C_2, the third positive system of CO, the Angstrom system of CO, and the fourth positive system of CO. It is noted that, while some of the results are accurate, others must be regarded as only approximate or indicative in view of the undertainty in the molecular constants on which the calculations were based. "I thank N.N.Sobolev for his interest in the work, and V.B.Glasko and A.I.Dmitriyev for assistance." Orig.art.has: 8 tables.

ASSOCIATION: none

SUBMITTED: 25Jul63 DATE ACQ: 22May64 ENCL: 00

SUB CODE: OP NR REF SOV: 001 OTHER: 006

Card 2/2

ACC NR: AP7001745 SOURCE CODE: UR/0053/66/090/002/0237/0273

AUTHOR: Ortenberg, F. S.; Antropov, Ye. T.

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

TITLE: Probabilities of electron vibrational transitions in diatomic molecules

SOURCE: Uspekhi fizicheskikh nauk, v. 90, no. 2, 1966, 237-273

TOPIC TAGS: diatomic molecule, optic transition, dipole moment, electron transition, nuclear structure

ABSTRACT: This is a review article devoted to the advances made in quantitative studies of the distribution of intensity in spectra of diatomic molecules and radicals during the last decade, with special attention to more rigorous methods of calculations, to modernization of the experimental techniques, to various shortcomings of the customarily employed Franck-Condon principles, to new calculations of the Franck-Condon factors, and to the dependence of the dipole moment of the electron transitions on the internuclear distance. The results of all the presently known calculations of the dipole moment of transitions for different internuclear distances are first summarized. Calculation of the Franck-Condon factors by means of various models is then discussed and an extensive table of electronic transitions in diatomic molecules for which the Franck-Condon factors have been calculated is presented. Experimental methods of measuring the transition probabilities are described, with emphasis on shock-tube techniques. The dependence of the electron-transition moments

 UDC: 535.338.41

ACC NR: AP7001745

on the interatomic distance is analyzed and the data obtained by the r-centroid method are tabulated. Some numerical results presently known for air, O_2, NO, and N_2 are presented. Orig. art. has: 11 figures, 43 formulas, and 3 tables.

SUB CODE: 20/ SUBM DATE: 00/ ORIG REF: 045/ OTH REF: 228

Card 2/2

15-57-3-3383

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 3, pp 133-134 (USSR)

AUTHORS: Sherman, M. M., Nezhinskaya, L. D., Ortenberg, M. N., Gol'dshteyn, F. K.

TITLE: The Skimming Method of Preparing Paste for Production of Ceramic Floor Tile (Shlikernyy sposob podgotovki massy dlya proizvodstva keramicheskikh plitok dlya polov)

PERIODICAL: Tr. Stud. nauch. o-va Khar'kovsk. politekhn. in-ta, 1956, Vol 1, Nr 1, pp 61-65

ABSTRACT: The authors used the **Slavyanskiye gliny (clays)** of the **Nikolayevskoye and Nikiforovskoye** deposits (Donets Basin) for making the tile. The iron content in these clays ranges from 1.9 to 2.9 percent and produced an intense coloration on firing the tile. Because of the high degree of dispersion and plasticity of the clays of the **Nikolayevskoye and Nikiforovskoye** deposits they are hard to separate by filtration. It was ascertained

Card 1/2

The Skimming Method (Cont.)

that the addition of dehydrated clay (20 percent) increased the rate at which the clays could be separated by filtration.

Card 2/2 S. P. Sh.

S/006/60/000/009/002/00?
B012/B054

AUTHOR: Ortenberg, N. A.

TITLE: A New Method of Reducing the Astronomic Coordinates and Its Application in the Method of Equal Altitudes

PERIODICAL: Geodeziya i kartografiya, 1960, No. 9, pp 21-31

TEXT: The present paper describes a new method of transforming astronomic coordinates. It provides for mathematical operations with mean equatorial coordinates (for the corresponding period of time). Besides, corrections due to precession, nutation, and aberration are directly introduced in the geographical coordinates obtained. Matrix operations are used to derive the formulas required (Ref., footnote p. 21, V. N. Fadeyeva). First, the rectangular coordinates are transformed by turning the system round each of the axes. Then, the whole coordinate system is turned through a small angle round an axis of arbitrary position running through the center of the system. To render matrix operations possible, the author passes over from the spherical coordinates of the stars to rectangular coordinates. Finally, he obtains the transformation of the horizontal coordinates into

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equatorial coordinates for the initial period of time in the matrix form of formula (10). Now he only investigates the influence of annual aberration on equatorial coordinates since the daily aberration is considered separately in every particular case Subsequently, he investigates the reduction of latitude, time, zenith distance, and azimuth of stars due to 1) precession and nutation, and 2) aberration. For reasons of simplicity, the author used reduction formulas of the second type For practical purposes, the reduction quantities of the first type suggested by Bessel would be more convenient Subsequently, the author describes useful procedures for reducing the time- and latitude corrections for the time of observation, using the terms employed by the Astronomicheskiy yezhegodnik SSSR na 1960 g. AN SSSR, 1957 g (Astronomical Annual of the USSR for 1960 of the AS USSR, 1957) Then, the author deals with useful procedures of calculating the corrections due to aberration He obtains the final formulas (19) for calculating corrections due to precession, nutation, and aberration It is pointed out that, if special tables for 20-25 years are available, the method described simplifies considerably the calculations by Mazayev's method of equal altitudes Corresponding

A New Method of Reducing the Astronomic Coordinates and Its Application in the Method of Equal Altitudes

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B012/B054

considerations are put forward in this connection. The method is illustrated in Table 2 shown by the calculation of latitude- and time corrections. It is pointed out that the reduction method described may also be used with other procedures for the astronomic determination of latitudes, longitudes, and azimuths, e.g., in evaluating observations according to Tsinger's method. It is assumed that calculation of latitude according to Pevtsov's method can also be much simplified by the method described here. There are 3 figures, 2 tables, and 1 Soviet reference

Card 3/3

ORTENBERG, N.A.

Determination of the geodetic azimuth with micrometer instruments from observations of TSinger pairs. Geod.i kart. no.4:26-32 Ap '62. (MIRA 15:12)

(Azimuth)

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001238

23173
S/148/60/000/007/018/023/XX
A161/A033

18 3200

AUTHORS: Garger, K. S.; Kuznetsov, M.P.; Ortenberg, R. V.; Gerasimenko, R. V.; Lyaudis, B. V.

TITLE: The burning-out of carbon in the converter process

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Chernaya metallurgiya. no. 7, 1960, 32 - 36

TEXT: A continuous and direct analysis of steel in the converter being still too difficult, the samples are analyzed after tilting. The method is connected with loss of time and impairs the life of converters. In principle, sampling is possible without stopping the blast, and the analysis lasts 5 - 6 min. Therefore the sample must be taken in the first half of the heat (in the 4th minute). The dependence of the carbon content (Z_C) on time must be known to determine the moment when the process is to be stopped. As proven by S. I. Filippov et al. (Ref. 2: Nauchnyye doklady vysshey shkoly, Metallurgiya, 1958, No. 2, 24) component elements burn simultaneously but at a different rate depending on the metal temperature the $Z_C = f(t)$ equation being determined by

Card 1/6

The burning-out of carbon in the ....

these rates. Two types of kinetic carbon burning curves have been found in experiments with a 8 kg laboratory induction furnace (Ref. 1: S. I. Filipov, Teoriya protsessa obezuglerozhivaniya stali (Theory of the steel decarbonization process) Metallurgizdat, 1956) below 1500°C the burning is slower, and above 1500°C in the second half of the heat it is higher and constant.

$$\frac{dZ_C}{dt} = B$$

At Z_C below 0.2 % C, the carbon oxidation rate is inhibited by diffusion. The constant carbon burning rate is taken as the basis of the US patent (Ref. 3: D. Murphy, US Patent No. 2807537, 1957). The purpose of the present work was to find the equation for the carbon burning curves throughout the converter heat (Figure 1) to apply electronic computers for the converter process control. Two heat groups were studied, with sampling at tilts, and by "freezing on". To eliminate the dependence on the iron charge and C content in iron (Z_C^o) a relative value was used instead of Z_C, $\varphi = \frac{Z_C}{Z_C^o}$. The time moment value $\varphi = 0.7$ was chosen

Card 2/6

The burning-out of carbon in the .....

for the time unit after a careful analysis. It corresponds to 3.0 - 3.2 [illegible] the metal bath, when Mn and Si in most cases are already no longer burning. This rated time is designated by τ. The carbon burning equation finally evolved for the case of air blast through bottom (curve 1 in Figure 3) is:

$$Z_C = Z_C^o \exp (- 0.331 \tau^{2.936}). \quad (3)$$

It can apparently be applied to any converter process. The equation for the carbon burning rate ω_c is easily obtained by differentiating the expression (3)

$$\omega_\tau = \frac{d\varphi}{dt} = - 0.972 \tau^{1.936} \exp (-0.331 \tau^{2.936}) \quad (4)$$

The burning maximum is at $\tau = 1.265$, and the CO concentration in the separating gas is highest at this moment. The accuracy of the data obtained was checked by the "confidence interval method". Curves 3 and 4 present the results of calculations, with dependabilities 0.90 and 0.80. It was concluded that linear approximation is only applicable for short time intervals. The equation may be presented in the form of nomograms or tables. Computers would calculate the

Card 3/6

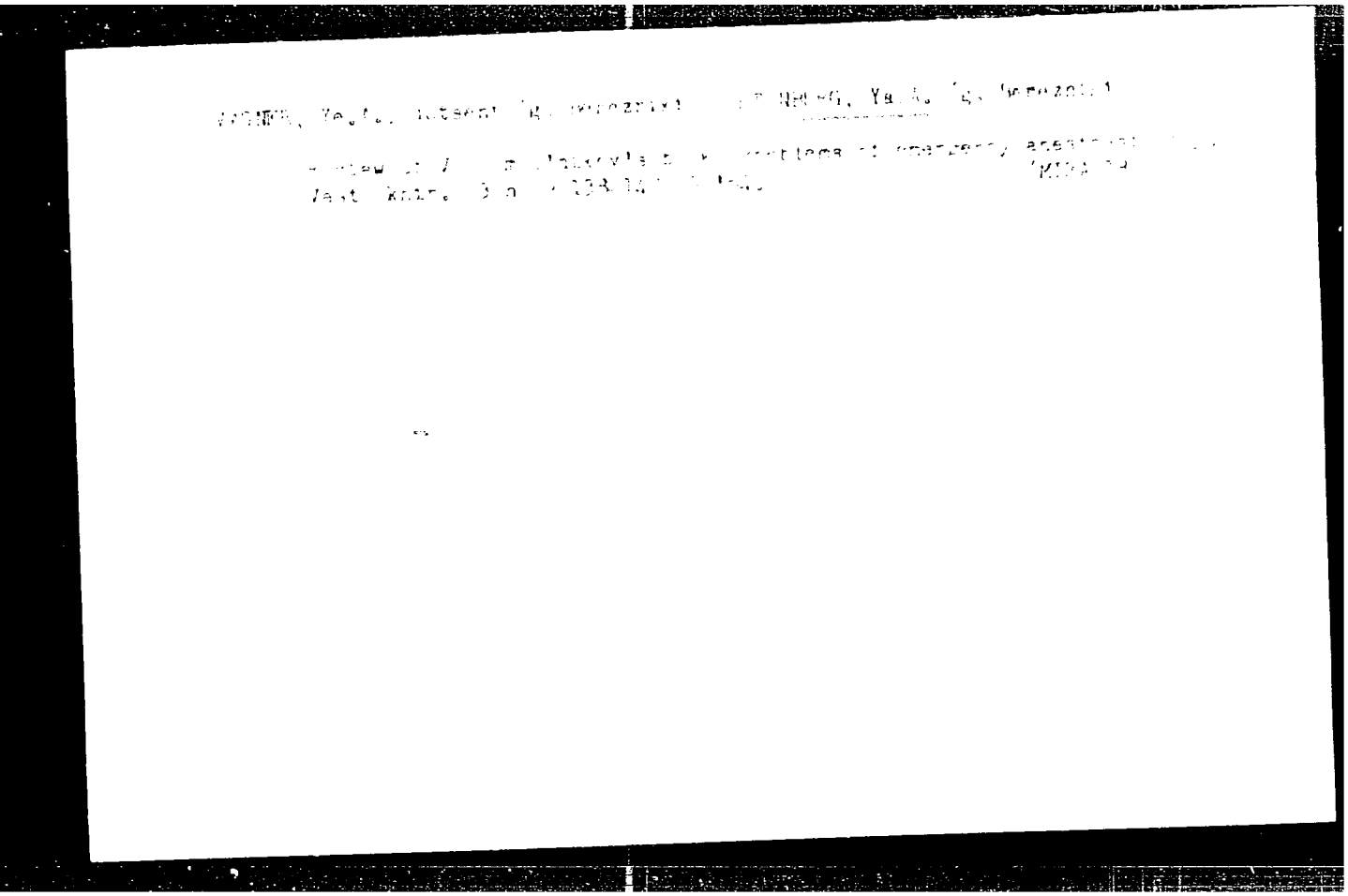
The burning-out of carbon in the ....

moment for the process stop more accurately. A. M. Kublitskiy, V. A. Savchenk. and Yu. K. Siryachenko took part in the experiments; some data were obtained collectively with V. I. Yavoyskiy, G. N. Oyks and L. S. Tsykin of the Moskovskiy institut stali (Moscow Steel Institute). M.P. Kuznetsov carried out the first tests with the "freezing-on" sampling method. There are 4 figures and 7 references: 6 Soviet-bloc and 1 non-Soviet-bloc. The reference to the English-language publication reads: D. Murphy, USA Patent No. 2807537, 1957.

ASSOCIATION: Dneprodzerzhinskiy vecherniy metallurgicheskiy institut (Dneprozerzhinsk Metallurgical Evening Institute) and Dneprovskiy metallurgicheskiy zavod im. Dzerzhinskogo (Dnepr Metallurgical Plant im. Dzerzhinskiy)

SUBMITTED: March 1, 1960

Card 4/6



ORTH, Albin, inz.

Handling concrete mixtures with the adjusted T-107 loader.
Poz stavby 12 no. 1:29-30 '64.

1. Hydrostav Bratislava, n.p.

ORTHMAYR A. A Pecsi Tudomanyegyetem Ideg - es Elmeklinikajanak kozlemenye. A praefrontalis lobotomia eredmenyeirol. I. Klinikai resz The results of prefrontal lobotomy. I. Clinical aspects Orv. Hetil. 1950, 91/29 (897-900)

Prefrontal leucotomy was performed on 32 patients by the method of Freeman and Watts. In the great majority of the cases the diagnosis was chronic schizophrenia. No. mortality. One third of the patients recovered socially, one third improved, the remaining third showed no remarkable change. Leucotomy abolishes anxiety states and emotional tension; it also influences delusions and paranoid ideas favourably. Leucotomy is a valuable method in the treatment of mental diseases including chronic cases.

Angyal - Budapest

So: Neurology & Psychiatry Section VIII, Vol. 4, No. 1-6

ORTHAMAYER, Alajosne

KOCSIS, Gaborne, dr.; ORTHAMAYER, Alajosne, dr

Studies on periodontosis in school children in Pecs. Fogorv. szemle 47 no.8:261-264 Aug. 54.

1. Koslemeny a pecsi orvostudomanyi egyetem stomatologiai klinikajarol(Az Egeszsegugyi Tudomanyos Tanacs tamogatasaval vegzett vizsgalatok.)
(PERIODONTIUM, diseases,
in child., in Hungary)

BOSZORMENYI, Zoltan, dr.; GIMES, Miklosne, dr.; ORTHMAYR, Alajos, dr.

Pharmacodynamic effects and therapeutic results of largactil in psychiatry. Orv. hetil. 96 no.38:1039-1045 18 Sept 55.

1. Orszagos Ideg- es Elmegyogyintezet (igazgato: Gimes Miklosne dr.)

(CHLOROPROMAZINE, therapeutic use, ment. disord.)
(MENTAL DISORDER, therapy, chloropromazine)

ORTHMAYR, Alajos, Dr.

Dr. Endre Kluge, 1892-1956. Ideg. szemle 9 no.3:93 June 56.

(OBITUARIES
Kluge, Endre (Hun))

Country : HUNGARY V
Category : Pharmacology and Toxicology. Narcotics

Abs. Jour. : Ref Zhur-Biol., No 23, 1958, No 61367

Author : Csalay, L.; Ludany, G.; Orthmayr, A.
Institut. : -
Title : Effect of Hypothermia and Pharmacological Hibernation on the Increase of Pressure of the Cerebrospinal Fluid under Conditions of Hypoxia
Orig. Pub. : Kiserl. orvostud., 1957, 9, No 4, 370-374

Abstract : A mixture of N_2 (94%) and O_2 (6%) was introduced intratracheally into cats narcotized with chloralose (0.1 g./kg.); as a result, the pressure of the cerebrospinal fluid (PCF) increased. PCF was determined with a manometer by means of cisternal puncture. After a 10-minute inhalation of the gas mixture and subsequent restitution, hypothermia was induced in the animal. Thereafter, hypoxia was induced repeatedly by the above-mentioned method and PCF was measured. In the first

Card: 1/3

Country :
Category :

Abs. Jour. : Ref Zhur-Biol, No 13, 1958, No 61307

Author :
Institut. :
Title :

Orig Pub. :

Abstract : group of animals (eight), it was established that, under conditions of hypoxia in hypothermia induced by physical means (body temperature 31-32°), PCF increases by 41% less than at normal body temperature, and in hypothermia induced by the administration of 5 mg./kg. of Largactil and 3 mg./kg. of Phenergan, the increase is by 28% less (seven animals). In hypothermia, under conditions of hypoxia, the blood pressure decreases, on the average, by 20 mm. of mercury column. The

V

Country : HUNGARY
Category : Pharmacology and Toxicology. Tranquilizers

Abs. Jour. : Ref Zhur-Biol, No 13, 1958, No 61373

Author : Csalay, L.; Ludany, G.; Orthmayr, A.
Institut. : Hungarian Academy of Sciences
Title : Effect of Hypothermia and Pharmacological Hibernation on the Increase of Cerebrospinal Fluid Pressure Due to Hypoxia
Orig Pub. : Acta med., Acad. sci. hung., 1957, 10, No 4, 415-420

Abstract : The effect of exogenous hypothermia and pharmacological hibernation on the increase of cerebrospinal fluid pressure due to inspiration of a nitrogen-oxygen (6:3) gas mixture was studied on cats narcotized with chloralose. Hypothermia decreases the rise of the fluid pressure due to hypoxia by 41% on the average. A similar effect is also observed in intravenous administration of chlorpromazine (5 mg./kg.) and promethazine (3 mg./kg.). Chlorpromazine by itself has no

Card: 1/2

ORTHMAYER, Alajos, dr.; SZILAGYI, Katalin, dr.

On extrapyramidal side-manifestations after the administration of neuroleptics and their prevention with promethazine. Ideg.szemle 13 no.7:203-211 Jl '60.

1. Orszagos Ideg- es Elmegyogyintezet II/A ferfiosztalya (Igazgatofoorvos: dr. Maria Bela)
(PROMETHAZINE ther.)
(HIBERNATION ARTIFICIAL compl)

ORTHMAYR, Alajos, dr.

Impressions from a trip to Poland. Ideg. szemle 13 no.11:342-345 N '60.

1. Orszagos Ideg- es Elmegyogyintezet (Igazgato foorvos: dr. Maria Bela).
(PSYCHIATRY)

ORTHMAYR, Alajos

SURNAME (in caps); Given Names

(3)

Country: Hungary

Academic Degrees: Dr

Affiliation: State Neurological and Psychiatric Sanitarium (Országos Ideg- és Elmegyógyintézet) director-chief physician (Igazgató-főorvos);Béla MARIA, Dr

Source: Budapest, Orvosképzés, Vol XXXVI, No 5, Oct 1961, pp 380-389

Data: "Mental Disorders of Alcoholic Origin."

ORTMAN, G.

Jun 49

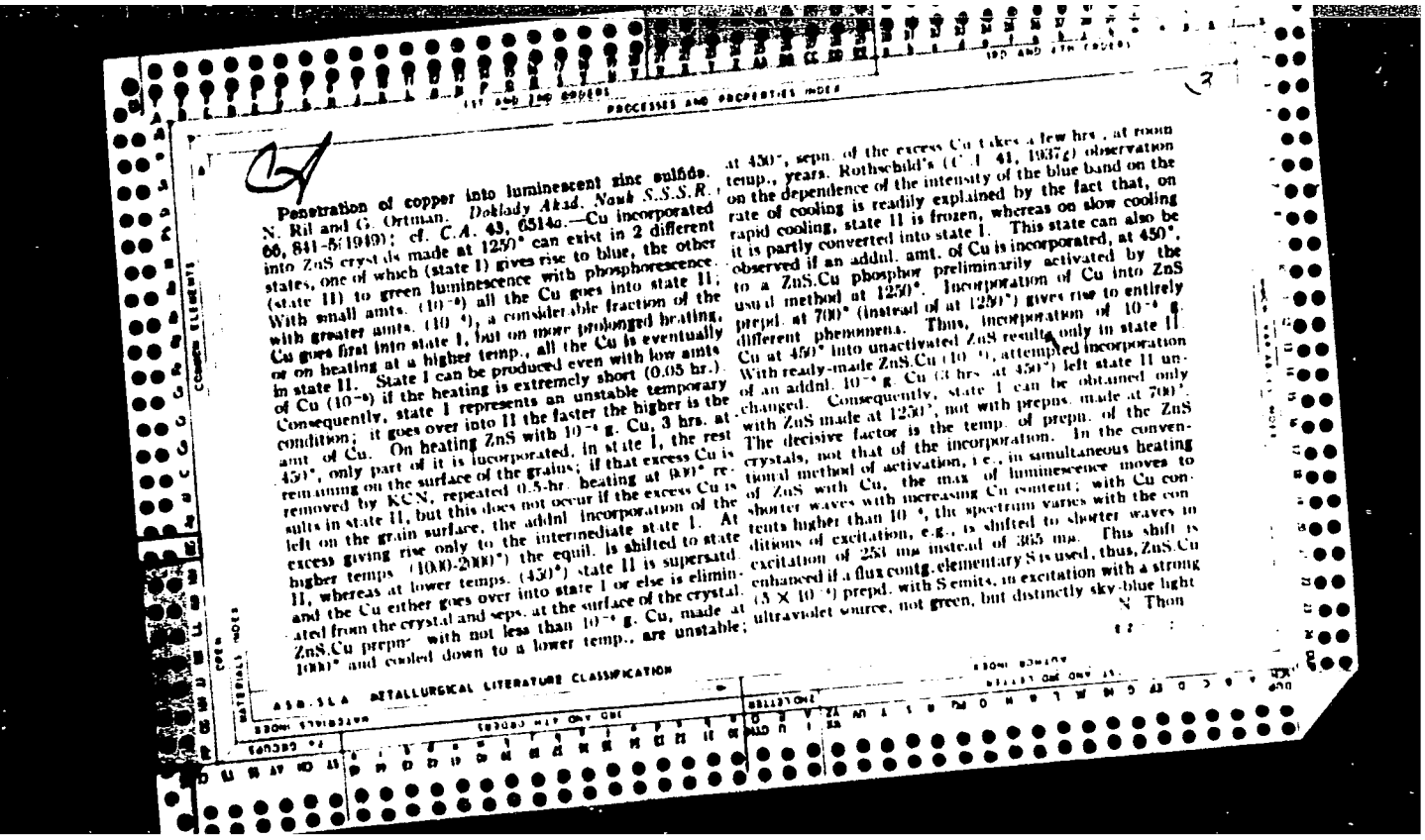
USSR/Physics
Luminescence
Zinc Sulfides

"New Observations on Zinc Sulfide Luminescence," N. Ril', G. Ortman, 4 pp

"Dok Ak Nauk SSSR" Vol LXVI, No 4

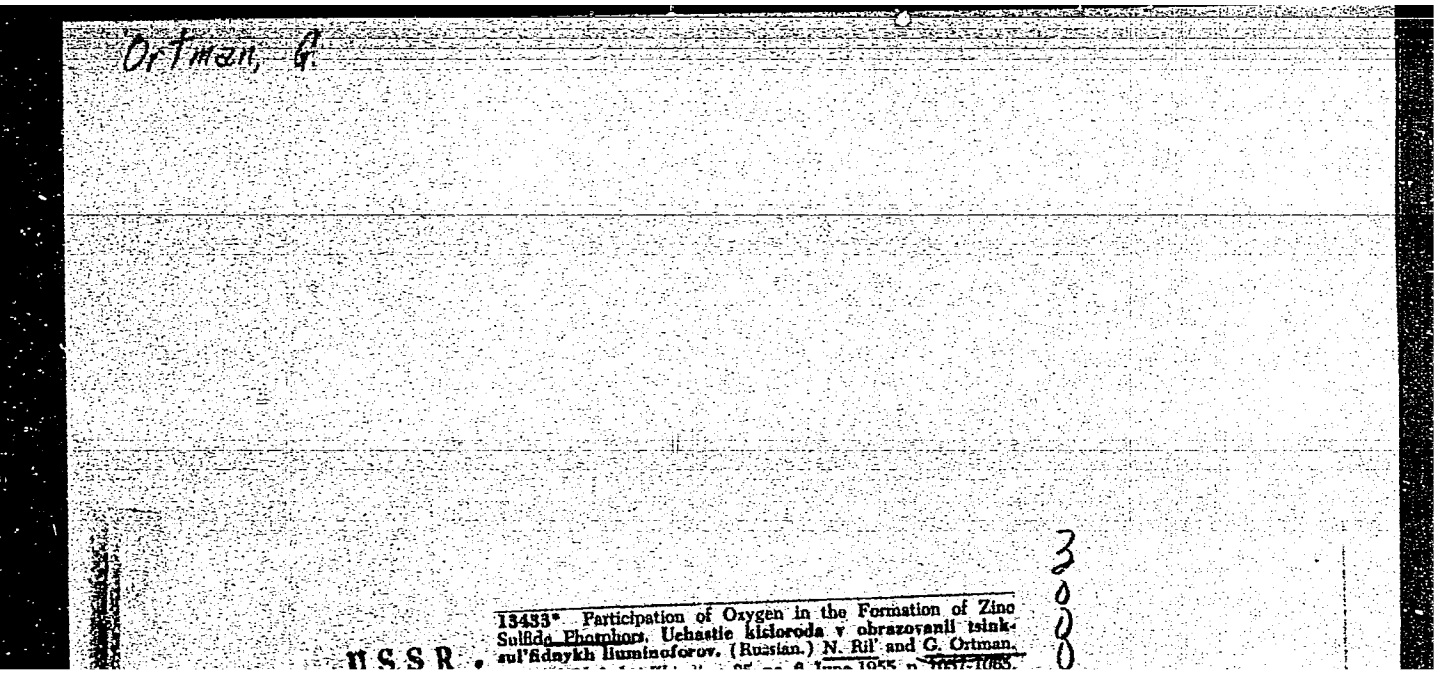
A zinc sulfide substance prepared at 1,250° has negligible luminescence. Authors took this substance and added copper (by diffusion) in proportion of 10^{-4} grams per gram of zinc sulfide. Obtained a luminophor with intense dark blue luminescence and no postluminescence. However, if instead of 10^{-4} grams of copper 10^{-5} is added, then a luminophor with usual green luminescence and prolonged phosphorescence is obtained. No attempt is made to explain results. Submitted by Acad S. I. Vavilov, 2 Apr 49.

PA 46/49T88



Penetration of copper into luminescent zinc sulfide. N. Ril and G. Ortman. *Doklady Akad. Nauk S.S.S.R.* 66, 841–5(1949); cf. *C.A.* 43, 6514a.—Cu incorporated into ZnS crystals made at 1250° can exist in 2 different states, one of which (state I) gives rise to blue, the other (state II) to green luminescence with phosphorescence. With small amts. (10^{-6}), all the Cu goes into state II; with greater amts. (10^{-4}), a considerable fraction of the Cu goes first into state I, but on more prolonged heating, or on heating at a higher temp., all the Cu is eventually in state II. State I can be produced even with low amts of Cu (10^{-6}) if the heating is extremely short (0.05 hr.). Consequently, state I represents an unstable temporary condition; it goes over into II the faster the higher is the amt. of Cu. On heating ZnS with 10^{-4} g. Cu, 3 hrs. at 450°, only part of it is incorporated, in state I, the rest remaining on the surface of the grains; if that excess Cu is removed by KCN, repeated 0.5-hr. heating at 800° results in state II, but this does not occur if the excess Cu is left on the grain surface, the addnl incorporation of the excess giving rise only to the intermediate state I. At higher temps. (1000-2000°) the equil. is shifted to state II, whereas at lower temps. (450°) state II is supersatd. and the Cu either goes over into state I or else is eliminated from the crystal and seps. at the surface of the crystal. ZnS.Cu prepns. with not less than 10^{-4} g. Cu, made at 1000° and cooled down to a lower temp., are unstable; at 450°, sepn. of the excess Cu takes a few hrs. at room temp., years. Rothschild's (*C.A.* 41, 1937g) observation on the dependence of the intensity of the blue band on the rate of cooling is readily explained by the fact that, on rapid cooling, state II is frozen, whereas on slow cooling it is partly converted into state I. This state can also be observed if an addnl. amt. of Cu is incorporated, at 450°, to a ZnS.Cu phosphor preliminarily activated by the usual method at 1250°. Incorporation of Cu into ZnS prepd. at 700° (instead of at 1250°) gives rise to entirely different phenomena. Thus, incorporation of 10^{-4} g. Cu at 450° into unactivated ZnS results only in state II. With ready-made ZnS.Cu (10^{-6}, attempted incorporation of an addnl. 10^{-4} g. Cu (3 hrs. at 450°) left state II unchanged. Consequently, state I can be obtained only with ZnS made at 1250°, not with prepns. made at 700°. The decisive factor is the temp. of prepn. of the ZnS crystals, not that of the incorporation. In the conventional method of activation, i.e., in simultaneous heating of ZnS with Cu, the max. of luminescence moves to shorter waves with increasing Cu content; with Cu contents higher than 10^{-4}, the spectrum varies with the conditions of excitation, e.g., is shifted to shorter waves in excitation of 253 mμ instead of 365 mμ. This shift is enhanced if a flux contg. elementary S is used, thus, ZnS.Cu (5×10^{-4}) prepd. with S emits, in excitation with a strong ultraviolet source, not green, but distinctly sky-blue light.

N. Thon



Ortman, G.

13453* Participation of Oxygen in the Formation of Zinc Sulfide Phosphors. Uchastie kisloroda v obrazovanii tsink-sul'fidnykh lyuminoforov. (Russian.) N. Ril' and G. Ortman.

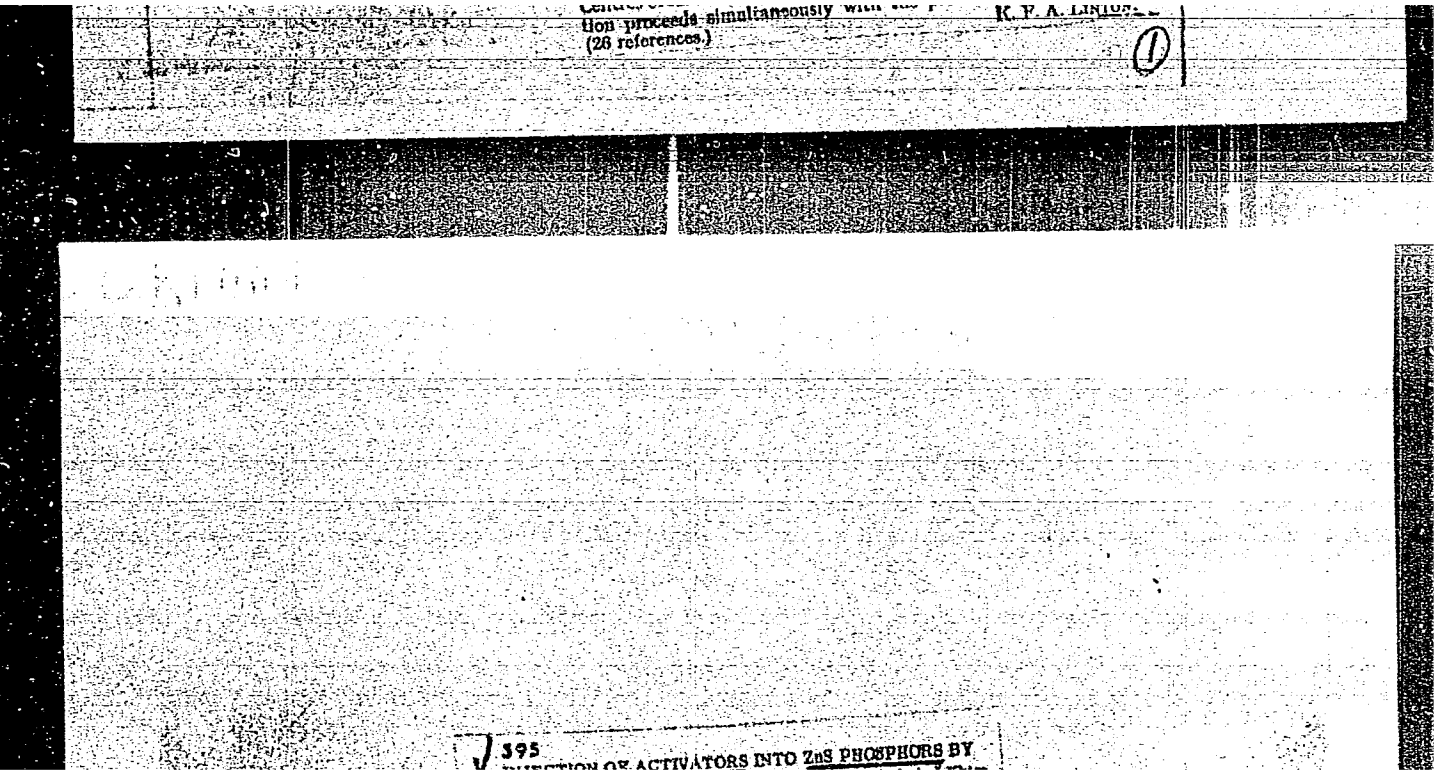
USSR.

3
0
0
0

Effect of O on the action of [illegible]
participation in the structure of illumination centers. Tables,
diagram, 9 ref.

ORTMAN, G.

Formation of centres of luminescence in zinc sulphide lumino-
phores. N. Ril and G. Ortman (*Zh. obsch. Khim. SSSR*, 1955, 25,
1289—1303).—Models of centres of luminescence in ZnS luminophores
and from experiments on the



tion proceeds simultaneously with the [illegible] K. F. A. Linton.
(26 references.)

1

395

[illegible] OF ACTIVATORS INTO ZnS PHOSPHORS BY

ORTMANN, M.

A conference and course on industrial safety and hygiene at Bydgoszcz. [Pol.]

(PRZEGLĄD [illegible]: BEZPIECZEŃSTWO I HIGIENA PRACY. Vol. 10, No. 9, Sept. 1955)
Warszawa, Poland

SO: Monthly List of East European Accessions (EEAL) LC. Vol. 6, No. 12, October 1957. Uncl.

ORTNER, A.B., inzh.; RUBTSOV, I.V.

Removal of rock during the mining of inclined workings with the help of the "Prokhodchik" machine. Shakht.stroi. 9 no.4:23-24 Ap '65. (MIRA 18:5)

1. Kombinat Kuzbassshakhtostroy (for Ortner). 2. TSentral'nyy nauchno-issledovatel'skiy i proyektno-konstruktorskiy institut podzemnogo i shakhtnogo stroitel'stva (for Rubtsov).

ORTOIDZE, M. N.

"The effect of various types of cocoon-supporting plants on the morphological and technological indexes of the cocoon." Published by the Georgian Agricultural Inst. Min Higher Education USSR. Georgian Order of Labor Red Banner Agricultural Inst. Tbilisi, 1956. (Dissertations for the Degree of Doctor in Agricultural Sciences)

So; Knizhnaya letopis', No. 16, 1956

ORTSEV V. P.

ALICHKIN, S.L.; AGRINSKIY, N.I.; ANDREYEV, G.F.; BAKUMENKO, G.D.; VORONTSOV, S.M.; VOYSTRIKOV, I.V.; GRADYUSHKO, G.M.; ZYKOV, A.V. IVANOVTSEV, P.V.; KINBURG, M.Ya.; KOVALEV, P.A.; KOZLOVSKIY, Ye.V. KORNIYENKO, A.P.; KOLYAKOV, Ya.Ye.; LAKTIONOV, A.M.; LEVADNYY, B.A. MEDVEDEV, I.D.; NOVIKOV, N.V.; ORLOV, F.M.; OSTROVSKIY, A.A.; ORTSEV, V.P.; PENIONZHKO, A.M.; POLOZ, D.D.; PRITULIN, P.I.; PETUKHOVSKIY, A.A.; ROGALEV, G.T.; RYBAK, P.Ya.; SUTYAGIN, G.P. TUKOV, R.A.; KHAVCHENKO, D.F.; CHERNETSKIY, T.I.; SHPAYER, N.M. SHUSTOVSKIY, F.A.

Nikolai Vasil'evich Spesivtsev. Veterinariia 35 no.2:96 F '58. (MIRA 11:2)

(Spesivtsev, Nikolai Vasil'evich, 1901-1957)

GLINCHUK, K.D.; MISELYUK, Ye.G.; ORTUNATOVA, N.N.

Effect of annealing on ground levels and the life time of unbalanced current carriers in p-germanium with iron admixture. Zhur. tekh. fiz. 28 no.5:1053 My '58. (MIRA 11:6)

1.Institut fiziki AN USSR, Kiyev.
(Germanium) (Semiconductors)

ORTUTAY, Gyula

ORTUTAY, Gyula, akademikus, egyetemi tanar

The role and task of the intelligentsia in the struggle for peace. Magy tud 69 no.8:467-475 Ag '62.

1. Eotvos Lorand Tudomanyegyetem, Budapest.

ORTWEIN, L.

More care for game management in the northern part of Poland. p. 9.

LAS POLASKI. (Ministerstwo Lesnictwa oraz Stowarzyszenie Naukowo-Techniczne Inzynierow i Technikow Lesnictwa i Drzewnictwa) Warszawa, Poland. Vol. 32, no. 8, Apr. 1958.

Monthly List of East European Accession (EEAI) LC, Vol. 9, no. 1, Jan. 1960. Uncl.

8(0) SOV/112-58-3-3590

Translation from: Referativnyy zhurnal. Elektrotekhnika, 1958, Nr 3, p 7 (USSR)

AUTHOR: Oru, Kh. Yu.

TITLE: Influence of the Phase at Which Alternating-Current is Broken Upon the Residual Intensity of Magnetization (O zavisimosti ostatochnoy namagnichennosti ot fazy razmykaniya peremennogo toka)

PERIODICAL: Tr. Tallinsk Politekhn. in-ta, 1957, A. Nr 95, p 15 ill.

ABSTRACT: In magnetic flaw detectors, a transformer is often used to produce a residual intensity of magnetization in a specimen. A magnetizing winding of the specimen is connected to the transformer secondary. An essential peculiarity of the functioning of such a device lies in the fact that the residual intensity of magnetization depends not only on the moment of the current break in the primary winding, but also on the phase shift between the specimen magnetizing current and the primary transformer current. The effects of rate of breaking the primary current, the magnitude of that current, the brand of

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8(0) SOV/112-58-3-3590

Influence of the Phase at Which Alternating-Current is Broken Upon the

steel, and the moment of zero secondary current on the residual intensity of magnetization have been studied experimentally for the cases of longitudinal and circular magnetizations. The specimens were in the form of round and square rods, as well as rings of magnetically soft steel, permalloy, and medium-carbon steel. The experiments have confirmed that the undesirable influence of zero secondary current upon the specimen remanence can be minimized by reducing the magnetic-field-intensity amplitude to a certain minimum value The processed test results on 35 specimens are presented. Bibliography: 7 items

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ORU, Kh. Yu.

Cand Phys-Math Sci - (diss) "Induction of residual magnetization by alternating current for purposes of magnetic defectoscopy." Tallin, 1961. 24 pp with diagrams; (State Committee on Higher and Secondary Specialist Education of the Council of Ministers Estonian SSR, Tartu State Univ); 150 copies; free; bibliography at end of text (12 entries); (KL, 6-61 sup, 194)

ORUBA, Karel; NETUSIL, Zdenek

Titrimetric determination of sodium and ferric salts of sulfosuccinic acid esters. Chem prum 14 no.4:203-205 Ap '64.

1. Research Institute of Organic Syntheses, Pardubice - Rybitvi.

USSR/Human and Animal Physiology. Internal Secretion T-8

Abs Jour : Ref Zhur - Biol., No 14, 1958, No 65420

Author : Oruchov I.M., Ismayylov L.L.
Inst :
Title : A Rare Case of Combined Diabetes Mellitus and Diabetes Insipidus.

Orig Pub : Azerb. tibb. zh., 1957, No 9, 42-44 (azerb.), 93-95 (Russ sm)

Abstract : No abstract

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CHUDZHALIYEV, E.A.

Isothermal flow of imperfect gas under high pressure. Izv. vys. uchob. zav.; neft' i gaz no. 5:115-122 '58. (MIRA 11:8)

1. Azerbaydzhanskiy industrial'nyy institut im. M.Azizbekova.
(Gas, Natural)

ORUDZHALIYEV, E.A.

Sound velocity in imperfect gas. Izv. vys. ucheb. zav.; neft i gaz no.8:89-96 '58. (MIRA 11:10)

1.Azerbaydzhanskiy industrial'nyy institut im. M. Azizbekova.
(Sound--Speed) (Gas, Natural)

10(2, 1), 14(5)

AUTHOR: Orudzhaliyev, E. A.

SOV/152-59-3-24/25

TITLE: The Discharge Velocity of a Real Gas Taking Resistance Into Account (Skorost' istecheniya real'nogo gaza s uchetom soprotivleniy)

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Neft' i gaz, 1959, Nr 3, pp 113-120 (USSR)

ABSTRACT: At high pressure, as it occurs especially in the case of petroleum gas (250-350 atm) considerable deviations from the formulae for perfect gases occur. In this paper use is made of diagrams of compressibility as they were experimentally obtained for natural gases and published in a previous paper (Ref 7). For the derivation of the formula for the real discharge velocity from one nozzle the following data are used: the state equation $pv = zRT$ (p = pressure, v = volume, z = coefficient of compressibility, R = gas constant, T = absolute temperature), the function $pv = f(p, T)$ and the energy equation for the adiabatic process $\frac{c_{1t}^2 - c_o^2}{2g} + \int_0^1 vdp = 0$ (c_{1t} = theoretical

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discharge velocity, c_o = initial velocity). For the real discharge velocity the following formula is derived:

$$c_1 = \sqrt{c_o^2 + 2g\bar{\mu}_T \frac{x}{x-1} RT_o \left[1 - \left(\frac{p_1}{p_o}\right)^{\frac{m-1}{m}}\right] + 2gRT_o (z_o - z_1)_T}$$

where: x (the index of the adiabatic curve of a real gas as introduced by Rozen (Ref 1)) $x = \frac{c_p}{c_p - AR\mu_p}$, c_p = specific heat at constant pressure, μ_p = pressure-dependent coefficient of deviation from a perfect gas, z_o, z_1 = coefficients of compressibility at different pressures, but the same temperature, m = the index of the polytropic line of a real gas:

$$m = -\frac{\lg \lambda}{\lg \frac{\lambda\zeta'\left\{1 + \frac{1}{\bar{\mu}_T} \frac{x-1}{x}\left[(\Delta z)_T + \frac{c_o^2}{2g}\right]\right\} + \lambda^{\frac{1}{n}}}{1 + \zeta'}}$$

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The Discharge Velocity of a Real Gas Taking Resistance Into Account SOV/152-59-3-24/25

$\lambda = \frac{p_o}{p_1}$, $(\Delta z)_T = (z_o - z_1)_T$, k denotes the exponent of the adiabatic curve of the perfect gas. ζ' is the coefficient of the energy loss in the nozzle; $\zeta' = \frac{1}{\varphi^2} - 1$, where φ is a given quantity The coefficient of deviation μ_T is according to Rozen $\mu_T = z - \pi \left(\frac{\partial z}{\partial p}\right)_\tau \cdot \left(\frac{\partial z}{\partial p}\right)$ can be determined from the diagrams of compressibility by means of graphical differentiation. A previous paper by the author (Ref 7) shows a diagram for the determination of the coefficients of compressibility of hydrocarbon gases. Therefrom the figures required for the calculation can be derived. As gas constant R, the value $R = \frac{848}{\mu}$ is to be taken (μ denotes the molecular weight of the gas). There are 2 figures and 7 references, 6 of which are Soviet.

ASSOCIATION: Azerbaydzhanskiy industrial'nyy institut im. M. Azizbekova (Azerbaydzhan Industrial Institute imeni M. Azizbekov)

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ORUDZHALIYEV, E.A.

General equations of the imperfect gas flow. Izv. vys. ucheb. zav.; neft' i gaz 2 no.5:91-97 '59. (MIRA 12:8)

1.Azerbaydzhanskiy institut nefti i khimii im. M. Azizbekova. flow)

ORUDZHALIYEV, E.A.

Impact parameters expressed by means of similarity criterion for gas flow under high pressures. Izv.vys.ucheb.zav.; neft' i gaz 2 no.9:101-108 '59. (MIRA 13:2)

1. Azerbaydzhanskiy institut nefti i khimii im. M.Azizbekova.
(Gas flow)

ORUDZHALIYEV, E.A.

One-dimensional flow with friction under high pressure. Izv. vys. ucheb. zav.; neft' i gaz 2 no.10:111-118 '59. (MIRA 13:2)

1.Azerbaydzhanskiy institut nefti i khimii im. M. Azizbekova.
(Gas flow)

ORUDZHALIYEV, E.A.

Speed of sound in superheated steam under high pressure.
Dokl. AN Azerb. SSR 15 no.4:283-287 '59. (MIRA 12:6)

1.Azerbaydzhanskiy instrumental'nyy institut im. M. Azizbekova.
Predstavleno akademikom AN Azerbaydzhanskoy SSR Z.I. Khalilovym.
(Sound--Speed)

ORUDZHALIYEV, E.A.

Adiabatic flow of imperfect gas in a cylindrical tube considering friction. Izv.vys.ucheb.zav.; neft' i gaz 3 no.2:129-134 '60. (MIRA 13:6)

1. Azerbaydzhanskiy institut nefti i khimii im. M. Azizbekova.
(Gas flow)

ORUDZHALIYEV, E.A.

Consumption of imperfect gas in a cylindrical tube and its length transonic speed at the outlet. Izv.vys.ucheb.zav.; neft' i gaz 3 no.3:97-102 '60. (MIRA 14:10)

1. Azerbaydzhanskiy institut nefti i khimii imeni M.Azizbekova.
(Gas flow)

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AUTHOR: Orudzhaliyev, E. A.

TITLE: Determination of the Specific Heat of a Real Gas From Experimental Data Obtained With Ultrasonics

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Neft' i gaz, 1960, No. 9, pp. 113-116

TEXT: To determine the specific heat of gases, the author used experimental data on the compressibility of gases under the action of ultrasonics. Proceeding from the equations: 1) for the velocity of sound a in the gas, $a = \sqrt{(\partial p/\partial \rho)_s}$ (1) (s denotes isoentropic conditions); 2) the thermodynamic differential equation $(\partial p/\partial v)_s = (c_p/c_v)(\partial p/\partial v)_T$ (3); and 3) the equation of state $pv = zRT$ (5) (z is the coefficient of compressibility), the author obtains the following equations for c_v and c_p:

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Determination of the Specific Heat of a Real Gas From Experimental Data Obtained With Ultrasonics

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$$c_v = \frac{AgR^2Tz^2\left[z + T\left(\frac{\partial z}{\partial T}\right)_p\right]^2}{a^2\left[z - p\left(\frac{\partial z}{\partial p}\right)_T\right]^2 - gRTz^2\left[z - p\left(\frac{\partial z}{\partial p}\right)_T\right]} \qquad (13)$$ and

$$c_p = \frac{AR\left[z + T\left(\frac{\partial z}{\partial T}\right)_p\right]^2 a^2}{a^2\left[z - p\left(\frac{\partial z}{\partial p}\right)_T\right] - gRTz^2} \qquad (17)$$

These equations are also expressed by the parameters $\pi = p/p_K$, $\tau = T/T_K$

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Determination of the Specific Heat of a Real Gas From Experimental Data Obtained With Ultrasonics

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where p_k denotes the critical pressure, and T_k the critical temperature. The diagrams for the compressibility of gases can be represented as $z = f(p)_T$ or $z = f(\pi)_\tau$ with z resulting herefrom, and $(\partial z/\partial p)_T$, $(\partial z/\partial \tau)_\tau$ can be obtained by graphical differentiation. For the partial differential coefficients $(\partial z/\partial T)_p$, $(\partial z/\partial \tau)_\tau$, the diagrams of compressibility must be redrawn as $z = f(T)_p$ or $z = f(\tau)_\tau$. The author refers to his paper (Ref. 4) showing such diagrams for gaseous hydrocarbons. There are 4 Soviet references.

ASSOCIATION: Azerbaydzhanskiy institut nefti i khimii im. M. Azizbekova (Azerbaydzhan Institute of Petroleum and Chemistry imeni M. Azizbekov)

SUBMITTED: June 3, 1959

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