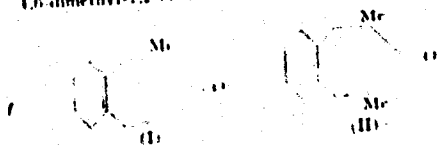


CA

Catalytic hydrogenation of cyclic seven-membered doubly unsaturated ketones. Deactivation of the double bond by the ketone group. (M. E. Ved'm and A. V. Plate, Lomonosov State Univ., Moscow, *Doklady Akad. Nauk SSSR*, 70, 861 (1950).) — The rates of the Pd black and Pt black catalyzed hydrogenation of 4-methyl-1,2-hexen-1,3,6-cycloheptatrien-5-one (I) and 4,6-dimethyl-1,2-hexen-1,3,6-cycloheptatrien-5-one (II)



were determined from the rates of absorption of H₂ in static runs with 0.3-0.4 g. ketone in soln. in 10 ml. H₂O(l), and 0.1 g. of catalyst. Plots of the rate against time show relatively low and practically const. rate of absorption of H₂ up to the moment of satn. of the 1st double bond, followed by a sudden rise of the rate to a peak which, in the case of I on Pd black, corresponds to rate increase of over 200% relative to the initial rate. Such peaks have been previously observed in the hydrogenation of acetylenic derivatives, on passing from the hydrogenation of the triple bond to that of the double bond, but never before with conjugated double bonds. Equally new is the slow rate of hydrogenation of the 1st double bond, being 1/3 of that of trimethylethylene, and 1/6 of that found with mesityl oxide. That this lowering of the activity is not the result of conjugation in the cycle follows from the fact that the hydrogenation of dibenzylideneacetone (III) under the same conditions shows a normal behavior, starting

at a high initial rate, and falling uniformly with the progress of the reaction. The deactivation of the hydrogenation of the 1st double bond in the diene ketones I and II must be due to an effect of the CO group which, through electron shift along the cycle, gives rise to an excess pos. charge on all C atoms of the cyclic system, compensated by an excess neg. charge on the O atom of the CO group. This effect disappears once the 1st double bond is hydrogenated, hence the abrupt increase of the

rate at that point. Additional proofs of the effect of the CO group on the unsatd. cyclic system are the lowering of the Raman frequency of the CO group in II, 1617 cm⁻¹ (doublet), as compared with 1658 in benzophenone and 1700 in Me₂CO, and the high dipole moments, 4.25 for I, 3.7 for II, as compared with 3.3 for III, 3.2 for benzophenone, and 2.8 for Me₂CO. In III, the CO group can have no deactivating effect owing to the absence of conjugation.

S. Flou

VOL'PIN, P.I.; DEM'YANENKO, A.I.; LYAPUNOV, A.I.

Battery of continuously operating digesters with air blast
agitation. TSvet. met. 35 no.9:86-89 S '62. (MIRA 16:1)
(Aluminum--Metallurgy) (Hydrometallurgy)

1. VOLPIN YE.I., LYUBINSKAYA Z.V., TROVATOVA O.M.

2. USSR (600)

4. Vol'pin, Ye.I.

7. "Sanitation and hygiene in the meat and milk industry." Moloch.prom. 14
no.2, 1953.

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

The Hendey screw-cutting lathe Leningrad Izd. Leningradskogo politekhnicheskogo
in-ta im.

M. I. Kalinina, 1929. 51 p.

Cyr.4 TJ42

BOCHHOVSKIY, B.F., inzh.; ~~MAKAROV, A.D.~~, inzh.; KUCHENKA, N.G., inzh.;
MATEVICH, A.S., kama. tekhn. nauk; KREBENYAKOVA, I.I., inzh.

Measurement of the parameters of lightning on the towers of
two-circuit 220kv. electric power transmission lines. Elek.
sta. 35 no.6:47-51. Je '64. (MIRA 18:1)

VOL'POV, K.D., inzhener.

Increasing the reliability of counters for autovalve lightning
arresters. Energetik 4 no.12:21-22 D '56. (MIRA 10:1)
(Lightning protection) (Electric meters)

VOL'POV, K.D., inzh.

Device for connecting and disconnecting valve dischargers in the presence
of an operating voltage. Elek. sta. 34 no.11:89-90 N '63.
(MIRA 17:2)

VOL'POV, K.D., inzh.; TARASOV, G.I., inzh.

Installation of voltage transformers in the interbus
portals. Elek. sta. 35 no.2:89-90 F '64. (MIRA 17:6)

VOL'POV, K.D., inzh.

Measurement of maximum internal overvoltage levels in 6.35 kv.
and 110 kv. networks of the Donets Basin Electric Power System.
Izv. vys. ucheb. zap.; energ. 5 no.3:1-4 Mr '62. (MIRA 15:4)

1. Donbassenergo.
(Donets Basin—Electric power distribution)

VOL'POVA, M.V.; BAZILEVICH, V.M., dotsent, kand.filolog.nauk, otv.red.;
SHAPIROVICH, M.D., tekhred.

[Minimum English-Russian dictionary of refrigeration engineering]
Anglo-russkii slovar'-minimum po kholodil'noi tekhnike. Odessa,
Tekhnologicheskii in-t pishchevoi i kholodil'noi promyshl., 1960.
27 p. (MIRA 14:3)
(Refrigeration and refrigerating machinery--Dictionaries)
(English language--Dictionaries--Russian)

VOL'POVA, Matil'da Vladimirovna; TISOVSKAYA, Anna Frantsevna;
KOCHIN, V.P., red.; BRUSKINA, R.I., red. izd-va; GRIGORCHUK, L.A.,
tekhn. red.

[Collection of texts on Refrigerating Engineering (in
English)] Sbornik tekstov po kholodil'noi tekhnike (na
angliiskom iazyke). Moskva, Vysshaya shkola, 1963. 81 p.

(MIRA 16:5)

(Refrigeration and refrigerating machinery)

Vol' POVA, Ye. G.

AID P - 1354

Subject : USSR/Chemistry

Card 1/1 Pub. 78 - 17/30

Author : Vol'pova, Ye. G.

Title : Wear of activated carbon in installations with continuous adsorption.

Periodical : Neft&khoz., v.32, #12, 57-60, D 1954

Abstract : Advantages of continuous processes of adsorption over periodically acting processes are outlined. The efficiency of the continuous process is indicated by intensity of weight losses of activated carbon which vary with size of carbon particles and operating temperature. 3 tables, 1 diagram and 1 chart, 3 American references. (1940-51)

Institution: None

Submitted : No date

VOL'POVA, Ye. G.

VOL'POVA, Ye. G. -- Study of the Polymerization Reaction of Amylenes on a Phosphoric Acid Catalyst.* Acad Sci USSR, Inst of Petroleum, Grozny, 1955* (Dissertation for the Degree of Candidate in Sciences)

SO: Knizhnaya letopis', No. 37, 3 September 1955

*For the Degree of Candidate in Technical Sciences

VOL: 101A, F. 9.

Distr: UB20(1)/A.E.L.

W
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VOL'POVA, Ye.G.; SHAL'KOVSKIY, N.G.; FRIED, M.H.

Pyrolysis of the head fractions of Groznyy straight-run gasolines.
Nefteper. i neftekhim. no.3:25-26 '63. (MIRA 17:9)

1. Groznenskiy neftyanoy nauchno-issledovatel'skiy institut i Groznenskiy zavod.

LYUTER, A.V.; VOL'POVA, Ye.G.; GOL'DSHTEYN, Yu.A.

Efficient methods for manufacturing alkylarylsulfonate washing
in Grozny. Trudy GrozNII no.4:218-223 '59. (MIRA 12:9)
(Grozny--Cleaning compounds) (Sulfonol)

DOROGOCHINSKIY, Akiy Zinov'yevich; LYUTER, Aleksandr Valentinovich;
VOL'POVA, Yevgeniya Grigor'yevna; REKHVIASHVILI, Antonina
Nikolayevna; KOLESNIKOV, F.M., red.; KUZ'MENKOVA, H.T.,
tekh. red.

[Oil gases in the Chechen-Ingush and other economic regions
of the Northern Caucasus] Neftianye gazy Checheno-Ingushskogo
i drugikh ekonomicheskikh raionov Severnogo Kavkaza. Grozny
Checheno-Ingushskoe knizhnoe izd-vo, 1960. 259 p.

(MIRA 16:3)

(Caucasus, Northern—Gas, Natural)

311615

S/065/62/000/003/001/004
E075/E135

5.3300

AUTHORS: Vol'pova, Ye G., Shal'kovskiy, N.G., Zhakov, I.S.,
Pitskhelauri, V.A., and Pinchevskaya, S.I.

TITLE: Sulphuric acid alkylation of isobutane with
butylenes using different methods of contactor
feeding

PERIODICAL: Khimiya i tekhnologiya topliv i masel, no.3, 1962,
13-17

TEXT: The authors give data characterizing the work of the
alkylation plant of the Novogroznenskiy neftepererabatyvayushchiy
zavod (Novogroznensk Petroleum Refinery) with consecutive
feeding of contactors. Data for the work with parallel feeding
are given for comparison. The feed used was a mixture of
butane-butylene fractions from thermal and catalytic cracking.
The alkylation conditions in the contactors were: temperature
10 °C, pressure 6 atm, turbine speed 2000 r.p.m., ratio of acid
to hydrocarbons 1:1, contact time 18 minutes, time of emulsion
breaking 5 minutes. During the parallel feeding method, yield
Card 1/2

Sulphuric acid alkylation of ...

S/065/62/000/003/001/004
E075/E135

of the alkylate boiling between 42 and 175 °C was 49-50% of the feed and its octane number (motor method) 90. Yield of the alkylate boiling between 175 and 306 °C was 7.10% of the feed. Consumption of H₂SO₄ was 190-220 kg/t alkylate. The method of consecutive feeding (with two and three contactors) consisted of passing the feed in equal portions into the contactors. The recirculating isobutane and H₂SO₄ entered the first contactor and subsequently passed into the next one together with the reaction products. Using this method, yield of the alkylate (42-175 °C) was 53% and its octane number 90. The consumption of H₂SO₄ was 129 kg/t alkylate, which was 35% less than for the method of parallel feeding. In view of the advantages of the consecutive feeding method it was introduced in the NGNPZ alkylation plant. It was shown that the operation of the rectifying block without depropanizing and without washing the isobutane column led to unnecessary circulation in the reaction zone and losses of isobutane.

There are 1 figure and 2 tables.

ASSOCIATION: GrozNII

Card 2/2

S/065/63/000/001/002/005
E075/E436

AUTHORS: Vol'pova, Ye.G., Ogloblina, L.I.

TITLE: Polymerization of propylene on silico-tungstate catalysts

PERIODICAL: Khimiya i tekhnologiya topliv i masel, no.1, 1963, 19-24

TEXT: The work was carried out to discover active supports for silico-tungstic acid from minerals available in the Soviet Union. The materials investigated were: Kieselguhr, Askan and Troshkov clays (catalysts), activated silica-alumina and alumina. The polymerization of propylene at 170 to 180°C, 60 atm and 0.3 h⁻¹ space velocity of the feed proceeded at the most rapid rate when silico-tungstic acid was supported on silica-alumina pellets and Troshkov clay, the yield of polymers being 75 and 65% respectively. The yield was below 25% for all the other supports examined. For Troshkov clay, the polymers contained 14.3% trimers and 34% tetramers, the yield of all the polymers in the first 24 hours being up to 67.7%, but decreasing steadily with time. This did not take place on alumina, the catalyst conserving its activity for
Card 1/2

Polymerization of propylene ...

S/065/63/000/001/002/005
E075/E436

1000 hours. After 1100 hours the yield decreased to 60% and then gradually to 24%. After activation at 420°C the active life of the catalyst was extended to 2520 hours, the yield of polymers for this time amounting to 440 kg/kg of the catalyst. The production costs of detergent alkylate using the silico-tungstic acid catalyst are about 25% of those produced with a phosphoric acid catalyst. There are 2 figures.

ASSOCIATION: Groz NII

Card 2/2

VOL' POVA, Ye.G.; OGLOBLINA, L.I.

Studying the conditions governing the regeneration of a silicotung-
stic catalyst for the polymerization of propylene and the economics
of the process. Trudy GrozNII no. 15:265-270 '63. (MIRA 17:5)

VOL'POVA, Ye.G.; SHAL'KOVSKIY, N.G.; ZHUKOV, I.S.; PITSKHELAURI, V.A;
PINCHEVSKAYA, S.I.

Studying the operation of a unit for the sulfuric acid
alkylation of isobutane with butylenes with consecutive
ferling of the contactors in the Norogroznyy Petroleum
Refinery. Trudy GrozNII no. 15:127-136 '63. (MIRA 17:5)

L 22373-66 EWP(1)/EWT(m) RM

ACC NR: AP6007940

(A)

SOURCE CODE: UR/0318/66/000/001/0039/0041

AUTHOR: Afanas'yev, A. I.; Dorogochinskiy, A. Z.; Vol'pova, Ye. G.

28
B

ORG: GrozNII

TITLE: Investigation of isomerization of normal paraffinic hydrocarbons in the presence of platinum loaded synthetic zeolites 1

SOURCE: Neftepererabotka i neftekhimiya, no. 1, 1966, 39-41

TOPIC TAGS: zeolite, heterogeneous catalysis, catalytic reforming, isomerization, gas chromatography, isopentane, pentane

ABSTRACT: Catalytic isomerization of normal pentane was studied with 0.7% Pt on NaX zeolite and 0.7% Pt on CaY zeolite at 280°-400°C and 0-30 atm total pressure. The catalyst was prepared by impregnating zeolites with alcohol solution of chloroplatinic acid, drying, compression into 3 x 3 mm pellets, and reduction with hydrogen for 16 hours at 475°C. The autoclave was charged with 0.5 l normal pentane and 10 g catalyst. The H₂/n-pentane molar ratio was 5:1 and the reaction duration was 180 minutes. The reaction products were collected in a dry ice trap and analyzed on a KhT-2M gas chromatograph. Maximum yield (55%) of isopentane was obtained with 0.7% Pt on CaY catalyst at 375°C, 30 atm H₂/C₅H₁₂ = 5:1, and 180 min test duration. At 400°C the yield of isopentane was smaller due to hydrocracking. Reduction of pressure from 30 to 15

Card 1/2

UDC: 665.656.2 : 541.124

L 22373-66

ACC NR: AP6007940

0

atm resulted in initial increase in isopentane yield but the catalyst suffered from activity decline due to rapid coke deposition. In general, Pt on CaY zeolite catalysts are more active for isomerization of n-pentane than Pt on CaX zeolite catalysts. Orig. art. has: 1 figure, 1 table.

SUB CODE: 07/

SUBM DATE: 00/

ORIG REF: 006/

OTH REF: 005

Card 2/2 nst

VOL' POVA, Ye.G.; SHAL'KOVSKIY, N.G.

Experience in obtaining highly pure ethylene. Neftoper. i
neftekhim. no.8:36-39 '63. (MIRA 17:8)

1. Groznenskiy neftyanoy nauchno-issledovatel'skiy institut.

~~VOL'POVA, Y. G.~~ SHAL'KOVSKIY, N.G.

Use of the pyrolysis resin fraction as a high-octane component
of motor fuels. Khim. i tekhn. topl. i masel 8 no.6:7-11
Je '63. (MIRA 16:6)

1. Groznenskiy nauchno-issledovatel'skiy neftyanoy institut.
(Motor fuels) (Petroleum products)

VOLPRECHT, J.

"Attempts to Reach the Level of the Karavaev Herd in Our Country", P. 767,
(ZA SOCIALISTICKE ZEMEDELSTVI, Vol. 4, No. 7/8, July/Aug. 1954, Praha,
Czechoslovakia)

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

~~Volprell~~ Volprecht, J.
CZECHOSLOVAKIA/Cultivable Plants - Grains.

M-2

Abs Jour : Ref Zhur - Biol., No 3, 1958, 10742
Author : Arnost, R., Volprecht, J.
Inst : -
Title : Producing Hybrid Corn Seed in the YeSKhK /JZD in Czech/
Orig Pub : Socialist. zemed., 1956, 6, No' 10, 584-587.
Abstract : No abstract.

Card 1/1

VIGDOROVICI, V.N. [Vigdorovich, V.N.]; VOLPIAN, A.E. [Vol'pyan, A.Ye.]

Applying the crystallization methods to physicochemical analysis.
Analele chimie 17 no.4:113-121 O-D '62.

32-24-6-32/44

AUTHORS: Vigdorovich, V. N., Vol'pian, A. Ye.

TITLE: Method for Obtaining Exact Values of the Microhardness by Chemically Removing Solidified Surface Layers (Metodika polucheniya pravil'nykh znacheniy mikrotverdosti putem khimicheskogo udaleniya poverkhnostno naklepanykh sloyev)

PERIODICAL: Zavodskaya Laboratoriya, 1958, Vol. 24, Nr 6, pp. 762 - 764 (USSR)

ABSTRACT: The values of the microhardness are falsified by the presence of a solidified surface layer; therefore some methods exist for removing the latter, comprising that by chemical etching. The duration of etching is to be fixed in such a way that in the case of a further prolongation the microhardness remains constant, being different for different metals and alloys, and on the other hand being determined by the etching medium itself. The value of the etching velocity is determined by the dependence of the mean value of the microhardness on the duration of etching, and the degree of the etching equality is characterized by the magnitude of the deviation of the

Card 1/3

32-24-6-32/44

Method for Obtaining Exact Values of the Microhardness by Chemically Removing Solidified Surface Layers

measuring results of microhardness, which shows as a coefficient of the measuring error. In the present case the quantitative rules were less determined than the general character of the variation of the function of the measuring error coefficient on the duration of etching; this was also graphically dealt with. As may be seen from the mode of operation used various etching media were applied; the results obtained show that $\text{FeCl}_3 + \text{HCl}$ is favorable for the preparation of copper surfaces as well as of the alloys Cu-Al, Cu-Ti, and Cu-Al-Ti. $\text{NH}_4 + \text{H}_2\text{O}_2$ was found to be an insufficient etching medium while $\text{K}_2\text{Cr}_2\text{O}_7 + \text{NaCl} + \text{H}_2\text{SO}_4 + \text{HF}$ is favorable for the preparation of copper surfaces and Cu-Ti alloys. The method described yields well reproducible results and can be used in the practical application of the method of microhardness in physical-chemical analyses. There are 2 figures and 5 references, which are Soviet.

Card 2/3

32-24-6-32/44

Method for Obtaining Exact Values of the Microhardness by Chemically Removing
Solidified Surface Layers

ASSOCIATION: Moskovskiy institut tsvetnykh metallov i zolota im. M. I.
Kalinina
(Moscow Institute of Non-Ferrous Metals and Gold imeni M. I.
Kalinin)

1. Metals--Mechanical properties
2. Hardness--Determination
3. Metals--Test methods
4. Metals--Surface properties

Card 3/3

VIGDOROVICH, V.N.; VOL'PYAN, A.Ye. (Moscow)

Relation between distribution coefficients expressed through the concentrations of the various components. Zhur. fiz. khim. 35 no.3:643-646
Mr '61. (MIRA 14:3)

1. Institut tsvetnykh metallov im. M. I. Kalinina.
(Phase rule and equilibrium)
(Solution(Chemistry))

VIGDOROVICH, V.N.; VOL'PYAN, A.Ye. (Moscow)

Application of crystallization methods in physicochemical
analysis. Zhur. fiz. khim. 36 no.3:429-436 Mr '62.
(MIRA 17:8)

1. Institut tsvetnykh metallov imeni Kalinina.

BREGOVSKIY, V.Ye.; VASILENKO, M.I.; VELIER, R.L.; VERBLOVSKIY, A.M.;
VERNER, B.F.; VOYDALOVSKAYA, Ye.N.; VOL'SKIY, A.N.; GLAZKOVSKIY, A.A.;
GRANOVSKIY, B.L.; GREYVER, N.S.; GUDIMA, N.V.; DOLGOPOLOVA, V.I.;
KARCHEVSKIY, V.A.; KOVACHEVA, Ye.B.; KUDRYAVTSEV, P.S.; LEBEDEV, A.K.;
LISOVSKIY, D.I.; LIKHNITSKAYA, Z.P.; MATVEYEV, N.I.; MEL'NITSKIY, A.N.;
MIRONOV, A.A.; MIKHEYEVA, A.A.; MURACH, N.N.; OKUN', A.B.; OL'KHOV, N.P.;
OSIPOVA, T.B.; PAVLOV, V.P.; ROTINYAN, A.L.; SAZHIN, N.P.; SEVRYUKOV, N.N.;
SIDOROV, P.M.; SOBOL', S.I.; KHEYFETS, V.L.; TSEYNER, V.M.;
SHAKHNAZAROV, A.K.; SHEYN, Ya.P.; SHEREMET'YEV, S.D.; SHERMAN, B.P.;
SHISHKIN, N.N.; SHLOPOV, A.P.

Georgii Ivanovich Blinov. TSvet.met. 28 no.6:62 N-D '55.
(MIRA 10:11)

(Blinov, Georgii Ivanovich, 1911-1955)

VOL'SKIY, A. N.

137-58-5-8879

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 5, p 19 (USSR)

AUTHORS: Sergiyevskaya, Ye. M., Vol'skiy, A. N.

TITLE: To the Theory of Leaching Zinc out of Roasted Zinc Concentrates (K teorii vyshchelachivaniya tsinka iz obozhzhennykh tsinkovykh kontsentratov)

PERIODICAL: Sb. nauchn. tr. Mosk. in-t tsvetn. met. i zolota i VNITO tsvetn. metallurgii, 1957, Nr 26, pp 265-278

ABSTRACT: The dynamic method was employed to study the rate of dissolution of ZnO in H₂SO₄ solutions. The rate of dissolution of ZnO is determined by the diffusion rate when the concentration of H₂SO₄ exceeds 0.36 mole/liter, and by the rate of the chemical reaction itself when the acidity is less. The rate of dissolution decreases if the concentration of ZnSO₄ in the original solution is increased. The rate of dissolution is given as a mathematical function of rate of motion of the sulfuric acid solution. It is shown that at an H₂SO₄ concentration of 0.72 mole/liter and at temperatures between 20°C and 58°C the nature of the process is typically diffusional, the constant of the reaction rate being a linear function of temperature and the temperature coefficient being equal to 1.3.

Card 1/1

L. P.

1. Zinc ores--Processing 2. Zinc--Separation

SOV/137-58-8-16713

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 8, p 69 (USSR)

AUTHORS: Sergiyevskaya, Ye.M., Vol'skiy, A.N.

TITLE: A Contribution to the Theory of the Leaching of Zinc From Burnt Zinc Concentrates. Kinetics of Dissolution of Copper Oxide in Sulfuric-acid Solutions (K teorii vyshchelachivaniya tsinka iz obozhzhennykh tsinkovykh kontsentratov. Kinetika rastvoreniya okisi medi v rastvorakh sernoy kisloty)

PERIODICAL: Sb. nauchn. tr. Mosk. in-t tsvetn. met. i zolota, 1957, Nr 27, pp 102-118

ABSTRACT: A dynamic method is used to study the influence of temperature and H_2SO_4 and $ZnSO_4$ concentrations upon the dissolution rate (DR) of CuO in H_2SO_4 . It is established that the dependence of the DR of CuO upon the concentration of H_2SO_4 in the solution takes on the character of a process of adsorption and is subject to Langmuir's equation for adsorption:
 $v_{1 \text{ hr}} = 5.65 [H^+] / (1 + 2.26 [H^+])$. The temperature has a significant influence upon the DR of CuO in H_2SO_4 . The temperature coefficient of the DR is 1.83-1.51. The DR of CuO in H_2SO_4 of

Card 1/2

SOV/137-58-8-16713

A Contribution to the Theory of the Leaching of Zinc (Cont.)

elevated $ZnSO_4$ contents in the initial solution diminishes approximately in proportion to the increase in the $ZnSO_4$ contents of the solution. The energy of activation of the reaction of dissolution of CuO in H_2SO_4 is 10,260 ± 257 cal/mole. The DR of CuO is monitored by the rate of adsorption of H^+ ions or molecules of water onto the surface of the CuO from the solution.

G.S.

1. Zinc--Processing
2. Copper oxide--Chemical reactions
3. Sulfuric acid--Chemical reactions

Card 2/2

VOLSKIY, A.N.

VOLSKIY A.N.

LEONIDOV, N.K.

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ISSUE 1 1957

Abstracts and reviews of scientific papers in metallurgy

Metallurgy USSR, 1957-1971, v. 1 (Review of the USSR, 1947 - 1971, Vol. 1). Moscow, Metallurgizdat, 1971. 745 p. 5,000 copies printed.

Ed. (this issue) I. P. Levin, Academician; M. (basic book) G. V. Popov; Tech. Ed. G. O. Babler.

NOTE: The book is intended for scientific workers and engineers in metallurgical plants and in the machine-building industry. It may also be used by students in advanced courses in metallurgical units.

COMMENT: This collection of articles covers practically present and theoretical developments in Soviet metallurgy during the last 20 yrs. The material deals with the discovery and development of the major ore deposits and the growth of the metal industry in various parts of European and Asiatic USSR. Research institutes, laboratories, their locations, and the names of the scientists and engineers involved are listed. Many papers contain so many references and names of various personalities that it was considered beyond the scope of the coverage of each article to list them. The authors claim that the processes, methods and theories described in this book reflect the most recent developments in Soviet metallurgy.

Cont. 2/21

Metallurgy of the USSR (Cont.)

5(9)/1957

presently centered in Moscow at the Nigmatov Institute. Cold extraction is done by ammonium, cyaniding, and chlorination. Another method involves the smelting of gold-bearing copper, lead, and nickel ores with subsequent extraction of gold by electrolysis. Cyaniding is the chief method of gold extraction at present. Activated charcoal is used to precipitate noble metals from solution and also to absorb metals which are later recovered by flotation. In certain high-purity platinum, metallurgical methods are used. In certain high-purity platinum, thermocouples, wires and sheets of iridium, osmium, and titanium are manufactured by this method. One of the features being the discovery of new applications for platinum, ruthenium, and palladium in the field of chemistry as catalysts, in electrical engineering as semiconductor and in other fields. There are 53 Soviet references.

Editor, A.N. Theoretical Principles of Nonferrous Metallurgy
The theoretical aspects of nonferrous metallurgy have been investigated by Soviet engineers and technicians. Over a hundred personalities are mentioned who have made contributions to this field of metallurgy. Some of the work leading to the study of the thermodynamics of reactions of non-ferrous metals, the theory of roasting, smelting, and the reduction of metals. Other investigators explored the chemical and physical properties

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Metallurgy of the USSR (Cont.)

5(9)/1957

of alloys, thermal processes and pyrometallurgy. The electrolysis of molten salts and aqueous solutions was the subject of many studies. The author states that only a part of the work currently done in nonferrous metallurgy has been mentioned in this paper. There are 31 Soviet references.

Eds. G. A. Development of the Theory of Liquid Slags in the USSR
The rapid development of modern metallurgy called for a more thorough study of the composition, behavior, and reaction of molten slags in metallurgical processes. Starting with this present the author goes on to review the various theories developed and experiments performed by Soviet metallurgists. The molecular theory is said to have dominated the thinking of many outstanding Soviet scientists such as Kuznetsov, Shubov, Avilov, Goryunov, and others. This theory has been complemented by the introduction of the ionic concept, and later, by the ionic theory of liquid slags. Research on the structure, groups, and dynamics of molten salts and the thermodynamics of their reactions. The ionic theory was successfully applied in the electrolysis of molten salts to extract various elements. The author, in cooperation with Dylov,

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Cont 20/21

VOL'SKIY, A. N.; R. A. ARACHEVA, A. M. YEGOROV, P. S. TITOV, F. M. LOSKUTOV
AND V. S. LOVCHIKOV

"On Hydrometallurgical Treatment"

Mintsvetmetzoloto

report submitted at a conference on new methods of lead production from concentrates,
Gintsvetmet (State Inst. Non-Ferrous Metallurgy), Moscow 22-25 June 1956.

(for entire conf. see card for LIDOV, V. P.)

VOISKIY, A. N.
A. N. VOISKIY

"MICROSTALLURGY OF PHTHALATE" by A. N. Volskiy, Y. K. Sterlin, V. S. Sokolov

Report presented at 2nd UN Atoms-for-Peace Conference, Geneva, 9-13 Sept 1958

SOV/137-58-11-22242

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 11, p 57 (USSR)

AUTHORS: Vol'skiy, A. N. , Sergiyevskaya, Ye. M.

TITLE: Comparative Kinetics of Dissolution of Zinc Oxide and Ferrite in Sulfuric Acid (Sravnitel'naya kinetika rastvoreniya okisi tsinka i ferrita tsinka v sernoy kislote)

PERIODICAL: Izv. vyssh. uchebn. zavedeniy. Tsvetn. metallurgiya, 1958, Nr 1, pp 76-81

ABSTRACT: A dynamic study is made of the influence of rate of motion of the solution, temperature, and the H_2SO_4 and $ZnSO_4$ concentration upon the rate of ZnO and Zn ferrite dissolution in H_2SO_4 solutions. It is established that the rate of dissolution of ZnO at an H_2SO_4 concentration >0.36 mole/liter is determined by the rate of diffusion, while at <0.36 mole/liter it is determined by the rate of chemical reaction. The Zn ferrite dissolution process is found to be autocatalytic. The temperature coefficient of the rate of dissolution of ZnO is 1.3, while for Zn ferrite (recalculated as ZnO) it is 1.8-2.2. The activation energy of the process of ZnO and Zn ferrite dissolution is determined. The radio-isotope Zn^{65} is used to demonstrate that the rate of ZnO

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SOV/137-58-11-22242

Comparative Kinetics of Dissolution of Zinc Oxide and Ferrite (cont.)

dissolution drops markedly with increase in $ZnSO_4$ concentration in the starting solution.

B. L.

Card 2/2

SOV/180-59-3-8/43

AUTHORS: Agracheva, R.A., Vol'skiy, A.N. and Yegorov, A.M. (Moscow)

TITLE: Investigation of a Method of Treating Lead Sulphide Concentrates by the Application of Ferrichloride Solutions

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye tekhnicheskikh nauk, Metallurgiya i toplivo, 1959, Nr 3, pp 37-46 (USSR)

ABSTRACT: The thermodynamics of the interactions between sulphides and chlorides of heavy metals in aqueous solutions is worked out. Results are given in Table 1. The thermodynamics of the processes between chlorides and sulphides of different metals was also examined and results given in table 2. An experimental investigation was carried out on the dissociation of sulphides of heavy metals by ferrichlorides. Results (table 3) show that galena, chalcocite, silver sulphide and covellite are easily decomposed; pyrrhotite, marmatite and chalcopyrite are slowly decomposed; but pyrites are unaffected. Experiments were carried out on a lead concentrate containing 63.77 Pb, 2.56 Cu, 5.4 Zn, 4.73 Fe, 17.36 S, 0.59 SiO₂ 1.06 H₂O and 4.48% remainder. The results for two temperatures (60 and 80°C) and two times (90 and 120 minutes) are given in Table 4 (q° = degree of

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SOV/180-59-3-8/43

Investigation of a Method of Treating Lead Sulphide Concentrates by
the Application of Ferrichloride Solutions

extraction). Results of further experiments on a more complex mixture are given in Table 5. The extraction of lead is greater than 99%. The method of treating lead concentrates is thus: treatment with iron ferrichloride solution which converts PbS to $PbCl_2$, leaching with a solution saturated with $CaCl_2$ and $NaCl$ and electrolytic extraction of Pb from the solution. Experiments on purification of the anolyte showed that copper is almost completely precipitated by lead sulphide (Table 6, q = degree of precipitation) but precipitation of zinc is very slow (Table 8) and this method is unsatisfactory. There are 8 tables and 8 references, 6 of which are Soviet and 2 English.

SUBMITTED: April 26, 1958

Card 2/2

VOL'SKIY, A.N. (Moskva); AGRACHEVA, R.A. (Moskva); SERGIYEVSKAYA, D.M.
(Moskva)

Effect of the composition of waste nickel slag on the content
of nickel in them. Izv. AN SSSR. Met. i gor. delo no.4:52-57
Jl-Ag '64. (MIRA 17:9)

VOL'SKIY, A.N.; SERGIYEVSKAYA, Ye.M.

Thermodynamics of the dissolution of zinc oxide and copper
oxide in sulfuric acid solutions as applicable to the leaching
of zinc concentrates. Sbor. nauch. trud. GINTSVETMET no.33:
18-25 '60. (MIRA 15:3)

(Zinc oxide) (Copper oxide) (Leaching)

AGRACHEVA, R.A.; VOL'SKIY, A.N.

Treatment of lead sulfide concentrates with ferric chloride.
Sbor. nauch. trud. GINTSVETMET no.33:26-33 '60. (MIRA 15:3)
(Lead sulfide) (Hydrometallurgy)

3 JP

S/249/60,000,005,001/015
A006/A001

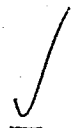
AUTHORS: Vol'skiy, A.N., Serzhevskaya, Ye.M.

TITLE: Kinetics of Dissolving Iron Oxide¹ in Sulfuric Acid Solutions

SUBTITLE: On the Theory of Leaching-Out Roasted Zinc Concentrates¹ by Sulfuric Acid Solutions

PERIODICAL: Izvestiya vysshikh uchebnykh zavseidiy, Tsvetnaya metallurgiya, 1960, No. 5, pp. 37-42

TEXT: The authors present results of investigations into the effect of temperature and concentration of sulfuric acid solutions on the dissolving rate of iron oxides. They used the dynamical method which they had employed for previous studies on dissolving kinetics of zinc and copper oxides and zinc monoferrite in sulfuric acid solutions. This method consists in the flowing of sulfuric acid solutions at a constant rate around the face ends of briquets made of the material investigated. Iron oxide briquets were roasted at 800°C and covered with acid-resistant varnish, leaving uncovered a 3.5 cm² surface. The rate of flow was 40 cm³/min and the experiment lasted 2 hours. The dependence



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S/149/60/000/005/001/015
A006/A001

Kinetics of Dissolving Iron Oxide in Sulfuric Acid Solutions. On the Theory of Leaching-Cat Roasted Zinc Concentrates by Sulfuric Acid Solutions

of the iron oxide dissolving rate on temperature was tested at 16, 32, 46 and 58°C and a sulfuric acid concentration of 0.72 mole/l. It was established that the dissolving rate was low, increasing gradually with the proceeding dissolution. Apparently the iron oxide dissolving process has a somewhat autocatalytic nature and can not be considered as a diffusion process. It may be assumed that whole process is controlled by the rate of the chemical reaction on the interphase boundary. The energy of the iron oxide crystal lattice calculated according to Kapustinsky's equation (Ref. 5) is equal to 3840 cal/mole and those of copper and zinc oxides are 934 and 960 cal/mole respectively; this difference may explain the fact that the dissolving rate of Fe_2O_3 is 250-300 times lower than that of ZnO . The dependence of the iron oxide dissolving rate on sulfuric acid concentration was studied at a H_2SO_4 concentration in two solutions of 0.36, 0.72 and 1.0 mole/l, and at 46°C. This rate increases with a higher concentration of sulfuric acid. The constant of the reaction rate of iron oxide dissolving at various temperatures was calculated by the equation $\frac{dm}{dt} = K a^\alpha$, where $\frac{dm}{dt}$ is the

dissolving rate of iron oxide at a given moment, K is the constant of the reac-

Card 2/3

S/149/60/000/005/001/015
A006/A001

Kinetics of Dissolving Iron Oxide in Sulfuric Acid Solutions. On the Theory of Leaching-Out Roasted Zinc Concentrates by Sulfuric Acid Solutions

tion rate, and a is the activity of the sulfuric acid in mole/l. The value of α was calculated from the data of Table 2 for the 46°C temperature; it turned out to be 0.8. The temperature coefficient of the constant of iron oxide dissolving in sulfuric acid is relatively low, which is in contradiction to conventional concepts. The experiments show that the stage most probably determining the rate of iron oxide dissolving, is the ejection of oxygen ions from the iron oxide crystal lattice by hydrogen ions of the solution, and the liberation of iron ions passing into the solution. There are 3 tables, 5 figures and 6 Soviet references. ✓

ASSOCIATION: Krasnoyarskiy institut tsvetnykh metallov (Krasnoyarsk Institute of Non-Ferrous Metals) Kafedra teorii metallurgicheskikh protsessov (Department of the Theory of Metallurgical Processes)

SUBMITTED: May 18, 1959

Card 3/3

AUTHORS: Anosov, V.Ya., Belyayev, A.I., s/076/60/034/02/042/044
Vol'skiy, A.N., Gerasimov, Ya.I., B010/B007
Zhukhovitskiy, A.A., Kuz'kin, S.F.,
Murach, N.N., Nekrasov, B.V., Ponomareva, K.S.

TITLE: Aleksandr Nikolayevich Krestovnikov (A.N. Krestovnikov) (On the Occasion of His 60th Birthday)

PERIODICAL: Zhurnal fizicheskoy khimii, 1960, Vol 34, Nr 2, pp 482-483 (USSR)

ABSTRACT: On August 13, 1959 Doctor of Technical Sciences, Professor A.N. Krestovnikov attained the age of sixty. He is one of the leading Soviet experts on thermodynamics and is well-known by his fundamental work in the field of chemical thermodynamics and its application in non-ferrous metallurgy. A.N. Krestovnikov worked at the nauchno-petrograficheskiy Institut Litogea (Scientific Petrographical Institute Lithogea), the Institut prikladnoy mineralogii i petrografii (Institute of Applied Mineralogy and Petrography), Institut prikladnoy mineralogii i metallurgii tsvetnykh metallov (Institute of Applied Mineralogy and Metallurgy of Non-ferrous Metals), the Tsentral'nyy institut tsvetnykh metallov (Central Institute of Non-ferrous Metals), the Kazakhskiy filial AN SSSR (Kazakhskiy Branch of the AS USSR), and other research institutes dealing with problems of chemical technology, electrochemistry,

Card 1/3

Aleksandr Nikolayevich Krestovnikov (A.N. Krestovnikov) S/076/60/034/02/042/044
(On the Occasion of His 60th Birthday) B010/B007

and the physical chemistry of metallurgical processes. Under the supervision of the well-known scientists N.A. Shilov, E.V. Britske, and N.A. Izgaryshev, A.N. Krestovnikov very soon became a widely recognized scientist and pedagogue. In 1926 he began his pedagogical activities and lectured at higher technical schools in Moscow and its neighborhood, as well as at the Moskovskoye vysshe tekhnicheskoye uchilishche (Moscow Higher Technical School), the Voenno-khimicheskaya akademiya im. K.Ye. Voroshilova (Military Chemical Academy imeni K.Ye. Voroshilov), the Institut khimicheskogo mashinostroyeniya (Institute of Chemical Machine Construction), the Metallurgicheskiy institut zavoda "Serp i Molot" (Metallurgical Institute of the Plant "Serp i Molot"), the Moskovskiy poligraficheskiy institut (Moscow Polygraphical Institute), the Voennoy fakul'tet goryuche-smazochnykh materialov (Military Department for Fuels and Lubricants), and others. From 1932 up to the present day A.N. Krestovnikov has been active at the Institut tsvetnykh metallov i zolota im. M.I. Kalinina (Institute of Nonferrous Metals and Gold imeni M.I. Kalinin) and now has the Chair of Physical and Colloid Chemistry. Besides more than 100 publications, A.N. Krestovnikov (together with Corresponding Member of the AS USSR Professor Ya.I. Gerasimov) wrote the book "Khimicheskaya termodinamika v tsvetnoy metallurgii" ("Chemical Thermodynamics in

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Aleksandr Nikolayevich Krestovnikov (A.N. Krestovnikov) 8/076/60/034/02/042/044
(On the Occasion of His 60th Birthday) B010/B007

Non-ferrous Metallurgy"). A.N. Krestovnikov was awarded the Order of
Lenin in 1953 for his many years of scientific and pedagogical
activities. There is 1 figure. ✓

Card 3/3

ALEKSEYEV, K.; KOZINSKIY, V., glavnyy inzhener teletsentra; VOL'SKIY, B.,
starshiy inzhener teletsentra. ~~XXXXXXXXXXXXXXXXXXXX~~

Improving the equipment of television centers. Radio no.12:11-12
D '55. (MLRA 9:4)

1. Nachal'nik Kiyevskogo teletsentra (for Alekseyev).
(Television--Apparatus and supplies)

VOL'SKIY, B.T.

TELEVISION

"Monoscope Device for a Television Center," by B. T. Vol'skiy and V. Z. Beylis, Engineers, Kiev Television Center. Vestnik Svyazi, No 7, July 1957, pp 15-18.

The monoscope is a special transmitting tube, intended to convert the image of a test pattern, placed on its target, into a video signal. It is used primarily for quality control tests in television set manufacture.

This article describes a method of employing the tube for the broadcast of the station test pattern, and indicates several advantages over the use of standard methods.

Card 1/1

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6(6)

SOV/112-59-2-3920

Translation from: Referativnyy zhurnal. Elektrotehnika, 1959, Nr 2,
pp 246-247 (USSR)

AUTHOR: Beylis, V. Z., and Vol'skiy, B. T.

TITLE: Methods for Creating Combined Pictures in TV
(Sposoby sozdaniya kombinirovannykh izobrazheniy v televidenii)

PERIODICAL: Tekhnika kino i televideniya, 1958, Nr 3, pp 52-60

ABSTRACT: The existing mixing apparatus at TV centers permits producing only one type of image registration in one frame, in which one picture could be seen through another. At the Kiyev TV center, a new electronic switch was developed for combining two pictures, in which neither of them is seen through the other. The switch ensures absence of a visible boundary between both pictures, stable operation, and simplicity of control. Video signals from two cameras whose signals are to be combined are applied to the control grids of 2 tubes. The anode circuit of each tube contains a bridge circuit whose arms

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SOV/112-59-2-3920

Methods for Creating Combined Pictures in TV

consist of two resistors and a double triode; the bridge diagonal contains two diodes in series; the output voltage is taken from the points of connection of the diodes. The control grids of the double triodes are connected each pair in parallel; a constant potential is applied to one pair of the grids while the other pair receives a control voltage from two tubes operating in a trigger circuit. The latter has only two stable potentials on its output. The appearance of the final effect depends on the shape of voltage applied to the trigger input. A special oscillator, or a flying-spot system, or a transmitting camera can be used as the source of control voltage. The switch and oscillator schemes and part specifications are presented. The oscillator permits crowding out the picture along a horizontal or vertical line, from the center toward both sides (horizontal and vertical), from the center circularly, or in the shape of a growing rhombus, or a fan, or diagonalwise, or in squares.

I. I. Sh.

Card 2/2

ALEKSEYEV, K.A.; VOL'SKIY, B.T.; SKOPENKO, A.I., redaktor; GOLOVCHENKO, G.I.,
tehnicheskii redaktor.

[Regulation and tuning of television sets] Regulirovka i nastroyka
televizorov. Kiev, Gos. izd-vo tekhn. lit-ry USSR, 1954. 63 p.
(Television--Receivers and reception) (MLRA 8:2)

VOL'SKIY, E.P., inzh.(g.Kolomna)

Efficient stand for checking jet nozzles. Elek.i topl.tiaga
3 no.5:26-27 My '59. (MIRA 12:9)
(Nozzles--Testing)

SHIL'NIK, M.N., inzh.; VOL'SKIY, E.V., inzh.

LKF-1 plastic furniture for ships. Sudostroenie 27 no.10:90-
53 0 '61. (MIRA 14:12)

(Furniture)

(Plastics)

(Ships--Equipment & supplies)

L 47334-045 EMP(1)/PWT(1) 1964 04

ACCESSION NR: AP5009317

S/0191/65/000/004/0032/0034

AUTHOR: Vol'skiy, E. V.

TITLE: The increase in stability of physico-mechanical indicators of plastics under low temperature annealing /

SOURCE: Plasticheskiye massy, no. 4, 1965, 32-34

TOPIC TAGS: annealing, material strength, material, plastic, polymer, material stability / LKF 2 polymer

ABSTRACT: Tests were performed to evaluate the effect of various schemes for annealing monomer-polymer compositions. The objective of the tests was to find a scheme which reduces the deviations of physico-mechanical properties of the specimens from mean values. The factors causing this deviation are reviewed, and the means of eliminating each factor are discussed. The noteworthy causes of deviation are: 1) material nonhomogeneity; 2) polydispersion caused by curing temperature gradients; 3) internal "orientation" stresses; 4) macro-cracks arising during polymerization and during material cutting; 5) stress from adhesion of the material to the form; and 6) stresses due to polymerization heat stress and settlement within the mold. Standard LKF-2 polymer specimens of

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L 47338-65

ACCESSION NR: AP5009317

dimensions 120 x 15 mm were cut from one sheet 8-10 mm thick. Two basic strength characteristics were investigated: 1) the unit impact strength, and 2) the strength limit under static deflection. One specimen was tested as a control specimen, and the remaining pieces were subjected to various manners of annealing prior to undergoing strength tests. Annealing consisted of heating the specimen for a controlled amount of time at a controlled temperature, followed by room temperature cooling for a controlled amount of time. Some specimens were exposed to as many as three heating-cooling cycles. It was noted that more than one annealing cycle yielded better strength stability. The choice of annealing process depends upon the shape and section of the object being treated. Orig. art. has: 2 Tables.

ASSOCIATION: none

SUBMITTED: 00

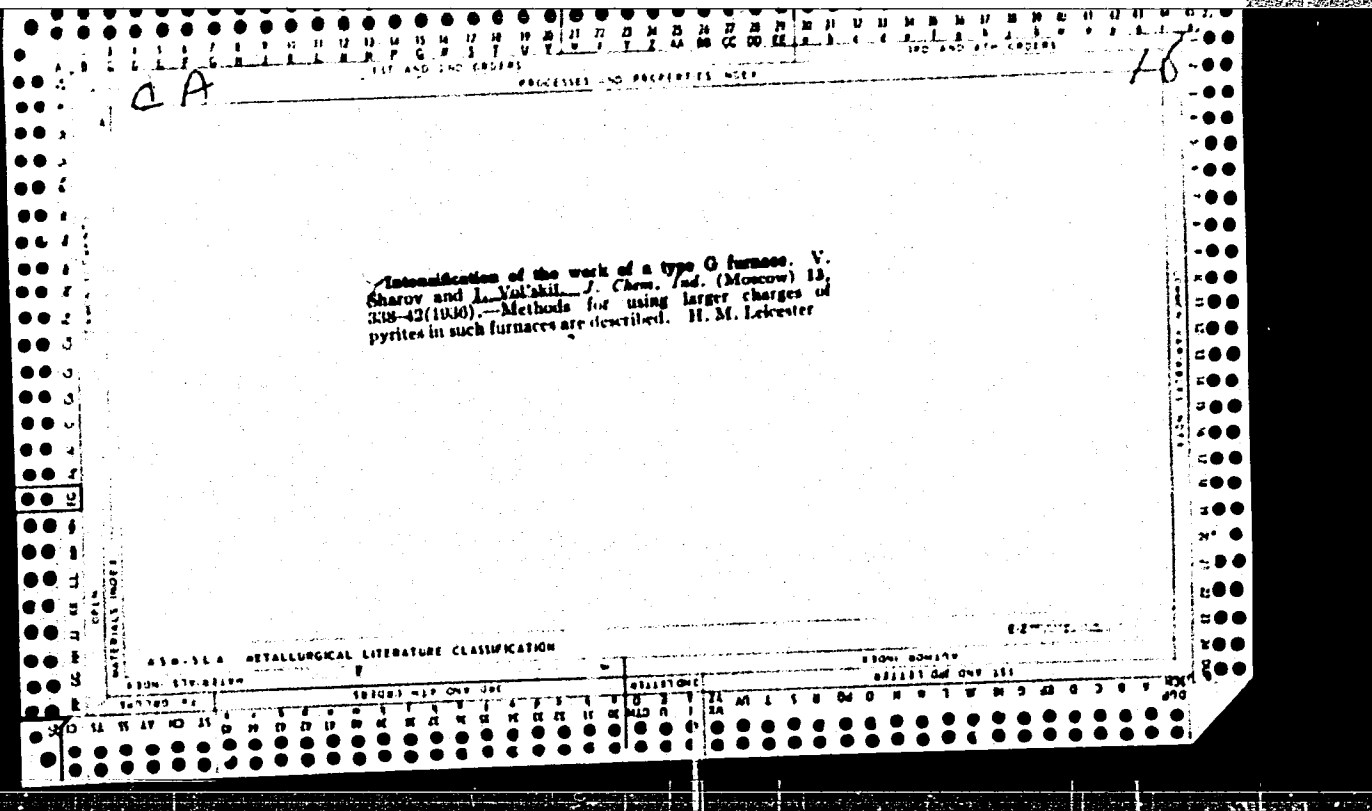
ENCL: 00

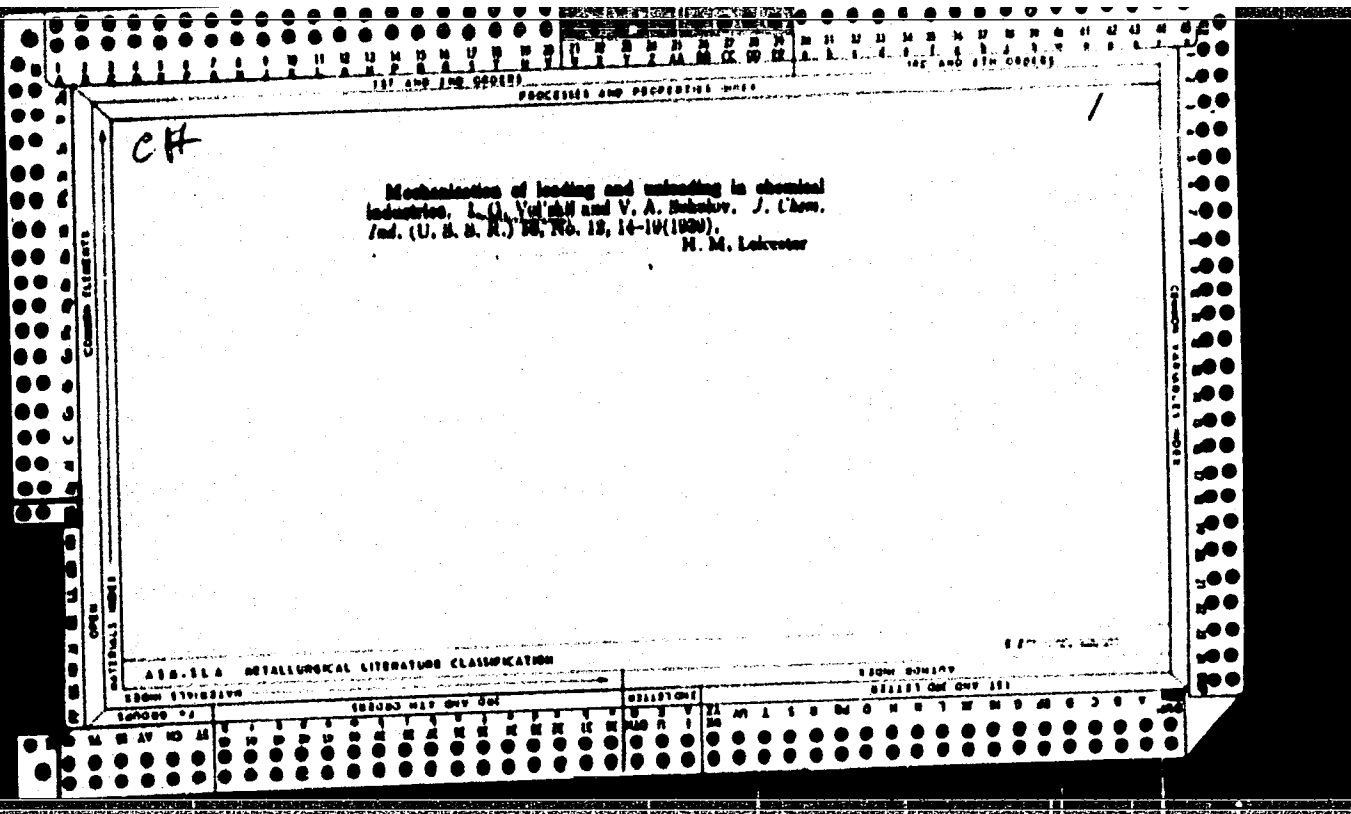
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NO REF SOV: 008

OTHER: 000

Card 2/2





VOL'SKIY, I.S.

Universal automatic grapple. Transp. stroi. 12 no.3:52-53 Mr
'62. (MIRA 16:11)

1. Instruktor peredovykh metodov truda Moskovskoy normativno-
issledovatel'skoy stantsii.

VOL'SKIY, I.S., instruktor peredovykh metodov truda

Disperser for making emulsions. *Transp. stroi.* 12 no.4:51-52
Ap '62. (MIRA 15:5)

1. Moskovskaya Normativno-issledovatel'skaya stantsiya
Orgtransstroya.

(Emulsions)

VOL'SKIY, I.S.

Manufacture of the loops of reinforcement frameworks for
contact network poles. Transp.stroi. 12 no.10:52-54 0 '62.
(MIRA 15:12)

1. Instruktor Moskovskoy normativno-issledovatel'skoy stantsii
Orgtransstroya.

(Concrete reinforcement)
(Electric lines--Poles and towers)

VOL'SKIY, I.S.

On the electrified section of the Shakhunya-Kirov track.
Transp. atrol. 14 no.3:10-11 Mr '64. (MIRA 17:6)

1. Instruktor Moskovskoy NIS Orgtransstroya.

ZHUMYKIN, A.P.; VOL'SKIY, I.S.

Erecting an overhead contact network on insulated cantilevers.
Transp. stroi. 14 no.8:12-14 Ag '64. (MIRA 18:1)

1. Instruktor Moskovskoy nauchno-issledovatel'skoy stantsii
Orgtransstroya (for Vol'skiy).

VOL'SKIY, L.N.; DUBOVENKO, Zh.V.; GERSHTEYN, N.A.; PENTEGOVA, V.A.

Study of the composition of essential oils of some coniferous species of Siberia by gas-liquid chromatography. *Khim. prirod. soed.* no.6:382-384 '65. (MIRA 19:1)

1. Novosibirskiy institut organicheskoy khimii Sibirskogo otdeleniya AN SSSR. Submitted July 8, 1965.

17(4), 30(1)

SOV/20-128-4-62/65

AUTHOR: Volskiy, M. I.

TITLE: Assimilation of Nitrogen by Animal Organisms at the Example of Chicken Embryos and Bee Nymphs

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 128, Nr 4, pp 857-859 (USSR)

ABSTRACT: Although no data have been published, the capability of the nitrobacter of binding atmospheric nitrogen, was considered by the author as an indication for a fundamental possibility of the assimilation mentioned in the title. He expressed this opinion already in 1947. The author experimentally examined these concepts in the test objects mentioned in the title. The chicken embryo first was subjected to plain air, then to a mixture of 21% of oxygen and 79% of argon, helium or xenon. The exsiccators blown through by air, warranted a normal development of the egg, while an exposure to argon killed the eggs after 4-9 days. The argon mixture had the same effect on newly hatched chickens. Helium and xenon showed the same effect as argon. To explain the biochemical and physiological role of atmospheric nitrogen, its content in the egg was determined at the different stages of hatching. Figure 1

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SOV/20-128-4-62/65
Assimilation of Nitrogen by Animal Organisms at the Example of Chicken Embryos and Bee Nymphs

shows the total nitrogen content in hatched and unhatched eggs. It shows that the total amount of nitrogen in embryos is higher by 3-4% than in unhatched eggs. Since nitrogen during incubation can only be absorbed through the shell, it may be assumed that the chicken embryo assimilates gaseous nitrogen during its development. A similar result was obtained with bee nymphs (Table 1). In 1956 additional experiments were made for a more exact examination of the above results. For this purpose hatching was carried out in air containing N^{15} . The author did not succeed in completing the incubation process in an airtight chamber. On the 14th day the oxygen absorption stopped, since all 5 test embryos had died in different developmental stages. This allowed an observation of nitrogen absorption. Figure 2 shows that the isotope composition of the total nitrogen content had suffered an N^{15} enrichment by 36%. The author therefore is of the opinion that the Lavoisier theorem saying that living organisms are not able to assimilate atmospheric oxygen, layed down more than 150 years ago, should be revised, as well as Voit's law

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SOV/20-128-4-62/65

Assimilation of Nitrogen by Animal Organisms at the Example of Chicken Embryos and Bee Nymphs

on the nitrogen equilibrium in living organisms. There are 2 figures, 1 table, and 3 Soviet references.

PRESENTED: March 13, 1959, by N. N. Semenov, Academician

SUBMITTED: March 13, 1959

Card 3/3

KHAKHANIN, V.P., inzh.; VOL'SKIY, M.I., prof., red.

[Experimental investigation of the stressed state of the crankshaft of the 6 CH 23/30 engine] Eksperimental'noe issledovanie napriazhennogo sostoiania kolenchatogo vala dvigatelya 6 CH 23/30. Gor'kii, Gor'kovskaja nauchno-issled. laboratorija ispytaniia materialov, 1959. 16 p. (MIRA 15:11)
(Crankshafts and crankshafts--Testing)

VOL'SKIY, M.I.

VOL'SKIY, M.I., prof., doktor tekhn.nauk.

Gorkiy scientific research laboratory is 25 years. old. Rech.
transp. 16 no.8:26-27 Ag '57. (MIRA 10:11)
(Gorkiy--Engineering research)

VOLSKIY, M. I. and A. V. LAZYIN

Babbity i zalivka podshipnikov. [Gor'ki] Gor'kovskoe kraevoe izd-vo, 1934.
124 p. illus.

Babbits and bearing babbitting.

DLC: Tj1061.V65

SO: Manufacturing and Mechanical Engineering in the Soviet Union, Library
of Congress, 1953.

MARKOV, Aleksandr Nikolayevich; VOISKIY, M.I., doktor tekhn.nauk,
prof., red.

[Brief course of the theory of elasticity]Kratkii kurs teorii
uprugosti. Gor'kii, Gos.univ., 1960. 207 p. (MIRA 16:2)
(Elasticity)

SIDOROVSKIY, V.A.; VOL'SKIY, M.I.

Using surfactants in the test exploitation of the Ust'-Balyk
oil field (Western Siberia). Neftprom. delo no.3:8-11 '65.

(MIRA 18:10)

1. ZapSibNIGNI.

VOPIKIN, E.A., kandidat tekhnicheskikh nauk.

Professor M.I. Volskii's errors ("Temperature stresses in machinery and
boilers." Received by E.A. Vopilkin). Vest.mash, 33 no.5:89-91 My '53.
(MLRA 6:5)

(Volskii, M.I.) (Strains and stresses)

VOLSKII, M.I.; GUMBENNYI, L.K.

[Mechanical testing of materials]. Mekhanicheskie ispytaniia materialov. Gor'kii, Gor'k. nauch.-issled. laboratorii ispytaniia materialov, 1954. 300 p. (MIRA 8:3D)

VOLSKIY, M. I.

200

Mekhanicheskiye Ispytaniya Materialov. Posobiye Dlya Zanyaiy So Studentami
Gor'kiy, 1954. 30S. S III 22Sm (MMPF SSSR. Gor'k. Nauch.-Issled. Laboratoriya
Ispytaniya Materialov.) 1.000 EKZ. 12r. V Per-(54-55160)
620.15

SO: Knizhnaya, Letopis, Vol. 1, 1955

VOLSKIY, M. I.

4784. VOLSKIY, M. I. Novaya kontsepsiya dykhaniya. izd. ispr. i dop. gor'kiy, kn, ~~mi.~~, 1954. 288s. s ill. 23 sm. (go-r'k. nauch.-issled. laboratoriya). 5.000 ekz. 9r. 45 k. v per. --- bibliogr: s. 280-283. - (55-363) 1-ye izd. vyshlo pod zagl: o nalichii vosoukha v pleural'noy polosti i novoy kontsepsii akta dykhaniya. 612.2+(016,3)

SO: Letopis' Zhrunal' nykh Statey, Vol. 7, 1949

VOLSKIY, M. I.

Babbitt metals and the lining of bearings Gor'kii Gor'kovskoe kraevoe
izd-vo, 1934. 124 p.
(49-44758)

TJ1061.V65

ACC NR: AR6034804 (N) SOURCE CODE: UR/0398/66/000/008/A022/A022

AUTHOR: Vol'skiy, M. I.; Volkov, L. M.; Anisimova, N. I.

TITLE: Experimental investigation of strength of ships' hulls

SOURCE: Ref. zh. Vodnyy transport, Abs. 8A128

REF SOURCE: Tr. Gor'kovsk. in-ta inzh. vodn. transp., vyp. 68, 1966, 90 str.

TOPIC TAGS: ship navigation, shipbuilding engineering, ship, strength test, "Volgo Don 1", "Volgo Don 2", general cargo river vessel, "Inzhener Belov", "Khorol" cotton and timber carrier

ABSTRACT: The Department of Resistance of Materials of the Gor'kiy Institute of Water Transportation Engineers, and the Scientific-Research Laboratory of Material Testing, Ministry of the River Fleet carried out on-the-spot strength tests to determine the reasons for the discrepancy between rated stresses and real ones in ships. The strength tests were carried out on the "Inzhener Belov" and "Khorol" cotton and timber carriers (5327 tons displacement) destined to sail on the Caspian Sea, and on that of the "Volgo-Don-1" and "Volgo-Don-3" general cargo river vessels of 200 tons displacement. The article presents the technical

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UDC: 669.12:624.02/09

ACC NR: AR6034804

characteristics of the ships, the testing methods, and the results obtained. When moving the ships from the cages to the plunzer carriage, a bending movement, which was called the shipway movement, was found and should be taken into consideration when calculating the vessel for strength. A formula to determine the shipway movement is proposed, the magnitude of which is commensurable with the magnitude of the calculated bending moment. The magnitudes of temperature stresses occurring in the hulls of ships owing to the difference of temperature in parts of the hull above and below water are also given. Orig. art. has: 55 figures. Ye. Sukacheva. [Translation of abstract]

SUB CODE: 13/

Card 2/2

VOLSKIY, M. YE.

(DECEASED)

1963/2

c' 1958

MEDICINE

SEE ILC

VOLSKIY, N.

Obrabatyvaemost Metallov Shlifovanien (Machining Ability of Metals) (Paper edition)

72 p. 40¢

SO: Four Continent Book List, April 1954

VOL'SKIY, N.D.

Electromechanical low-frequency pulse pickup. *Biul.tekh.-ekon.*
inform.Gos.nauch.-issl.inst.nauch.i tekhn.inform. no.9:57-59 '63.
(MIRA 16:10)

Name: VOLSKIY, Nikolay Ivanovich

Dissertation: Workability of metals by grinding

Degree: Doc Tech Sci

Affiliation: Leningrad Order of Labor Red Banner
Technological Inst imeni Lensovet

Defense Date, Place: 30 May 56, Council of Moscow Machine
Tool and Instrument Inst imeni Stalin

Certification Date: 6 Jul 57

Source: BMVO 18/57

VOLSKIY, N.I.

Completeness of the cutting-away of a metal layer from the part in
circular grinding. Trudy LTI no. 50:67-71 '59. (MIRA 14:3)
(Grinding and polishing)

VOL'SKIY, M.Ye.

YUSUPOVA, N.Ya., kand.med.nauk

Hypotensive effect of eyebright in an experiment and in a
-clinical study. Trudy ~~NIKI~~ NIKI no.5:132-141 '62. (MIRA 16:4)

1. Kafedra fakul'tetskoy terapii (zav. - prof. M.Ye.Vol'skiy
dotsent R.I.Ibragimova) i kafedra farmakologii Kirgizskogo
meditsinskogo instituta (zav. - dotsent Ye.A.Stegaylo).
(EYEBRIGHT) (ANTIHYPERTENSIVE AGNETS)

Casual

VOL'ISKIY, M Ye

List of Soviet Institutions in the Medical & Biological Sciences (Soviet medical periodical literature for 1955-56)

SO: CIA, FDD, U-3,054,003-C, 16 May 1957, For Official Use Only

Fakul'tetskaya Terapevticheskaya Klinika, Kirgizskiy
Meditsinskiy Institut
Faculty Therapeutic Clinic, Kirgiz Medical Institute
Prof M. Ye. Vol'skiy, Chief

HC

GUDZOVSKIY, G.A.; FUKS, P.M.

Carrying out a mass examination of workers in the mining industry of Kirghizistan. Sov.zdrav.Kir. no.2: 35-37 Mr-Apr '58. (MIRA 12:12)

1. Iz kafedry obshchey gigiyeny (ispolnyayushchiy obyazannosti zavedyushchego - dotsent G.A. Gudzovskiy) i kafedry fakul'tetskoy terapii (zav. - sasluzhennyy deyatel' nauki, prof. M.Ye. Vol'skiy) Kirgizskogo gosmedinstituta.

(KIRGHIZISTAN--MINERS--DISEASES AND HYGIENE)

PLATSMAN, L.G.; BREYDO, V.A.

Hemodynamic and electrocardiographic changes under the influence of mud treatments at high mountain altitudes. Vop. kur., fizioter. i lech. fiz. kul't. 25 no. 6:499-501 N-D '60. (MIRA 14:2)

1. Iz kliniki fakul'tetskoy terapii Kirgizskogo meditsinskogo instituta (zav. - prof. M.Ye. Vol'skiy) i Issyk-Kul'skogo sanatoriya "Tanga" (nach. M.V. Mikhaylenko).
(BLOOD) (ELECTROCARDIOGRAPHY) (BATHS, MOOR AND MUD)

124-58-9-9467

Translation from: Reverativnyy zhurnal, Mekhanika, 1958, Nr 9, p 3 (USSR)

AUTHOR: Volskiy, N. I.

TITLE: Nikolay Pavlovich Petrov, the Outstanding Russian Scientist and Engineer (Vydayushchiysya russkiy uchenyy i inzhener Nikolay Pavlovich Petrov)

PERIODICAL: Tr. Leningr. tekhnol. in-ta im. Lensovet, 1957, Nr 38, pp 10-15

ABSTRACT: A brief outline of the life and the scientific, engineering, social, and teaching activities of Nikolay Pavlovich Petrov. His merits in the establishment of the hydrodynamic theory of lubrication and in the development of rail transportation in Russia are particularly emphasized.

N. T. Pashchenko

1. Scientific personnel--USSR

Card 1/1

VIGDOROVICH, V.N.; VOL'PYAN, A. Ye.

Preparation of high purity nonferrous metals by the method of zonal melting. Izv. vys. ucheb. zav.; tsvet. met. 3 no.3:125-135 '60. (MIRA 14:3)

1. Krasnoyarskiy institut tsvetnykh metallov. Rekomendovana nauchno-tekhnicheskim Sovetom problemnoy laboratorii chistykh metallov, metallicheskih soyedineniy i poluprovodnikovyykh materialov.

(Nonferrous metals—Metallurgy)

ACCESSION NR: AP4029832

8/0279/64/000/002/0063/0068

AUTHOR: Vigdorovich, V. N. (Moscow); Adler, Yu. P. (Moscow); Vol'pian, A. Ye. (Moscow)

TITLE: On the evaluation of the efficiency of the zonal recrystallization process

SOURCE: AN SSSR. Izv. Metallurgiya i gornoye delo, no. 2, 1964, 63-68

TOPIC TAGS: zonal recrystallization, efficiency, entropy, impurity, entropy function, thermodynamic entropy

ABSTRACT: In this paper the authors suggested that with the aid of the so-called entropy function, an evaluation can be made of the crystallization process efficiency of purification by examining the degree of "disorderliness" or "orderliness" of the impurity distribution along the length of the ingot. Previously, the basic criterion used for evaluating the removal of impurities in a zonal recrystallization was the so-called distribution coefficient. Evaluation of the zonal recrystallization process efficiency, by means of the distribution coefficient, does not permit the entire process to be characterized, even in the relation of the purification course of a certain number of impurities, i.e., the distribution coefficient is superfluously specific. The authors derived formulas to evaluate the efficiency; results were

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ACCESSION NR: AP4029832

compared in tables. The authors suggest an entropy criterion for evaluating the distribution efficiency or the efficiency of purification from impurities in zonal recrystallization and other methods of direct crystallization. The possibility was shown of using this criterion for evaluating the behavior of separate impurities, their combinations, and the entire sum of the control impurities during the actual process by considering their distribution throughout the length of the ingot without apriori construction of a theoretical model of the process. Orig. art. has: 9 formulas, 1 figure and 1 table.

ASSOCIATION: none

SUBMITTED: 21May62

DATE ACQ: 30Apr64

ENCL: 00

SUB CODE: ML

NO REF SOV: 016

OTHER: 011

Card 2/2