OKLADNIKOV, A.P.

"La question de la tradition paleolithique dans l'art des tribus paleolithiques de la Siberie."

Report submitted to the 6th Intl. Cong. of the Intl. Union of Prehistoric and Prohistoric Sciences, Rome, Italy 29 Aug -3 Sep 1962

OKLADNIKOV, A. P.

"O pervonachal'nom zaselenii chelovekom Sibiri i novykh nakhodkakh paleolita na reke Zee."

report submitted for 7th Intl Cong, Anthropological & Ethnological Sciences, Moscow, 3-10 Aug 64.

OKLADNIKOV, A.P.

Professor Nikolai Nikolaevich Stepanov's (1905-) anniversary.
Izv. Vses. geog. ob-va 97 no.6:550-551 N-D '65.
(MIRA 19:1)

KHODOS, Kh.G.; KOZARENKO, T.D.; OKLADNIKOV, V.I.

Content of amino acids in the cerebrospinal fluid in epilepsy. Zhur. nevr. i psikh. 65 no.8:1174-1177 '65. (MIRA 18:8)

1. Kafedra nervnykh bolezney (zaveduyushchiy - prof. Kh.G. Khodos) Irkutskogo meditsinskogo instituta i Laboratoriya prirodnykh soyedineniy (zaveduyushchiy T.D. Kozarenko) Irkutskogo instituta organicheskoy khimii Sibirskogo otdeleniya AN SSSR.

SOV/112-58-1-164

Translation from: Referativnyy zhurnal, Elektrotekhnika, 1958, Nr 1, p 19 (USSR)

AUTHOR: Perepelitsa, A. L., Okladnikov, V. P., and Apter, D. P.

TITLE: Tentative Spray-and-Layer Burning of Cheremkhovo Coal in Furnaces of Low-Capacity Steam Boilers (Opyt vnedreniya fakel'no-sloyevogo szhiganiya Cheremkhovskogo uglya v topkakh parovykh kotlov maloy moshchnosti)

PERIODICAL: Tr. Vost.-Sib. fil. AN SSSR, 1956, Nr 9, pp 110-128

ABSTRACT: Shukhov-Berlin boilers with a capacity of 3.2 and 2 t/h have been switched over to combined burning of Cheremkhovo coal: on the fire grate (coal fractions of 8 mm and coarser) and in the form of powdered coal obtained by milling the coal fractions under 8 mm at a steam-gas pneumatic mill. Steam consumption in pneumatic pulverizing is 0.45-0.3 kg/kg. It is stated that: (1) boiler steam capacity has been increased by 100%, and efficiency by 17-20%; (2) normal operation of a pneumatic installation could also be effected by saturated steam with an additional suction of high-temperature flue gases; (3) an inert medium (a mixture of steam and flue gases) used for pulverizing

Card 1/2

Tentative Spray-and-Layer Burning of Cheremkhovo Coal in Furnaces of Low- . . . .

renders the installation explosion-proof; (4) small weight, simplicity of construction and operation of the spray-and-layer combustion installation permit recommending this method for a number of fuels.

S. M. Sh.

AVAILABLE: Library of Congress

1. Boilers--Performance 2. Coal--Combustion

CHLADNIKOV, V. P.: Master Tech Sci (diss) -- "Investigation of the possibility of producing fuel for power and industry from black-coal fines and waste from semicoking plants, using the briquetting technique". Moscow, 1959. 20 pp (Acad Sci USSR, Siberian Branch, East Siberian Affiliate), 150 copies (KL, No 4, 1959, 135)

PEREPELITSA, A.L.; OKLADNIKOV, V.P.

Effectiveness of briquetting Cheremkovo deposit coal fines.
Trudy Vost.-Sib.fil.AN SSSR no.21:155-160 '59.
(MIRA 13:9)
(Cheremkhovo Basin--Briquets(Fuel)--Costs)

OKLADNIKOV, V.P.; MAR'YASIN, I.L.; KATAYEV, I.O.; PASKOVER, Yu.S.

Investigating heavy cool-tar products of semicoking, a new kind of binders. Khim.i tekh.topl.i masel 5 no.10:26-31 O '60.
(MIRA 13:10)

(Coke industry--By-products) (Briquets (Fuel))

TAYTS, Ye.M.; OKLADNIKOV, V.P.; RAVICH, B.M.; ANDREYEVA, I.A.

Metallurgical and smokeless fuel from gas coals and weakly coking coals. Khim.i tekh.top.i masel 6 no.3:31-36 Mr '61. (MIRA 14:3)

1. Institut goryuchikh iskopayemykh im. G.M. Krzhizhanovskogo AN SSSR, Vostochno-Sibirskiy filial Sibirskogo otdeleniya AN SSR i Moskovskiy gornyy institut im. V.I. Stalina.
(Fuel) (Coal—Carbonization)

OKLADNIKOV, V.P.

Investigating the process of briquetting a kaolin-alumina charge for the carbothermic production of fused silicon and aluminum. Trudy Vost.-Sib. fil. AN SSSR no.43:82-86 '62. (MIRA 16:3)
(Briquets) (Aluminum—Electrometallurgy)

OKLADNIKOV, V.P.; KLEPIKOVA, Ye.A.; GALAGANOVA, A.S.

Use of distillation and oxidation to bring about a change in the binding properties of heavy coal-tar products obtained by semi-coking of Cheremkhovo coals. Izv. Sib. otd. AN SSSR no.2:31-36 '62. (MIRA 16:10)

1. Vostochno-Sibirskiy filial Sibirskogo otdeleniya AN SSSR i Irkutskiy gosudarstvennyy universitet, Irkutsk.

ZKLADNIKOV V. YE.

P 1 PHASE I BOOK EXPLOITATION SOV/3727

Rasshireniye vozmozhnostey primeneniya plastmass v konstruktsiyakh mashin (Widening the Possibilities for Using Plastics in Machinery Components) Moscow, Mashgiz, 1959. 183 p. 8,000 copies printed.

Reviewers: N.V. Popov, Engineer, and P.Z. Petukhov, Doctor of Technical Sciences; Ed.: N.I. Susloy, Engineer; Tech. Eds.: N.A. Dugina and A.F. Uvarova; Exec. Ed. (Ural-Siberian Division, Mashgiz): T.M. Somova, Engineer.

PURPOSE: The book is intended for engineers and scientists engaged in the study and manufacture of plastics and plastic machine parts.

COVERAGE: The chapters of this book were written by different authors indicated in parentheses after each chapter in the table of contents. The chapter on the use of plastics in non-Soviet countries includes data on the Škoda Works in Czechoslovakia. A number of Soviet manufacturing establishments are mentioned. Equipment using plastic parts is described and evaluated. Considerable attention is paid to nonferrous and chemical enterprises, as well as to the problem of substituting plastics for critical materials in types of equip-

Card 1/6

ment subjected to wear or to corrosive, abrasive and chemical influences. Brand designations, properties and uses of a number of Soviet-made plastic materials are given. It is thus a survey of modern Soviet plastic materials grouped according to their specific application in industry. The authors rely heavily upon the experience of Ural plants, especially those specializing in electrical apparatus, automotive equipment, and measuring instruments. No personalities are mentioned. There are 37 references: 31 Soviet, and 5 German.

TABLE OF CONTENTS:

Widening the Possibilities (Cont.) SOV/3727

Card 5/6

AVAILABLE: Library of Congress

Card 6/6

AC/rem/jb
7-12-60

Reactions between the sulfur compounds of the Irkutsk Basin coals during pyrolysis. Z. A. Oblednikova and I. V. Kalechits. *Trudy Vostoch. Sibir. Filiala Akad. Nauk S.S.S.R., Ser. Khim.* 1955, No. 3, 127-40. The behavior of S distribution during the pyrolysis (carbonization) of coal was studied. It was shown that the reaction between S and the org. matter in coal to form H_2S is not observable. It was established that H_2S formed from pyrite has a catalytic effect on the formation of the org. S compds.

KALECHITS, I.V.; CHLADNIKOVA, Z.A.

Chemistry of the conversion of the high-molecular weight part of semicoke tar under conditions of destructive hydrogenation. Trudy Vost.-Sib.fil.AN SSSR no.18:49-63 '59. (MIRA 12:10)
(Coal-tar products)

OKLADNIKOVA, Z.A.: NAKHMANOVICH, A.S., SHERGINA, N.I.

Infrared spectroscopic investigation of the chemical mechanism governing the transformations of the high molecular fraction of semicoke tar under conditions of destructive hydrogenation. Trudy Vost.-Sib.fil.AN SSSR no.26:39-44 '59. (MIRA 13:6)
(Coal tar--Spectra) (Hydrogenation)

OKLADNIKOVA, Z. A., Cand Chem Sci — (diss) "On the Chemism of the Conversion of the High-Molecular Portion of Semi-Coal Tars under Destructive Hydrogenization," Irkutsk, 1960, 21 pp, 200 copies (East Siberian Affiliate, Siberian Department, AS USSR) (KL, 49/60, 125)

33609
S/678/61/000/038/009/009
A057/A126

11.0132

AUTHORS: Kalechits, I.V., Okladnikova, Z.A., Nikolayeva, D.Kh.

TITLE: On the problem of relative hydrogenation rates of polycyclic aromatic hydrocarbons

PERIODICAL: Akademiya nauk SSSR. Vostochno-Sibirskiy filial. Trudy. Seriya khimicheskaya, no. 38, Moscow, 1961. Prevrashcheniya aromaticheskikh uglevodorodov v protsesse destruktivnoy gidrogenizatsii., 112 - 124

TEXT: The relative hydrogenation rates of diphenyl, naphthalene, anthracene, phenathrene, pyrene, chrysene, and corenene were determined in the presence of a nickel catalyst, or an industrial-iron catalyst in order to obtain direct proof on the effect of the condensation degree on hydrogenation rates of aromatic hydrocarbons. Hydrogenation rates of hydrocarbons were investigated before. The present experiments with a nickel catalyst were carried out to compare results with those obtained by M.S. Nemtsov [Ref. 3: Usp. khim., 7, 1635 (1938)] and Lozovoy and Senyavin [Ref. 4: ZhOKh, 10, 1834 (1940); Ref. 5: ZhOKh, sb. I, 254 (1953)]. Hydrogenations on a nickel catalyst were carried out in a 1 l

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33602
S/678/61/000/038/009/009
A057/A126

On the problem of relative.....

autoclave with stirrer, varying temperature, mixing rate, and concentration of substance and catalyst at a constant initial hydrogen pressure of 150 atm. Samples were taken in 15 minute intervals and analysed on a СФ-4(SF-4) spectrophotometer. Experiments with an iron catalyst were carried out at 480°C, 140 atm initial and 300 atm working pressure, with 5% catalyst. Pure diphenyl, naphthalene, anthracene, and phenanthrene were hydrogenated. Three runs were made with 140, 200, and 260 minute contact time. The obtained results are presented in a table. The results obtained are completely in agreement with the kinetic constants. Generally, the same sequence in the hydrogenation rate can be seen as with a nickel catalyst. Corenene is not hydrogenated under these conditions because of thermodynamic limitations. Comparing the present results with literature data on the relative hydrogenation rates determined with different catalysts and under various conditions, it can be seen that the isolated double bond is hydrogenated faster than a bond in an aromatic hydrocarbon. Among the latter, bi- and tricyclic hydrocarbons are hydrogenated faster than monocyclic ones, anthracene faster than naphthalene. The authors explain these regularities by the non-equivalence of bonds in condensed aromatic hydrocarbons or the different multiplicity factor of bonds in these groups of hydrocarbons. There are 3 figures and 10 tables.

Card 2/2

L 58907-65 EWT(m)/EPF(c)/EWP(j)/T Pc-4/Pr-4 RM

ACCESSION NR: AP5017060 UR/0289/65/000/001/0088/0092
547.381:541.64

AUTHOR: Shostakovskiy, M. F.; Bolyayev, V. I.; Okladnikova, Z. A.; Vasil'yev; Serebrennikova, E. V.

TITLE: Polymerization of acrolein under the influence of organomagnesium com

SOURCE: AN SSSR. Sibirskoye otdeleniye. Izvestiya. Seriya khimicheskikh 1965, 88-92

TOPIC TAGS: acrolein, polymer, organomagnesium compound, polymer, Grignard reagent

ABSTRACT: The following polymerization catalysts were considered: ethylmag bromide, isopropylmagnesium bromide, butylmagnesium bromide, isobutylma bromide, and phenylmagnesium bromide. Isobutylmagnesium bromide pro est yield of acrolein polymer (...%), and hence was the only catalyst used in experiments, which involved the determination of the effect of catalyst concen temperature, and duration of the reaction on the polymerization. The acrolein obtained were found to contain 38-41% of unsaturated C=C bonds and 7-8 mole aldehyde groups, which indicates an active participation of these groups in the polymers. Infrared spectra showed the presence of bands at 900-1180, 1690

Card 1/2

L 58907-65

ACCESSION NR: AP5017060

1640-1680 cm^{-1}, corresponding to ether groups, aldehyde groups, and C=C bonds, respectively. In addition to solid polymers, 5-20% of low-molecular viscous polymers (about 200) were formed. X-ray diffraction analysis showed that the solid polymers consisted of a mixture of amorphous and crystalline structures. Orig. art. has: 1 figure and 3 tables.

ASSOCIATION: Irkutskiy institut organicheskoy khimii Sibirskogo otdeleniya AN SSSR (Irkutsk Institute of Organic Chemistry, Siberian Branch, AN SSSR)

SUBMITTED: 18Nov63 ENCL: 00 SUB CODE: OC

NO REF SOV: 006 OTHER: 010

Card 2/2

L 21424-66 EWT(m)/EWP(j)/T/ETC(m)-6 WW/RM

ACC NR: AP6010115 (A) SOURCE CODE: UR/0190/66/008/003/0499/0502

AUTHOR: Okladnikova, Z. A.; Komarov, N. V.; Semenova, Ye. P.; Serebrennikova, E. V.; Semenova, N. V.; Langvagen, G. G.

ORG: Irkutsk Institute of Organic Chemistry (Irkutskiy institut organicheskoy khimii)

TITLE: Copolymerization of vinyl 3-trimethylsilylpropionate with vinylic monomers

SOURCE: Vysokomolekulyarnyye soyedineniya, v. 8, no. 3, 1966, 499-502

TOPIC TAGS: copolymerization, copolymer, silicon polymer

ABSTRACT: The authors investigated the ability of vinyl 3-trimethylsilylpropionate to copolymerize with vinyl acetate, methyl acrylate, methyl methacrylate, acrylonitrile, and styrene in the presence of azoisobutyronitrile. It was found that vinyl 3-trimethylsilylpropionate can copolymerize with all the above monomers, with the exception of styrene. When the content of vinyl 3-trimethylsilylpropionate in the starting mixture is increased, the yields and molecular weights of the copolymers are decreased. It was shown that, unlike the homopolymers, the copolymers are more easily soluble in organic solvents and have lower melting points. The relative thermal stability of the copolymerization products with vinyl acetate and methyl methacrylate is higher than that of poly(vinyl acetate) and poly(methyl methacrylate). Orig. art. has: 1 table. [VS]

SUB CODE: 11/ SUBM DATE: 07Apr65/ ORIG REF: 002/ OTH REF: 002/ ATD PRESS: 4221

UDC: 66.095.26+678.13+678.745

Card 1/1

S/020/62/145/004/015/024
B110/B144

AUTHORS: Bort, D. N., Minsker, K. S., Okladnov, N. A., Shtarkman, B. P., and Kargin, V. A., Academician

TITLE: Direct formation of secondary polyethylene structures in polymerization processes

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 145, no. 4, 1962, 787 - 788

TEXT: Crystalline polymer structures ranging from primary supermolecular forms (packets) to higher secondary structures were studied directly in the course of the polymerization. Polyethylene synthesized in benzene (60°C, 10 atm) with a catalytic mixture of partially chlorinated metallic Al and $TiCl_3$ forms a layer ~ 4-5 mm thick on the Al surface. This layer consists of fibers perpendicular to the Al surface with cross stripes 1.5 μ wide. After dispersion of the fibers in water and separation of the larger particles, helical bands with distinct transverse folds (3.5 - 4.5 μ) of striated structure (150 - 250 Å packets) were observed by electron microscope. This proves the stepwise development of the supermolecular structure, corresponding to the structure of the crystalline polymer phase

Card 1/2

according to V. A. Kargin, G. L. Slonimskiy (Kratkiye ocherki po fiziko-khimii polimerov (The physical chemistry of polymers in brief outline), M. 1960). The distribution of molecular weight indicates that polyethylene consists of homologs having an average molecular weight of 100,000. The melting point (121 - 132°C), the heat of fusion (35.9 cal/g), and the degree of crystallization (67 %) were determined thermographically. The density was 0.955 g/cm^3. The assumption of V. A. Kargin, G. L. Slonimskiy (Usp. khim., 24, 785 (1955)) that internal stresses affect the shape of the crystals is confirmed. There are 3 figures.

SUBMITTED: April 6, 1962

L 24119-65
ACCESSION NR:

AUTHOR: Bort, B. [illegible]; B. P.; Kargin, V. A.

TITLE: Morphology of [illegible] chloride)

SOURCE: [illegible]

TOPIC TAGS: [illegible]
structure

ABSTRACT: [illegible]
forms) in the [illegible]
increasing degree
zation of po[illegible]
18—22C in am[illegible]
merization. [illegible]
determined by e[illegible]
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polymer), a white [illegible]
25—60Z), or a sm[illegible]

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L 24119-65
ACCESSION NR: AP

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system of pores [illegible]
tion of the monomer [illegible]
of a transparent [illegible]
molecular structures [illegible] concentration of mac
attains a critical value, at which time their association sets
Orig. art. has: 7 figures.

ASSOCIATION: none

SUBMITTED: 02Mar64 ENCL: 00 SUB CODE:

NO REF SOV: 003 OTHER: 000 ATD PRESS:

Card 2/2

L 35477-65 EWT(m)/EPF(c)/EWP(j) Pc-4/Pr-4 RM

ACCESSION NR: AP5005[illegible] S/0190/65/[illegible]

AUTHORS: Lebedev, V. P.; Berlyukova, L. Ye.; Rasinskaya, I. N.; Okladnov, N. A.; Shtarkman, B. P.

TITLE: The effect of low plasticizer concentrations on the ordering [illegible] chloride structure

SOURCE: Vysokomolekulyarnyye soyedineniya, v. 7, no. 2, 19[illegible], [illegible]

TOPIC TAGS: polyvinyl[illegible] resin, plasticizer, IR spectrometer, UR-20 spectrometer, URS-50 diffractometer

ABSTRACT: The authors studied the properties of polyvinylchloride in various proportions of plasticizer by two methods: infrared spectroscopy and x-ray analysis. The infrared spectrum was obtained on an automatic UR-20 IKS-14 spectrometer with short-wave filter. Samples were prepared in different ways. X-ray studies of powdered plasticized polyvinylchloride were made on a URS-50 diffractometer with a Geiger counter. CuKα radiation was employed with a quartz monochromator. Dioctylphthalate was used as a plasticizer. Results show that the degree of ordering passes through a maximum at a

Card 1/2

L 35477-65
ACCESSION NR: AP5005633

content of 10-15%. Structural studies of the polyvinylchloride in ... the physical properties show that at this percentage of plasticizer t... and the elasticity modulus reach maximums and the elongation at rupture ... a minimum. Increased rigidity of polyvinylchloride with the introduct... relatively small amounts of plasticizer is therefore considered to be ... increase in degree of ordering in the structure. Orig. art. has: ...

ASSOCIATION: Institut khlororganicheskikh produktov i akrilatov (Inst. ... Organic Chloride Products and Acrylates)

SUBMITTED: 26Apr64 ENCL: 00 SUB CODE: ...

NO REF SOV: 008 OTHER: 005

Card 2/2

LEBEDEV, V.P.; OKLADNOV, N.A.; MINSKER, K.S.; SHTARKMAN, B.P.

X-ray diffraction study of polyvinyl chloride. Vysokom. soed. 7 no.4:655-660 Ap '65. (MIRA 18:4)

1. Institut khlororganicheskikh produktov i akrilatov, Dzerzhinsk.

L 20442-66 EWT(m)/EWP(j) RM
ACC NR: AP6010105 (A) SOURCE CODE: UR/0190/66/000/003/0390/0394

AUTHOR: Vidyaykina, L. I.; Okladnov, N. A.; Shtarkman, B. P. 24 13

ORG: Scientific Research Institute of Chloroorganic Products and Acrylates (Nauchno-issledovatel'skiy institut khlororganicheskikh produktov i akrilatov) 15

TITLE: Formation of supramolecular structures in the process of milling of poly(vinyl chloride)

SOURCE: Vysokomolekulyarnyye soyedineniya, v. 8, no. 3, 1966, 390-394

TOPIC TAGS: polyvinyl chloride, morphological form, globule, fibril, milling, supramolecular structure

ABSTRACT: A study has been made of the formation of supramolecular structures (morphological forms) on milling of suspension-polymerized poly(vinyl chloride) (PVC). It was found that the initial PVC has a "macroglobular" structure. The macroglobules (~1 μ) consist of [aggregated] "microglobules" (≤0.1 μ). Milling first causes disaggregation of macroglobules into microglobules, and then, formation of fibrillar structures. The degree of development of the fibrillar structures depends on the milling method. Fibrils of the highest perfection were obtained in unidirectionally milled films. The fibrils formed are anisotropic as indicated by x-ray patterns. Orig. art. has: 15 figures. [BO]

SUB CODE: 07, 11/ SUBM DATE: 22Feb65/ ORIG REF: 002/ OTH REF: 001/ ATD PRESS: 4222

Card 1/1 BK UDC: 678.01:53

L 41186-66 EWT(m)/T/EWP(t) IJP(c) WW/RM

ACC NR: AP6023428 (A) SOURCE CODE: UR/0190/66/008/007/1190/1195

AUTHOR: Okladnov, N. A.; Razinskaya, I. N.; Shtarkman, B. P.

ORG: Institute of Chlorinated Organic Products and Acrylates (Institut khlororganicheskikh produktov i akrilatov)

TITLE: Study of the mechanism of plasticization of crystalline vinylidene chloride/vinyl chloride copolymer

SOURCE: Vysokomolekulyarnyye soyedineniya, v. 8, no. 7, 1966, 1190-1195

TOPIC TAGS: plasticizer, vinyl chloride, copolymer, vinylidene chloride, crystalline polymer

ABSTRACT: The mechanism of plasticization of "saran," a crystalline copolymer of vinylidene chloride and vinyl chloride of the composition 89:11, was studied by the method of powder thermomechanics and differential thermal analysis. The plasticizers used were dibutyl sebacate, dibutyl phthalate, and ethyl ethoxyethylphthalate. It is shown that up to a certain maximum concentration, the mole fraction rule is obeyed, i. e., the plasticization follows the molecular mechanism. Departures from this rule are explained by the contribution made by supermolecular formations (which interact with the plasticizer via an interstructural mechanism) to the plasticizing effect. It is shown that the plasticized copolymer retains a crystalline structure which does not change appreciably during plasticization. It is postulated that the plasticizer penetrates chiefly into the amorphous part of the copolymer, and that the absence of a lin-

Card 1/2 UDC: 678.01:53+678.13+678.743

OKLEK, Kazimierz

Effect of treament with antibacterial agents on the development of ventilation parameters in patients with fresh pulmonary tuberculosis. Gruzlica 33 no.2:85-94 F '65.

Respiratory insufficiency in patients with freshly diagnosed pulmonary tuberculosis. Ibid.:95-102

1. Z Kliniki Ftizjatrycznej Slaskiej Akademii Medycznej w Zabrzu (Kierownik: prof. dr. med. L. Deloff).

L 29934-65 EPF(c)/EWP(j)/EWT(m)/T Pc-4/Pr-4 RM
ACCESSION NR: AP5004603 S/0020/65/160/002/0413/0415

AUTHOR: Bort, D.N.; Okladnov, N.A.; Shtarkman, B.P.; Vidyakina, L.I.

TITLE: Electron-microscopic study of structures arising during the polymerization processing of polyvinyl chloride produced by block and suspension polymerization

SOURCE: AN SSSR. Doklady, v. 160, no. 2, 1965, 413-415

TOPIC TAGS: polyvinylchloride, block polymerization, suspension polymerization, electron microscopy, polymer structure

ABSTRACT: Structures of polyvinyl chloride formed in the course of block and suspension polymerization as well as structures arising during its further processing were investigated by means of the electron microscope. Block polymerization was carried out in ampoules provided with a special device permitting the withdrawal of polymer samples at any stage of the process without interrupting it. Initiation was with the usual peroxide type initiators. It was shown that in the course of free-radical block and suspension polymerization, supermolecular structures of a globular type are formed. The processing of polyvinyl chloride leads to a thorough transformation of the structure: the globular structures are converted into fibrillar ones. Therefore the authors conclude that the main purpose of the processing of polyvinyl chloride and similar polymers should

Card 1/2

L 29934-65
ACCESSION NR: AP5004603

complete and uniform rearrangement of the original globular structure into a fibr[illegible] system, which imparts high physicomechanical properties to the material. Orig. [illegible] has: 3 figures.

ASSOCIATION: none

SUBMITTED: 08Sep64 ENCL: 00 SUB CODE: GC, EC

NO REF SOV: 001 OTHER: 000

Card 2/2

SOV-127-58-10-14/29

AUTHORS: Krivovyaz, O.M. and Okladnov, V.P., Mining Engineers

TITLE: The Reconstruction of the Hoisting System at the Nittis-Kumuzh'ye Mine (Rekonstruktsiya pod"yëmna na rudnike Nittis-Kumuzh'ye)

PERIODICAL: Gornyy zhurnal, 1958, Nr 10, pp 46-49 (USSR)

ABSTRACT: With the increased ore production at the Nittis-Kumuzh'ye Mine of the Severonikel' Combine, the one-cage hoisting system had to be replaced by the more efficient skip hoisting system. The authors describe this operation which required 2 years for completion. There are 6 diagrams and 1 table.

ASSOCIATION: Kombinat Severonikel' (The Severonikel' Combine)

1. Mining industry--USSR 2. Hoists--Applications

Card 1/1

OKLADNOY, G.M.; DONSKOY, Ya.Ye., red.; SHEVCHENKO, M.O., tekhn.red.

[Rise in the cultural and technical level of the laboring class] Pod"em kul'turno-tekhnicheskogo urovnia rabochego klassa. [Khar'kov] Khar'kovskoe obl. izd-vo, 1957. 229 p. (MIRA 11:4)
(Labor and laboring classes)

OKLADNOY, G.M.

[Improvement in cultural and technical standards of collective-farm peasantry] Rost kul'turno-tekhnicheskogo urovnia kolkhoznogo krest'ianstva. Khar'kov, Khar'kovskoe obl.izd-vo, 1958. 358 p. (MIRA 14:2)

(Collective farms)

OKLEK, Kazimierz

Basal metabolism in chemotherapy of pulmonary tuberculosis. Gruzlica 27 no.3:229-234 Mar 59.

1. Z Kliniki Ftyzjatrycznej Slaskiej A.M. Kierownik: prof. dr med. L. Deloff. Adres. Klinika Ftyzjatryczna Sl. A.M. w Zabrzu.
(TUBERCULOSIS, PULMONARY, ther.
chemother., eff. on basal metab. (Pol))
(BASAL METABOLISM, in var. dis.
pulm. tuberc., eff. of chemother. (Pol))

OKLEK, Kazimierz

A case of Hamman-Rich syndrome diagnosed intra vitam. Gruzlica 28 no.1:63-5 Ja '60.

1. Z Kliniki Ftyzjatrycznej Slaskiej A.M. w Zabrzu. Kierownik: prof.dr med. L. Deloff.
(PULMONARY FIBROSIS diag.)

OKLEK, Kazimierz

A case of generalized scleroderma with lesions in the lungs and in other internal organs. Gruzlica 28 no.2:145-150 F '60.

1. Z Kliniki Ftyzjatrycznej Slaskiej Akademii Medycznej w Zabrzu. Kierownik: prof.dr L. Deloff.
(SCLERODERMA case reports)
(LUNG pathol.)

PUDELSKI, Josef; OKLEK, Kazimierz

Lowered pulmonary function consecutive to resection of the lung tissue, Gruzlica 28 no.11:873-885 N '60.

1. Z Kliniki Ftyzjatrycznej Sl.A.M. w Zabrzu, Kierownik Kliniki: prof. dr med. L.Deloff.
(PNEUMONECTOMY)

DELOFF, Leonard; GRZESKOWSKI, Jan; MICHALIK, Marian; OKLEK, Kazimierz

Treatment of pulmonary tuberculosis with large doses of INH.
Gruzlica 31 no.3:201-206 '63.

1. Z Kliniki Ftizjatrycznej Slaskiej AM w Zabrzu Kierownik:
prof. dr med. L. Deloff.
(ISONIAZID) (TUBERCULOSIS, PULMONARY)

SOSNIERZ, Marian; OKLEK, Kazimierz; GORKA, Zygmunt

Contribution to the problem of the pathogenesis of fibro-hyaloid changes in pulmonary tuberculosis. Gruzlica 31 no.9: 989-993 '63.

1. Z Sl. AM w Zabrzu Zaklad Anatomii Patologicznej Kierownik: prof. dr W. Niepolomski Klinika Ftizjatryczna Kierownik: prof. dr L. Deloff Klinika Chirurgiczna Kierownik: prof. dr S. Szyszko.

(TUBERCULOSIS, PULMONARY) (PATHOLOGY)

L 00099-66 BXP/EPA/EWP(w)/EWP(f)/EPF(n)-2/EWP(v)/T-2/EWP(k)/EWT(h)/EWP(l)/
ACCESSION NR: AP4042071 ETC(m) WW/EM CZ/0032/64/014/006/0446/0453

AUTHOR: Oklestek, E.

TITLE: Measurement of temperatures on the rotors of gas turbines

SOURCE: Strojirenstvi, v. 14, no. 6, 1964, 446-453

TOPIC TAGS: turbine rotor, gas turbine, temperature instrument, temperature measurement

ABSTRACT: This paper describes a device for the direct measurement of rotor temperatures of a 6 Mw gas turbine during its operation. The apparatus can make measurements lasting many days without readjustment or servicing. The principle of measurement is described as well as a special system for conveying low-level measurement signals from the rotating parts to the stationary units of the apparatus (this is effected by radiating electromagnetic waves, mercury-filled ring contact, and the brush-and-ring method). The brush-and-ring method was used because the turbine developed 6000 rpm. The design of wafer-type compensated thermocouples, the method of arranging the thermocouples on the rotor, and the system used are described. The entire system for the measurement of rotor temperatures at 52 places is described and its circuit diagram is shown (Fig. 1 of the Enclosure). A rotary switch for switching the outputs from the 52 thermocou-

Card 1/3

L 00099-66

ACCESSION NR: AP4042071

one recorder is described. The measurement errors of the system are discussed (the mean error is ± 1.527C). Orig. art. has: 13 figures.

ASSOCIATION: VUEZ-IBZKG, Brno

SUBMITTED: 00 ENCL: 01 SUB CODE: IE, PR

NO REF SOV: 000 OTHER: 002

Card 2/3

L 00099-66

ACCESSION NR: AP4042071

ENCLOSURE: 01

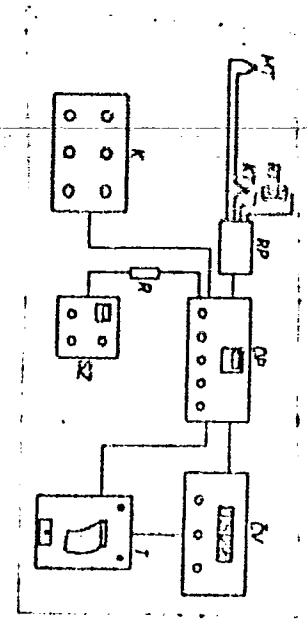


Fig. 1. Block diagram of the system for measuring temperatures at 52 places in a rotor of a 6 MW gas turbine.
MT - measurement thermocouple; KT - compensating thermocouple; RT - resistance thermometer; RP - rotary switch; OP - control unit; CV - digital voltmeter; K - compensator; R - decoupling resistor; S2 - stabilized supply; T - recorder.

Card 3/3

L 9506-66 EWP(w) EM

ACC NR: AP6002827 SOURCE CODE: CZ/0032/65/015/001/0043/0048

AUTHOR: Oklestek, E. (Engineer)

ORG: IBZKG-VUEZ, Brno

TITLE: Measuring static loads on rotating machine parts

SOURCE: Strojirenstvi, v. 15, no. 1, 1965, 43-48

TOPIC TAGS: mechanical engineering, electric engineering, electric rotating equipment part

ABSTRACT: Some general problems that must be solved in systems for measuring static loads on rotating machine parts are outlined, and a rotary switch is described for telemetering up to 24 sets of data. A measuring device for registering simultaneously static loads at five different points on the investigated rotating part is discussed. The application is demonstrated on a coal-milling installation's rotor, and on the rotor of a low-pressure steam turbine. This work was presented by Engr. J. Drahy. Orig. art. has: 12 figures. [JPRS]

SUB CODE: 09, 13 / SUBM DATE: none / ORIG REF: 007

Card 1/1

ALPAR, Gyula, OKLEVELES, Banyamernok; HALMOS, Ferenc, okleveles foldmeromernok.

Dot projection on inclined shafts. Bany lap 96 no.12: 917-921 D'63.

1. Magyar Tudomanyos Akademia Geodeziai Kutato Laboratorium, Sopron.

S/137/61/000/011/050/123
A060/A101

AUTHORS: Okley, L. N., Lomsadze, D. M., Luzin, Yu. F.

TITLE: Pierceability of steel mark 20 as a function of temperature

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 11, 1961, 33, abstract 11D197 ("Shromebi, Tr. Gruz. politekhn. in-t", 1959, no. 3(64) 87-91)

TEXT: The effect of temperature upon the pierceability of steel mark 20 was verified both under laboratory and plant conditions. On the basis of the experiments, a curve was constructed expressing the dependence of the critical reduction upon the temperature. The tendency of steel mark 20 to fracture under oblique rolling is reduced as the temperature increases.

K. Ursova

[Abstracter's note: Complete translation]

Card 1/1

OKLEY, L.N.; LOMSADZE, D.M.

Studying strains and deformation in the side upsetting of a cylinder. Soob. AN Gruz. SSR 22 no.3:337-341 Mr '59.
(MIRA 12:8)

1.AN GruzSSR, Institut metallurgii, Tbilisi. Predstavleno chlenom-korrespondentom AN F.N. Tavadze.
(Strains and stresses) (Forging)

OKLEY, L.N.; LOMSADZE, D.M.

Deformations and strains in transverse forging. Izv.vys.ucheb. zav.; chern.met. no.3:44-50 '60. (MIRA 13:4)

1. Gruzinskiy politekhnicheskiy institut.
(Forging) (Deformations(Mechanics))

TAVADZE, F.N.; OKIEY, L.E.; ZHAMIYEVASHVILI, G.V.

Investigating temperature distribution in the mandrel during first piercing. Stal' 23 no. 3:252-253 Mr '64. (MIRA 17:5)

1. Gruzinskiy institut metallurgii i Rustavskiy metallurgicheskiy zavod.

OKLEY, L.M.; LOMSADZE, Dzh. M.

Process of diagonal rolling without mandrels. Trudy GPI [Gruz.] no.4(93)-99 '62 (MIRA 17:8)

GRLEY,L.N.; TUTBERIDZE, A.I.; LOMSADZE, Deb.M.

Deformation process during the rolling of pipe on an auto-
matic mill. Trudy GPI [Grur] no.4:101-107 '62
(MIRA 17:3)

OKLEY, L.N.; CHKHARTISHVILI, I.V.; TSULAIAYA, I.S.; BERISHVILI, T.K.

Effect of the heating conditions of billets on the appearance of laps in pipes. Metallurg 10 no.8:29-30 Ag '64.

(MIRA 17:11)

1. Gruzinskiy institut metallurgii i Rustavskiy metallurgicheskiy zavod.

OKLEY, L.N.; SHARADZENIDZE, S.A.; CHKHEIDZE, Z.A.; TUTBERIDZE, A.I.; CHKHARTISHVILI, I.V.

Basic factors affecting the formation of internal and external laps in pipe. Stal' 24 no.10:910-911 O '64. (MIRA 17:12)

1. Gruzinskiy institut metallurgii i Rustavskiy metallurgicheskiy zavod.

[illegible]ELITZ, H.W.; [illegible], H.[illegible]

Congenital [illegible] ... [illegible] pol. [illegible]
no.3[illegible] 6 Ag '64

1. Z Osrodka Badan Chorob Zakaznych Wieku Dzieciecego [illegible] kiej Akademii Nauk w Berlinie (Kierownik: prof. dr. [illegible]); z Kliniki Pediatrycznej (Kierownik: prof. dr. H.W. [illegible]) oraz z II Kliniki Pediatrycznej (Kierownik: prof. dr. H.[illegible]) Miejskiego Zespolu Klinik w Berlinie-Buch.

OKLJESA, B.

"Streptococcus agalactial infection in dairy cows." "Streptococcus agalactial infection in goats."

Vet. Archiv. 21 : 389-398, 1951
Vet. Glasn. 5, 681-711, 1951

OKLJESA, B.

"Some data about the success of the Treatment of Sterility in dairy cattle." Prosthljske Clinic, Vet. Fac., U. of Zagreb.

Vet. Archiev. 22 : 381-412, 1952

OKLJESA, Prof. Dr. B.

"Chief of Dept for Physiology & Pathology of Reproduction." Chief of the Gynecological clinic of Vet. Faculty, U. of Zagreb. Chief of Dept. of Physiology & Pathology of Reproduction of domestic animals, Inst. for Vet. - Medican investigations.

Vet: SVEZAK 4, 1953
Vet: BROJ 1, 2, 3, 4, 1951-52; NEZADL, 1953

OKLOBZIJA, B.

"AXP 50 automatic telephone exchange with a coordinated cross-bar system." p. 6, (TELEKOMUNIKACIJE, Vol. 2, No. 4, Oct. 1953, Beograd, Yugoslavia)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 3, No. 12, Dec. 1954, Unel.

OKLOBZIJA, G.

"The role of the corrector on the fuel injection pump in the V2 motor of the T-34 tank."

p. 934 (Vojno-Tehnicki Glasnik) Vol. 5, no. 12, Dec. 1957
Belgrade, Yugoslavia

SO: Monthly Index of East European Accessions (EEAI) LC. Vol. 7, no. 4, April 1958

OKŁOWICZ

83-252

K—, Z., Konferencja klimatologiczna we Wrocławiu, w dniach 26 i 27 marca 1954 r. [Climatological conference [illegible] March 26-27, 1954 at Wrocław [illegible] reports are: The state of Polish climatology and the [illegible] Okłowicz and [illegible] summing up the [illegible] achievements of [illegible] extent of [illegible] ferences. [illegible]

OKLYANSKIY, Yuriy Mikhaylovich; CHULKOVA, K.P., red.; YASHEN'KINA, Ye.A., tekhn.red.

[Confidence; a sketch] Doverie; ocherk. Kuibyshev, Kuibyshevskoe knizhnoe izd-vo, 1959. 51 p. (MIRA 13:2)
(Efficiency, Industrial)

CUDARS, Jazeps; OZIANIS, Aleksandrs; EVERSS, I., red.

[Thermonuclear reactions in the cosmos and experiments] Kodoltermiskas reakcijas kosmosa un eksperimentos. Riga, Latvijas Valsts izd-ba, 1964. 122 p. [In Latvian]
(MIRA 17:6)

KARDYSH, V.G.; NIKITIN, Ye.V.; OKMYANSKIY, A.S.

Methods for drilling shallow holes in friable rocks. Razved. i okh. nedr 29 no.11:30-35 N '63.

(MIRA 17:12)

KARDYSH, V.G.; NIKITIN, Ye.V.; OKNYANSKIY, A.S.

Present status and future development of drilling procedures for shallow wells in incoherent rocks. Biul.tekh.-ekon.inform.Gos. nauch.-issl.inst.nauch.i tekh.inform 17 no.11:14-19 N '64. (MIRA 18:3)

OKMYANSKIY, A.S.; KARDYSH, V.G.

Certain technological features of the hydraulic feed systems of present-day domestic and foreign drilling rigs. Razved. i okh. nedr. 30 no.6:25-28 Je '64. (MIRA 17:10)

VOLYNCHIKOV, N., inzh. (g.Lebedyan'); ZAMKOVSKIY, I.; OKNER, Kh.; NIKOLENKO, M., inzh.; VLASENKO, B. (g.Krasnodar)

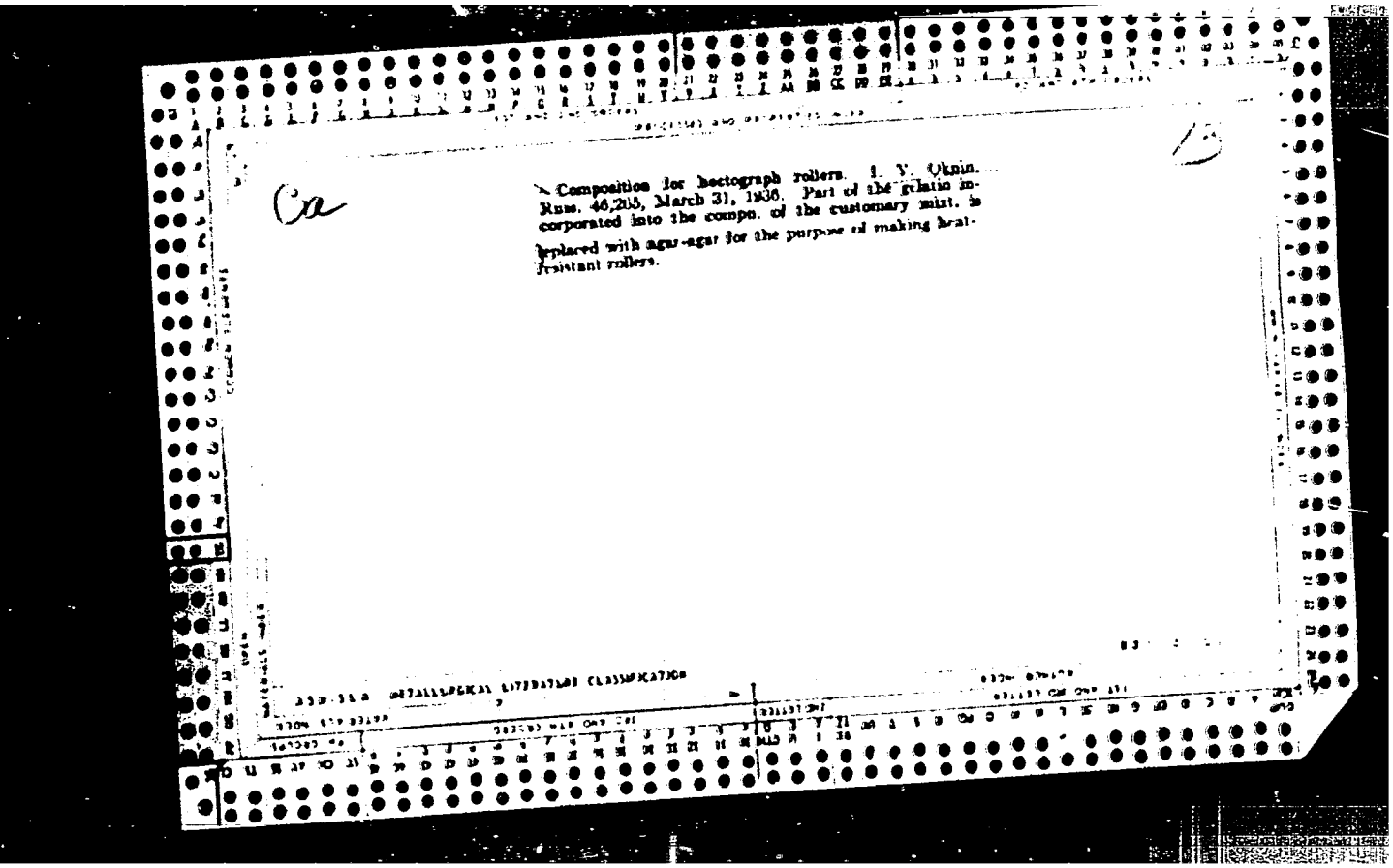
The reader continues the discussion. Sov. profsoiuzy 18 no.8: 16-18 '62. (MIRA 15:4)

1. Predsedatel' mestkoma sluzhby vodosnabzheniya st. Simferopol' (for Zamkovskiy). 2. Predsedatel' postroykoma stroyupravleniya No.3 tresta "Promstroy", g. Dushanbe (for Okner). 3. Chlen mestnogo komiteta proyektnogo instituta "Mosbassgiproshakht", g. Tula (for Nikolenko).

(Socialist competition)

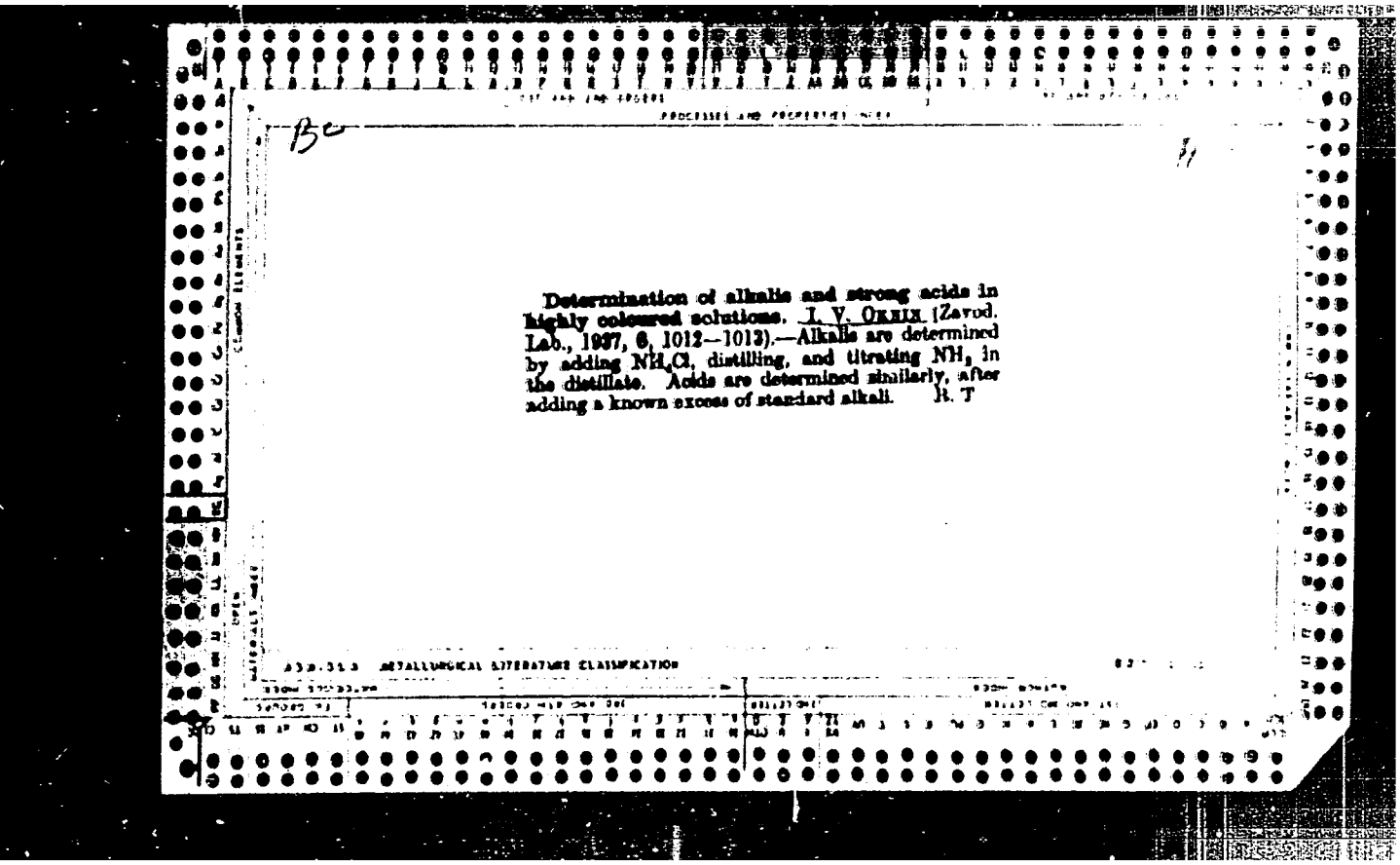
Pycnometric method of analysis. I. V. [illegible]. *Zavodskaya Lab.* 4, 130-1(1935). Allow the ppt. to settle, decant the bulk of the soln. and set it aside, transfer the ppt. with the aid of the decanted soln. into the weighed pycnometer, fill up the latter with the same soln. and weigh it at a definite temp. Wash and fill up the emptied pycnometer with the same soln., weigh it at the same temp., calc. the d. of the soln. and then the wt. of the ppt. *a* according to the formula: $a = D(A - B)/(D - d)$, where D = d. of the ppt., A = wt. of the pycnometer with the ppt. and the soln. and B = wt. of the pycnometer with the soln. only. The method with the detn. of K Cr[illegible] with BaCl, produced results accurate within 0.1–0.2%.

Chas. Blanc

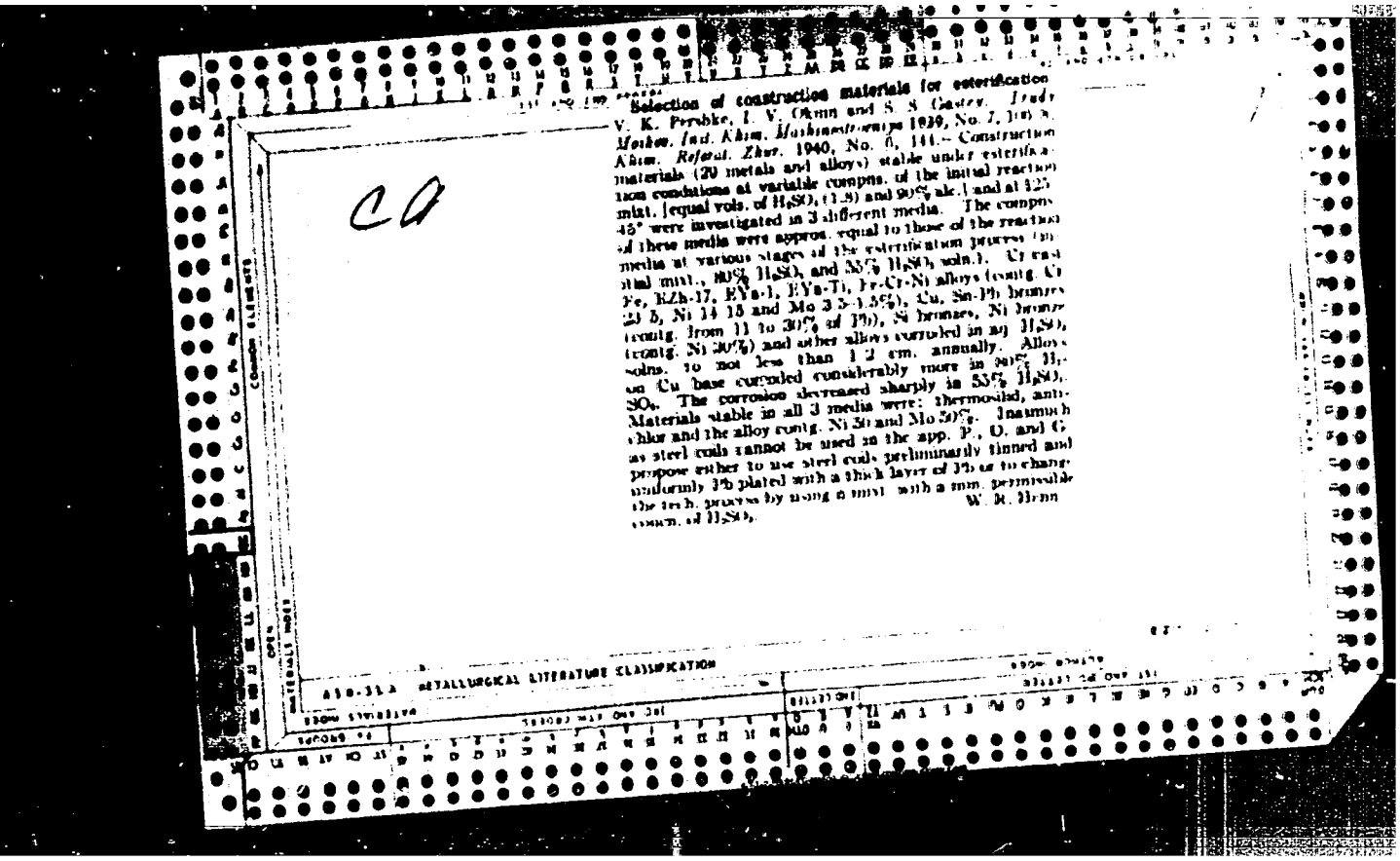


Ca

Composition for hectograph rollers. I. Y. Okuin. Russ. 46,205, March 31, 1936. Part of the gelatin incorporated into the compn. of the customary mixt. is replaced with agar-agar for the purpose of making heat-resistant rollers.



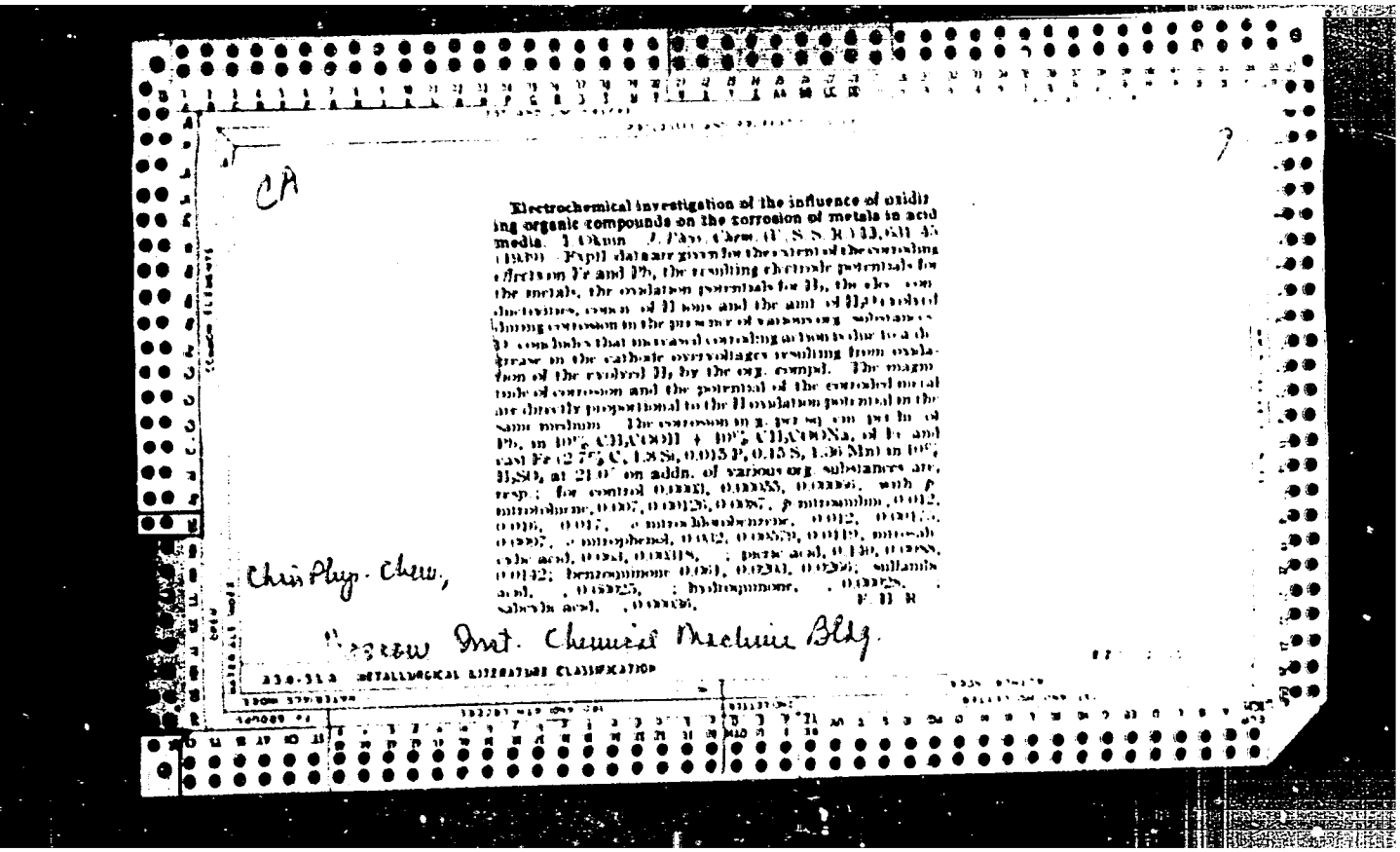
Determination of alkalis and strong acids in highly coloured solutions. I. V. Ozhig. (Zavod. Lab., 1937, 6, 1012—1013).—Alkalis are determined by adding NH_4Cl, distilling, and titrating NH_3 in the distillate. Acids are determined similarly, after adding a known excess of standard alkali. R. T



CA

Selection of construction materials for esterification
V. K. Perebke, I. V. Okun and S. S. Gaster. *Trudy Moskov. Inst. Khim. Mashinostroenia* 1939, No. 7, 3(6) S. *Khim. Referat. Zhur.* 1940, No. 6, 141.—Construction materials (20 metals and alloys) stable under esterification conditions at variable compns. of the initial reaction mixt. [equal vols. of H_2SO_4 (1.8) and 95% alc.] and at 125-45° were investigated in 3 different media. The compns. of these media were approx. equal to those of the reaction media at various stages of the esterification process (in- itial mix., 80% H_2SO_4 and 35% H_2SO_4 solns.). Cr-steel (Fe, EZh-17, EYa-1, EYa-T), Fe-Cr-Ni alloys (contg. Cr 25 5, Ni 14 18 and Mo 3.5-4.5%), Cu, Sn-Pb bronzes (contg. from 11 to 30% of Pb), Si bronzes, Ni bronze (contg. Ni 30%) and other alloys corroded in aq. H_2SO_4 solns. to not less than 1.2 cm. annually. Alloys on Cu base corroded considerably more in 80% H_2SO_4 than in 55% H_2SO_4. The corrosion decreased sharply in 55% H_2SO_4. Materials stable in all 3 media were: thermosilad, antichlor and the alloy contg. Ni 30 and Mo 20%. Inasmuch as steel coils cannot be used in the app. P., O. and G. proposes either to use steel coils preliminarily tinned and uniformly Pb plated with a thick layer of Pb or to change the tech. process by using a mixt. with a min. permissible concn. of H_2SO_4.

W. M. Hrun



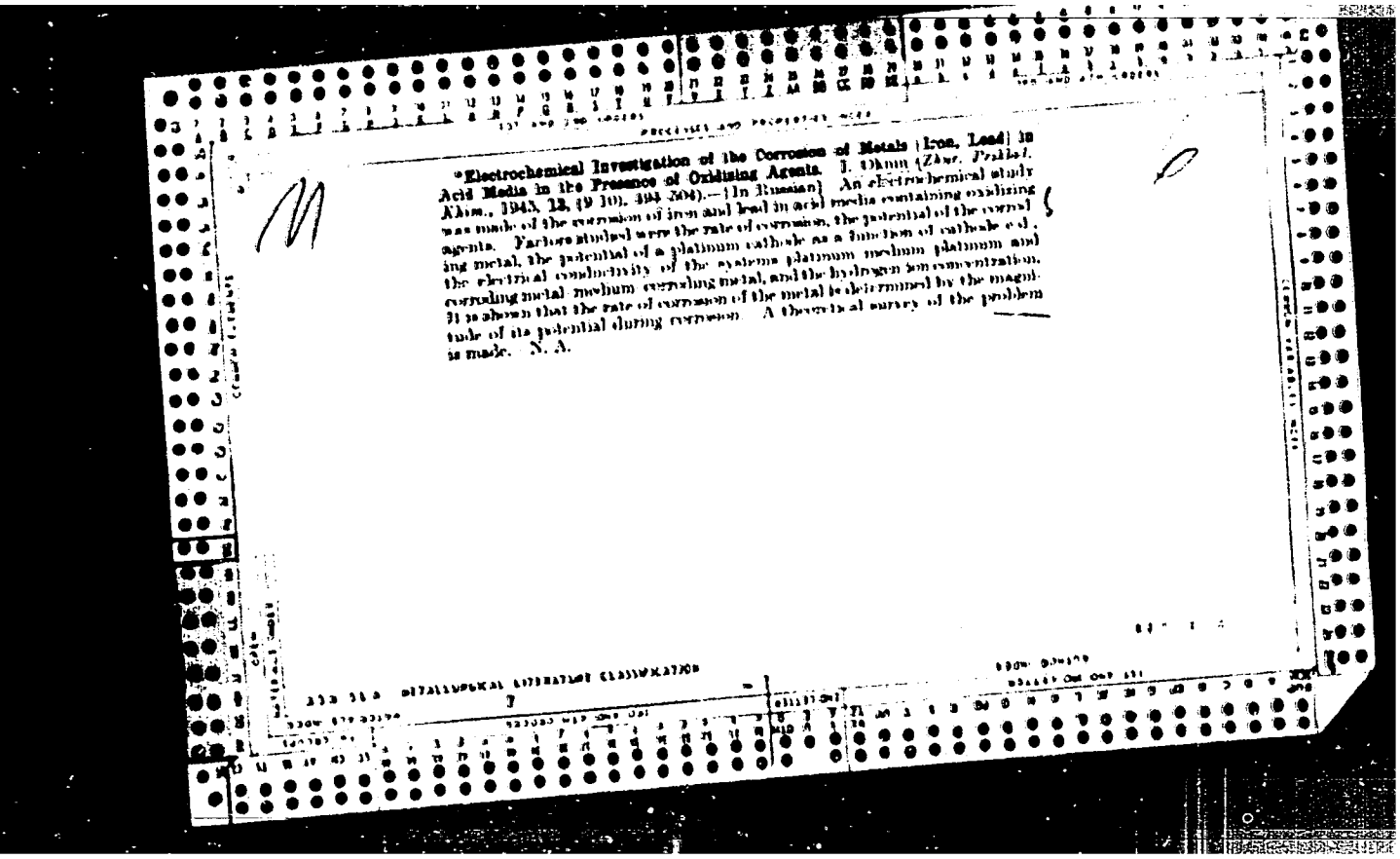
CA

Electrochemical investigation of the influence of oxidizing organic compounds on the corrosion of metals in acid media. I. Okun. J. Phys. Chem. (U.S.S.R.) 13, 631-45 (1939). Expl. data are given for the extent of the corroding effect on Fe and Pb, the resulting electrode potentials for the metals, the oxidation potentials for H, the elec. conductivities, concn. of H ions and the amt. of H evolved during corrosion in the presence of various org. substances. It concludes that increased corroding action is due to decrease in the cathodic overvoltages resulting from oxidation of the evolved H by the org. compd. The magnitude of corrosion and the potential of the corroded metal are directly proportional to the H oxidation potential in the same medium. The corrosion in g. per sq. cm. per hr. of Pb, in 10% CH_3COOH + 10% CH_3COONa, of Fe and steel Fe (2.7% C, 1.8% Si, 0.015% P, 0.15% S, 1.36% Mn) in 10% H_2SO_4 at 21° on addn. of various org. substances are, resp.: for control 0.0331, 0.0335, 0.0336; with *p* nitrotoluene, 0.0307, 0.0313, 0.0287; *p* nitroaniline, 0.012, 0.016, 0.017; *o* nitrobenzylamine, 0.012, 0.0311, 0.0307; *o* nitrophenol, 0.012, 0.0353, 0.0319; nitrosalicylic acid, 0.031, 0.0318, ; picric acid, 0.130, 0.0255, 0.0132; benzoquinone 0.031, 0.0231, 0.0256; sulfanilic acid, , 0.0325, ; hydroquinone, , 0.0325, salicylic acid, , 0.0336. F. H. R.

Chin Phys. Chem.,

Moscow Inst. Chemical Machine Bldg.

338-31.2 METALLURGICAL LITERATURE CLASSIFICATION



"Electrochemical Investigation of the Corrosion of Metals [Iron, Lead] in Acid Media in the Presence of Oxidizing Agents. I. Ohmin (Zhur. Prikl. Khim., 1943, 13, [9-10], 494-504).—[In Russian] An electrochemical study was made of the corrosion of iron and lead in acid media containing oxidizing agents. Factors studied were the rate of corrosion, the potential of the corroding metal, the potential of a platinum cathode as a function of cathode e.d., the electrical conductivity of the systems platinum medium platinum and corroding metal medium corroding metal, and the hydrogen ion concentration. It is shown that the rate of corrosion of the metal is determined by the magnitude of its potential during corrosion. A theoretical survey of the problem is made. N. A.

Metallurgy Metallography

Passivation of iron in the system HNO_3, H_2SO_4, H_2O. I. Okhin (Moscow Inst. Chem. Machinery). *Zhur. Priklad. Khim.* (J. Applied Chem.) 24, 61-7 (1951). Rates of corrosion (by loss of wt.), potentials, and limiting c.d. were detd. at 23.5° with varying proportions of the acids and H_2O. Passivating mixts. are (compns. in mole % HNO_3, H_2SO_4, H_2O): (I) 29.5, 0, 70.5; (II) 26.1, 9.1, 64.8; (III) 22.0, 20.5, 57.5; (IV) 16.8, 35.2, 48.0; (V) 9.8, 54.6, 35.6; (IX) 15.8, 11.7, 69.5; (X) 11.5, 21.2, 64.3; of these, II both passivates and causes active corrosion, and in X the passivity is not stable. Active corrosion is found in the mixts. (XIII) 10.0, 0, 90.0; (XIV) 13.5, 4.7, 81.8; (XIX) 10.1, 0, 90.0; (XX) 8.1, 2.9, 88.6; (XXI) 6.3, 6.1, 87.6; (XXII) 4.5, 9.6, 85.8; (XXIII) 2.4, 13.1, 84.5; (XXIV) 0, 17.0, 83.0; (XXV) 4.8, 0, 95.0; (XXVI) 3.9, 1.6, 94.5; (XXVII) 3.0, 2.8, 94.2; (XXVIII) 2.1, 4.5, 93.7; (XXIX) 1.0, 5.8, 93.2; (XXX) 0, 7.3, 92.7. An intermediate, i.e. weaker form of corrosion was found with the mixts. (VII) 22.5, 0, 77.5; (VIII) 19.4, 6.7, 73.9; (XI) 6.4, 35.8, 57.8; (XV) 10.8, 10.0, 79.2; (XVI) 7.6, 16.0, 76.4; (XVII) 4.1, 22.8, 73.1. In these mixts., the potentials of Fe were higher and the rates of corrosion lower than in XIII, XIV, XVII, XXI, XXII and XXIII. In passivating mixts., the rate of corrosion is smaller, and in activating mixts. greater than the limiting cathodic c.d. (measured on a Pt cathode). The limiting anodic c.d. of Fe in passivating mixts. is very much smaller, and in activating mixts. very much greater than the cathodic c.d. The behavior of the Fe electrode in the different mixts. is related to the structure of the corresponding solns., specifically their ionization, assocn., and homopolarity of the HNO_3 mols. Passivation of Fe takes place when the max. rate of the high-potential cathode process (i.e. the limiting cathodic c.d.) is higher than the max. rate of the low-potential active anode process (i.e. the limiting anodic c.d.). At high HNO_3 contents, passivation may consist in anodic adsorption of H_2O mols., assocd. complexes of hydrated H^+ and NO_3^- ions, or homopolar NO_2OH mols., resulting in fixation of O by the Fe in the form of a surface compd. At high H_2SO_4 contents, the passivation may be due to anodic adsorption of HSO_4^- or H_2SO_4 ions.

N. Thon

OKNIN, I.

USSR/Chemistry - Cathodic Polarization Feb 51

"Investigation of the Cathodic Process in Nitric Acid Solutions and in the System HNO_3-H_2SO_4-H_2O," I. Oknin, Moscow Inst Chem Mach Bldg

"Zhur Prik Khim" Vol XXIV, No 2, pp 167-178

Exmd data on Pt cathodic process in HNO_3 soln and HNO_3-H_2SO_4-H_2O system. Limit cathode cd was measurable only when homopolar NO_2OH mol appeared in reaction medium and was proportional to concn of NO_2OH mol. These mol and H^+ ions took part

177T15

USSR/Chemistry - Cathodic Polarization Feb 51 (Contd)

In depolarization. Limit cathode cd probably is result of relation between depolarization rates of homopolar NO_2OH mols and H^+ ions. Catalytic action of HNO on high potential cathode process can be result of formation on cathode surfaces of homopolar NO_2OH mol due to action of HNO_3 mol on NO_3^- ions either free or assocd with hydrated H^+ ions.

177T15

C.A

7

Cathodic process in solutions of nitric acid and in the nitric acid-sulfuric acid water system. I. Ovsin (Moscow Inst. Chem. Equipment) *J. Applied Chem. U.S.S.R.* 24, 181-91 (1951) (Engl. translation). — The cathodic polarization was measured at 25.5° both at rest and with stirring. A Pt wire sealed into a glass tube served as the cathode. The cathode potential was measured by the compensation method against a sat. calomel electrode. Measurements were made while an elec. current passed through the electrode, the ϕ d. being successively raised and then lowered. The limiting cathode c.d. becomes a measurable quantity only after homopolar mols. of nitric acid (NO_2OH) appear in the reaction media; it is a linear function of the concn. of NO_2OH mols. and an inverse linear function of the H-ion concn. and of the conductance of the medium. The limiting cathode c.ds. measured in mixts. at rest are higher than those measured in agitated mixts.; likewise, those measured with rising current values are larger than those measured while the current is being reduced. These differences diminish when the ratio of the concn. of NO_2OH mols. to the H-ion concn. or to the conductance grows larger. The NO_2OH is an oxidative cathodic depolarizer in solns. of HNO_3 and in the HNO_3-H_2SO_4-H_2O system. The H-ions participate alongside the NO_2OH mols. in the primary process of cathodic depolarization at high as well as at low potentials. It is probable that the limiting cathode c.d. in these systems is governed by the ratio between the rates of cathodic depolarization by the NO_2OH mols. and the H ions.

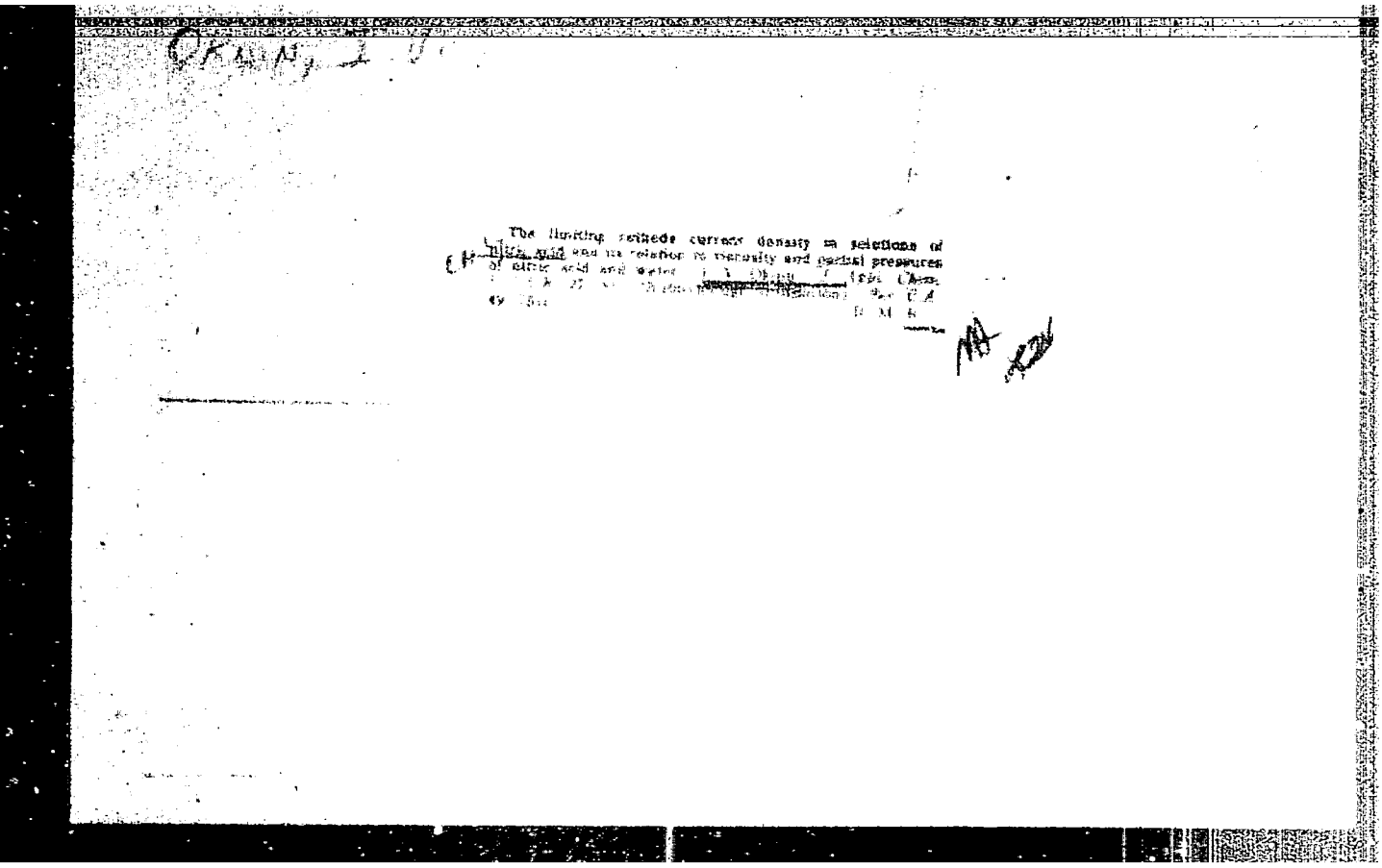
James C. Bubnash

UKSHE, I. V.

Corrosion and Anticorrosives

Electrochemical investigation of the corrosion of iron in the system $FeCl_3$-H_2SO_4-H_2O. Zhur. fiz.khim. 26, No. 7, 1952.

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

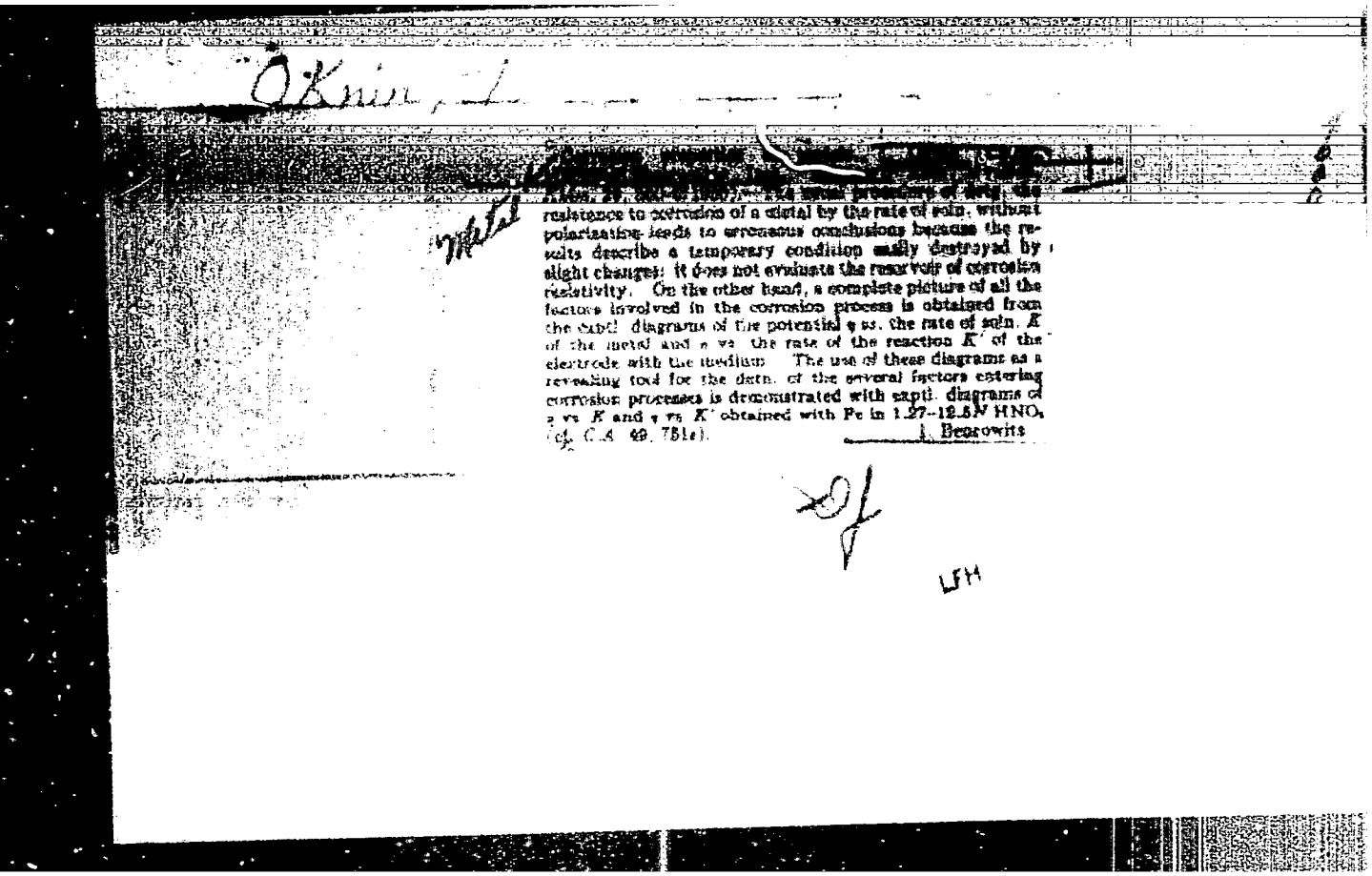


The limiting cathodic current density in solutions of nitric acid and its relation to viscosity and partial pressures of nitric acid and water [illegible] M [illegible]
Equipment [illegible]
C.A. 44 [illegible]
at which the [illegible]
a constant [illegible]

begin to deviate from the curve; [illegible] and 10.2*M* at 90°. The values of *i* obtained with a rising current are higher than those obtained with a falling current, and the difference decreases with the concn. and the temp. [illegible]

conclusion is that it can be assumed [illegible] of HNO_3 entering the catalytic cathodic sphere becoming dehydrated or forming homopolar mols. Cf. C.A. 40, 6523g.

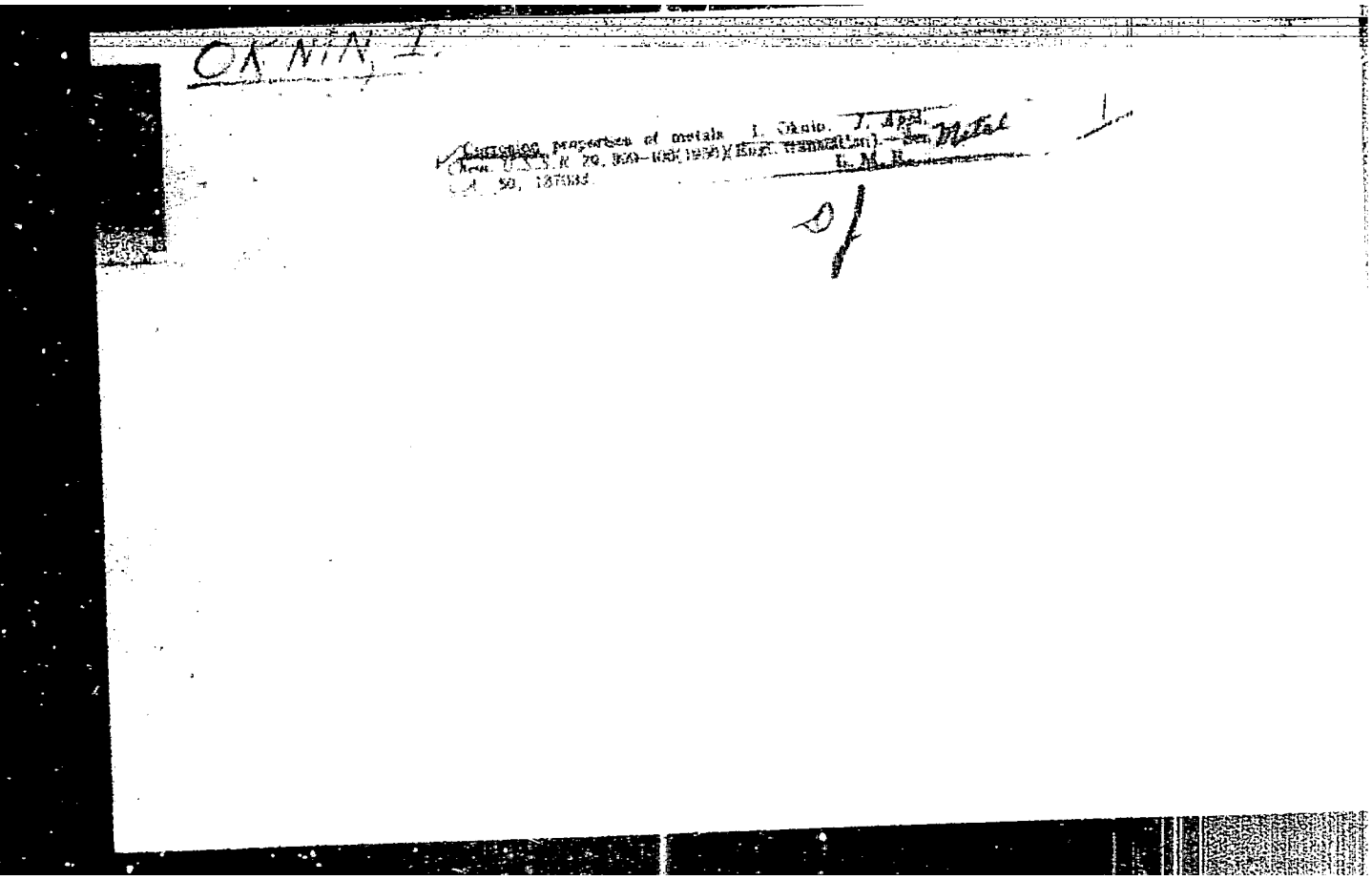
I. Bendavid



resistance to corrosion of a metal by the rate of soln. without polarization leads to erroneous conclusions because the results describe a temporary condition easily destroyed by slight changes; it does not evaluate the reservoir of corrosion resistivity. On the other hand, a complete picture of all the factors involved in the corrosion process is obtained from the expti. diagrams of the potential φ vs. the rate of soln. K of the metal and φ vs. the rate of the reaction K' of the electrode with the medium. The use of these diagrams as a revealing tool for the detn. of the several factors entering corrosion processes is demonstrated with expti. diagrams of φ vs. K and φ vs. K' obtained with Fe in 1.27–12.5 N HNO_3.
cf. C.A. 49, 751e).

I. Beccowits

LFH



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Corrosion properties of metals. I. Chem. J. Appl. Metal

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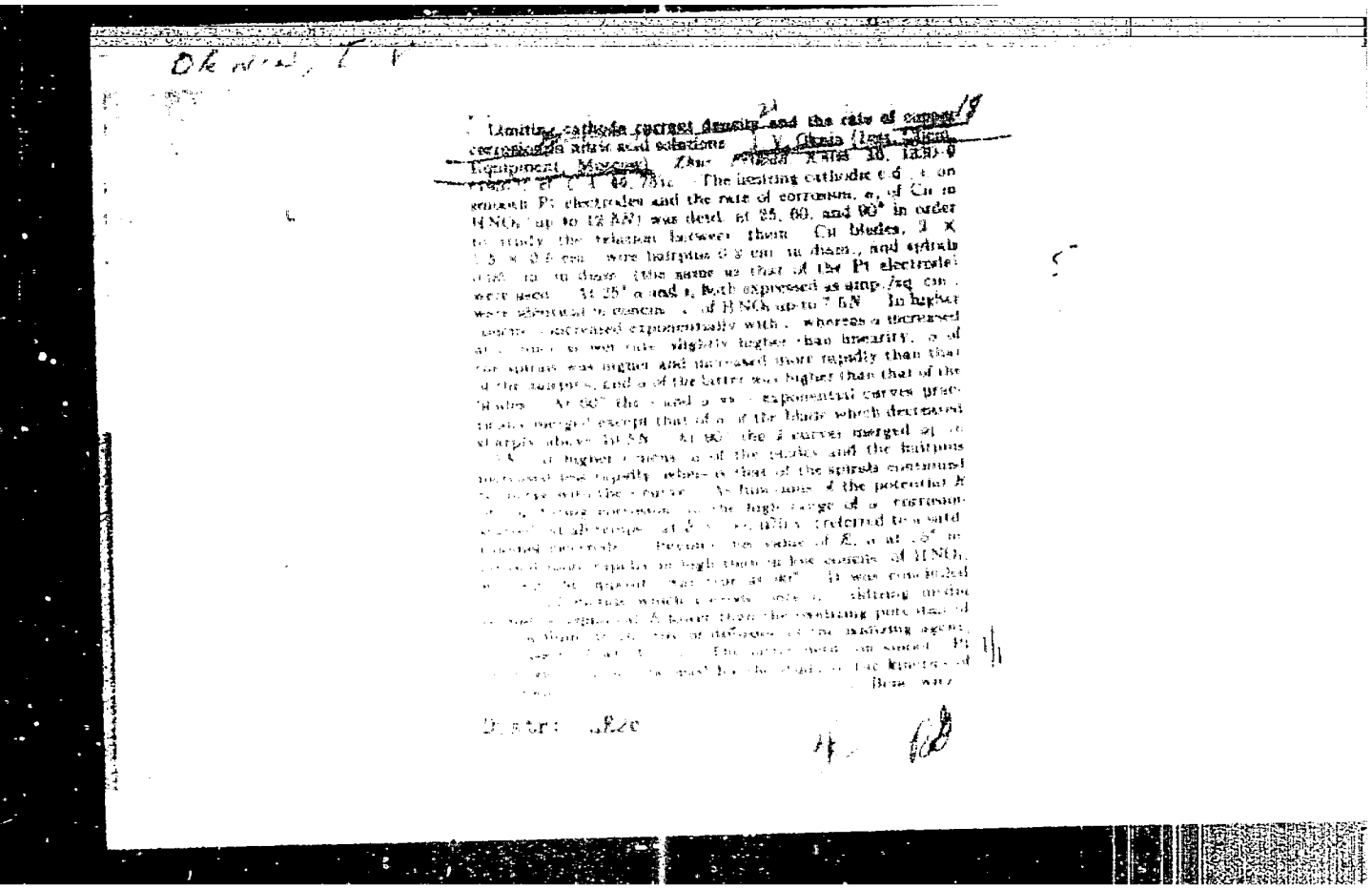

OKHIN, I.V.

Iron corrosion in nitric acid solutions during cathodic and anodic polarization. Trudy MIKHM 22:7-39 '60. (MIRA 14:1)
(Iron--Corrosion) (Nitric acid)
(Polarization (Electricity))

OKNIN, I.V.

Cathodic polarization of platinum and the corrosion of iron in acid solutions ($Fe_2(SO_4)_3$). Trudy MIKHM 22:40-50 '60.
(MIRA 14:1)

(Iron--Corrosion) (Platinum)

25075
S/081/61/000/010/005/039
B117/B207

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AUTHOR: Oknin, I. V.

TITLE: Cathodic platinum polarization and iron corrosion in acid $Fe_2(SO_4)_3$ solutions

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 10, 1961, 281, abstract 10I150 (10I150). ("Tr. Mosk. in-ta khim. mashinostr., v. 22, 1960, 40-50)

TEXT: The corrosion rate of Fe and the cathodic polarization of smooth Pt were measured in acid $Fe_2(SO_4)_3$- and $NH_4Fe(SO_4)_2$ solutions. The corrosion rate was found to depend linearly on the Fe^{3+} concentration. In solutions of a concentration of $Fe^{3+} < 0.04$ g-ion/l, the corrosion rate is essentially higher than in solutions of higher concentration. In solutions with a concentration of $Fe^{3+} > 0.9$ g-ion/l, the corrosion rate decreases with increasing concentration. It is stated that in Pt

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25075

Cathodic platinum polarization... S/081/61/000/010/[illegible]/[illegible]
B117/B207

polarization and Fe corrosion depolarization by Fe^{3+} ions is in any case a direct interaction of Fe^{3+} with the electrons of the metal. [Abstracter's note: Complete translation.]

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OKNIN, I.V.

Determination of the maximal corrosivity of an oxidative reaction medium. Izv.vys.ucheb.zav.;khim.i khim.tekh. 5 no.2:259-263 '62. (MIRA 15:8)

1. Moskovskiy institut khimicheskogo mashinostroyeniya, kafedra fizicheskoy khimii.
(Metals—Corrosion) (Acids)

S/153/62/005/004/002/006
E021/E435

AUTHOR: Oknin, I.V.

TITLE: On determining the rate of corrosion from the current density on a platinum electrode at the potential of the corroding metal

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Khimiya i khimicheskaya tekhnologiya, v.5, no.4, 1962, 575-578

TEXT: The possibility of determining the rate of corrosion of iron from the current density on a platinum electrode with its potential equal to that of the corroding metal was investigated. The cathodic polarization of platinum and the potential and rate of corrosion of iron were determined in similar U-shaped vessels divided by a glass filter into two parts, using iron wire of 0.6 mm diameter containing 0.09% carbon and insignificant quantities of other impurities. Smooth platinum 1 x 1 cm was used for sulphuric acid solutions and 2 cm long, 0.05 cm diameter platinum wire for sulphuric/nitric acid mixtures. Solutions of sulphuric acid containing 16 to 52 wt.% and mixtures of sulphuric acid (6 to 43 wt.%) and nitric acid (3 to 30 wt.%) were used.

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Results: the rates of corrosion of iron measured by its current density, corresponding to its potentials, were very similar to current densities on platinum at the same potential. Thus, the rate of corrosion of iron in the given electrolytes can be determined from the current density on a smooth platinum electrode. This indicates the similarity of the nature of the processes of cathodic depolarization in the two cases; it also indicates that the process of corrosion of iron is under cathodic control. There are 2 figures and 1 table.

ASSOCIATION: Kafedra fizicheskoy khimii, Moskovskiy institut khimicheskogo mashinostroyeniya (Department of Physical Chemistry, Moscow Chemical Machinery Institute)

SUBMITTED: February 27, 1961

OKNIN, I.V.

Studying the kinetics of the anode dissolving of metals and oxidation of the medium in the system iron- nitric acid solutions. Trudy MIKHM 28:3-20 '64.

(MIRA 19:1)

OKNIN, Yu., student

Investigating some properties of silver bromide photographic layers used in the manufacture of maps. Trudy MIIGAIK no.30:91-95 '58. (MIRA 12:3)

1. Kafedra izdaniya kart Moskovskogo instituta inzhenerov geodezii, aerofotos"yemki i kartografii.
(Cartography) (Photographic emulsions)

3(2)

AUTHOR: Oknin, Yu. A. SOV/6-59-2-19/22

TITLE: Masking on Transparent Plastics According to the Method of "Lacquer Strips" (Maskirovaniye na prozrachnykh plastikakh metodom "lakovykh polos")

PERIODICAL: Geodeziya i kartografiya, 1959, Nr 2, pp 71-73 (USSR)

ABSTRACT: This is an abstract on the strip-mask procedure according to data of foreign publications - 4 German and 2 English papers: C. Mannerfelt. Considerations on the Esselte Conference of Applied Cartography. Stockholm, 1956. "Vermessungstechnische Rundschau" (Review of Technical Surveying) Nr 5, 1957. G. Pöhlmann. Astralon masking also through positive copy. "Kartographische Nachrichten" (Cartographical News) Nr 1, 1957. O. Stoessel. Photomechanical Work. "Vermessungstechnische Rundschau" (Review of Technical Surveying) Nr 9, 1957. G. Nowitzky. Experience with the strip-mask procedure. "Der Polygraph" (The Polygrapher) Nr 4, 1958. K. Fretcher and Ch. Bennet. Graph-Strip. "Modern Lithography". August 1956. R. Philbrick and O. Stoessel. Development of Cartographical

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Masking on Transparent Plastics According to the Method of "Lacquer Strips" SOV/6-59-2-19/22

and Reproduction Techniques in Chart Production. "Surveying and Mapping" Nr 4, 1955. There are 6 Soviet references.

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