ACC NR: AP6006991

sections of the transitions between the substates of the $^1P_1$ states.[2] It is shown in particular that when the condition for adiabatic collisions is satisfied and the trajectories are assumed to be straight lines, the effective cross section for the transitions between the substates does not depend on the detailed form of the interaction forces, on the impact distance, and on the velocity. Solution of the kinetic equations for the density matrix of the $^1P_1$ state and allowance for the selection rules for dipole emission leads to simple formulas for the dependence of the fluorescence polarization on the density of the added gas. Methods of improving the accuracy of the theory are briefly discussed. The authors thank M. P. Chayka for continuous interest and discussions, and Yu. N. Demkov for valuable advice. Orig. art. has: 45 formulas.

SUB CODE: 20/ SUBM DATE: 21Dec64/ ORIG REF: 003/ OTH REF: 001

Card 2/2dda

REBEC, Z.

Action of radium upon storage batteries. Tesla no.11/12:26 Jl-Ag '55.

REBECKI, W.

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REPACSAR, S.

REPACSAR, S. Economical use of plywood. p. 322.

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TECHNOLOGY
Budapest, Hungary

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IONESCU-MUSCEL, I., prof. ing.; REBEDEA,C., ing.; COTIGARU,B., ing.; RUICEA, Maria, ing.; STOIAN, Elena, ing.; NISTOR,N.; BAIETONIU,P.

Mixed cotton and flax duck for protection clothing. Ind text Rum 12 no.8:313-318 Ag'61.

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Importance of the economist expert in the science of commodities in the improvement and quality control of products. Industria usoara 10 no.8:356-360 Ag '63.

GINGOLD, N.; VILCU, Al.; STOICHITA, S.; REBEDEA, D.; RUSSU, M.

Transitory changes or transformations in the clinical and hematological evolution of some leukoses. Stud. cercet. med. intern. 2 no.2: '61.

(LEUKEMIA, LYMPHOCYTIC complications)
(PLEURISY complications) (INFLUENZA complications)
(HODGKIN'S DISEASE case reports) (LEUKOCYTOSIS complications)

NICOLESCU, Zoe; URSU, Elena; REBEDEA, Tr.

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(CERVIX NEOPLASMS in pregnancy) (PREGNANCY complications)

SPIRCHEZ, T., prof.; GHEORGHESCU, B., dr.; OPROIU, Al., dr.; REBEDEA, D., dr.; MERCULIEV, E., fizician; VASILESCU, V.V., fizician

Clinical considerations on chronic pancreatitis and the diagnostic value of radioactive fat substances. Med. intern. 14 no.4:403-408 Ap '62.

(PANCREATITIS) (IODINE ISOTOPES, DIAGNOSTIC) (TRIOLEIN) (OLEIC ACID) (BLOOD LIPIDS) (FECES)

SPIRCHEZ, T., prof.; GHEORGHESCU,B.; OPROIU, Al.; REBEDEA, D.; MERCULIEV, E.; VASILESCU, V.V.

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(PANCREATITIS) (FATS) (RADIOMETRY)

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BERNTHAL, I.; FAIBIS, A.; ROTARU, Natalia; NEGRU, Tr.; REBEDEA, Ileana; MIHAILCEA, Florica

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IBACESCU, Dumitrie A.; REBEDEA, Ingrid

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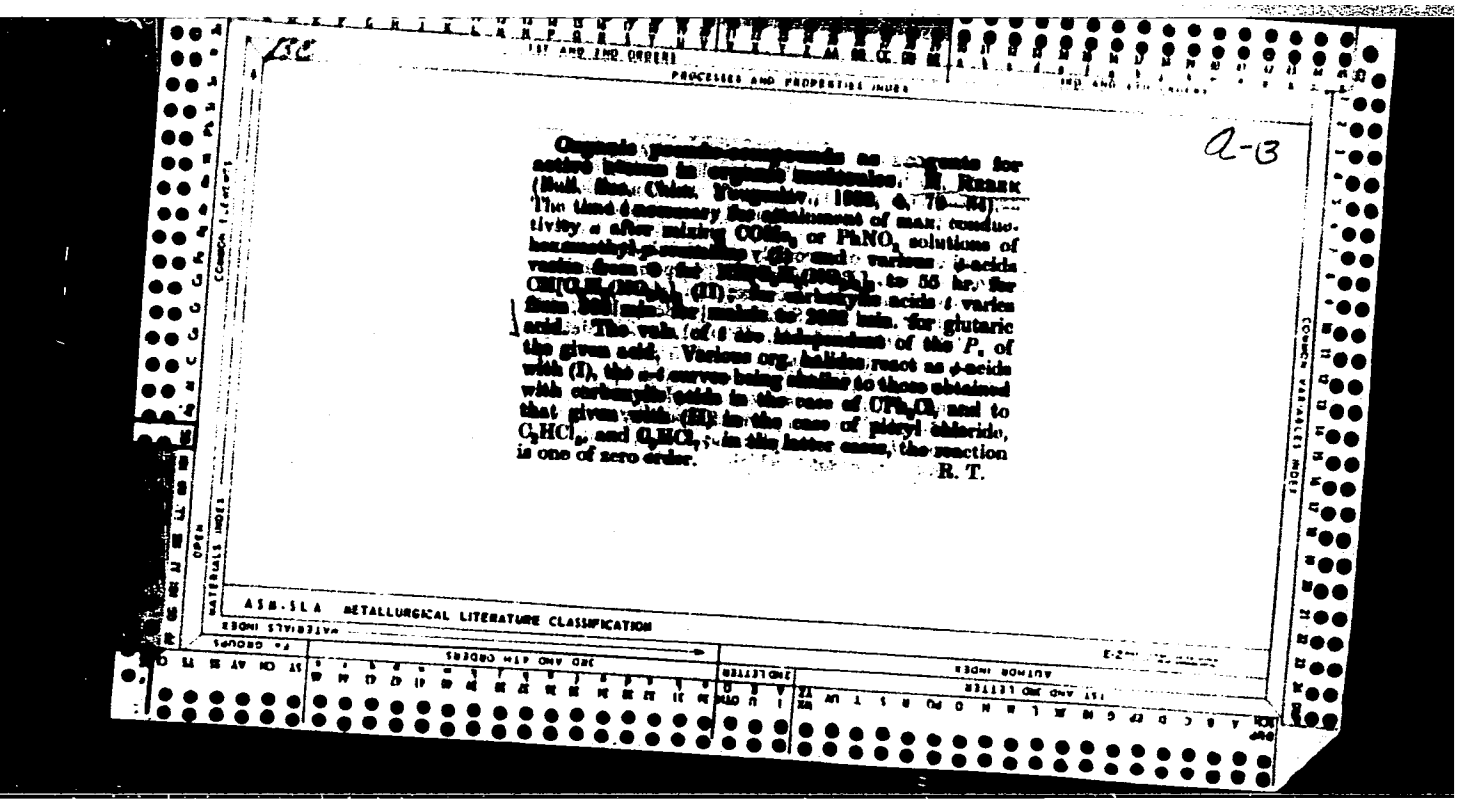
1. Laboratory of Physical Chemistry of Macromolecules, University of Bucharest, 13 Bd. Republicii. Submitted July 13, 1964.

Annex 1.

Short description of the Jesenice Ironworks rolling [illegible]. p. 145. ([illegible] Vol. 5, no. 3/4, Sept. 1954, Ljubljana, Yugoslavia)

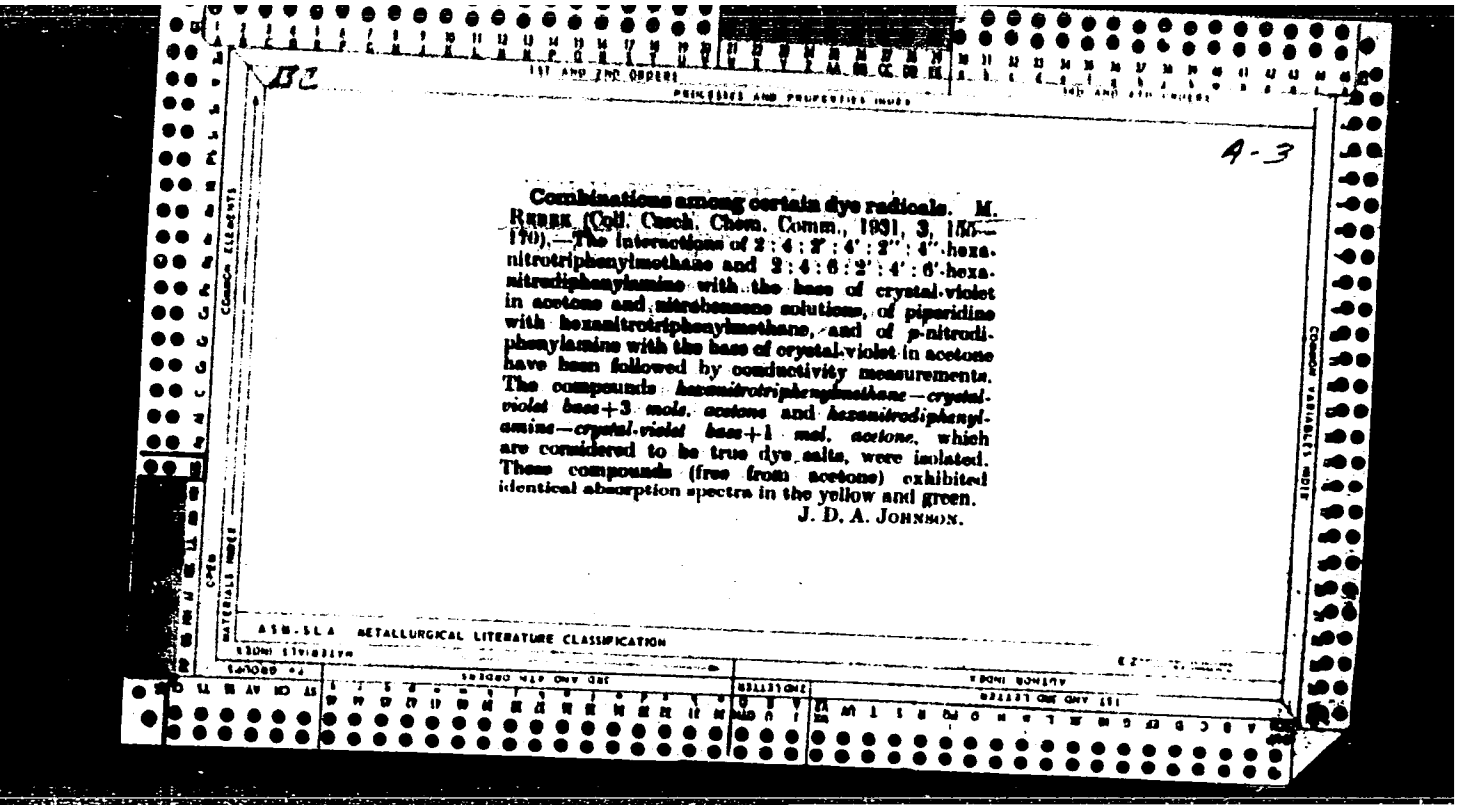
[illegible]: Monthly List of East European Accessions, (EAL), LC, Vol. 4, no.4, [illegible], Mar.



PROCESSES AND PROPERTIES INDEX

a-3

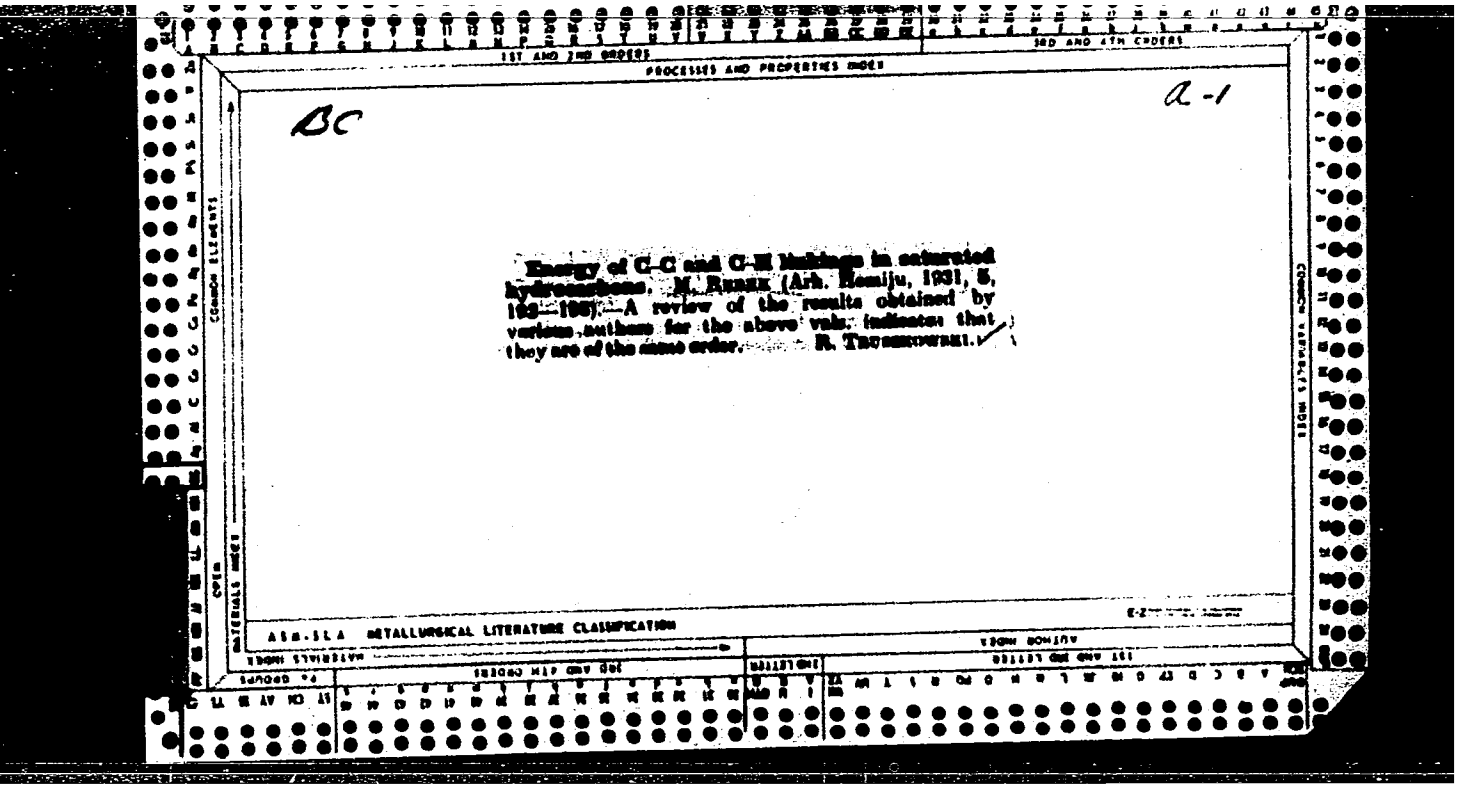
ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

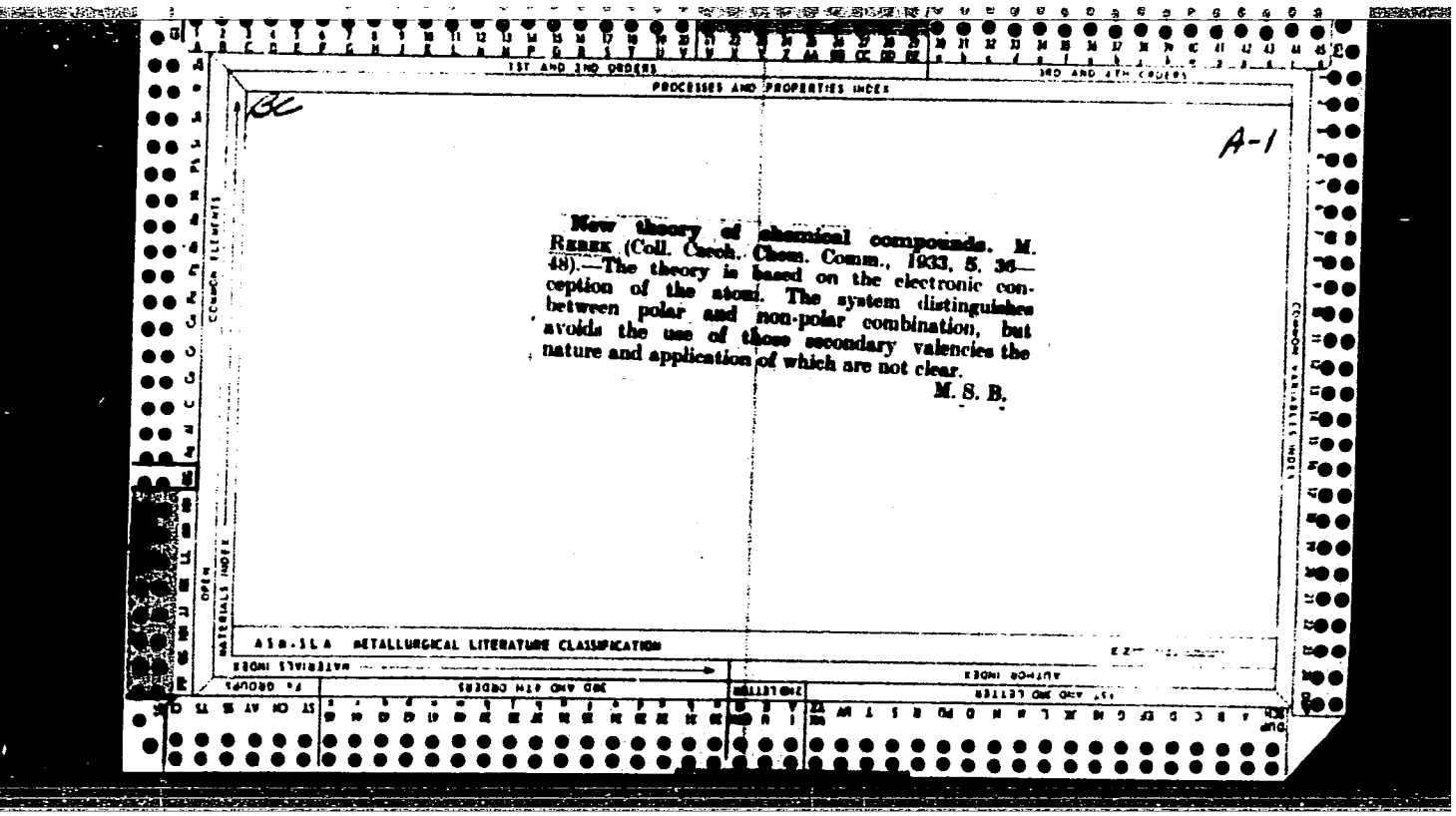


4-3

Combinations among certain dye radicals. M. Rubin (Coll. Czech. Chem. Comm., 1931, 3, 155–170).—The interactions of 2 : 4 : 2' : 4' : 2'' : 4''-hexanitrotriphenylmethane and 2 : 4 : 6 : 2' : 4' : 6'-hexanitrodiphenylamine with the base of crystal-violet in acetone and nitrobenzene solutions, of piperidine with hexanitrotriphenylmethane, and of *p*-nitrodiphenylamine with the base of crystal-violet in acetone have been followed by conductivity measurements. The compounds *hexanitrotriphenylmethane—crystal-violet base+3 mols. acetone* and *hexanitrodiphenylamine—crystal-violet base+1 mol. acetone*, which are considered to be true dye salts, were isolated. These compounds (free from acetone) exhibited identical absorption spectra in the yellow and green.

J. D. A. Johnson.





PROCESSES AND PROPERTIES INDEX

A-1

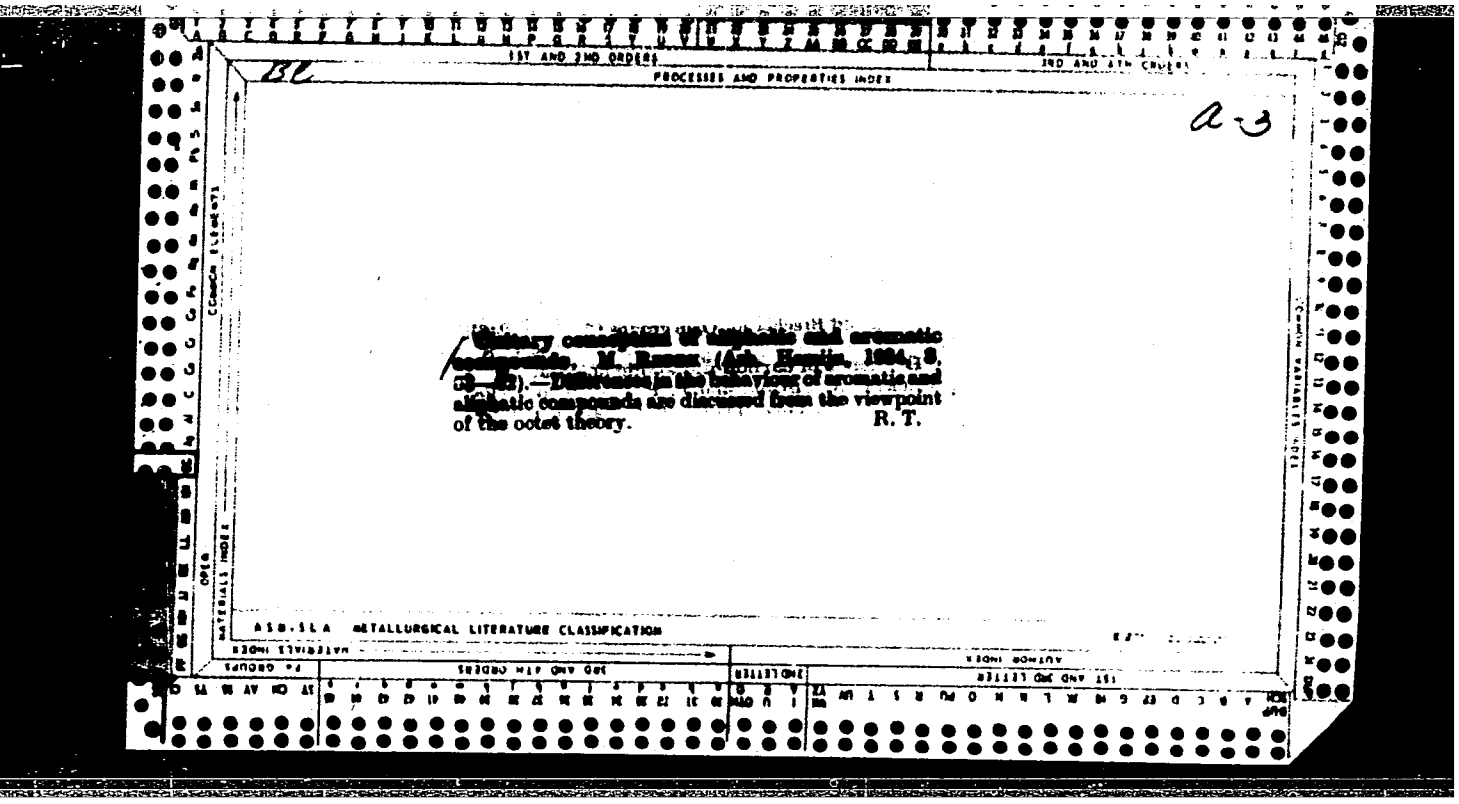
New theory of chemical compounds. M. REBEK (Coll. Czech. Chem. Comm., 1933, 5, 36—48).—The theory is based on the electronic conception of the atom. The system distinguishes between polar and non-polar combination, but avoids the use of those secondary valencies the nature and application of which are not clear.

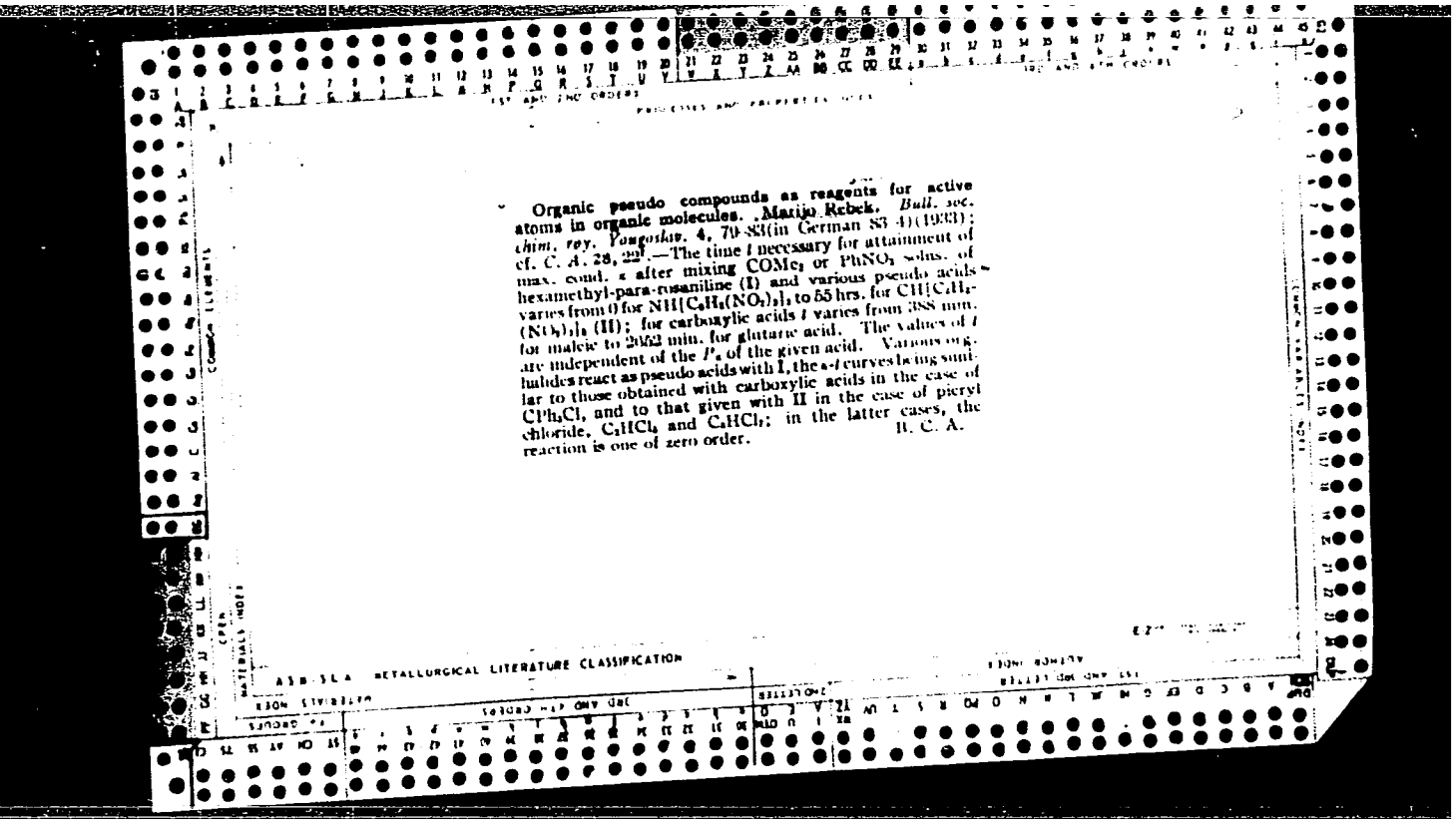
M. S. B.

A.S.M.-S.L.A. METALLURGICAL LITERATURE CLASSIFICATION

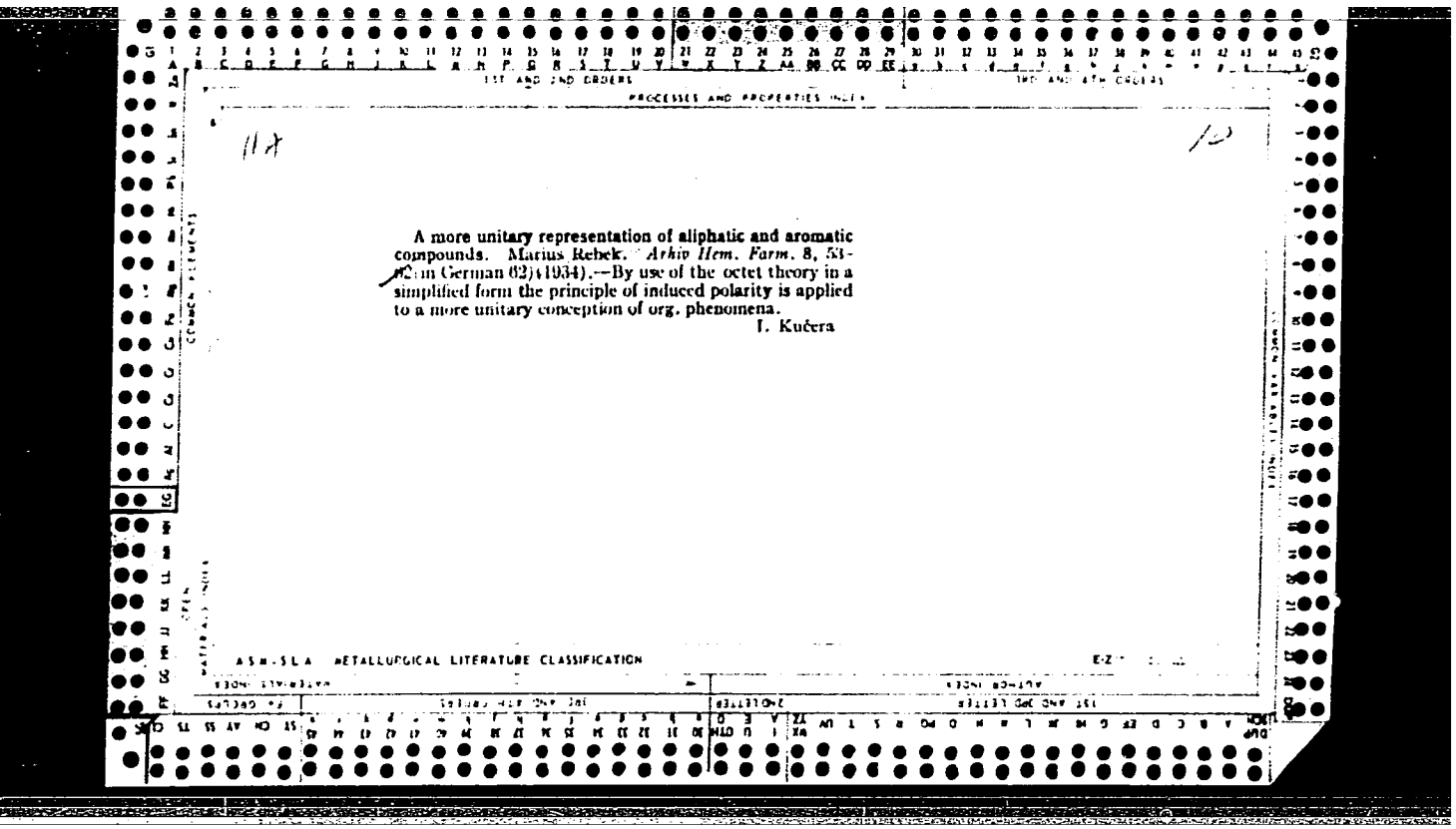
3

Induction vs. electron displacement. M. Rebek (Tech. Hochschule, Graz, Austria). *Monatsh.* 83, 144–50 (1952). By induction effect (in this paper) is meant an alternation in polarity of the atoms along a chain due to the alternate stabilization and loosening of octets. By electron displacement is meant the transmitted polarization of the bonds along the chain, all in the same sense. By making certain quant. assumptions about the sharing of binding electron pairs, alternating polarity is predicted without explicit recourse to the concept of octet stabilization. J. E. L.



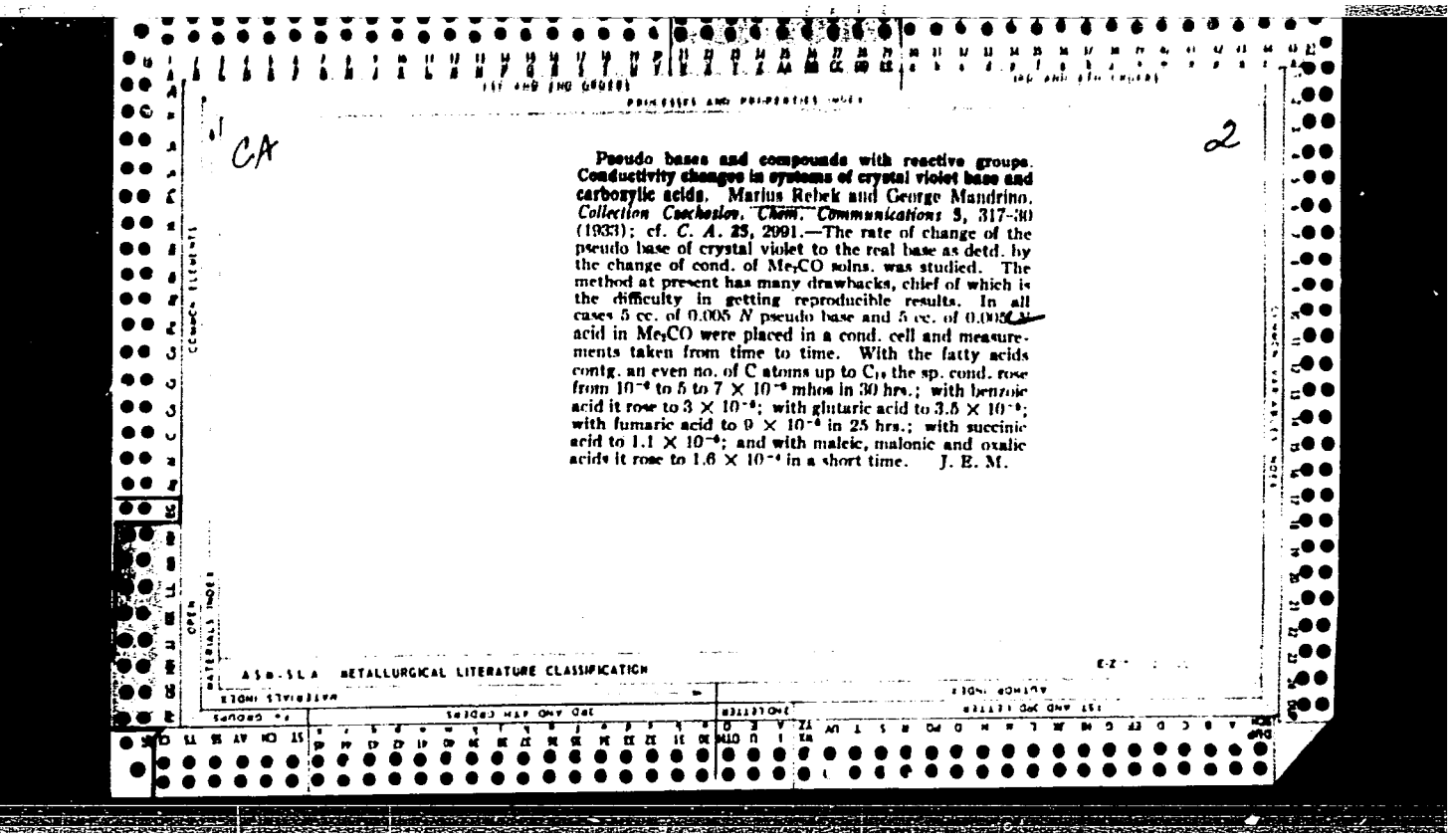


Organic pseudo compounds as reagents for active atoms in organic molecules. Marijo Rebek. *Bull. soc. chim. roy. Yougoslav.* 4, 70-83(in German 83-4)(1933); cf. *C. A.* 28, 29[illegible].—The time *t* necessary for attainment of max. cond. *s* after mixing $COMe_2$ or $PhNO_2$ solns. of hexamethyl-para-rosaniline (I) and various pseudo acids varies from 0 for $NH[C_6H_3(NO_2)_2]_2$ to 55 hrs. for $CH[C_6H_3(NO_2)_2]_3$ (II); for carboxylic acids *t* varies from 388 min. for maleic to 2052 min. for glutaric acid. The values of *t* are independent of the P_a of the given acid. Various organic halides react as pseudo acids with I, the *s-t* curves being similar to those obtained with carboxylic acids in the case of CPh_3Cl, and to that given with II in the case of picryl chloride, C_6HCl_5 and C_6HCl_7; in the latter cases, the reaction is one of zero order. B. C. A.



A more unitary representation of aliphatic and aromatic compounds. Marius Rebek. *Arhiv Hem. Farm.* 8, 53-62 (in German 62)(1934).—By use of the octet theory in a simplified form the principle of induced polarity is applied to a more unitary conception of org. phenomena.

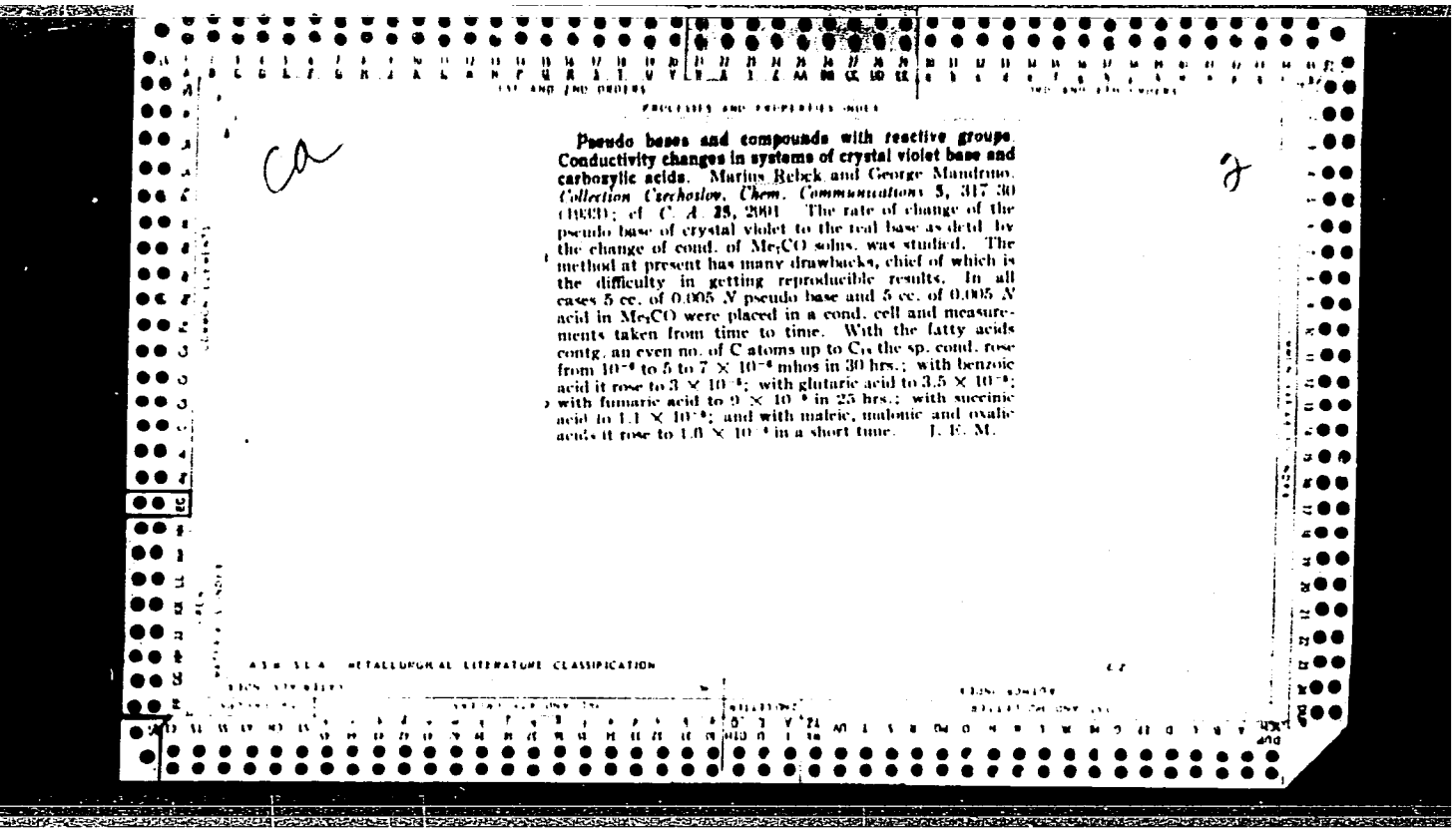
I. Kučera



CA

2

Pseudo bases and compounds with reactive groups. Conductivity changes in systems of crystal violet base and carboxylic acids. Marius Rebek and George Mandrino, *Collection Czechoslov. Chem. Communications* **5**, 317–30 (1933); cf. *C. A.* **25**, 2091.—The rate of change of the pseudo base of crystal violet to the real base as detd. by the change of cond. of Me_2CO solns. was studied. The method at present has many drawbacks, chief of which is the difficulty in getting reproducible results. In all cases 5 cc. of 0.005 *N* pseudo base and 5 cc. of 0.005 *N* acid in Me_2CO were placed in a cond. cell and measurements taken from time to time. With the fatty acids contg. an even no. of C atoms up to C_{10} the sp. cond. rose from 10^{-6} to 5 to 7 × 10^{-6} mhos in 30 hrs.; with benzoic acid it rose to 3 × 10^{-6}; with glutaric acid to 3.5 × 10^{-6}; with fumaric acid to 9 × 10^{-6} in 25 hrs.; with succinic acid to 1.1 × 10^{-6}; and with maleic, malonic and oxalic acids it rose to 1.6 × 10^{-6} in a short time. J. E. M.



Pseudo bases and compounds with reactive groups. Conductivity changes in systems of crystal violet base and carboxylic acids. Marius Rebek and George Mandrino. *Collection Czechoslov. Chem. Communications* **5**, 317-30 (1933); cf. *C. A.* **25**, 2001. The rate of change of the pseudo base of crystal violet to the real base as detd. by the change of cond. of Me_2CO solns. was studied. The method at present has many drawbacks, chief of which is the difficulty in getting reproducible results. In all cases 5 cc. of 0.005 *N* pseudo base and 5 cc. of 0.005 *N* acid in Me_2CO were placed in a cond. cell and measurements taken from time to time. With the fatty acids contg. an even no. of C atoms up to C_{14} the sp. cond. rose from 10^{-6} to 5 to 7×10^{-6} mhos in 30 hrs.; with benzoic acid it rose to 3×10^{-5}; with glutaric acid to 3.5×10^{-5}; with fumaric acid to 9×10^{-5} in 25 hrs.; with succinic acid to 1.1×10^{-4}; and with maleic, malonic and oxalic acids it rose to 1.0×10^{-4} in a short time. J. E. M.

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

A-1

Pseudo-bases and compounds with reactive groups. Conductivity changes in systems of crystal-violet base and carboxylic acids. R. [illegible] and G. [illegible] (Coll. [illegible] Chem. Comm., [illegible], 5, 317—330).—The velocity of salt-formation in systems of the type crystal-violet base–org. acid–$COMe_2$ at 25° has been determined conductometrically. In general, the velocity is the higher the stronger is the acid. Discrepancies are attributed to the fact that the vals. taken for the dissociation consts. of the acids refer to aq. solutions. Data, including conductivities of $COMe_2$ solutions, are given for the even fatty acids up to C_{10}, the dicarboxylic acids up to C_5, and for fumaric, maleic, and benzoic acids.

D. R. D.

A.S.M.-S.L.A. METALLURGICAL LITERATURE CLASSIFICATION

REBKO, A.F.

Zonal parameters of the control of indirect and direct reduction processes in blast furnaces. Sbor. trud. TSNIICHM no.29:24-31 '63. (MIRA 17:4)

SOROKIN, V.A., prof., doktor tekhn. nauk; REBEKO, A.F., red.; GOLYATKINA, A.G., red.izd-va; EN'YAKOVA, G.M., tekhn. red.

[Fully automated blast furnaces] Kompleksnaia avtomatizatsiia domennykh pechei. Moskva, Metallurgizdat, 1963. 279 p. (MIRA 17:2)

OSTROUKHOV, Mark Yakovlevich; REBEKO, A.F., red.; YABLONSKAYA, L.V., red.izd-va; KARASEV, A.I., tekhn.red.

[Saving of coke in blast furnaces] Ekonomiia koksa v domennoi plavke. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po chernoi i tsvetnoi metallurgii, 1960. 142 p. (MIRA 13:6)
(Coke) (Blast furnaces)

RETEL'SKIY, A. V. DECEASED 1963/1

c. 1962

FORGING

SEE ILC

AL'PEROVICH, Yu.; REBEL'SKIY, S.

New generation of tractors. Tekh.mol. 28 no.11:5-7 '60. (MIRA 13:12)

(Tractors)

OSIPOV, A. I., KOZHEVNIKOV, I. Yu., IUDIN, V. Ye., SAZANOV, M. L., BUL'SKIY, M. T., ALIMOV, A. G., SKREBTSOV, A. M. and REBENKO, A. P.

TITLE: A New Method for Speedy Analysis of Slag for Phosphorus by Means of Radioactive Means of Radioactive Tracers (Novyy metod ekspress-analiza shlaka na fosfor s primeneniyem radicaktivnykh indikatorov)

PERIODICAL: V sb.: Fiz.-khim. osnovy proiz-va stali. Moscow, AN SSSR, 1957, pp 82-93 Diskus. pp 160-187.

ABSTRACT: A method has been developed for speedy analysis of slag for P205 by means of radioactive P(I). The analysis requires 5-7 min. The method is accurate to within 5-6 percent (rel.). The consumption of material is 0.04-0.05 millicurie per to of metal. To determine P205, I is introduced into the heat in a mixture with powdered Fe. The mixture is placed in a Cu ampoule and the I with the Fe form Ferrophosphorus during the period of heatin g and fusion. This then undergoes uniform dissemination throughout the volume of the heat. Determination of P205 by radiometry requires one tagged sample in which the P205 is determined chemically. A graph showing determination of P205 by radiometry as compared with the data of chemical analysis is presented. The employ--ment of radiometric analysis of slag for P205 makes it possible to take and analyze a large number of samples of slag in the course of a heat.

1. Slag analysis--Processes.

ANASTAS'IN, V.F.; ARAKELOV, A.S.; BOBROV, A.L.; VIKHOREV, Yu.V.; VIL'DER, S.I.; GLUSHKO, I.K.; GOKUN, A.M.; PIN'KOVSKIY, Ya.I.; PASHKOV, N.D.; RYABUKHA, G.K.; REBENKO, G.S.; SMUROV, Fedor Pavlovich; SOSKIND, D.M.; SAMSONOV, B.A.; SEMENOV, A.B.; SULEYMANOV, A.B.; KHARLAMOV, A.A.; TSAR'KOV, B.N.; SHIFRIN, D.L.; SHEYNMAN, V.I.; ABAKUMOVSKIY, Dmitriy Dmitriyevich, red.toma; SVYATITSKAYA, K.P., vedushchiy red.; TROFIMOV, A.V., tekhn.red.

[Petroleum equipment; in six volumes] Neftianoe oborudovanie; v shesti tomakh. Moskva, Gos.nauchno-tekhn.izd-vo neft. i gorno-toplivnoi lit-ry. Vol.4. 1959. 294 p. (MIRA 12:9)
(Petroleum refineries--Equipment and supplies)

REBINKO, N. L.
B. V. ILIN, Ann. inst. anal. phys.-chim, 6, 91-6, 1933

REBENKOVA, M.V.

USSR/Diseases of Farm Animals. Diseases Caused by Bacteria and Fungi. R-1

Abs Jour: Ref. Zhur-Biol., No 18, 1958, 83522

Author : Ivanov, M.F., Rebenkova, M. V.
Inst : State Scientific Control Institute of Veterinary Preparations.
Title : Mastering the Production of Dried Strain No 19 Brucella Vaccine.

Orig Pub: Tr. Gos. nauchno-kontrol'n. in-ta vet. preparatov, 1957, 7, 20-25

Abstract: No abstract is given

Card 1/1

KAGAN, B.A.; REBENOK, S.P.

Preliminary calculation of heat balance components of the surface of the Norwegian Sea. Trudy Len. gidromet. inst. no.17:72-88 '64. (MIRA 18:6)

SAVITSKIY, K.V.; ZAGREBENNIKOVA, M.P.; REBENOK, V.F.

Effect of the dispersity of $CuAl_2$ inclusions on the behavior of duralumin under conditions of deformation with variations in the testing temperature. Izv. vys. ucheb. zav.; fiz. no. 1:168-170 '60. (MIRA 13:12)

1. Sibirskiy fiziko-tekhnicheskiy institut pri Tomskom gosudarstvennom universitete imeni V.V. Kuybysheva.
(Duralumin)

18,8100

S/139/60/000/01/029/041
E073/E535

AUTHORS: Savitskiy, K.V., Zagrebennikova, M.P. and Rebenok, V.F.

TITLE: Influence of the Degree of Dispersion of $CuAl_2$ Inclusions on the Behaviour of Duralumin Under Conditions of Deformation with a Variable Test Temperature

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Fizika, 1960, Nr 1, pp 168 - 170 (USSR)

ABSTRACT: In an earlier paper (Ref 2) the authors studied the influence of the degree of dispersion of $CuAl_2$ inclusions on the temperature and the speed dependence of the mechanical properties of duralumin under conditions of simple compression; they found that the dimension and the distribution of particles of the second phase show a considerable influence on the slip process. The present paper is devoted to the study of the behaviour of duralumin D1 with various degrees of dispersion of the hard $CuAl_2$ particles under conditions of variable test temperatures during deformation. It was anticipated that under such complicated conditions of deformation the advantages of a given structure should manifest themselves

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E073/E335

Influence of the Degree of Dispersion of $CuAl_2$ Inclusions on the Behaviour of Duralumin Under Conditions of Deformation with a Variable Test Temperature

most clearly. Also such investigations may yield additional information for verifying the correctness of the mechanical equalisation of the state for alloys, namely, they may indicate the role of secondary processes during deformation of the alloy under such conditions. Such investigations are of practical interest from the point of view of aviation, since duralumin aircraft components are required to work under a variety of conditions, including considerable temperature variations. The aim of the work described in this paper was to investigate the behaviour of duralumin in various states, differing from each other in the degree of dispersion of the $CuAl_2$ particles, under conditions of changing temperature. The degrees of dispersion were as follows: I = average particle distance $r = 0.8$ μ; II = average distance between the particles $r = 1.1$ μ; III = average distance between the particles $r = 1.5$ μ and IV = average distance between the particles $r = 2.2$ μ. In earlier work (Ref 2)

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E075/E335

Influence of the Degree of Dispersion of $CuAl_2$ Inclusions on the Behaviour of Duralumin Under Conditions of Deformation with a Variable Test Temperature

it was found that the most metastable material is duralumin with IV-th degree dispersion, whilst the metastability of the material with degrees I, II and III of dispersion is slight and approximately the same. The authors investigated the effects of the following temperature variations during compression:
1) - 80 → 20 → 155 °C; 2) 20 → - 80 → 155 °C;
3) 155 → 20 → - 80 °C; 4) 20 → 155 → - 80 °C.
The changes in the test temperature were achieved as follows: at the temperature T_1 the specimen was compressed by 10%, relieved of the load and placed into a second sleeve which had the required temperature T_2 and again compressed a further 10%; the last reduction step of the specimens was effected in a third sleeve with the temperature T_3 in the working space; thereby the deformation speed was 0.17 mm/min. For obtaining each of the curves, 5 specimens were deformed under the conditions of a given temperature change. the maximum deviation from the average value of σ was 1-2% or 0.3 - 0.6 kg/mm^2. The

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Influence of the Degree of Dispersion of $CuAl_2$ Inclusions on the Behaviour of Duralumin Under Conditions of Deformation with a Variable Test Temperature

obtained results indicate that in many cases for duralumin, which in the θ-solid solution has hard inclusions of various sizes, definite relations can be observed in the characteristics of the flow curves, which are similar to those obtained by other authors in tensile tests with pure metals. Figure 1 is a plot of the flow curves of duralumin of the degree of dispersion II during compression under conditions of the temperature variations: $-80 \rightarrow 20 \rightarrow 155$ °C. The full dots indicate values measured in the case of continuous compression; the circles indicate the values obtained in the case of compression under conditions of changing temperature. Figure 2 shows similar curves for duralumin with the degree of dispersion IV in the case of compression with a temperature changing from $155 \rightarrow 20 \rightarrow -80$ °C. The results show that the degree of dispersion of the solid inclusions has a definite influence on the characteristics of the flow curves in tests under changing

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S/139/60/000/01/029/041
E073/E335

Influence of the Degree of Dispersion of $CuAl_2$ Inclusions on the Behaviour of Duralumin Under Conditions of Deformation with a Variable Test Temperature

temperature conditions. Additional ageing of the alloy during deformation at elevated temperature (155 °C) can lead to a deviation from the regular shape of the flow curves established by a number of authors during testing of pure metals.
There are 2 figures and 5 references. 1 of which is international, 1 English and 3 Soviet.

ASSOCIATION: Sibirskiy fiziko-tekhnicheskiy institut pri Tomskom gosuniversitete imeni V.V. Kuybysheva (Siberian Physico-technical Institute of Tomsk State University imeni V.V. Kuybyshev)

SUBMITTED: August 3, 1959

Card5/5

YEFIMOV, A.L.; REBENKOVA, A.I., redaktor; PETRUSHKO, Ye.I., tekhnicheskiy redaktor.

[Brief guide to the use of poisons for the control of pests and diseases of plants] Kratkii spravochnik po primeneniiu iadov dlia bor'by s vrediteliami i bolezniami rastenii. Moskva, Gos. izd-vo selkhoz. lit-ry, 1954. 159 p. [Microfilm] (MLRA 7:12)

(Plants, Protection of) (Pesticides) (Insecticide)

REBENOK, G. S.

Ognevaia otrezka pribylei v bol'shikh otlivkakh iz nerzhaveiushchei stali pri 1000°. (Vestn. Mash., 1948, no. 6, p. 47-48)

Flame cutting of heads of large stainless-steel castings at 1000°.

DLC: TN4.V4

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

KAGAN, B.A.; REBENOK, S.P.

Method of calculating stationary currents in case of unstable atmospheric stratification. Okeanologiia 1 no.6:1003-1006 '61. (MIRA 15:1)

1. Leningradskiy gidrometeorologicheskiy institut.
(Ocean currents)

REBENOK, Zh.A.

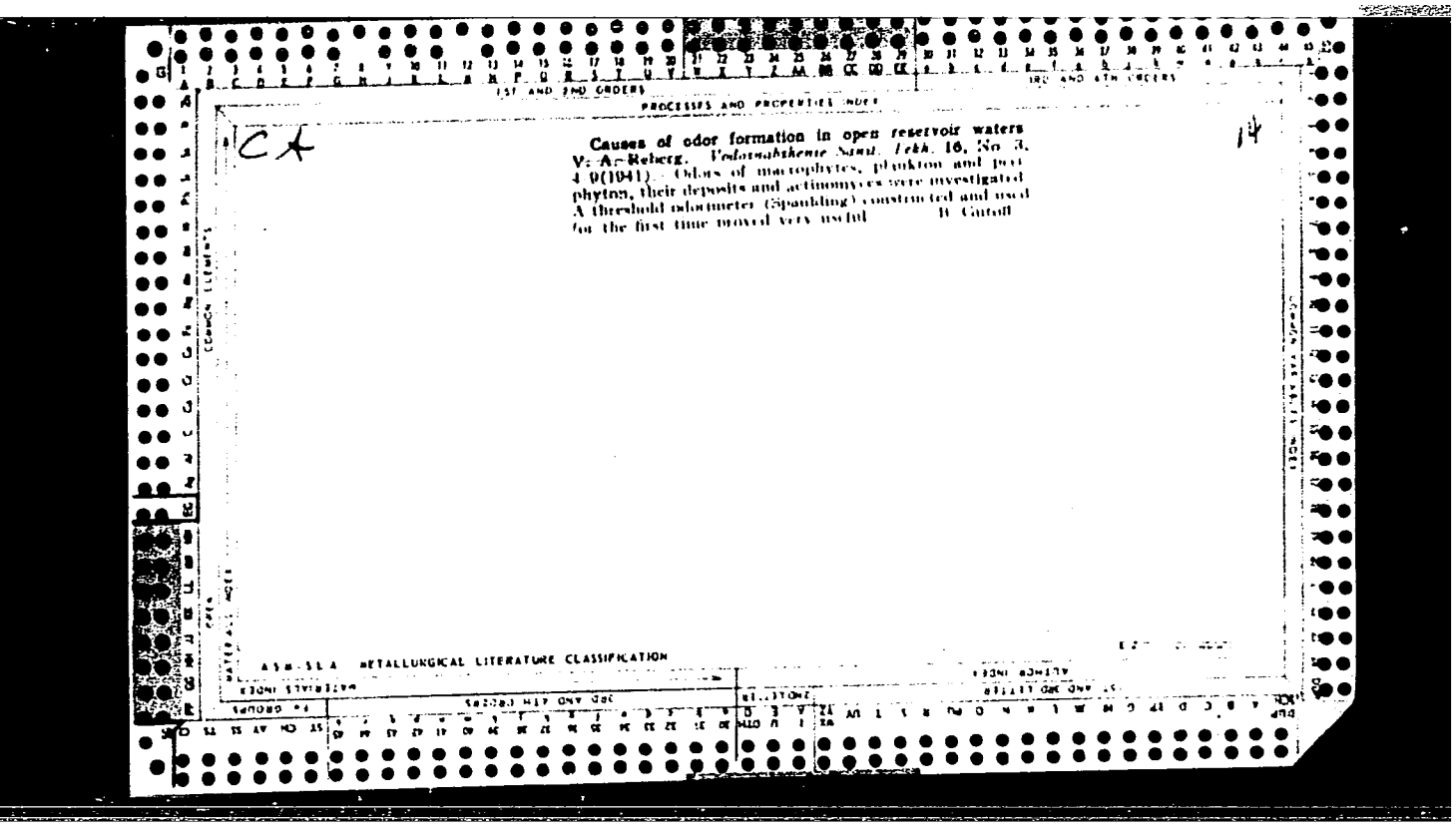
Value of enzymatic tests ih infectious hepatitis. Zdrav. Bel. 8 no.6:19-21 Je '62. (MIRA 16:8)

1. Iz kafedry infektsionnykh bolezney (zav. - chlen-korrespondent AMN SSSR, prof. A.M.Filippovich [deceased] i kafedry obshchey khimii (zav. - dotsent V.A.Bandarin) Minskogo meditsinskogo instituta.
(HEPATITIS, INFECTIOUS)

REBENOK, Zh.A. [Rabenak, Zh.A.]

Study of chemical madiators in infectious hepatitis (Botkin's disease). Vestsi AN BSSR Ser. biial. nav. no.1:78-81'63. (MIRA 16:9)

(HEPATITIS, INFECTIOUS) (PHYSIOLOGY, PATHOLOGICAL)



1C4

14

Causes of odor formation in open reservoir waters
V: A-Rebecz. *Vodosnabzhenie Sanit. Tekh.* 16, No. 3,
4-9(1941). Odors of macrophytes, plankton and peri-
phyton, their deposits and actinomyces were investigated.
A threshold odorimeter (Spaulding) constructed and used
for the first time proved very useful. B Cutoff

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

1. REBER, V. V.

2. USSR (600)

4. Dairy Cattle - Ryazan' Province

7. Red Priokskii cattle.
Sots. zhiv. 14 no. 10, 1952

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

[redacted], A.A.; [redacted], I.N., [redacted], M.S.

Effect of hydrogen peroxide on the reduction of nitrates in a green plant. Dokl. AN SSSR 156 no. 2:[redacted] My '64. (MIRA 17:5)

1. Institut fiziki Dagestanskogo filiala AN SSSR, predstavlen akademikom N.M.Sisakyanom.

YUGOSLAVIA/General Biology - Individual Development B-4

Abs Jour : Ref Zhur - Biol., No 3, 1958, No 9520

Author : Rebernak

Inst : Not Given

Title : On the Problem of the Effects of Protein Deficiency on Wound Healing.

Orig Pub : Veterin. glasnik, 1956, 10, No 8, 581-587

Abstract : At different times a healthy horse received wounds of a similar size: one under normal nutrient rations, the other with a nutritional protein deficiency and multiple blood plasms removal. From each wound samples were taken for histological studies on the 1-12th day after operation. It was noted that with the reduced protein rations the process of wound healing during the period of observation had a exudative character as against a proliferative one with the normal nutritive regimen. Appearance and differentiation of fibroblasts is one day late with deficient protein rations.

Card : 1/1

REBERNISAK, Vinko, dr., sanitetski potpukovnik; LEDIC, Stanko, dr., sanitetski potpukovnik

Bronchography under general anesthesia. Voj. san. pregl., Beogr. 17 no.2:143-146 '60.

1. Vojnomedicinska Akademija u Beogradu; Klinika za hirurske bolesti.
(BRONCHI radiogr.)
(ANESTHESIA GENERAL)

REBRS, D.

Larynx - Cancer

Cases of fibroepitheliomas of the larynx. Vest. oto-rin. 14 no. 1, 1952.

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

YUGOSLAVIA

B. REBESKO, Veterinary Clinic of Veterinary Division, Faculty of Animal Technology (Veterinarska klinika Veterinarskega oddelka Biotehnicke fakultete), Ljubljana.

"Lying Down in Cows Before and After Calving."

Belgrade, Veterinarski Glasnik, Vol 17, No 2, 1963; pp 181-187.

Abstract [German summary modified] From 1947 to 1961, this condition was diagnosed and treated in 84 cows preceding calving, and in 99 following it. Hypophosphatemia and hypocalcemia are regularly found but therapy with the corresponding preparations and vitamins was quite discouraging in lack of results until author based on some theoretical considerations thought of using stilbestrol. In 11 cows, 75 mg. in in oil gave most gratifying results. Blood Ca and P increased following such treatment much more rapidly than with mineral preparations only. One Polish, 2 Yugoslav and 23 Western references.

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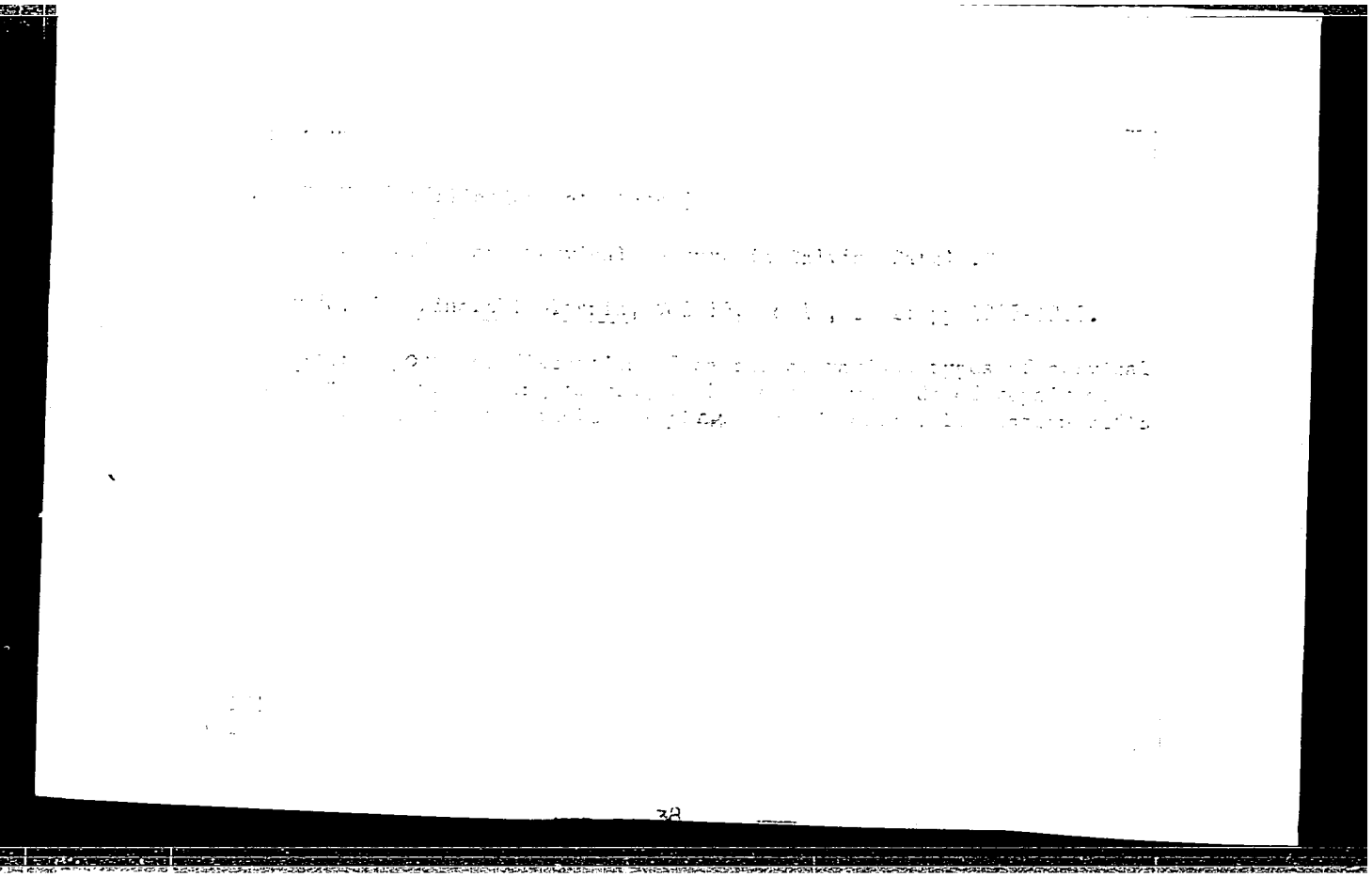

R [illegible] 13

[illegible] (in Engl.) [illegible] Names

Country: Yugoslavia

Academic Degrees: [not given]

Affiliation: Clinic Center - Veterinary Department of the Faculty of Agronomy, Biology, Forestry, and Veterinary Medicine (Klinični center - Veterinarski oddelek Fakulteta za agronomijo, biologijo, gozdarstvo in veterinarstvo), Ljubljana

Source: Belgrade, Veterinarski glasnik, No 6, 1961, pp 465-472.

Data: "Lumbal Epidural Anaesthesia in Cattle."

Authors:

HOVAS, F.
[illegible]ESKO, B.

397

[redacted]. Jerzy; [redacted], Karolina; [redacted], Stanislaw

Scientific sessions of the Section of History of Social Sciences of the Institute of History of Science and Technology, Polish Academy of Sciences. Kwart hist nauki i techn 9 no.3/4:436-439 '64.

REBET, Lev.

Formation of the Ukrainian nation Miunkhen, Suchasna Ukraina, 1951. 56 p.
(Mala politychna biblioteka, ch. 1) (53-21182)

EK508.42.R4

ARSHINSKIY, V.M.; BAGAUTINOV, G.A.; BESPALOV, M.V.; GASPAROVICH, P.I.; GOLOMIDOV, I.N.; GOLUBOV, G.B.; GRIN, L.T.; ZEL'SKIY, S.A.; IL'INYKH, A.F.; KOZIN, V.Z.; KRYUKOV, V.P.; KULAKOV, S.N.; LUKAS, V.A.; MINEYEV, V.A.; PETROV, Yu.S.; PIRUSHKO, M.G.; PROKOF'YEV, Ye.V.; REBETS, B.A.; STARTSEV, N.V.; TROP, A.Ye., prof.; KHRAMOV, V.A.; ABRAMOV, V.I., otv. red.; PROZOROVSKAYA, V.L., tekhn. red.; BOLDYREVA, Z.A., tekhn. red.

[Handbook on electric equipment for mines] Spravochnik gornogo elektrotekhnika. Pod obshchei red. A.E.Tropa. Moskva, Gosgortekhizdat, 1962. 400 p. (MIRA 16:5)
(Electricity in mining)

PHASE I BOOK EXPLOITATION SOV/4601

Koordinatnoye soveshchaniye po primeneniyu kisloroda na metallurgicheskikh zavodakh Urala. Sverdlovsk, 1956

Primeneniye kisloroda na metallurgicheskikh predpriyatiyakh Urala; materialy koordinatsionnogo soveshchaniya (Use of Oxygen in Metallurgical Plants of the Urals; Materials of the Coordination Conference) Sverdlovsk, 1960. 152 p. Errata slip inserted. 1,000 copies printed.

Sponsoring Agencies: Akademiya nauk SSSR. Ural'skiy filial. Institut metallurgii; Ural'skiye pravleniya nauchno-tekhnicheskikh obshchestv chernoy i tsvetnoy metallurgii.

Resp. Ed.: P.S. Kusakin, Candidate of Technical Sciences; Tech. Ed.: N.F. Seredkina.

PURPOSE: This collection of papers is intended for scientific research and technical personnel in the field of metallurgy.

COVERAGE: The use of oxygen in ferrous and nonferrous metallurgy of the Urals is discussed. Results of experimental use of oxygen in some metallurgical plants are presented. During the Conference, held December 20 and 21, 1956, the following persons (in addition to the authors) took part in

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the discussion: V.Ya. Miller, V.V. Mikhaylov, P.Ya. Sorokin, A.A. Perestoronin (all affiliated with the Institute of Metallurgy of the Ural Branch AS USSR), S.M. Kazachenko (Nizhne-Saldinskiy metallurgicheskiy zavod - Nizhnyaya-Salda Metallurgical Plant), M.F. Kochin (Deceased) (Ural'skiy institut chernykh metallov - Ural Institute of Ferrous Metals), M.Ye. Kislitsin (Chelyabinskiy metallurgicheskiy zavod - Chelyabinsk Metallurgical Plant), G.V. Demin (Krasnoural'skiy medeplavil'nyy zavod - Krasnoural'sk Copper Smelting Plant), V.A. Aglitskiy (Institut Unipromed' - "Unipromed'" Institute). Some of the papers are followed by references, both Soviet and non-Soviet.

TABLE OF CONTENTS:

REBEZA, A.G., aspirant

Orchard mites in Moldavia and their control on the Frunze State Farm. Trudy Kish. sel'khoz. inst. 19:153-159 '60. (MIRA 14:1)

1. Kafedra zashchity rasteniy Kishinevskogo sel'skokhozyaystvennogo instituta imeni M.V. Frunze.
(Moldavia--Mites)

USSR/General and Special Zoology. Insects. Insect and Mite Pests. Fruit and Berry Crop Pests. P

Abs Jour : Ref Zhur-Biol., No 20, 1958, 92201

Author : Rebeza, A. G.
Inst : Kishinev Agricultural Institute.
Title : Ether Sulfonate Against Mites.

Orig Pub : Sadovodstvo, vinogradarstvo i vinodeliye Moldavii, 1957, No 3, 58-59

Abstract : In the experience of the Kishinev Agricultural Institute in 1955-1956, one day after the summer treatment of the fruit trees with a 0.3-0.5 percent suspension of ether sulfonate (ES), the number of mites (M) was lowered by one half, and in 12 days all M disappeared. ES is highly toxic to the eggs (even

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those laid after the spraying) and the emerging larvae. When the trees were sprayed in spring with an 8 percent emulsion of KEAM without a summer treatment with ES, the number of mites increased noticeably toward the end of June. After the summer spraying with ES but without the spring treatment with KEAM, the leaves were damaged by M. The best results were obtained by treating the trees with KEAM emulsion in spring before the opening of the buds and in the summer by adding ES to the insecticide used against codling moths. If the treatment with KEAM is not carried out then, a 0.2-0.3 percent suspension

GINZBERG, Ervin, potpukovnik dr.; REBERNISAK, Vinko, major dr.

Paravertebral block; review of two-year experiences with the new technic. Voj. san. pregl., Beogr. 11 no.11-12:598-604 Nov-Dec 54.

1. Hirurska klinika VMA.
(ANESTHESIA, REGIONAL
paravertebral block, in thoracic & abdom. surg., new technic)
(THORAX, surg.
anesth., paravertebral block, new technic)
(ABDOMEN, surg.
anesth., paravertebral block, new technic)

REBERNISAK, Vinko, sanitetski potpukovnik, dr.; RADOJEVIC, Radmila, sanitetski potpukovnik, dr.

Contribution to the treatment of gynecological tetanus. Voj.san.pregl. 18 no.8:649-652 Ag '61.

1. Vojnomedicinska akademija u Beogradu, Odeljenje za zarazne bolesti, klinika za hirurske bolesti.

(TETANUS ther) (GYNECOLOGY ther)
(MUSCLE RELAXANTS ther)

ZAK, P.S.; ZHURAVLEV, V.L.; ROMANOV, V.A., otv.red.; SADOMOV, N.T., red.; GOTOVTSEV, A.A., red.; GRINBERG, A.Ya., red.; ZUBKOV, V.T., red.; KOGAN, A.M., red.; KRUGLIKOV, A.V., red.; REBGUN, K.K., red.; NAZIMOV, N.M., red.; NEYMARK, A.M., red.; MOTYAKHOV, M.A., red.; SPEVAK, V.Ya., red.; TENENBAUM, M.M., red.; SHNEYDER, E.I., red.; ALADOVA, Ye.I., tekhn.red.; SHKLYAR, S.Ya., tekhn.red.

[Design and manufacture of globoid gears] Proektirovanie i izgotovlenie globoidnykh peredach. Moskva, Ugletekhizdat, 1958. 87 p. (Tekhnologiia ugol'nogo mashinostroeniia, no.2). (MIRA 13:2)

(Gearing)

COHEN,J.; ONCESCU,M.; REBIGAN, Fl.

Absolute measurements by cavity ionization chamber used in the Radioactive Nuclides Metrological Laboratory of the Institute of Atomic Physics. Studii cerc fiz 14 no.5:619-626 '63.

1. Institutul de fizica atomica, Bucuresti.

REBIKOV, YE. I.

1726. Gematologicheskiye I Opsopo-Fototsitarnyye Fiziologicheskiye Reartsii Pri Lechenii Vospalitel'nykh Protsessov Khirurgicheski Obrabotannymi Tkanyami. Saratov, 1954 16s. Tosm. (I-VO Zdravookhraneniya RSFSR. Sarat. Gos. Med. In-T). 175 EKZ. Bespl (54-52843)

SO: Knizhnaya Letopis', Vol. 1, 1955

RELIC, D.

Why our trains are late. p. 102. ZELEZNICE. Vol. 11, No. 3, March, 1955. Belgrad.

SOURCE: East European Accessions List (EEAL) Library of Congress, Vol. 4, No. 12, Dec. 1955.

REICH, R.

REICH, R. Certain deficiencies in the method of planning capital investment. p. 497.

Vol. 5, No. 11, Nov. 1955
LA SOCIALISTICKU VEDU A TECHNIKU
TECHNOLOGY
Praha, Czechoslovakia

So: East European Accession, Vol. 5, No. 5, May 1956

COMAN,J.; [illegible], M.; REBIGAN, Fl.

Installation for relative measurements of γ activities with a 4π ionization chamber (with a well). Studii cerc fiz 16 no.7:765-771 '64

1. Institute of Nuclear Physics, P.O. Box 35, Bucharest.

REBIKOV, Ye.I.

Diagnosis and therapy of obturation of the common bile duct in ascarasis in children. Pediatriia, Moskva no.3:64-67 May-June 1953. (CIML 25:1)

1. Of the Hospital Surgical Clinic (Prof. I. A. Poliyevktov), North Ossetian Medical Institute.

REBIKOV, Ye.I. (Dzaydzhikau).

Leukocyte profile as a method of studying hematological shifts in the dynamics of blood. Klin.med. 31 no.10:17-24 O '53. (MLRA 6:11)

1. Iz gospital'noy khirurgicheskoy kliniki (zaveduyushchiy - professor I.A. Poliyevktov) Severo-Osetinskogo meditsinskogo instituta.
(Blood--Examination)

REBIKOV, Ye. I.

"Hematological and Opsono-"Photocytic" (Phagocytic?) Physiological Reactions in the Treatment of Inflammatory Processes With Chmically Processed Tissues." Cand Med Sci, State Medical Inst, Min Health RSFSR, Saratov, 1954. (KL, No 1, Jan 55)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (12)
SO: Sum. No. 556, 24 Jun 55

REBIKOV, Ye.I.

Traumatic cyst of the pancreas. Khirurgiia no.6:74 Je '54. (MLRA 7:9)

1. Iz gospital'noy khirurgicheskoy kliniki Severo-Osetinskogo meditsinskogo instituta.
(PANCREAS, cysts,
*traum.)
(CYSTS,
*pancreas, traum.)

REBIKOV, Ye.I., dotsent

Repeated operations in tuberculous coxitis. Trudy SMI 16:138-145 '63. (MIRA 18:1)

1. Iz kafedry gospital'noy khirurgii (zav. - prof. A.N.Martavenko) Smolenskogo gosudarstvennogo meditsinskogo instituta.

REBIKOV, Yevgeniy Ivanovich,

Hematological and (opsonofagotsitarnyye) Physiological Reactions Concerning the Treatment of Inflammatory Process with Chemical Processing of Tissues

Dissertation for candidate of a Medical Science degree. North (Osetinskiy) Medical Institute, 1955

TULOVSKAYA, Z.D.; SEGALOVA, Ye.Ye.; REBINDER, P.A.

Processes of structure formation during crystallization of monocalcium aluminate at different temperatures. Koll.zhur. 26 no.2:252-257 Mr-Ap '64. (MIRA 17:4)

1. Moskovskiy universitet, khimicheskiy fakul'tet, kafedra kolloidnoy khimii.

SEGALOVA, Ye.Ye.; TULOVSKAYA, Z.D.; BRUTSKUS, T.K.; REBINDER, P.A., akademik

Formation of stable and metastable hydrates in the hydration of anhydrous calcium aluminates ($CaO.Al_2O_3$ and $3CaO.Al_2O_3$). Dokl. AN SSSR 155 no.6:1379-1382 Ap '64. (MIRA 17:4)

1. Moskovskiy gosudarstvennyy universitet im. M.V.Lomonosova.

KANTOROVICH-SHELOMKOVA, I.Ya.; VLODAVETS, I.N.; REBINDER, P.A.

Synthesis of porous condensation structures of a new disperse phase from polyvinyl alcohol. Koll. zhur. 25 no.4:441-446 Jl-Ag '63. (MIRA 17:2)

1. Institut fizicheskoy khimii AN SSSR, Moskva.

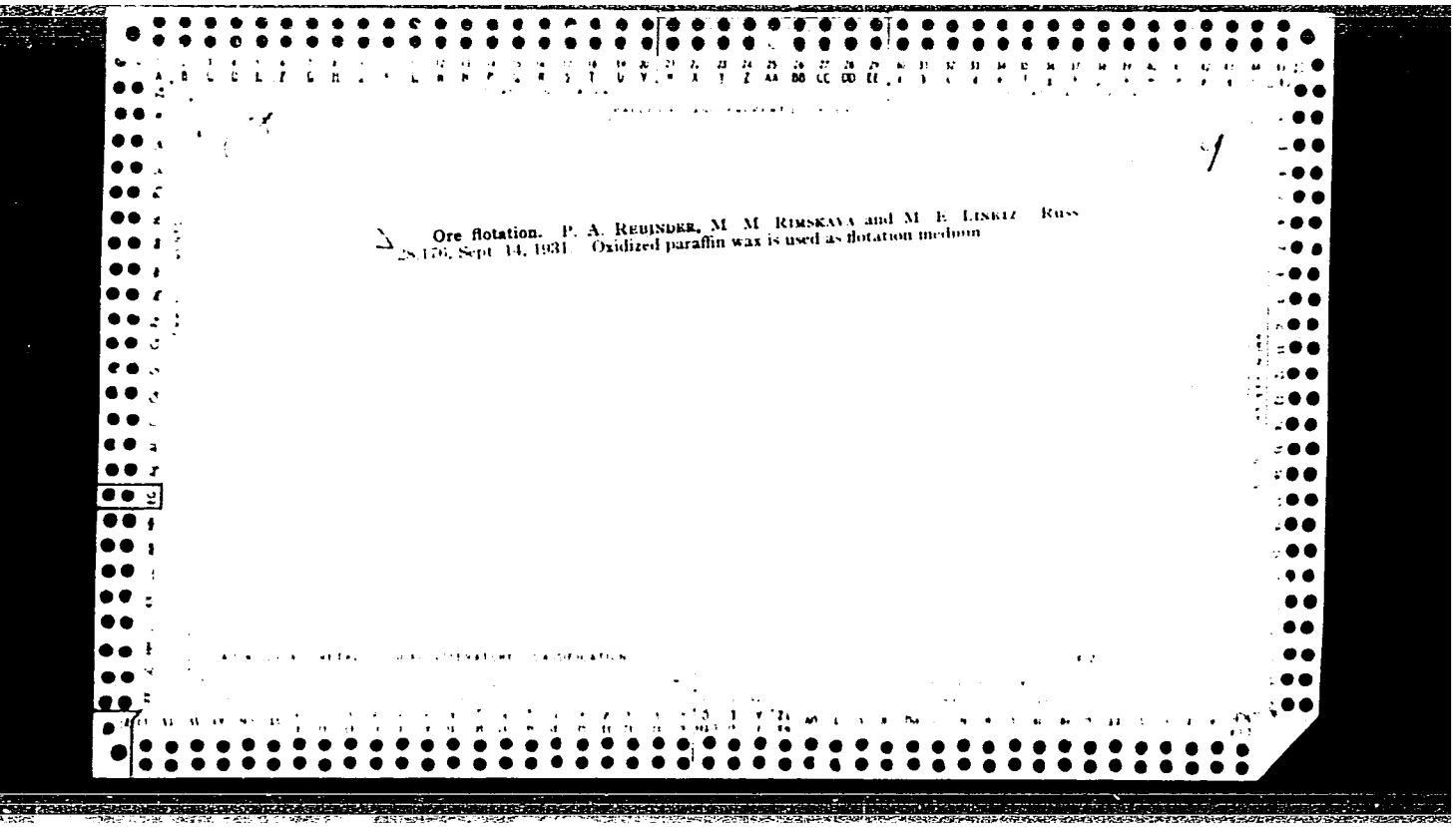
MARKINA, Z.N.; TSIKURINA, N.N.; KOSTOVA, N.Z.; REBINDER, P.A.

Determination of critical concentrations of micelle formations in aqueous soap solutions by the conductometric analysis. Koll.zhur. 26 no.1:76-82 Ja-F '64. (MIRA 17:4)

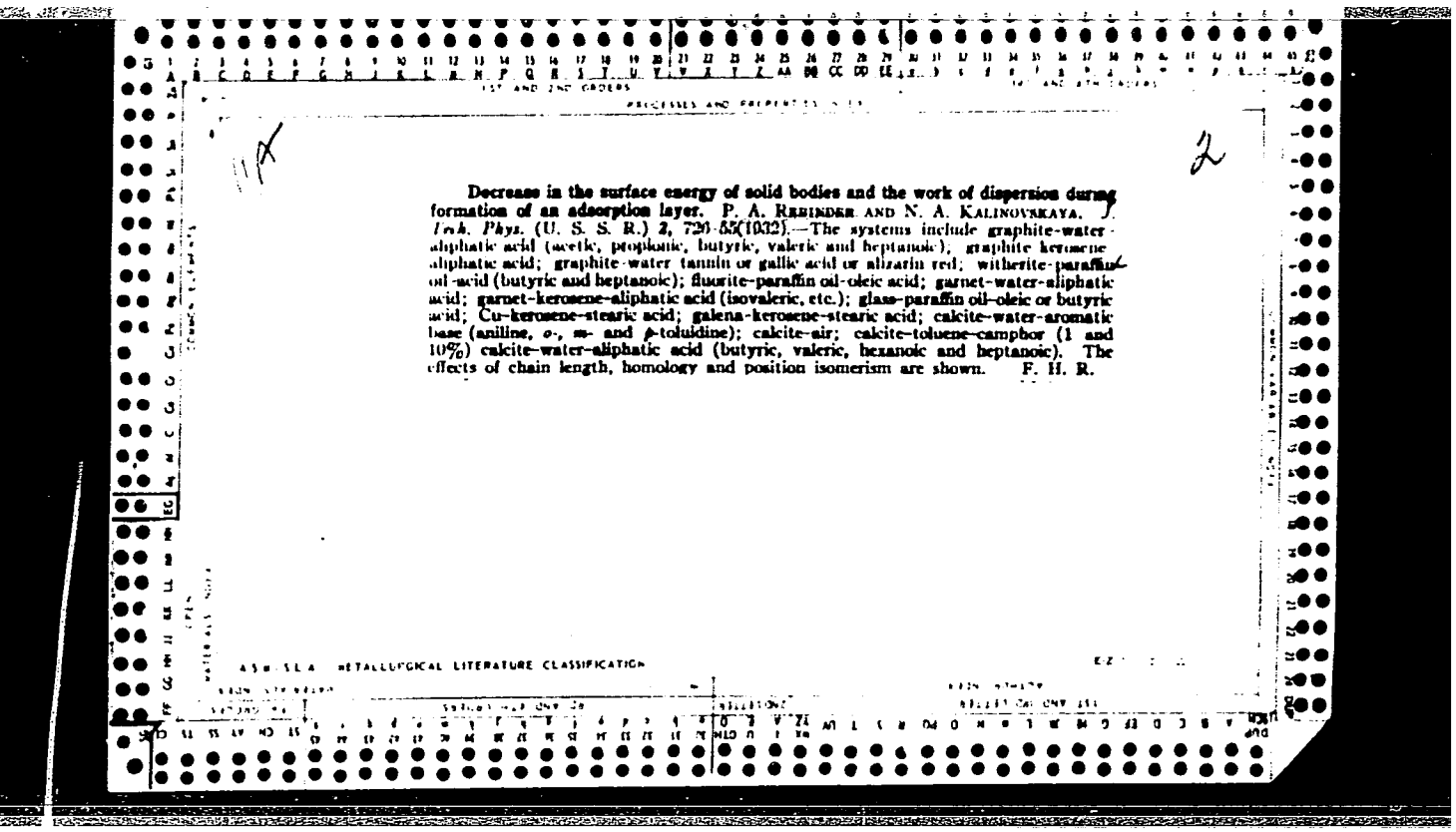
1. Moskovskiy universitet, khimicheskiy fakul'tet.

REBINDER, P. A.

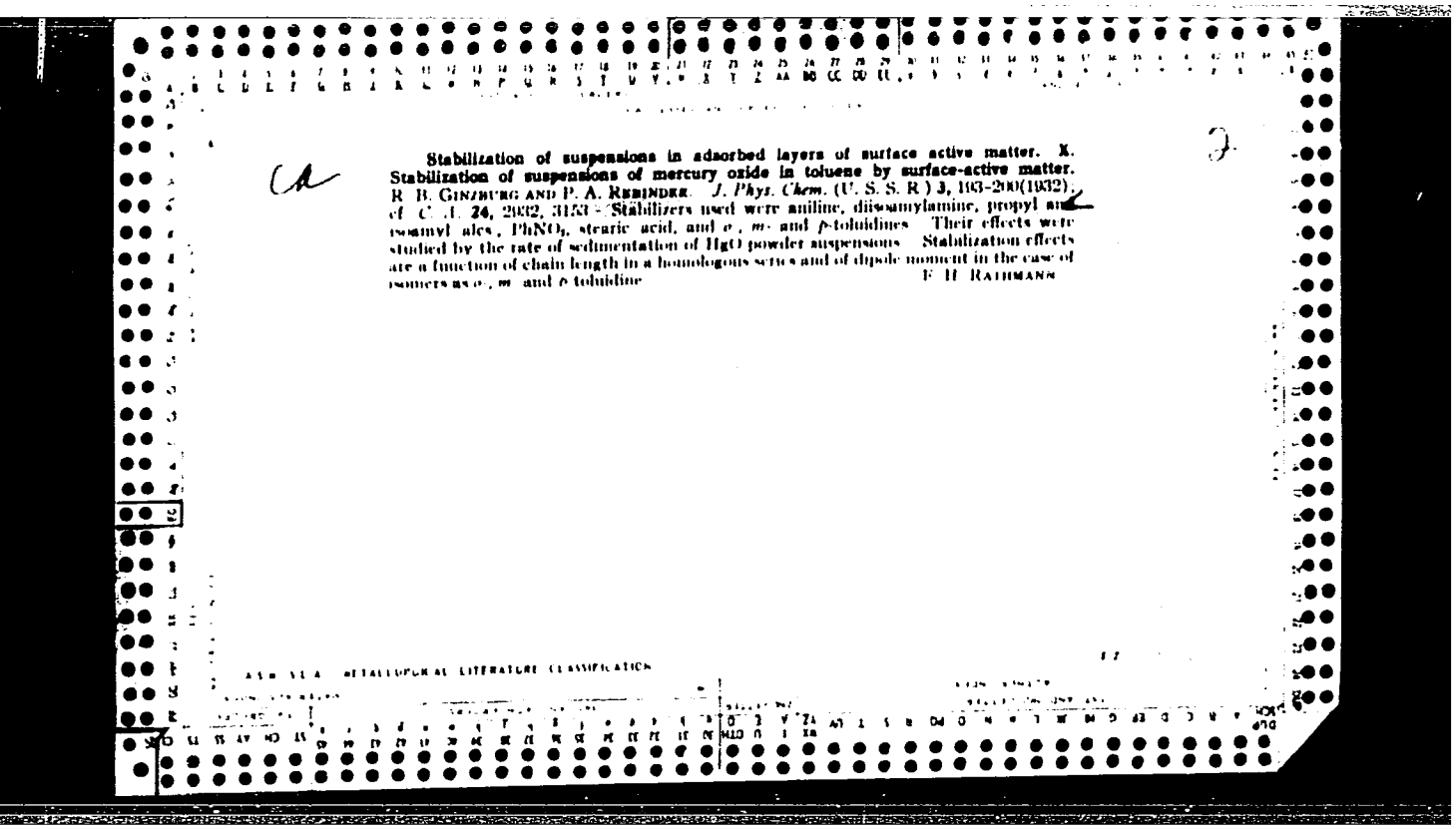
Included in bibliography of article, "Effect of Detergent Admixtures on Dispersing Properties of Oils," published in Petroleum Industry, No. 6, 1948
P. A. Rebinder, Zhurnal Fizicheskoi Khimii, 1,1930



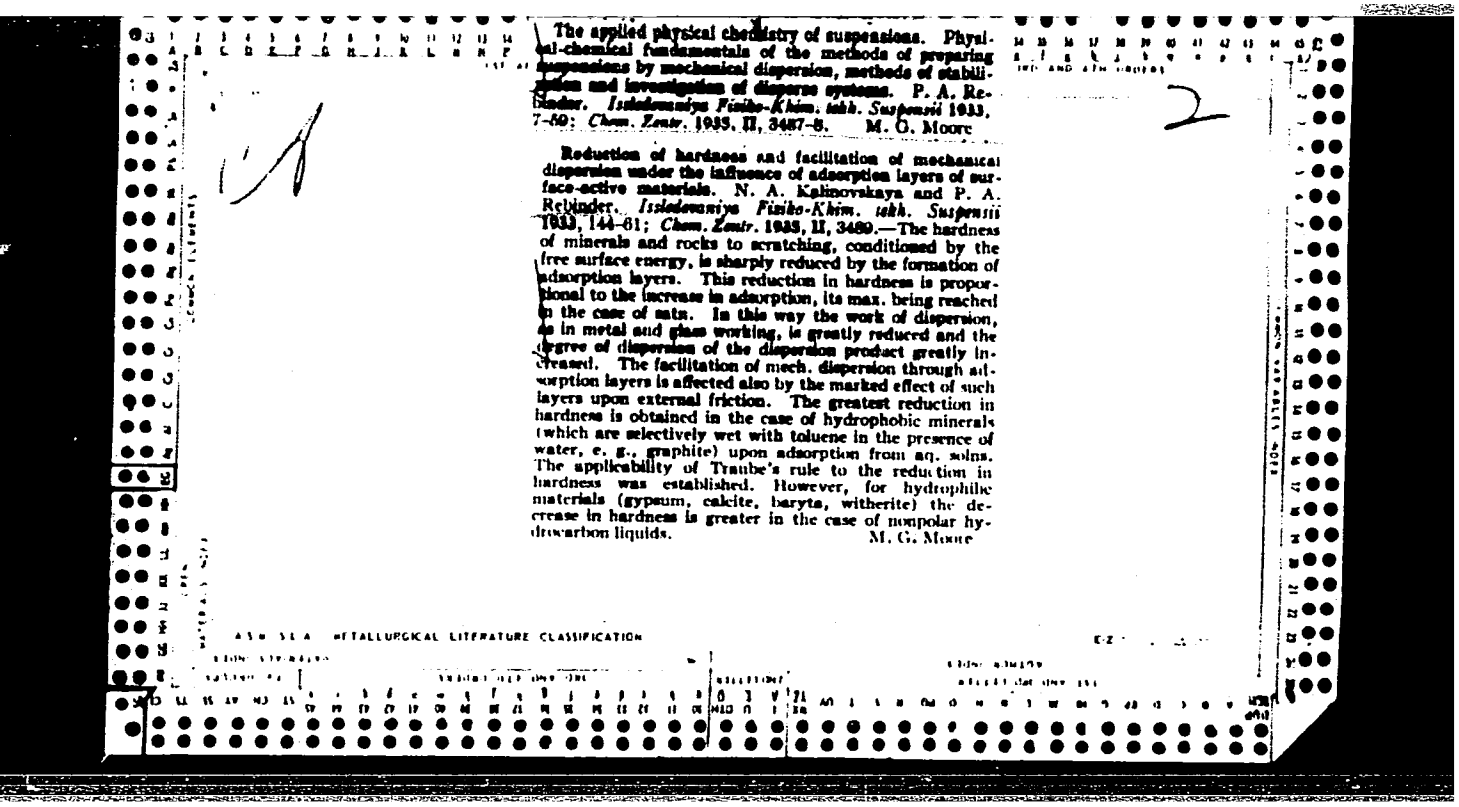
Ore flotation. P. A. REBINDER, M. M. RIMSKAYA and M. E. LISKIZ. Russ. 28,176, Sept. 14, 1931. Oxidized paraffin wax is used as flotation medium.



Decrease in the surface energy of solid bodies and the work of dispersion during formation of an adsorption layer. P. A. REBINDER AND N. A. KALINOVSKAYA. *J. Tech. Phys.* (U. S. S. R.) **2**, 720-55(1932).—The systems include graphite-water-aliphatic acid (acetic, propionic, butyric, valeric and heptanoic); graphite-kerosene-aliphatic acid; graphite-water-tannin or gallic acid or alizarin red; witherite-paraffin oil-acid (butyric and heptanoic); fluorite-paraffin oil-oleic acid; garnet-water-aliphatic acid; garnet-kerosene-aliphatic acid (isovaleric, etc.); glass-paraffin oil-oleic or butyric acid; Cu-kerosene-stearic acid; galena-kerosene-stearic acid; calcite-water-aromatic base (aniline, *o*-, *m*- and *p*-toluidine); calcite-air; calcite-toluene-camphor (1 and 10%) calcite-water-aliphatic acid (butyric, valeric, hexanoic and heptanoic). The effects of chain length, homology and position isomerism are shown. F. H. R.

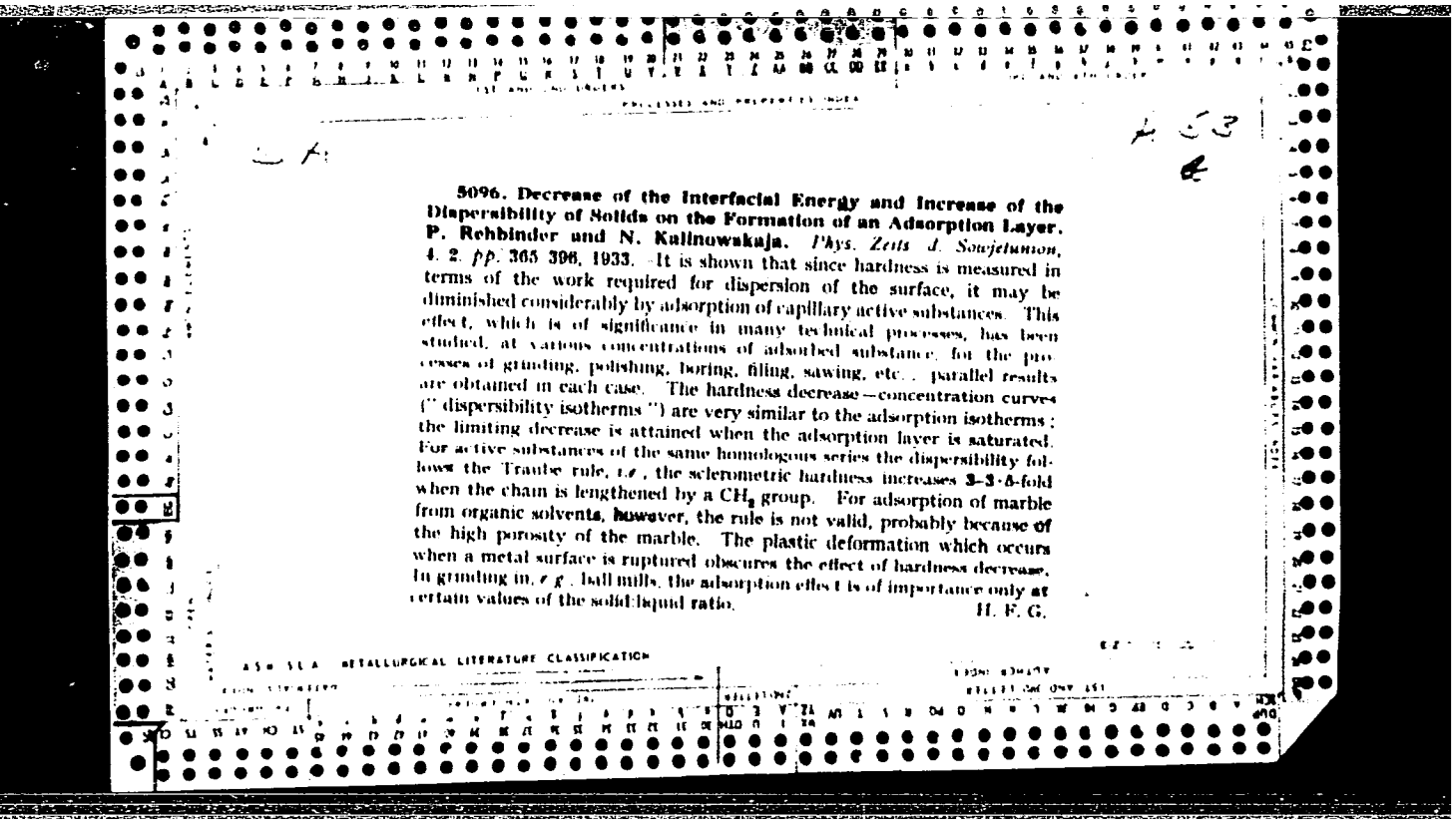


Stabilization of suspensions in adsorbed layers of surface active matter. X. Stabilization of suspensions of mercury oxide in toluene by surface-active matter. R. B. GINZBURG AND P. A. REHINDER. *J. Phys. Chem.* (U. S. S. R.) 3, 193-200(1932). —Cf. C. A. 24, 2032, 3153.—Stabilizers used were aniline, diisoamylamine, propyl and isoamyl alcs., $PhNO_2$, stearic acid, and *o*-, *m*- and *p*-toluidines. Their effects were studied by the rate of sedimentation of HgO powder suspensions. Stabilization effects are a function of chain length in a homologous series and of dipole moment in the case of isomers as *o*-, *m*- and *p*-toluidine. F. H. RATHMANN

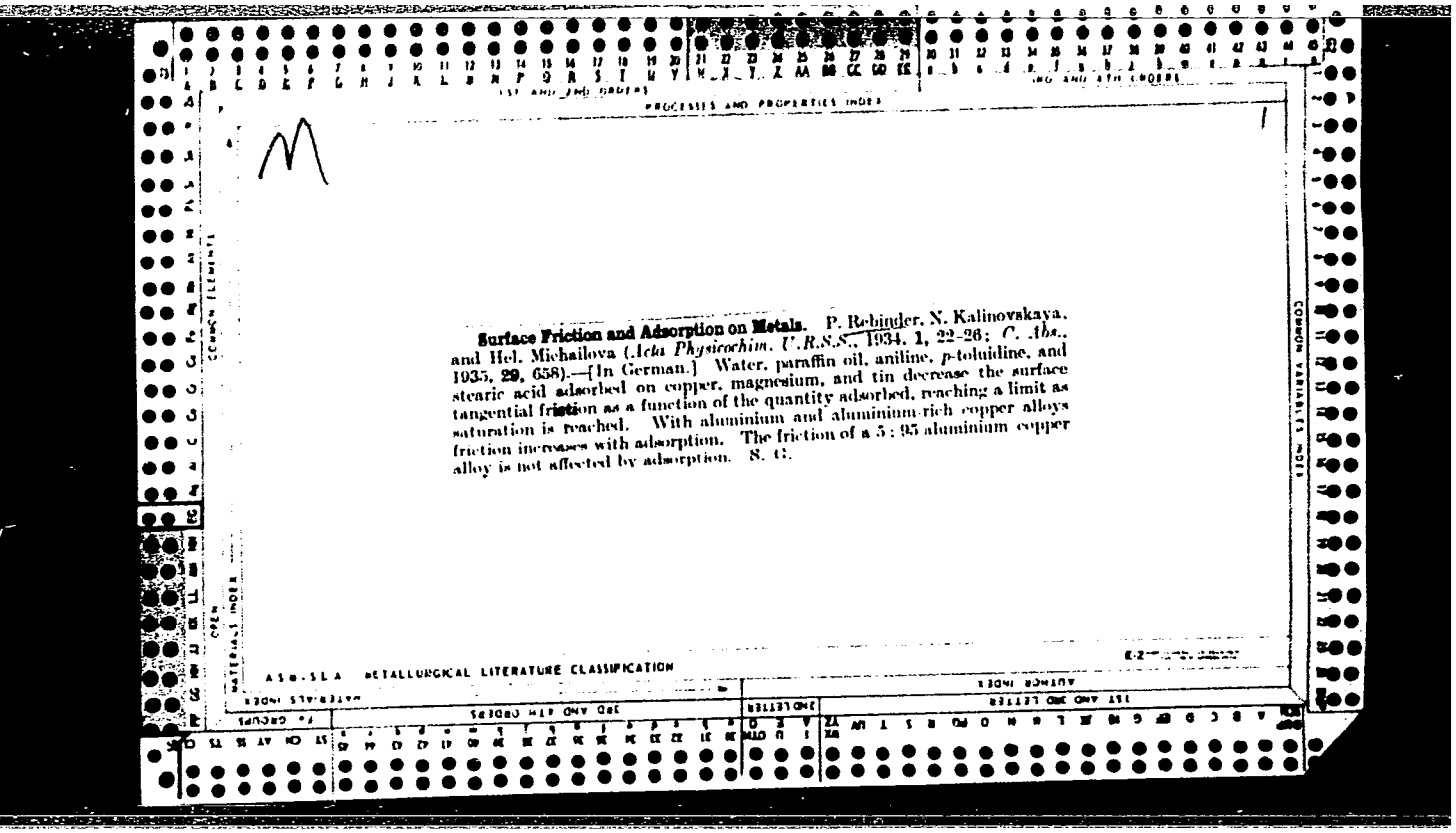


The applied physical chemistry of suspensions. Physical-chemical fundamentals of the methods of preparing suspensions by mechanical dispersion, methods of stabilization and investigation of disperse systems. P. A. Rebinder. *Issledovaniya Fiziko-Khim. ukh. Suspensii* 1933, 7–59; *Chem. Zentr.* 1935, II, 3487–8. M. G. Moore

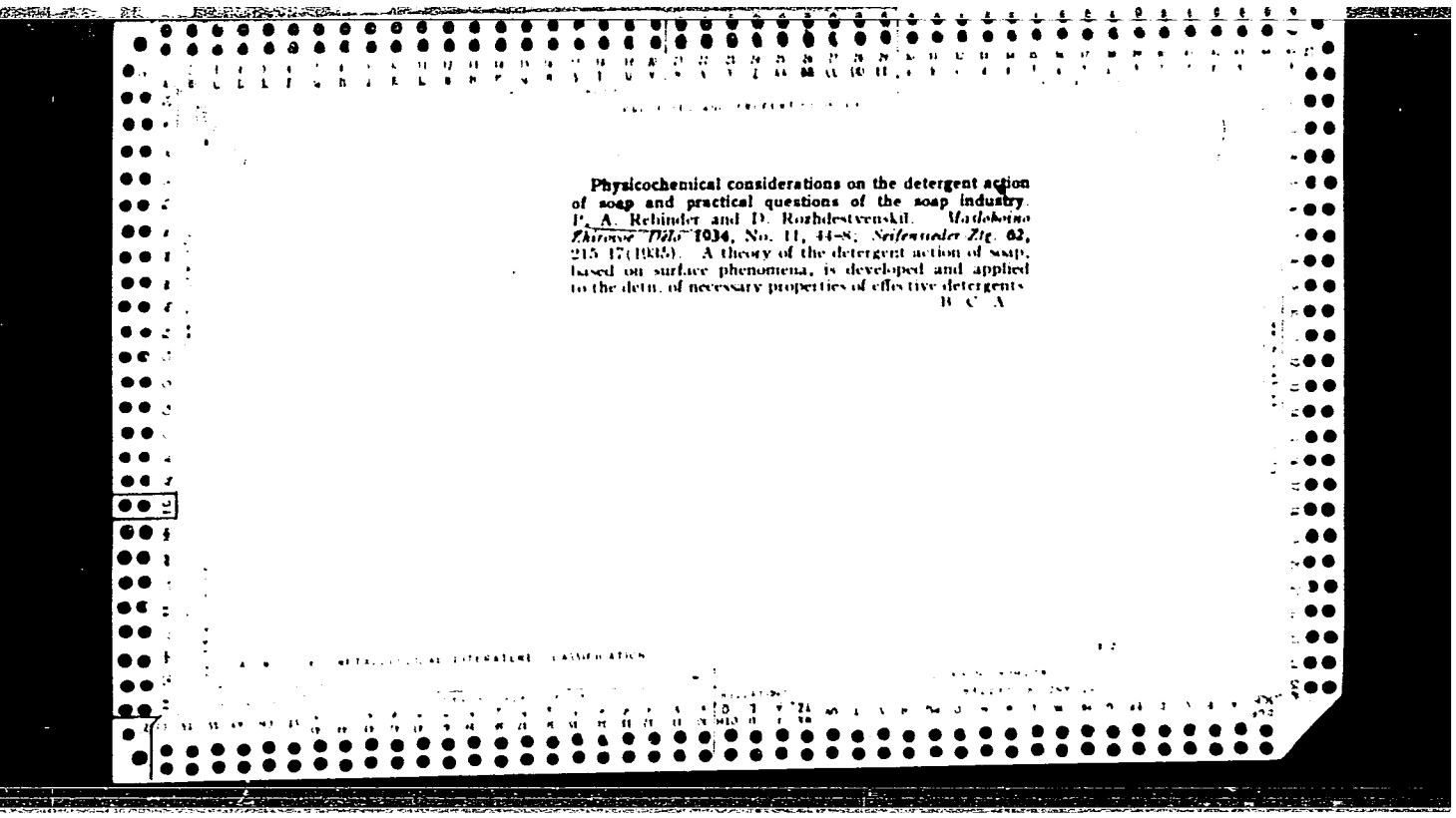
Reduction of hardness and facilitation of mechanical dispersion under the influence of adsorption layers of surface-active materials. N. A. Kalinovskaya and P. A. Rebinder. *Issledovaniya Fiziko-Khim. ukh. Suspensii* 1933, 144–61; *Chem. Zentr.* 1935, II, 3489.—The hardness of minerals and rocks to scratching, conditioned by the free surface energy, is sharply reduced by the formation of adsorption layers. This reduction in hardness is proportional to the increase in adsorption, its max. being reached in the case of salts. In this way the work of dispersion, as in metal and glass working, is greatly reduced and the degree of dispersion of the dispersion product greatly increased. The facilitation of mech. dispersion through adsorption layers is affected also by the marked effect of such layers upon external friction. The greatest reduction in hardness is obtained in the case of hydrophobic minerals (which are selectively wet with toluene in the presence of water, e. g., graphite) upon adsorption from aq. solns. The applicability of Traube's rule to the reduction in hardness was established. However, for hydrophilic materials (gypsum, calcite, baryta, witherite) the decrease in hardness is greater in the case of nonpolar hydrocarbon liquids. M. G. Moore



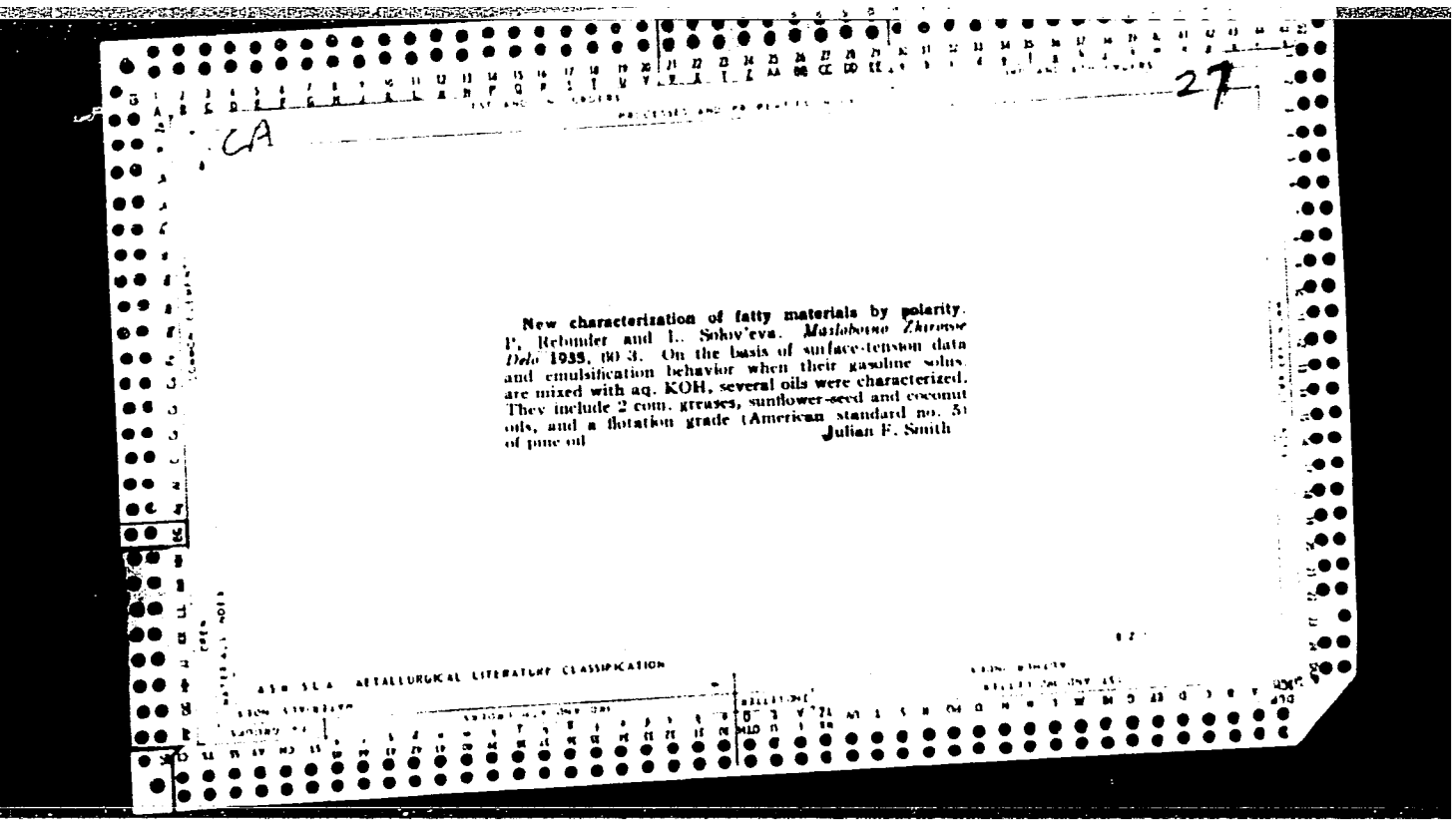
5096. Decrease of the Interfacial Energy and Increase of the Dispersibility of Solids on the Formation of an Adsorption Layer. **P. Rehbinder und N. Kalinowskaja.** *Phys. Zeits. d. Sowjetunion*, 4. 2. *pp.* 365 396, 1933. It is shown that since hardness is measured in terms of the work required for dispersion of the surface, it may be diminished considerably by adsorption of capillary active substances. This effect, which is of significance in many technical processes, has been studied, at various concentrations of adsorbed substance, for the processes of grinding, polishing, boring, filing, sawing, etc.; parallel results are obtained in each case. The hardness decrease—concentration curves (" dispersibility isotherms ") are very similar to the adsorption isotherms; the limiting decrease is attained when the adsorption layer is saturated. For active substances of the same homologous series the dispersibility follows the Traube rule, *i.e.*, the sclerometric hardness increases 3–3·5-fold when the chain is lengthened by a CH_2 group. For adsorption of marble from organic solvents, however, the rule is not valid, probably because of the high porosity of the marble. The plastic deformation which occurs when a metal surface is ruptured obscures the effect of hardness decrease. In grinding in, *e.g.*, ball mills, the adsorption effect is of importance only at certain values of the solid:liquid ratio. *H. F. G.*



Surface Friction and Adsorption on Metals. P. Rebinder, N. Kalinovskaya, and Hel. Michailova (*Acta Physicochim. U.R.S.S.*, 1934, **1**, 22–26; *C. Abs.*, 1935, **29**, 658).—[In German.] Water, paraffin oil, aniline, *p*-toluidine, and stearic acid adsorbed on copper, magnesium, and tin decrease the surface tangential friction as a function of the quantity adsorbed, reaching a limit as saturation is reached. With aluminium and aluminium-rich copper alloys friction increases with adsorption. The friction of a 5 : 95 aluminium copper alloy is not affected by adsorption. S. G.



Physicochemical considerations on the detergent action of soap and practical questions of the soap industry. P. A. Rehinder and D. Rozhdestvenskii. *Maslobino Zhirovoe Delo* **1934**, No. 11, 44–8; *Seifensieder Ztg.* **62**, 215–17(1935). A theory of the detergent action of soap, based on surface phenomena, is developed and applied to the detn. of necessary properties of effective detergents. B. C. A.



CA

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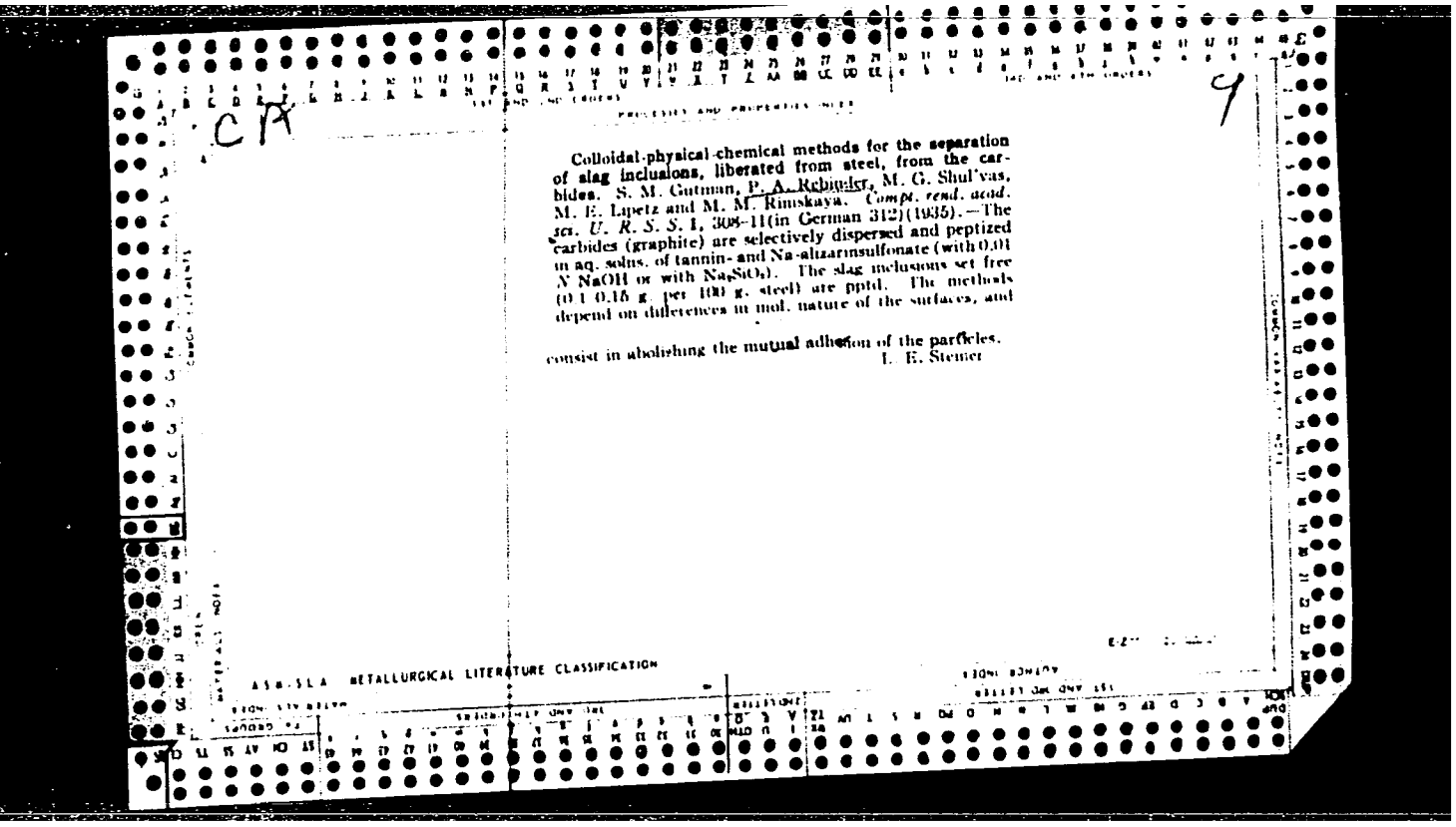
New characterization of fatty materials by polarity. P. Rebinder and L. Sokov'eva. *Maslobouno Zhirovoe Delo* 1935, 00 3. On the basis of surface-tension data and emulsification behavior when their gasoline solns. are mixed with aq. KOH, several oils were characterized. They include 2 com. greases, sunflower-seed and coconut oils, and a flotation grade (American standard no. 5) of pine oil

Julian F. Smith



Colloidal-physical-chemical methods for the separation of slag inclusions, liberated from steel, from the carbides. S. M. Gutman, P. A. Rebinder, M. G. Shul'vas, M. E. Lipetz and M. M. Rimskaya. *Compt. rend. acad. sci. U. R. S. S.* 1, 308–11(in German 312)(1935).—The carbides (graphite) are selectively dispersed and peptized in aq. solns. of tannin- and Na-alizarinsulfonate (with 0.01 *N* NaOH or with Na_2SiO_3). The slag inclusions set free (0.1–0.15 g. per 100 g. steel) are pptd. The methods depend on differences in mol. nature of the surfaces, and consist in abolishing the mutual adhesion of the particles.

L. E. Steiner

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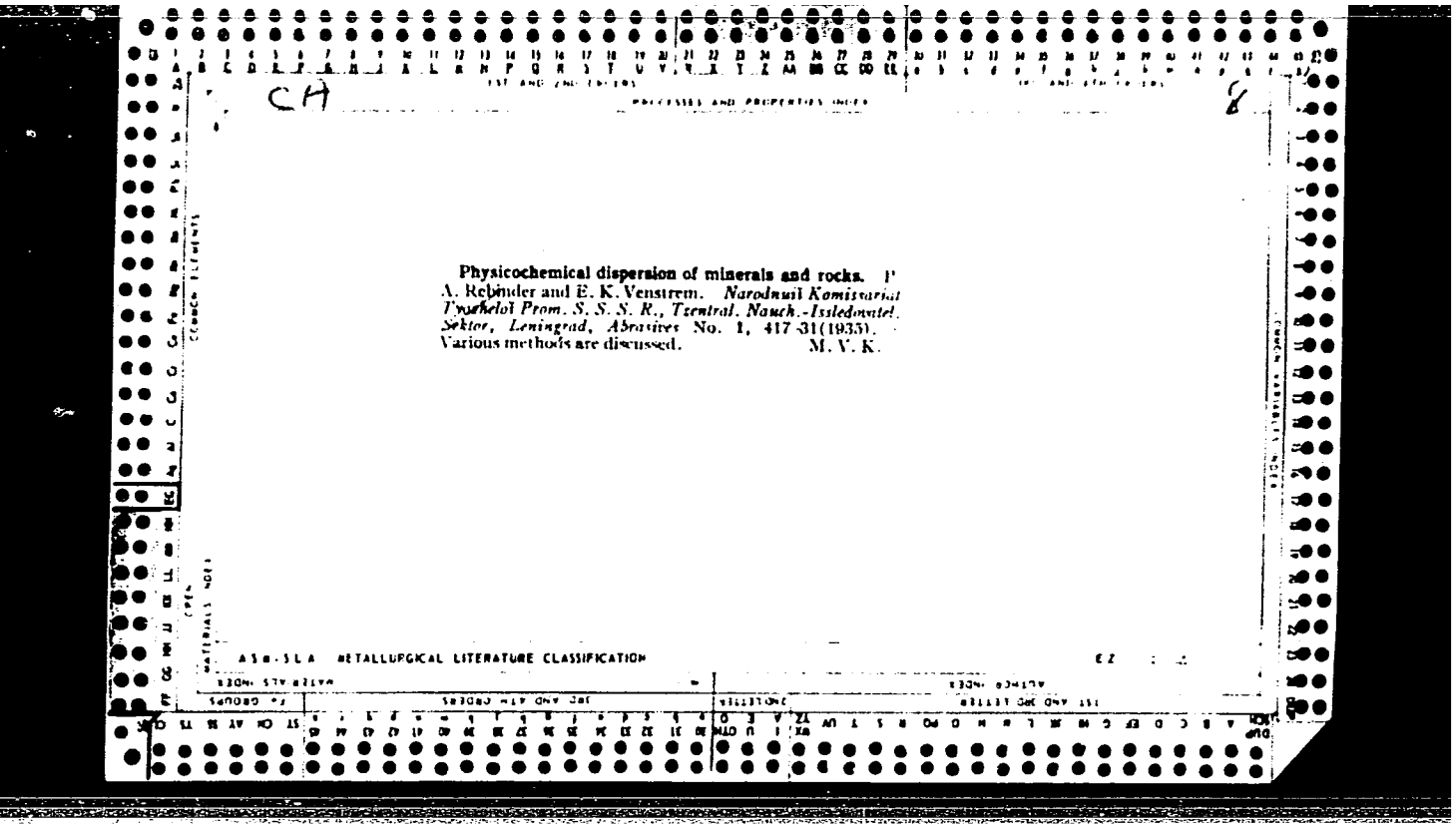

CH

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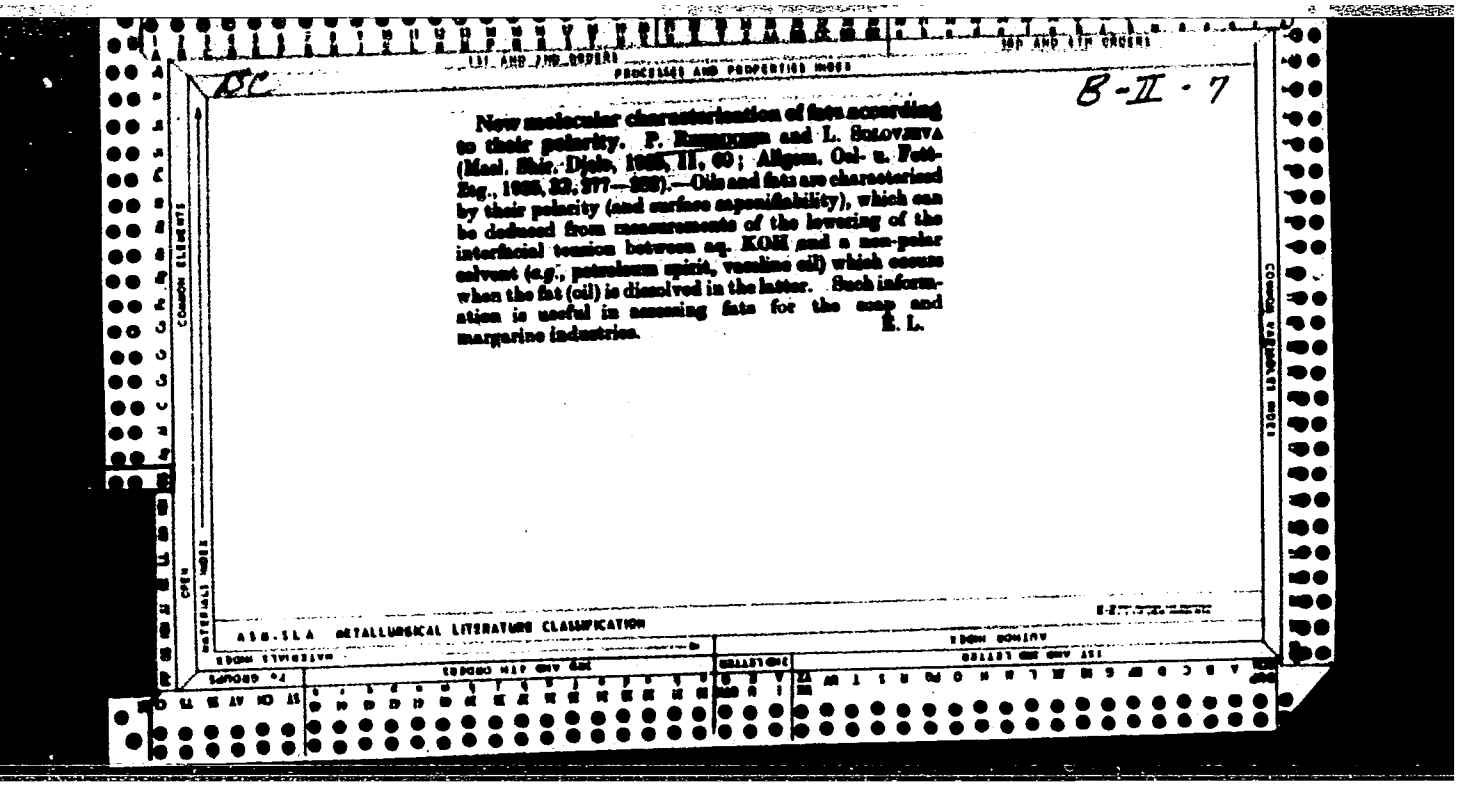
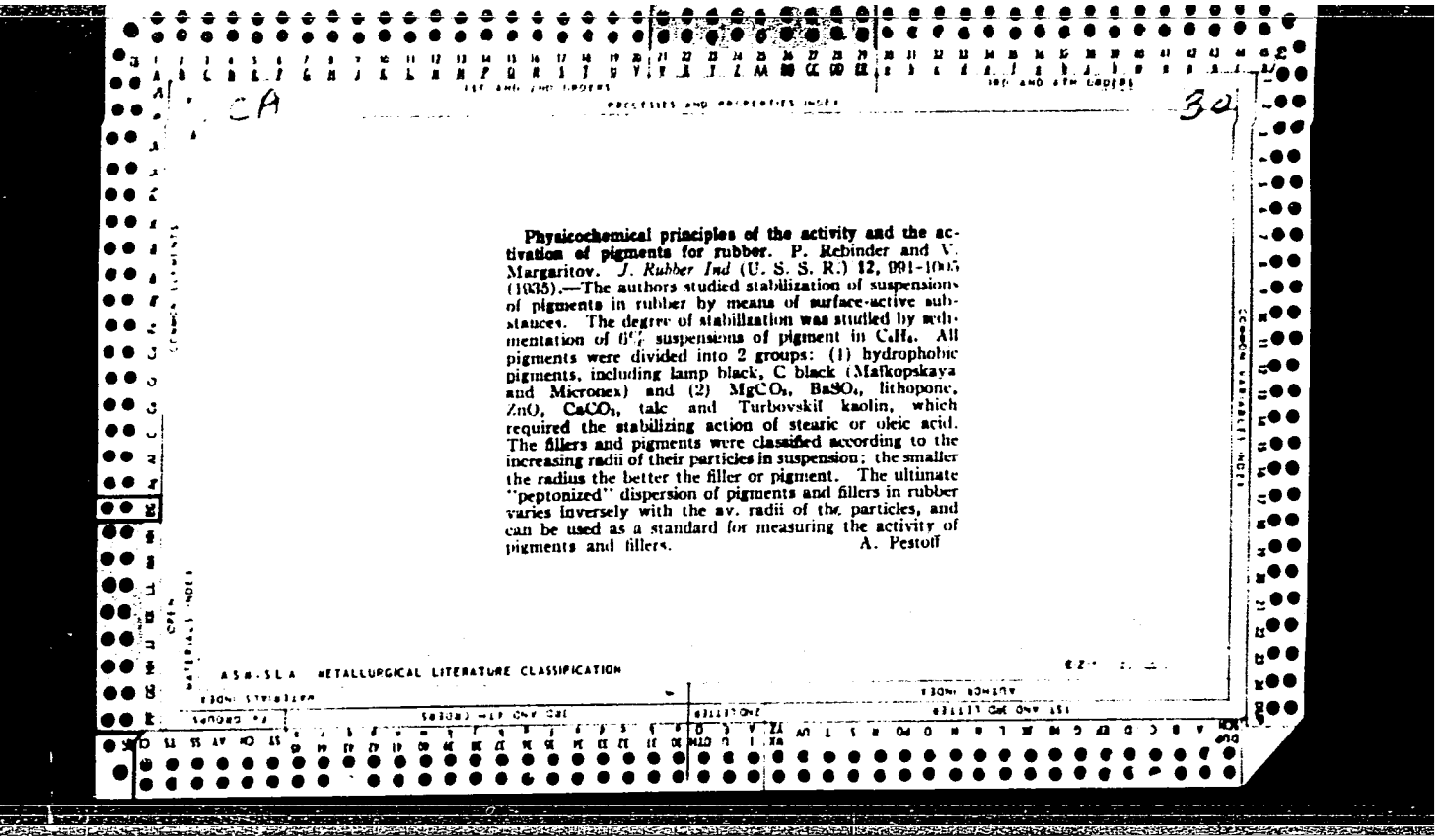
Physicochemical dispersion of minerals and rocks. P. A. Rebinder and E. K. Venstrem. *Narodnuĭ Komissariat Tyazhelol Prom. S. S. S. R., Tsentral. Nauch.-Issledovatel. Sektor, Leningrad, Abrasives* No. 1, 417-31(1935). Various methods are discussed. M. V. K.



B-II-7

New molecular characterisation of fats according to their polarity. P. Rehbinder and L. Solovjeva (Mod. Shir. Djelo, 1955, 11, 60; Allgem. Oel- u. Fett-Ztg., 1955, 52, 377—380).—Oils and fats are characterised by their polarity (and surface saponifiability), which can be deduced from measurements of the lowering of the interfacial tension between aq. KOH and a non-polar solvent (e.g., petroleum spirit, vaseline oil) which occurs when the fat (oil) is dissolved in the latter. Such information is useful in assessing fats for the soap and margarine industries. E. L.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



CA

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Physicochemical principles of the activity and the activation of pigments for rubber. P. Rebinder and V. Margaritov. *J. Rubber Ind* (U. S. S. R.) 12, 991-1005 (1935).—The authors studied stabilization of suspensions of pigments in rubber by means of surface-active substances. The degree of stabilization was studied by sedimentation of 0.5% suspensions of pigment in C_6H_6. All pigments were divided into 2 groups: (1) hydrophobic pigments, including lamp black, C black (Mafkopskaya and Micronex) and (2) $MgCO_3$, $BaSO_4$, lithopone, ZnO, $CaCO_3$, talc and Turbovskif kaolin, which required the stabilizing action of stearic or oleic acid. The fillers and pigments were classified according to the increasing radii of their particles in suspension; the smaller the radius the better the filler or pigment. The ultimate "peptonized" dispersion of pigments and fillers in rubber varies inversely with the av. radii of the particles, and can be used as a standard for measuring the activity of pigments and fillers. A. Pestoff

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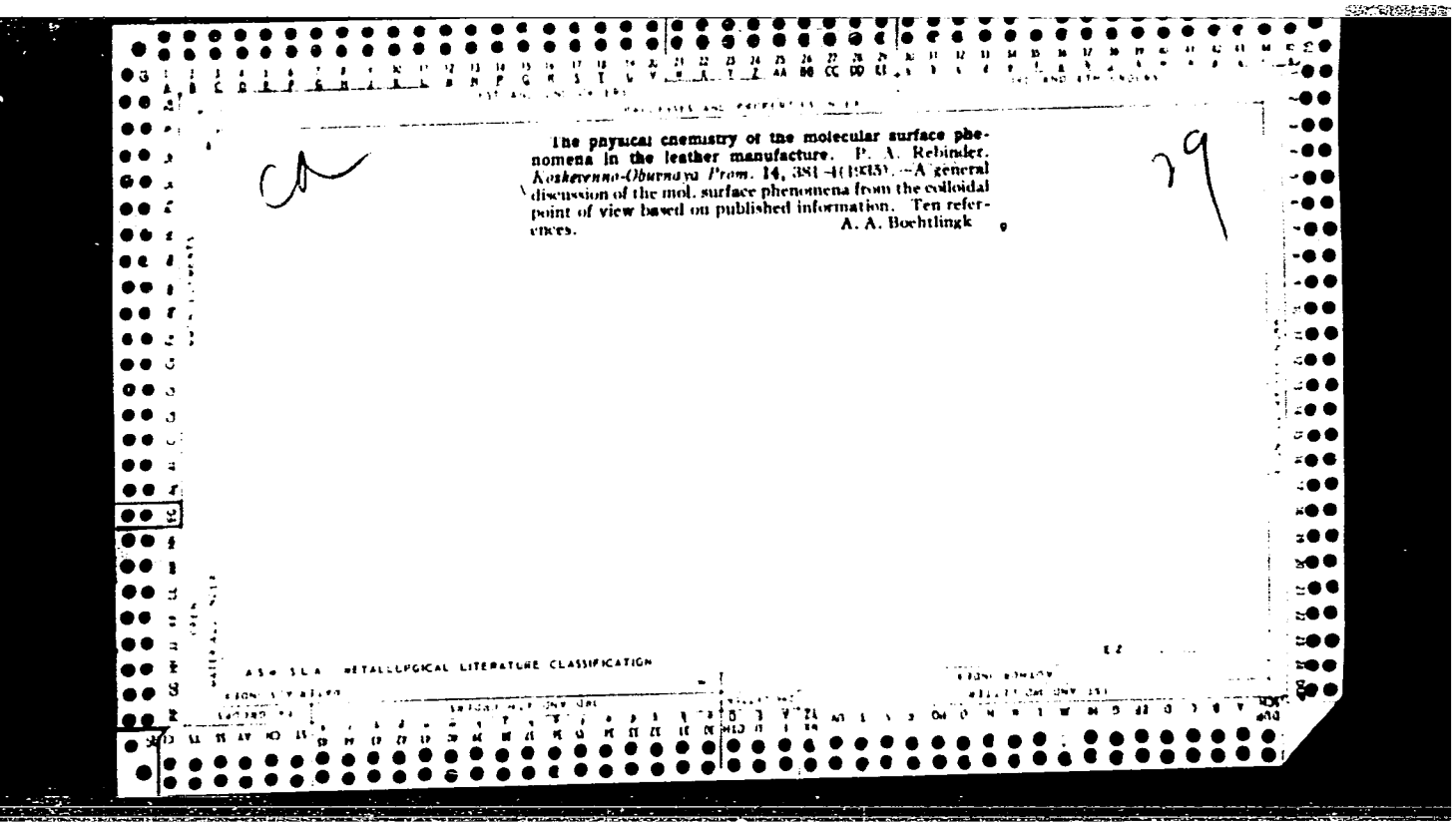

The physical chemistry of the molecular surface phenomena in the leather manufacture. P. A. Rebinder. *Kozhevenno-Obuvnaya Prom.* 14, 381–4 (1935).—A general discussion of the mol. surface phenomena from the colloidal point of view based on published information. Ten references.

A. A. Boehtlingk

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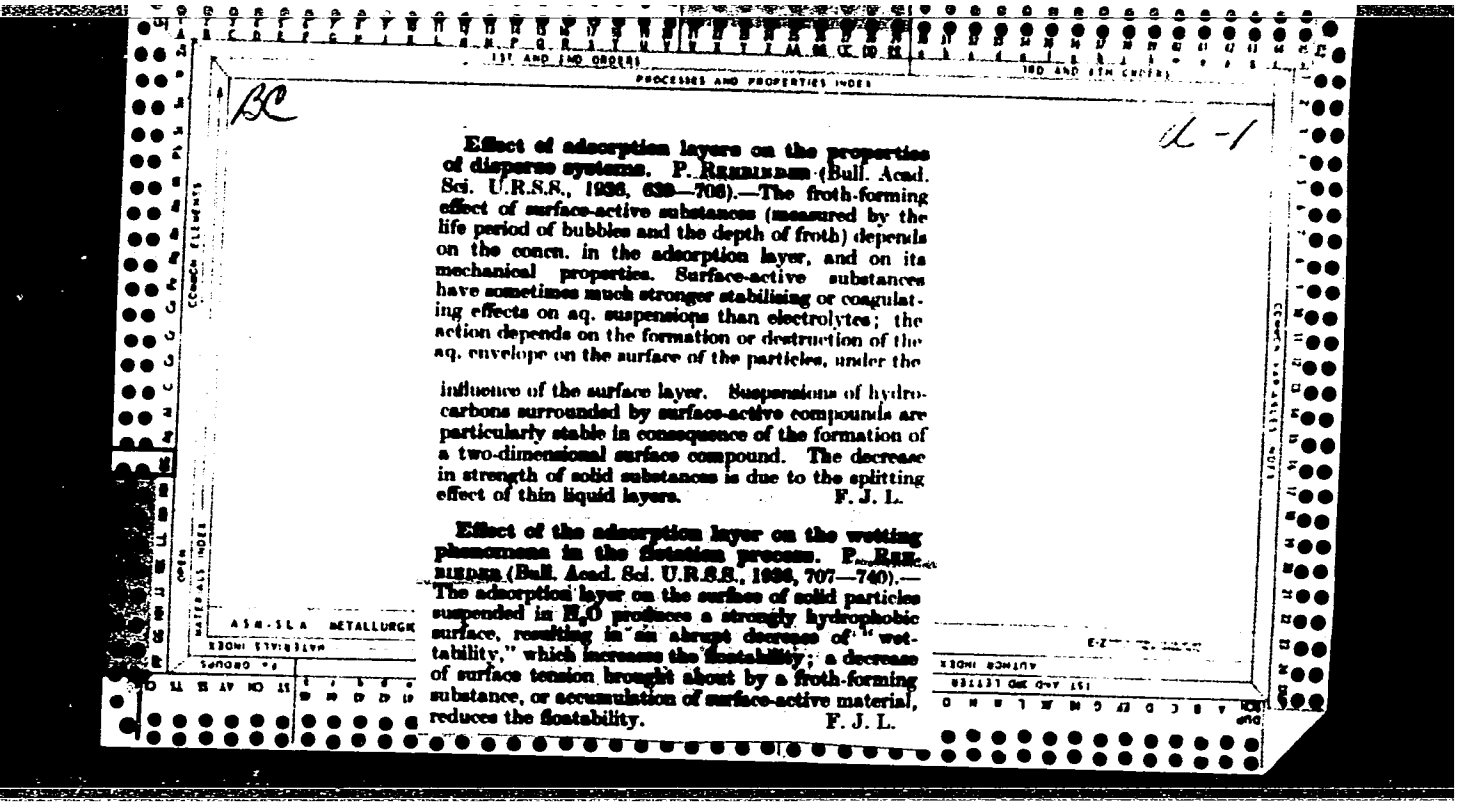
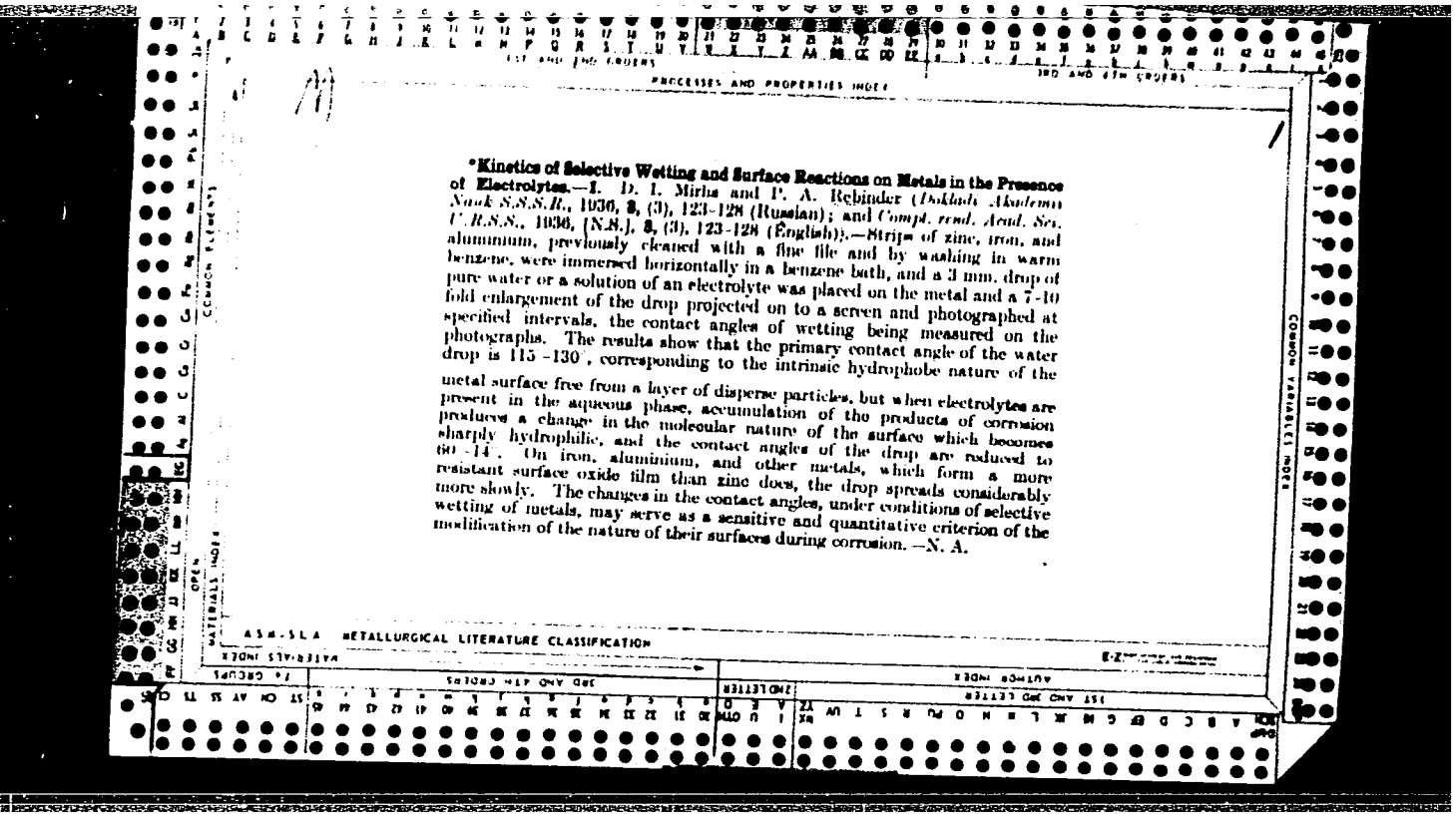
A.S.T.M. METALLURGICAL LITERATURE CLASSIFICATION



Effect of adsorption layers on the properties of disperse systems. P. Rehbinder (Bull. Acad. Sci. U.R.S.S., 1936, 689—708).—The froth-forming effect of surface-active substances (measured by the life period of bubbles and the depth of froth) depends on the concn. in the adsorption layer, and on its mechanical properties. Surface-active substances have sometimes much stronger stabilising or coagulating effects on aq. suspensions than electrolytes; the action depends on the formation or destruction of the aq. envelope on the surface of the particles, under the influence of the surface layer. Suspensions of hydrocarbons surrounded by surface-active compounds are particularly stable in consequence of the formation of a two-dimensional surface compound. The decrease in strength of solid substances is due to the splitting effect of thin liquid layers. F. J. L.

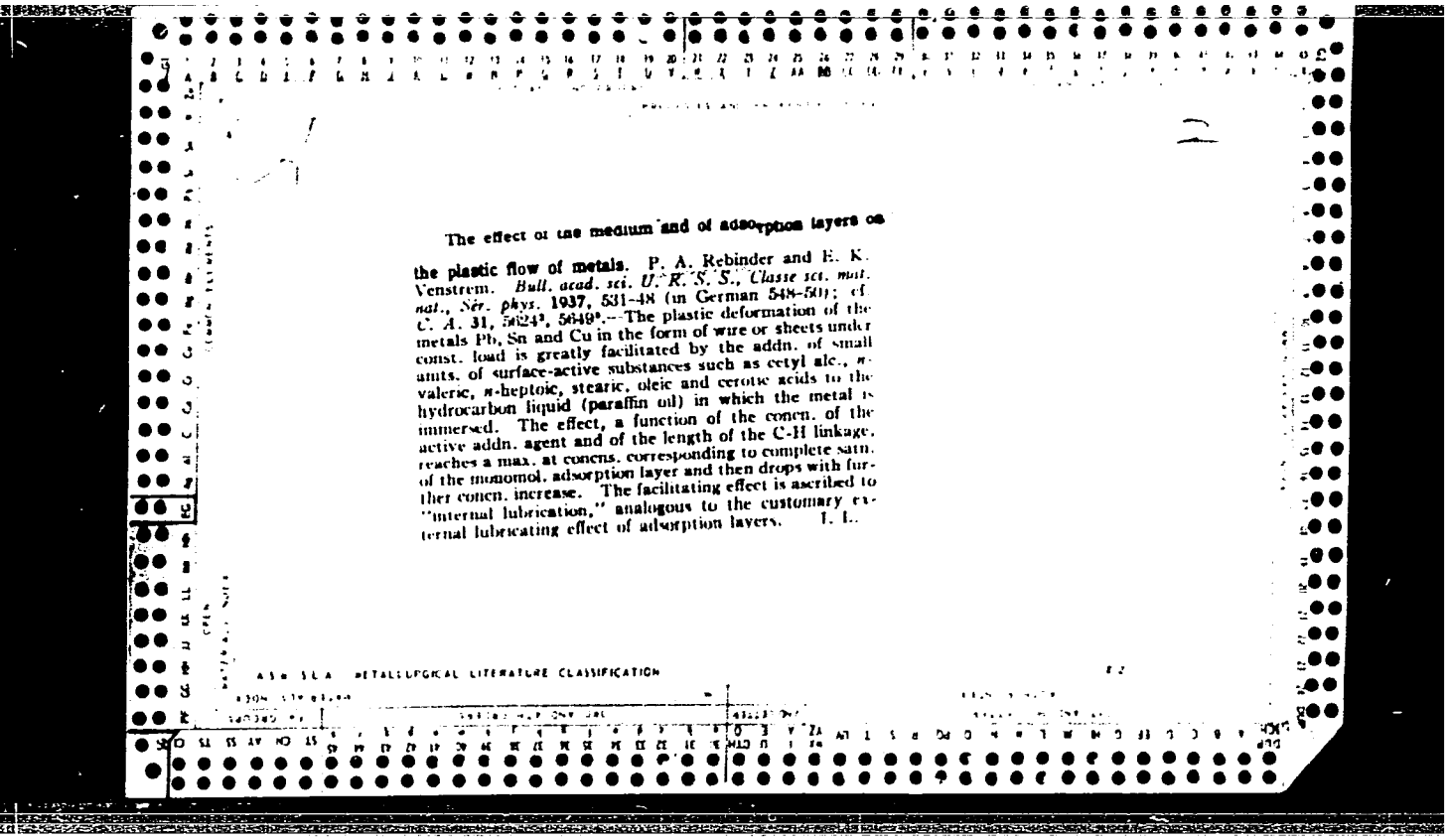
Effect of the adsorption layer on the wetting phenomena in the flotation process. P. Rehbinder (Bull. Acad. Sci. U.R.S.S., 1936, 707—740).—The adsorption layer on the surface of solid particles suspended in H_2O produces a strongly hydrophobic surface, resulting in an abrupt decrease of "wettability," which increases the floatability; a decrease of surface tension brought about by a froth-forming substance, or accumulation of surface-active material, reduces the floatability. F. J. L.



PROCESSES AND PROPERTIES INDEX

***Kinetics of Selective Wetting and Surface Reactions on Metals in the Presence of Electrolytes.**—I. D. I. Mirlis and P. A. Rebinder (*Doklady Akademii Nauk S.S.S.R.*, 1936, **3**, (3), 123–128 (Russian); and *Compt. rend. Acad. Sci. U.R.S.S.*, 1936, [N.S.], **3**, (3), 123–128 (English)).—Strips of zinc, iron, and aluminium, previously cleaned with a fine file and by washing in warm benzene, were immersed horizontally in a benzene bath, and a 3 mm. drop of pure water or a solution of an electrolyte was placed on the metal and a 7–10 fold enlargement of the drop projected on to a screen and photographed at specified intervals, the contact angles of wetting being measured on the photographs. The results show that the primary contact angle of the water drop is 115 –130°, corresponding to the intrinsic hydrophobe nature of the metal surface free from a layer of disperse particles, but when electrolytes are present in the aqueous phase, accumulation of the products of corrosion produces a change in the molecular nature of the surface which becomes sharply hydrophilic, and the contact angles of the drop are reduced to 60 –14°. On iron, aluminium, and other metals, which form a more resistant surface oxide film than zinc does, the drop spreads considerably more slowly. The changes in the contact angles, under conditions of selective wetting of metals, may serve as a sensitive and quantitative criterion of the modification of the nature of their surfaces during corrosion.—*N. A.*

A.S.M.-S.L.A. METALLURGICAL LITERATURE CLASSIFICATION



The effect of the medium and of adsorption layers on the plastic flow of metals. P. A. Rebinder and E. K. Venstrem. *Bull. acad. sci. U.R.S.S., Classe sci. mat. nat., Sér. phys.* 1937, 531–48 (in German 548–50); cf. *C. A.* 31, 5923[3], 5649[9].—The plastic deformation of the metals Pb, Sn and Cu in the form of wire or sheets under const. load is greatly facilitated by the addn. of small amts. of surface-active substances such as cetyl alc., *n*-valeric, *n*-heptoic, stearic, oleic and cerotic acids to the hydrocarbon liquid (paraffin oil) in which the metal is immersed. The effect, a function of the concn. of the active addn. agent and of the length of the C-H linkage, reaches a max. at concns. corresponding to complete satn. of the monomol. adsorption layer and then drops with further concn. increase. The facilitating effect is ascribed to "internal lubrication," analogous to the customary external lubricating effect of adsorption layers. I. L.

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