

SARIC, M.; BERITIC, T.; MIMICA, M.

A case of severe lead encephalopathy in an adult treated with chelating agent. Arh. hig. rada 13 no.2:107-113 '62.

1. Institut za medicinska istrazivanja i medicinu rada i Interna klinika
Medicinskog fakulteta u Zagrebu.
(LEAD POISONING) (BRAIN DISEASES) (EDATHAMIL)

MIMICH, MILANAD

YUGOSLAVIA

Dr Nikola PERACIC, Dr Ljiljana KRALJIC, Dr Miroslav STANIC, Dr Zvezdana
BOSANAC and Dr Aleksandar JELICIC, Neuropsychiatrijska i Geriatrijska (Psihijatrijska)
rijnska) and Internal Medicine (lateron) Clinic of Medical Faculty
(klinika Medicinskeg fakulteta), University of Zagreb.

"Laboratory and Clinical Examination of the Liver in Chronic Alcoholism
and Alcohol Psychoses - Regarding the Pathogenesis of Delirium Tremens."

Zagreb, Lijechnicki Vjesnik, Vol 84, No 11, 1962; pp 1112-1116.

Abstract [English summary modified]: Study in 107 chronic alcoholics,
including 59 with delirium tremens by 8 clinical criteria and 6 types of
liver function tests, and 6 other laboratory criteria: statistical
analysis. Only aspect in which there seemed to be a significant
difference between those with and without delirium tremens was sublimate
test, but generally liver damage (59.4% fatty infiltration) was about
equally frequent in all, as was lowering of albumin:globulin ratio. Six
tables, 2 diagrams; 14 German, 7 other Western and 1 Yugoslav reference.

1/1

M. MICA, M.

YUGOSLAVIA

Dr. M. MIMICA and Dr. J. WOLFYIC [Affiliation not stated]

"Are Anticoagulants of Any Use in Myocardial Infarct?"

Zagreb, Liječnički Vjesnik, Vol 64, No 12, Dec 61, pp 1260-1264.

Abstract: A review of 39 recent articles which either challenged or contributed negative data on the value of such treatment, concluding with one exhortation that in view of the high volume and cost of such treatment in Yugoslavia, the clinical data be collected and analyzed. Cite Yugoslav and 33 Western references.

11/1

YUGOSLAVIA

Dr. Milorad MIMICA, Dr. Dobroslav BABIC, Dr. Neda KÖHLER-KUBELKA and Prof. Iva VOLARIC-MRSIC; Internal Medicine Clinic of the Medical Faculty (Interna klinika Medicinskog fakulteta, Department of Internal Medicine of the Hospital (Interni odjel bolnice) "Dr. J. Kaifes," Immunologic Institute (Imunoloski zavod) and Department of Botany of the Faculty of Pharmacy (Zavod za botaniku Farmaceutskog fakulteta), Zagreb.

"Pollinosis."

Zagreb, Lijecnicki Vjesnik, Vol 85, No 5, May 63; pp 497-502.

Abstract [English summary modified]: Data on 100 patients with seasonal allergies: rhinitis in 93, conjunctivitis 62, asthma 37. Skin tests to 39 pollen extracts from 14 families of plants: most frequent culprits were *Alopecurus pratensis* (75%+, 64%+); among non-grasses, ragweed was now found frequent around Zagreb (70%+, 38%+) goldenrod also (32%+, 16%+). Multiple sensitivities to non-pollen allergens involved 30%; 84% of patients were from Zagreb and 68% had 'intellectual' occupations. Three graphs, 6 Yugoslav, 1 Hungarian, 20 Western references.

1/1

MIHAI, Nicolae

Clinical types and pathogenesis of bronchial asthma. Bul. med. fak. Zagreb; 12 no.2:166-184 '64.

MIMICA, Milorad, dr.; BABIC, Dobroslav, dr.; KOHLER-KUBELKA, Neda, dr.;
VOLARIC-MRSIC, Iva, prof.

Pollenosis. Liječn. vjesn. 85 no.5:497-502 '63.

1. Iz Interne klinike Medicinskog fakulteta, Internog odjela
bolnice "Dr. J. Kaifes", Immunoloskog savoda i Zavoda za
botaniku Farmaceutskog fakulteta u Zagrebu.
(POLLEN) (SKIN TESTS) (STATISTICS)

S

MINICA, M.; GRGIC, Z.; BEZJAK, B.

Cytology of the bowel exudate in ulcerative colitis and
bacillary dysentery. Acta med. Jugosl. 18 no.231/2-119
'64

1. Department of Medicine and Department of Infectious
Diseases, Medical Faculty, University of Zagreb, Zagreb.

REMENARIC, Milan, dr.; MIMICA, Milord, dr.; OBERMAN, Bozidar, dr.

Thromboembolism of the pulmonary artery. Liječn. vjesn. 86
no.11:1387-1393 N ' 64.

1. Iz Internog odjela i Prosekture Bolnice "Dr. Josip Kajfes"
u Zagrebu.

MIMIKONYANTS L.G.

8 (0)
BYRMS:

Amishevili, G. D., Gabashvili, E. V., Sov/105-59-11-31/32
Cortinsky, B. E., Kuriani, I. S., Makhomov, L. M.,
Svayanskoy, I. A., Ter-Shchakurov, A. Ya., Chikhaev,
D. P., Reiz, L. Ye.

TITLE: Ye. M. Mikhvashvili (Deceased)

PERIODICAL: Elektrichestvo, 1959, Nr 11, p 95 (USSR)

ABSTRACT:

Ye. M. Mikhvashvili died on August 9, 1959, 45 years old. He had completed his studies at the elektrotekhnicheskoy fakul'tet Gruzinskogo industriального instituta (Department of Electrical Engineering of the Georgian Industrial Institute) Ye. M. Mikhvashvili worked in Sevastopol' and Tbilisi in the central laboratories of the Gruzenergo. In 1948 he assisted in the organization of the Tbilisitskiy filial sel'skogo mashinostroitel'nogo instituta elektrotekhnicheskogo fakul'teta (Tbilisi Branch of the Institute of Agricultural Machinery) which was later reorganized into the Gruzinskoye nauchno-issledovatel'skiy institut mekhanizatsii i elektrifikatsii sel'skogo khozyaystva (Georgian Scientific Research Institute for the Mechanization and Electrification of Agriculture).

Card 1/2

Since 1944 he worked at the Kafedra Tsentral'nogo elektrotekhnicheskogo nauchno-issledovatel'skogo instituta (Chair of the Central Electric Power Plants and Research of the Georgian Polytechnic Institute). There is 1 figure.

Card 2/2

KOSIKOV, K.M.; ~~MINTHELLO, R.E.~~; MODEL', A.M.; SAVITSKIY, G.A.; FEDOROVICH,
E.G.; SHERMINTS, A.P., FEDUNIN, G.A., otv.red.; GALOYAN, M.A., red.
SHEFFER, G.I., tekhn.red.

[Handbook for electric communications Vol.8. Radio]

Inzhenerno-tekhnicheskii spravochnik po elektrosvyazi. Moskva,
Gos.izd-vo lit-ry po voprosam svyazi i radio. Vol.8, Radiosvya'z'.
1958. 500 p. (MIRA 11:8)

1. Russia (1923 - U.S.S.R) Ministerstvo svyazi.
(Radio)

MIMINGSHVILI, D. I.

"Electrophysiological Characteristics of the Conducting Functions of a Nerve Scar During the Process of Regeneration." Sub 19 Apr 51, Acad Med Sci USSR.

Dissertations presented for science and engineering degrees in Moscow during 1951.

SO: Sum. No. 480, 9 May 55.

MIMINOSHVILI, S. Ya.

Instrument for enucleation. Vest. oft., Moskva 31 no.6:26-27 Nov-
Dec 1952. (CLML 23:4)

1. Of the Eye Division (Head -- P. D. Macharashvili) of Sukhumi
Municipal Hospital (Head Physician -- A. N. Shurgaya).

MIMINOSHVILI, S. Ya.

MIMINOSHVILI, S. Ya. -- "The Effect of Physical labor on the Development of Intra-ocular Pressure." Sukhumi, 1955. (Dissertation for the Degree of Candidate in Medical Sciences).

So: Knizhnaya letopis', No 8, 1956, pp 97-103

MIMINOSHVILI, S.Ya., kpd.med.nauk

Modification of the recession operation in concomitant strabismus.
Oft.shur. 14 no.6:365-368 '59. (MIRA 13:4)

1. Iz glaznogo otdeleniya (sav. - kand.med.nauk S.Ya. Miminoshvili)
Respublikanskoy bol'nitsy im. prof. A.A. Ostroumova, Sukhumi.
(STRABISMUS) (EYE--SURGERY)

MIMINOSHVILI, S.Ya., kand.med.nauk; BERIYA, F.Ye.; TSKHADAYA, A.D.;
BAGATURIYA, Sh.K.

Active detection of glaucoma among the population of Sukhumi.
Vest.oft. 72 no.6:4-5 N-D '59. (MIRA 13:5)

1. Glasnoye otdeleniye Respublikanskoy bol'nitsy imeni A.A.
Ostroumova (sav. - S.Ya. Miminoshvili).
(GLAUCOMA statist. prev. & control)

MIMINOSHVILI, S.Ya., kand.med.nauk

The 75th anniversary of A.N. Maklakov's ophthalmometer; historical
note. Vest.oft. 72 no.6:52-55 N-D '59. (MIRA 13:5)

1. Glasnoye otdeleniye Respublikanskoy bol'nitsy imeni prof.
A.A. Ostroumova.

(OPHTHALMOLOGY hist.)
(BIOGRAPHS)

MIMINOVSHVILI, S.Ya.; RUKHADZE, T.I.; KUZNETSOVA, N.Kh.; MEBONYAY, L.E.;
DEKANOZISHVILI, M.Ya.; KALANDIYA, N.G.; ZARZHETSKAYA, A.S.

Active detection of glaucoma among the rural inhabitants of the Abkhazian
A.S.S.R.. Vest. oft. 73 no. 3:28-30 My-Je '60. (MIRA 14:1)
(ABKHAZIA-GLAUCOMA)

MIMINOSHVILI, S.Ya., kand. med. nauk

Active and passive detection of glaucoma patients. Vest. oft.
76 no.5:48-50 S.-O '63. (MIRA 17:1)

1. Zaveduyushchiy glaznym otdeleniyem Respublikanskoy
bol'nitsy imeni A.A. Ostromova, Sukhumi.

SOV/112-59-3-4545

Translation from: Referativnyy zhurnal. Elektrotekhnika, 1959, Nr 3, p 38 (USSR)

AUTHOR: Miminoshvili, V. Ya.

TITLE: Fuel-Consumption Norms for Heating Buildings in the Cities of Gruzinskaya SSR (O normakh raskhoda topliva na otopeniye zdaniy v gorodakh Gruzinskoy SSR)

PERIODICAL: Tr. In-ta energ. AN GruzSSR, 1957, Vol 11, pp 83-88

ABSTRACT: The fuel-consumption norms for building heating, as endorsed in 1946 and as applied to the Gruzinskaya SSR, are inadequate; this causes systematic underheating of buildings. The facts not allowed for by the norms were discovered by the Institut energetiki Gruzinskaya SSR (Power-Engineering Institute, Gruzinskaya SSR). For example, the temperature (+4.5°C) at which heating systems are supposed to be started is not substantiated, particularly in the districts with high air humidity; specific heat characteristics of buildings in the 4-th climatic belt are heavily underrated. Recommendations are offered

Card 1/2

SOV/112-59-3-4545

Fuel-Consumption Norms for Heating Buildings in the Cities of Gruzinskaya SSR

as to the duration of heating period for various cities of the Gruzinskaya SSR, based on the temperature $+10^{\circ}\text{C}$ for starting the heating system; recommendations are also given for heat-consumption norms for buildings in the 4-th climatic belt based on specific heat characteristics which are higher by 45% than those for the 2nd climatic belt. Bibliography: 7 items.

M. L. Z.

Card 2/2

MIMRA, B.

"Research Work in the Field of Internal Combustion Engines in the Institute of Motor Vehicle Research" p. 717 (STROJIREKSTVI, Vol. 3, No. 10, October 1953, Praha, Czechoslovakia).

SO: Monthly List of East European Accessions, LC, Vol. 3, No. 5, May 1954, Unclassified

MIMRA, B.

System of springs in automobiles and some methods of research, p. 406,
STROJIRENSTVI (Ministerstvo strojirenstvi) Praha, Vol. 5, No. 6,
June 1955

SOURCE: East European Accessions List, (EEAL) Library of Congress,
Vol. 4, No. 12, December 1956

MMRA, B.

Experiences gained during a visit to Soviet automobile factories and laboratories.

p. 106 (Automobil) Vol. 1, no. 4, Apr. 1957 Praha, Czechoslovakia

SO: MONTHLY INDEX OF EAST EUROPEAN ACCESSIONS (EEAI) LC, VOL. 7, NO. 1, Jan. 1958

VENDEROVA, E.; MIMRA, J.

New hexachlorophene washing emulsion in the prevention of nosocomial Staphylococcus skin infections in newborn infants. Cesk. ped. 20 no.12:1105-1107 D '65.

1. Gynekologicko-porodnicke oddeleni Obvodniho ustavu narodniho zdravi v Sokolove (vedouci - MUDr. I. Grossmann) a Protiepidemicky odbor , Obvodni hygienicko-epidemiologicke stanice v Sokolove (vedouci - J. Mimra, prom. lek.).

MIMRIKOV, A.N., student.

Advanced technique for forging flanges. Trudy LII no.10:180-188
'55. (MLBA 9:8)
(Flanges) (Forging)

BUDINOVA-SMELA, J.; BOHMOVA, E.; MIMROVA, M.

An attempt at the quantitative evaluation of phasic diseases.
Cesk. psychiat. 60 no.4:221-225 Ag '64.

1. Oddeleni pro cervni nemoci mozku Thomayerovy nemocnice v
Praze.

MIMUKHIN, B.M.

137-58-5-10580

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 5, p 244 (USSR)

AUTHOR: Mimukhin, B.M.

TITLE: Graphic Analysis of the Problem of Determining Microstresses and of the Magnitude of Regions of Coherent Scattering in Plastically Deformed Steel (Graficheskoye resheniye zadachi ob opredelenii mikronapryazheniy i velichiny oblastey kogerentnogo rasseyaniya v plasticheski deformirovannoy stali)

PERIODICAL: Sb. nauchn. rabot stud. Petrozavodskogo un-ta, 1957, Nr 4, pp 55-61

ABSTRACT: X-ray analysis is employed to study the mechanism of plastic deformation of polycrystalline substances. A method of graphic analysis is developed to solve the problem of simultaneous determination of the microstresses and the grain size. The investigation was run on low-carbon steel. The (110) and (220) lines due to Fe irradiation and the (110) and (310) lines due to Co irradiation were examined. The specimens (S) were first annealed for 2 hours at 780°C followed by cooling within the furnace for 2 hours. After elongation by 8, 16, and 20%, the S were X-rayed and electrolytically etched. It is experimentally

Card 1/2

137-58-5-10580

Graphic Analysis of the (cont.)

demonstrated that within the limits of 8 to 20% of predeformation the amount of microstress in the S increases, while their size diminishes. It is indicated that the suggested graphic solution of the problem of determining microstresses and the size of regions of coherent scattering in plastically worked steel requires experimental verification where small relative strains are concerned.

V. N.

1. Steel--Deformation 2. Diagrams

Card 2/2

SHIVRIN, O.N.; MIMUKHIN, B.M.

Anisotropy of second order atomic deformations in the crystal
lattice of plastically deformed tungsten, nickel, and aluminum.
Izv. vys. ucheb. zav.; fiz. no.3:135-140 '58. (MIRA 11:9)

1. Petrosavodskiy gosuniversitet.
(Metal crystals) (Metallography)

SOV/136-59-3-8/21
AUTHORS: Lyumkis, S.Ye., Mimukhin, B.M. and Chermak, L.L.
TITLE: On the Structure of Liquid Alloys of the Nickel-sulphur System (O stroyneni zhidkikh splavov sistemy nikel'-sera)
PERIODICAL: Tsvetnyye Metally, 1959, Nr 3, pp 29 - 32 (USSR)
ABSTRACT: Previous work had shown that various sulphides were present in the intermediate sulphide product in the extraction of nickel. The present work is X-ray structural analysis of solid and liquid alloys of the nickel-sulphur system. The apparatus URS-70 was used and a diagram of this is given. The alloys investigated were the intermediate sulphide-nickel product and synthetic alloys containing 18% S (hypo-eutectic), 21.5% S (eutectic) and 24.9% S (Hyper-eutectic). The alloys were investigated at room temperature, 500 °C and 700-800 °C (50-100 °C above the melting point). The transition from solid to liquid is accompanied by a loss in intensity of the lines but only those lines with the smallest intensity disappear completely. In the alloys examined lines corresponding to Ni and Ni₃S₂ were found. Micro-regions rich in Ni or Ni₃S₂ were found to exist. In general, the alloys consisted of solid

Card1/2

SOV/136-59-3-8/21

On the Structure of Liquid Alloys of the Nickel-sulphur System

solutions of Ni and Ni_3S_2 and only in those alloys showing complete absence of molecular mixing (i.e. complete micro-inhomogeneity) were lines corresponding to both components of the alloy seen. The micro-inhomogeneity is connected with deviations from the ideal state. The properties of the alloys are in some degree the properties of the individual components, i.e. nickel and its sulphide. Therefore, there is a positive deviation. The line corresponding to the higher sulphide NiS was absent. NiS may, however, be present in complete molecular solution of Ni_3S_2 .

There are 1 figure and 12 Soviet references.

ASSOCIATION: Yuzhural'nikel' Combine

Card 2/2

1.1710

³¹⁵⁷³
S/129/61/000/012/003/005
E193/E383

AUTHORS: Brovman, M.Ya., Mel'nikov, A.F., Tsomik, I.I. and
Mimukhin, B.M., Engineers

TITLE: Heat-treatment of welded constructions

PERIODICAL: Metallovedeniye i termicheskaya obrabotka metallov,
no. 12, 1961, 28 - 29

TEXT: The object of the present investigation was to develop an improved method of stress-relieving of welded constructions. To this end, the stress-distribution in fillet-welded beams of various shapes before and after different types of heat-treatment was studied by X-ray diffraction and with the aid of wire strain gauges. It was found that, in addition to tensile and compressive stresses, bending and torsional stress may be set up in welded constructions. One of the heat-treatments studied consisted of heating the weld with suitably mounted travelling torches. When this treatment was carried out in such a way that the material adjacent to the weld was heated without raising the temperature of the weld itself, tensile stresses were set up in the weld which, as a result, became
Card 1/4

Heat-treatment of

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E193/E383

plastically deformed. If the difference, ΔT , between the temperature of the cold-welding and the heated part of the welded construction was correctly chosen, the residual stresses disappeared after treatment of this type. The correct temperature interval can be calculated from a formula: ✓

$$\Delta T = \sigma_s / E\alpha$$

where σ_s is the yield strength of the steel,
E its elastic modulus, and
 α the linear coefficient of thermal expansion.
The rate of torch traverse is given by:

$$v = E\alpha q / c\gamma\delta\sigma_s ,$$

where q is the linear heat-power rating of the torch,
c is the specific heat of the steel,
 γ its density, and
 δ the thickness of the material.

Card 2/4

Heat-treatment of

S/129/61/000/012/003/005
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$v = 0.0068 q/b$ for carbon and low-alloy steels. The effectiveness of this treatment was studied on welded box-beams, stress-relieved with the aid of equipment shown diagrammatically in the figure. This consisted of two oxy-acetylene torches (1), mounted symmetrically opposite each other in such a way that both sides of the beam could be heated simultaneously, and two water-spraying jets (2) for cooling the welds while the adjacent material was being heated. The whole device was moved along the beam on suitably mounted rollers. The consumption of acetylene and oxide was, respectively, 3.5 and 4.2 m³/h per torch, the water consumption being 0.5 litres/min per jet. When the traverse rate was correctly chosen, this treatment was more effective than stress-relieving in a furnace. Thus, after a treatment at a traverse rate of 25 cm/min, the residual stresses in the beam studied were 3.45 times lower than in untreated specimens and 3.25 times lower than in specimens stress-relieved in a furnace. The absence of residual stresses in welded constructions, stress-relieved by this method, was confirmed by X-ray analysis and by measuring the internal stresses by standard methods. The process described in the present paper
Card 3/4

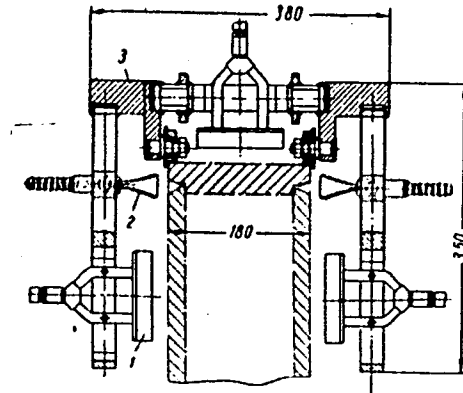
Heat-treatment of

31 73
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E193/E383

can be used for stress-relieving of both fillet and butt welds, is easily automated and is 25 - 30 times shorter than furnace heat-treatment. When it is used on beams with a wall thickness of 20 - 40 mm, the traverse rate of the torches should be 10 - 30 cm/min. Great care must be taken to ensure that only the weld is cooled by the water jets during this treatment. X

[Abstracter's note: this is an abridged translation.]
There is 1 figure.

Figure:



Card 4/4

LYUMKIS, S.Ye.; PRILEPKO, Kh.S.; MIMUKHIN, B.M.; SALOVA, K.P.

Surface active substances in the system matte - slag. TSvet. met.
35 no.6:34-38 Je '62. (MIRA 15:6)
(Surface active agents)

LYUMKIS S.Ye.; CHERMAK, L.L.; MIMUKHIN, B.M.; PRILEPKO, Kh.S.

X-ray analysis of liquid heavy metal sulfide alloys. Izv.vys.
ucheb.zav.; tsvet.met. 8 no.2:24-31 '65.

(MIRA 19:1)

1. Kombinat "Yuzhuralnikel". Submitted February 28, 1962.

SELYUTIN, V.; LESNIKOV, N.; RAYEVICH, V.; GUREVICH, V.; KRAVTSSEV, A.
(Bryansk); REVUNOV, M. (g. Ramenskoye, Moskovskoy oblasti);
NAZAROV, P.; RYKOV, Yu.; MIN, A.; IGNATENKO, N.

Letters on various subjects. Mest. prom. i khud. promys. 3
no.8:30-31 Ag '62. (MIRA 15:10)

1. Starshiy inzhener Glavbelmostproma, g. Minsk (for Selyutin).
2. Glavnyy inzhener shveytnogo kombinata "Pobeda", g. Ulan-Ude
(for Gurevich).

(Industries)

MIN, D.

American railroad journals on the subject of Soviet railroads.
Zhel.dor.transp. 40 no.11:93-95 N '58. (MIRA 11:12)
(Railroads)

KISELEVA, N.S.; MIN, U.

Metastasis of transplantable tumors in mice and rats. Vop.onk.
6 no.1:27-33 '60. (MIRA 13:10)

(TUMORS)

MIN', U.

Simplified method for obtaining clones from human tumor cells in
vitro. Vop. onk. 7 no.9:8-12 '61. (MIRA 14:12)

1. Iz laboratorii kul'tivirovaniya tkaney Otdela etiologii i pato-
geneza opukholey (sav. - deystv. chl. AMN SSSR prof. A. D. Timofeyevskiy)
Instituta eksperimental'noy i klinicheskoy onkologii AMN SSSR (dir. -
deystv. chl. AMN SSSR prof. N. N. Blokhin).

(TUMORS)

SHARLIKOVA, L.F.; MIN', U.

Production of Jensen's sarcoma clones (single-cell tumors). Biol.
eksp. biol. i med. 51 no.3:85-88 Mr '61. (MIRA 14:5)

1. Iz laboratorii eksperimental'noy khimioterapii (zav. - chlen-
korrespondent AMN SSSR prof. L.F.Larionov, rukovoditel' raboty-
kandidat meditsinskikh nauk G.L.Zhdanov) i laboratorii kul'tury
tkaney (zav. - deystvitel'nyy chlen AMN SSSR A.D.Timofeyevskiy)
Instituta eksperimental'noy i klinicheskoy onkologii (dir. -
deystvitel'nyy chlen AMN SSSR N.N.Blokhin) AMN SSSR.
(TUMORS)

SHARLIKOVA, L.F.; MIN', U.

Production of clones of the mouse ascites sarcoma 37. Vop. onk.
10 no.5:110-111 '64. (MIRA 18:8)

1. Iz laboratorii eksperimental'noy khimioterapii (zav. -
chlen-korrespondent AMN SSSR prof. L.F.Larionov) i laboratorii
kul'tury tkaney (zav. - deystvitel'nyy chlen AMN SSSR prof.
A.D.Timofeyevskiy) Instituta eksperimental'noy i klinicheskoy
onkologii AMN SSSR (dir. - deystvitel'nyy chlen AMN SSSR prof.
N.N.Blokhin). Adres avtorov: Moskva, I-110, ul. Shchepkina,
61/2, korpus 9, Institut eksperimental'noy i klinicheskoy
onkologii AMN SSSR.

YELAGIN, I. N., MIN, V. N.

Soils

Root systems of oak on dark-grey and on saline soils. Lec.khoz. 5 no. 4(43) (1952)

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

H-3

MINA,

COUNTRY : Romania
CATEGORY :
ABS. JOUR. : RZKhim., No. 20 1959, No. 71936
AUTHOR : Stefanescu, A.; Ornstrat, L.; Mina, C.
INST. :
TITLE : Preparation and Purification of Titanium
Tetrachloride

ORIG. PUB. : Rev. chim., 1958, 9, No 7-8, 387-390.
Discut., 390-391

ABSTRACT : Laboratory and pilot-plant experiments were conducted on chlorination of mixtures of titanium dioxide (containing 28.2-32.6% TiO_2) and coal, to get $TiCl_4$. The batch consisting of ilmenite, carbon black (25% of weight of ilmenite), and asphalt, was made-up, at 45°, into briquettes 20 mm in diameter, the briquettes were dried at 60-100° and heated in a quartz tube at 550-660° (to remove organic compounds). Then the mass was chlorinated, in the same tube, at 350-400°; $TiCl_4$ -vapor was condensed and collected in a receiver; yield of $TiCl_4$ about 93-95% on the basis of TiO_2 . There is also described a laboratory procedure of further purification of the $TiCl_4$ obtained

CARD: 1/2

MINA, I.

Mina, I. - "Regulating growth processes in cotton plants- a method to control its yield,"
Sel. khoz-vo Tadzhikistana, 1948, No. 6, p. 12-15

SO: U-3600, 10 July 53, (Letopis 'Zhurnal 'nykh Statey, No. 6, 1949).

MINA, I.

Mina, I. - "The significance of humidifying irrigation in producing high cotton yields", Sel. Khoz-va Tadzhikistan, 1949, No. 1, p. 16-18.

SO: U-3261, 10 April 53, (Letopis 'Zhurnal Staty, No. 12, 1949).

MINA, M.

Feeding useful birds. Sbor. st. Mosk. soop. no.2:83-88 '58.

(MIRA 11:12)

(Kuntsevo District--Birds, Protection of)

MINA, M.V.

Data on the ecology and taxonomy of chars of the genus *Salvelinus*
of the Lena Delta. Vop. ikht. 2 no.2:230-241 '62. (MIRA 15:11)

1. Kafedra ikhtiologii Moskovskogo gosudarstvennogo universiteta
i Yakutskoye otdeleniye Gosudarstvennogo nauchno-issledovatel'skogo
instituta ozernogo i rechnogo rybnogo khozyaystva (GosNIORKh).
(Lena Delta--Trout)

MINA, M.V.

Materials on the ichthyofauna of the Zeya River. Nauch.dokl.vys.
shkoly; biol.nauki no.4:33-37 '62. (MIRA 15:10)

1. Rekomendovana kafedroy ikhtiologii Moskovskogo gosudarstvennogo
universiteta im. M.V.Lomonosova.
(ZEYA RIVER--FISHES)

M. V. A. N. P.

VORONTSOV, O.S.; GOLIK, M.G.; DELIDOVICH, V.M.; KLEYEV, I.A.; KOZ'-
MINA, N.P., doktor biologicheskikh nauk, professor; SOSEDOV, N.I.
FESTA, N.Ya.; CHUKHAR'KO, Z.T.; GEL'MAN, D.Ya., redaktor; LA-
BUS, G.A., tekhnicheskiy redaktor.

[Grain storage; management and equipment] Organizatsiia i tekhnika
khraneniia zerna. Moskva, Izd-vo tekhn. i ekonomicheskoi lit-ry,
1954. 358 p. [Microfilm] (MLRA 7:10)
(Grain--Storage)

L 31960-65 EWT(1)/EWT(m)/EWP(t)/EWP(b) IJP(c) JD
ACCESSION NR: AP5004382 2/0056/65/048/001/0111/0121

AUTHOR: Mina, M. T.; Khaykin, M. S.

22
17
8

TITLE: Investigation of the Fermi surface of indium

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 48, no. 1, 1965, 111-121

TOPIC TAGS: indium, Fermi surface, free electron model, effective mass, carrier mass, carrier velocity, cyclotron resonance

ABSTRACT: In view of the lack of precision investigations of the Fermi surface of indium, particularly by the cyclotron resonance method, the authors used this method to measure the effective masses of the carriers in indium and to study their

OF THE SURFACE IMPEDANCE OF THE METAL WAS DETERMINED BY THE METHOD

Card 1/3

L. 31960.65

ACCESSION NO: AP1004382

4

method described by one of the authors elsewhere (Khaykin, PTE, No. 3, 95, 1961).
The effective masses were determined from the cyclotron spectra by a formula de-
rived by the authors in an earlier paper (ZhETF, v. 45, 1304, 1963). The extremal

Orig. art. has: 10 figures, 2 formulas, and 1 table.

ASSOCIATION: Institut fizicheskikh problem Akademii nauk SSSR (Institute of
Physics Problems, Academy of Sciences SSSR); Fizicheskiy institut GKAE (Physics

Card 2/3

L. 31960-65

ACCESSION NR: AP5004382

Institute, (GKAR)

SUBMITTED: 20Jul64

ENCL: 00

SUB CODE: 88

HR REF BOV: 008

OTHER: 007

Card 3/3

24703
S/056/61/040/005/003/019
B113/B201

247400 (1055, 1160, 1395)
AUTHOR: Mina, R. T.

TITLE: Relaxation absorption of electromagnetic energy in antiferromagnetic CoCl_2

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 40, no. 5, 1961, 1293 - 1295

TEXT: A study has been made of single crystals of antiferromagnetic CoCl_2 bred in vacuo from the melt of previously well dehydrated salt. The specimens obtained were transparent, homogeneous, and had a sky-blue tint. Orientation and character of the individual specimens were controlled radio-graphically. The energy absorbed in the specimen was determined from the power transmitted through the cavity resonator containing the specimen. The measured power transmitted was recorded by a peak-reading voltmeter. The measured value was found to be inversely proportional to the square of the power absorbed by the specimen. To prevent the change of natural frequency of the resonator from affecting the result of measurement, the generator frequency

Card 1/6

24703

S/056/61/040/005/003/019
B113/B201

Relaxation absorption of...

with a period of 0.03 sec was modulated within a range exceeding that of the resonator frequency changes. As may be seen from Figs. 1 and 2, the power absorbed has a maximum at a certain temperature and a corresponding magnitude of the constant magnetic field H . For both cases, the vanishing of the nonmonotonic dependence of absorbable power on temperature in fields exceeding 5.5 koe is a common phenomenon. Fig. 3 shows that the power absorbed by the antiferromagnetic substance in the paramagnetic state decreases with a rise of the constant field. The power absorbed by the specimen has not been found to depend upon temperatures higher than the Curie point in the 25-40°K range. A further temperature rise to 80°K, however, had the effect of reducing absorption in the single crystal. The data obtained can be used to operate on the relaxation mechanism of the absorption shown. The relaxation processes can be characterized by a given time τ . Since the latter rises with dropping temperature of the antiferromagnetic substance, the relaxation absorption of electromagnetic energy of frequency ω has the form: $P(\omega, \tau) \sim \omega\tau / [1 + (\omega\tau)^2]$

Academician P. L. Kapitsa and A. I. Shal'nikov, Corresponding Member of the AS USSR are thanked for interest displayed in the present work, as well as M. S. Khaykin for his guidance, A. S. Borovik-Romanov for several discussions of results, and N. N. Mikhaylov for his assistance in breeding the single

Card 2/6

24703

Relaxation absorption of...

S/056/61/040/005/003/019
B113/B201

crystals. There are 3 figures and 5 references: 4 Soviet-bloc and 1 non-Soviet-bloc. The reference to the English-language publication reads as follows: M. K. Wilkinson, J. W. Cable, E. O. Wollan, W. C. Kochler. Phys. Rev., 113, 497, 1959.

ASSOCIATION: Institut fizicheskikh problem Akademii nauk SSSR (Institute of Physical Problems, Academy of Sciences USSR)

SUBMITTED: December 21, 1960

Card 3/6

S/056/62/042/001/005/048
B125/B108

AUTHORS: Knaykin, M. S., Mina, R. T.

TITLE: Investigation of the Fermi surface of lead by the cyclotron resonance method

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 42, no. 1, 1962, 35 - 41

TEXT: Cyclotron resonance in the (100) and (011) planes of rectangular single-crystal plates of lead with a resistivity ratio $\rho(20^{\circ}\text{C})/\rho(4.2^{\circ}\text{K}) = (0.6 - 1) \cdot 10^4$ was measured by frequency modulation at $9.47 \cdot 10^9$ cps in a magnetic field of 800 - 7000 oersteds at 2°K . Two specimens with the high-frequency current and magnetic field directions are shown in Fig. 1. The ratio $\mu = m^*/m_e = H_{\omega}^{-1}/(H_{n+1}^{-1} - H_n^{-1})$ (1) (m^* = effective electron mass, m_e = free electron mass, H_{ω} = field strength at electron paramagnetic resonance, H_n = field strength at cyclotron resonance of the order n. The depth of cyclotron resonance of any group belonging to a certain effective Card 1/63 ✓

Investigation of the Fermi surface...

S/O56/62/042/001/005/048

B125/B108

mass depends on the direction of the magnetic field. However, group ξ_1 has the deepest resonance of all. The lower and upper parts of the polar diagram (Fig. 3) show $\mu(\xi)$ data for specimens 1 and 2, respectively. The Fermi surface model presupposes free electrons in the weak field of the crystal, the first Brillouin band filled up, a second band with closed central hole surface, and a third band filled up near the edges. Cyclotron resonances are observed on the outermost closed orbits with an orbital plane perpendicular to the magnetic field. The electron surface of the third band is shown in Fig. 4. The proportionality between the effective electron mass and the tube cross section is the better for a real Fermi surface, the less this surface deviates from cylindrical form. The deep cyclotron resonances on the $\xi_1, \xi_2, \xi_3, \xi_4$ orbits are due to the nearly cylindrical form of the tubes. With a magnetic field parallel to the $[111]$ axis, cyclotron resonance arises on orbit ξ_1 . $\oint v_{\perp}^{-1} dl = 2\pi m^*$ according to I. M. Lifshits, M. Ya. Azbel', and M. I. Kaganov (ZhETF, 31, 63, (1956)). Cyclotron resonances were observed on all extreme orbits lying in the multiply connected Fermi surface of the third band. Data are in good qualitative and quantitative agreement with the form of the third band
Card 2/63

Investigation of the Fermi surface...

S/056/62/042/001/005/048
B125/B108

Fermi surface as constructed in free electron approximation. P. L. Kapitza is thanked for interest, G. S. Chernyshev and V. A. Yudin for technical assistance. There are 5 figures, 2 tables, and 8 references: 5 Soviet and 3 non-Soviet. The three references to English-language publications read as follows: J. E. Aubrey. Phil. Mag., 5, 1001, 1960; Ref. 4: A. V. Gold. Phil. Trans. Roy. Soc., 251, 85, 1958; W. A. Harrison. Phys. Rev., 118, 1190, 1960.

ASSOCIATION: Institut fizicheskikh problem Akademii nauk SSSR (Institute of Physical Problems of the Academy of Sciences USSR)
Fizicheskii institut Akademii nauk Armyanskoy SSR (Physics Institute of the Academy of Sciences Armyanskaya SSR)

SUBMITTED: July 11, 1961 (initially), and November 2, 1961 (after revision) ✓

Legend to Fig. 1: (1) specimen 1, (2) specimen 2.

Card 3/63

llh228
S/056/62/043/006/017/067
B102/B104

24.7000
AUTHORS:

Khaykin, M. S., Mina, R. T., Edel'man, V. S.

TITLE:

Cyclotron resonance and quantum oscillations of the surface impedance of bismuth

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 43, no. 6(12), 1962, 2063-2073

TEXT: Disc-shaped Bi single crystals of 18 mm diameter and 1.5 mm thick were used to measure simultaneously the cyclotron resonance and the quantum oscillations of the surface impedance at $9.5 \cdot 10^9$ cps and at 1.7°K. The measurements were made by the method of frequency modulation (PTE, 3, 95, 1961): the logarithmic derivative of the surface reactance was measured as a function of the inverse magnetic field strength applied to the sample parallel to its surface. Of two of the samples this surface agreed with the basal plane ($\perp C_3$) and for the two others the axes C_2 and C_3 lay in the surface plane. The cyclotron resonance was measured in order to determine the effective masses $\mu = \hbar^2 / m_0 \omega_{cH}^{-1}$ of the

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S/056/62/043/006/017/067

Cyclotron resonance and quantum oscillations...B102/B104

carriers and to explain the characteristics of the effective mass anisotropy; Δ, H^{-1} is the period of cyclotron resonances measured in the plane of the sample with rotating field. The characteristics of the electron and hole Fermi surfaces. The main result of the investigations was the determination of the extremal cross section areas S of the Fermi surface perpendicular to \vec{H} . They were calculated from the quantum oscillation periods ΔH^{-1} : $S = eh/c\Delta H^{-1}$. At angles equal to or less than 30° between \vec{H} and C_2 the effective electron mass was proportional to S . The end-point energy of the Bi electrons was calculated:

$E_0 = S/2\pi\mu m_e = (2.5 \pm 0.1) \cdot 10^{-14}$ erg, a value, that corresponds to an effective temperature of $181 \pm 7^\circ K$; the corresponding electron velocity is $v_0 = \sqrt{2E_0/\mu m_e} = (7.7 \pm 0.2) \cdot 10^7$ cm/sec. Some more details on the Fermi surface are discussed. There are 6 figures.

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Cyclotron resonance and quantum oscillations.. S/056/62/043/006/017/067
B102/B104

ASSOCIATION: Institut fizicheskikh problem Akademiya nauk SSSR
(Institute of Physical-Problems of the Academy of Sciences
USSR)

SUBMITTED: July 20, 1962

Card 3/3

I. 13850-63 EWT(1)/EWG(k)/EWP(q)/EWT(m)/BDS/EEC(b)-2 AFFTC/ASD/ESD-3
PI-4/Pc-4/Pz-4 JD/AT/JG/LJP(C)

ACCESSION NR: AP3003160

S/0056/63/044/006/2190/2193

AUTHOR: Khaykin, M. S.; Edel'man, V. S.; Mina, R. T.

84
78

TITLE: Standing magnetoplasma waves in bismuth single crystals

SOURCE: Zhurnal eksper. i teor. fiziki, v. 44, no. 6, 1963, 2190-2193

TOPIC TAGS: microwave plasma waves, magnetoplasma waves, single-crystal bismuth, standing waves

ABSTRACT: Some results are presented of a detailed investigation of microwave magnetoplasma waves (defined as damped waves propagated under the condition that the Larmor radius is smaller than the wavelength in the metal and that the Larmor frequency is higher than the wave frequency which in turn is much higher than the collision frequency) in plane-parallel single crystals of bismuth, carried out at frequencies of 9.5 and 25 Gc at 1.8°K in a magnetic field of 0.5 -- 10 kilooersted. The surface impedance was measured by the frequency modulation method and by the power transmission coefficient method for high oscillation amplitudes. Two types of oscillations are investigated: those occurring when the magnetic field is nearly parallel to the surface of the specimen and those for arbitrary angle between the field and the surface. The

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ACCESSION NR: AP3003160

properties of the two types of waves are discussed. The transparency of the single crystal of bismuth to magnetoplasma waves is demonstrated by the fact that if one sample of the crystal is placed to the outer surface of another sample which serves as the wall of a cavity, the form of the observed oscillations changes significantly. "The authors are grateful to P. L. Kapitsa for his interest and cooperation in this work, to L. A. Fal'kovskiy for fruitful discussions of the results, and to G. S. Cherny'shev and V. A. Yudin for technical assistance." Orig. art. has: 2 figures and 3 formulas.

ASSOCIATION: Institut fizicheskikh problem Akademii nauk SSSR; Fizicheskiy institut GKAE Yerevan (Institute for Physics Problems, Acad. Sci. SSSR; Physics Inst. GKAE, Yerevan)

SUBMITTED: 09Apr63

DATE ACQ: 23Jul63

ENCL: 00

SUB CODE: 00

NO REF SOV: 006

OTHER: 010

Card 2/2

MINA, R.T.; KHAYKIN, M.S.

Use of the cyclotron resonance method in studying the Fermi surface of lead. Zhur. eksp. i teor. fiz. 45 no.5:1304-1316 N '63. (MIRA 17:1)

1. Institut fizicheskikh problem AN SSSR i Fizicheskiy institut Gosudarstvennogo komiteta po ispol'zovaniyu atomnoy energii SSSR.

KHAYKIN, M.S.; FAL'KOVSKIY, L.A.; EDEL'MAN, V.S.; MINA, R.T.

Properties of magnetic plasma waves in bismuth single crystals.
Zhur. eksp. i teor. fiz. 45 no.6:1704-1716 D '63. (MIRA 17:2)

1. Institut fizicheskikh problem AN SSSR i Fizicheskiy institut
Gosudarstvennogo komiteta po ispol'zovaniyu atomnoy entergii
SSSR, Yerevan.

L 65254-65 EWT(1)/EWT(m)/T/EWP(t)/EWP(b)/EWA(c) IJP(c) JD
ACCESSION NR: AP5014200 UR/0386/65/001/002/0034/0041

AUTHOR: Mina, R. T.; Khaykin, M. S.

TITLE: Superhigh frequency electromagnetic wave in the skin layer of indium

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki. Pis'ma v redaktsiyu. Prilozheniye, v. 1, no. 2, 1965, 34-41

TOPIC TAGS: cyclotron frequency, indium, single crystal, electromagnetic field, skin effect

ABSTRACT: The sample field method is ordinarily used in studying the stationary distribution of a superhigh frequency electromagnetic field outside a conductor. A similar method may be used in investigating an electromagnetic field in the skin layer of a metal. In this case, a specifically selected group of current carriers in the metal may be taken as the sample field. A small inclination of a constant magnetic field H to the flat surface of a metal single crystal test specimen changes the cyclotron resonance spectrum due to a Doppler shift in the cyclotron resonance frequency for the current carriers which have a velocity component $v_H \parallel H$. Experiments were conducted with indium single crystals 17.8 mm in diameter and 1 mm

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L. 65254-65

ACCESSION NR: AP5014200

9

thick with a mirror flat surface oriented along (011). Cyclotron resonance was observed at frequencies of 9.58 and 18.6 Mc at 1.5°K in a field of up to 8000 oersteds parallel to axis [111] and parallel to high frequency currents in the specimen. It was found that the width of the cyclotron resonance peaks remains practically unchanged during splitting. The relative resonance displacement $\delta H_n^2 / H_n^{-2}$ is independent of the resonance order n at small θ . The ratio of inductive skin depth to active skin depth (X/R) was 0.44, which is one-fourth the value determined from the theory of anomalous skin effect. This is not unexpected, since the theory relates to a metal placed in a neutral magnetic field. "The authors are grateful to P. L. Kapitsa for interest in the work and concern, to V. S. Edel'man for help in carrying out the experiments, to M. Ya. Azbel' for discussing the results, and to G. S. Chernyshev and V. A. Yudin for technical assistance." Orig. art. has: 2 figures, 1 table, 5 formulas.

ASSOCIATION: Institut fizicheskikh problem Akademii nauk SSSR (Institute of Physical Problems, Academy of Sciences SSSR); Fizicheskiy institut GKAE, Yerevan (Physics Institute, GKAE)

SUBMITTED: 11Mar65
 NO REF SOV: 005

ENCL: 00
 OTHER: 005

SUB CODE: EM

11/2K
 Card 2/2

MINA, R.T.; KHAYKIN, M.S.

Fermi surface of indium. Zhur. eksp. i teor. fiz. 43 no.1:111-121
Ja '65. (MIRA 19:4)

1. Institut fizicheskikh problem AN SSSR i Fizicheskiy institut
Gosudarstvennogo komiteta po ispol'zovaniyu atomnoy energii
SSSR.

L 45104-66 EWT(1)/EWT(m)/EEC(k)-2/T/EWP(t)/EWP(k) IJP(c) WG/RTW/JD

ACC NR: AP6024865

SOURCE CODE: UR/0056/66/051/001/0062/0086

AUTHOR: Mina, R. T.; Khaykin, M. S.

ORG: Institute of Physical Problems of the Academy of Sciences, SSSR (Institut fizicheskikh problem Akademii nauk SSSR); Physics Institute GKAE (Fizicheskiy institut GKAE)

TITLE: Investigation of the fermi surface and current carrier velocities in indium by the cyclotron resonance method

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 51, no. 1, 1966, 62-86

TOPIC TAGS: fermi level, cyclotron resonance, effective mass, indium, CURRENT CARRIER, ELECTRON HOLE

ABSTRACT: The results of the systematic investigation of cyclotron resonance in indium single crystals are presented. The measurements were carried out at a frequency of 18.7 Gc/s and a sample temperature of 1.5K. Anisotropy of the hole and electron effective masses was studied in the (010), (110), (111), (011), and (001) crystallographic planes. The velocities of the current carriers on the Fermi surface were determined by analyzing the results obtained. The hole velocity on the "rib" of the surface lying in the (001) Brillouin plane was found to be equal to 0.73×10^8 cm/sec. The anisotropy of the effective masses (a change from 0.11 to 2.2 m_e , and of the current-carrier velocities (from 0.73×10^8 to 1.10×10^8 cm/sec), was in good agreement with the almost free electron model,

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L 45104-66

ACC NR: AP6024865

providing the mass m_c of the current carriers is taken to be equal to $1.6 m_e$. The dimensions of the hole Fermi surface along the [100] and [001] directions (0.91 and 0.79 h/a , respectively) were determined by making use of the resonance cyclotron cut-off effect in a thin sample. A number of experimental facts which are not consistent with the almost free electron-value model were established. In order to explain them, calculations of some features of the Fermi surface model were performed. These yielded the effective potentials V_{111} the indium lattice

$|V_{111}| = 0.07 \pm 0.015$; $|V_{002}| = 0.055 \pm 0.01$; $|V_{200}| < 0.015$ in $(h/a) / 2m_c = 0.329 \text{ Ry}$ [CS]

units. Orig. art. has: 18 formulas, 14 figures, and 4 tables.

SUB CODE: 20/ SUBM DATE: 11Feb66/ ORIG REF: 012/ OTH REF: 015

Card 2/2 blg

CZECHOSLOVAKIA

EDL, Derivay, MWr; MINAREK, Pavel, MWr

Vratislavice near Liberec? (for both)

Issue, Veterinarství, No 12, December 1966, pp 543-547

"Occurrence of infectious bronchitis in large breeds of poultry."

ACC NR: AP6037066

SOURCE CODE: UR/0056/66/051/005/1363/1368

AUTHOR: Mina, R. T.; Edel'man, V. S.; Khaykin, M. S. .

ORG: Institute of Physics Problems, Academy of Sciences, SSSR (Institut fizicheskikh problem Akademii nauk SSSR); Yerevan Physics Institute (Yerevanskiy fizicheskii institut)

TITLE: Cyclotron resonance of carriers in aluminum

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 51, no. 5, 1966, 1363-1368

TOPIC TAGS: aluminum, cyclotron resonance, current carrier, carrier scattering, crystal surface, surface property, magnetoresistance

ABSTRACT: To obtain more accurate data on the anisotropy of the effective masses of the carriers than afforded by the various orthogonalized plane-wave models, the authors investigated the carrier velocity by a cyclotron resonance procedure, determining the cyclotron resonance of the electrons and holes in the (010) plane of aluminum at frequencies 9.45 and 18.7 GHz. The single-crystal aluminum investigated was the same as was studied by Ye. P. Vol'skiy (ZhETF v. 46, 123, 1964). The cyclotron resonance measurements were made by the method of frequency modulation in a magnetic field up to 10 kOe at a sample temperature 1.5K. Cooling of the sample from 4.2 to 1.5K more than doubled the cyclotron resonance amplitude. The values of the effective masses were determined from plots of the logarithmic derivative of the re-

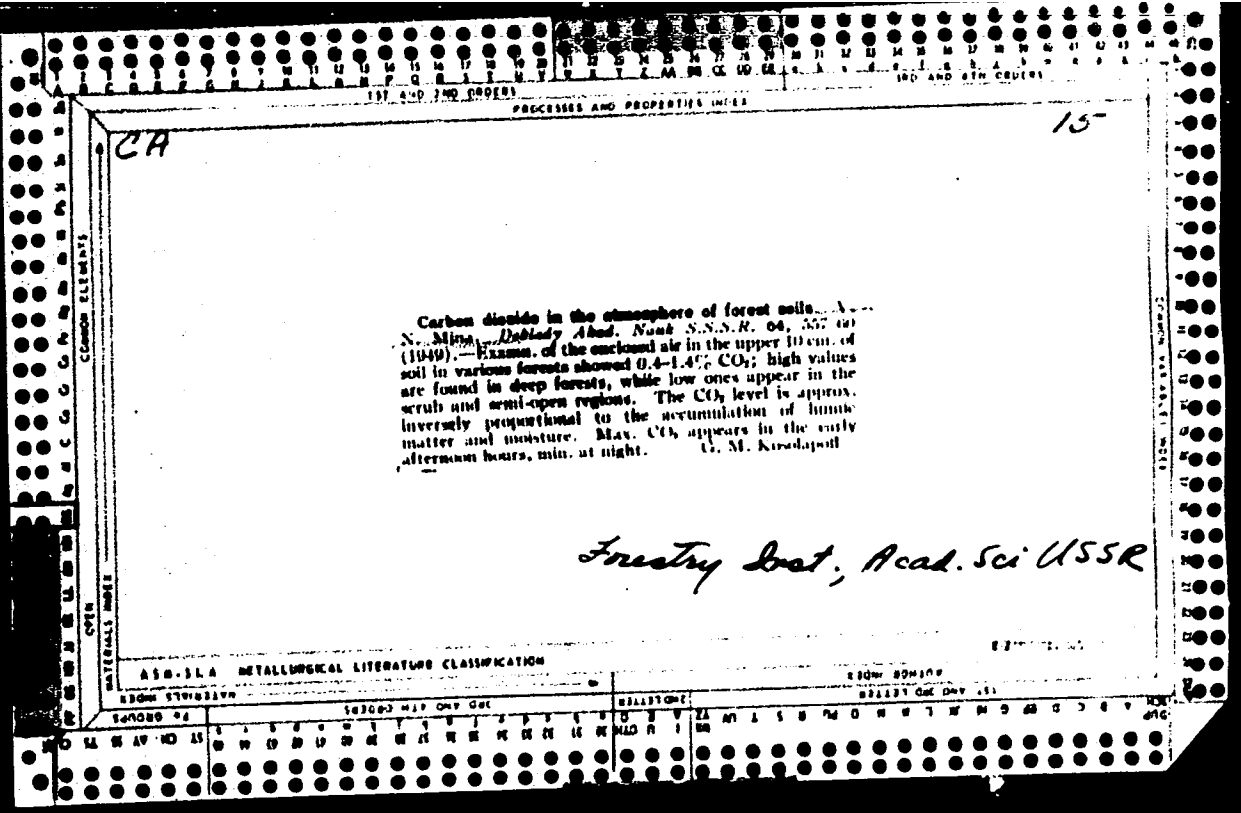
Card 1/2

ACC NR: AP6037066

active part of the surface impedance of aluminum as a function of the reciprocal magnetic field. The effective lattice potential was estimated from the anisotropy of the hole masses of the central cross section and found to be $V_{002} = 0.068\epsilon_F$ (ϵ_F - Fermi limiting energy). The results have also made it possible to explain the origin of a number of cyclotron resonances on non-central extremal section of the hole surface. These cyclotron resonances are not directly derivable in the model of one orthogonalized plane wave. The authors thank P. L. Kapitsa for interest and attention to the work and G. S. Chernyshev and V. A. Yudin for technical help. Orig. art. has: 4 figures, 4 formulas, and 1 table.

SUB CODE: 20/ SUBM DATE: 24Jun66/ ORIG REF: 006/ OTH REF: 007

Card 2/2



PA 3/50T4

MINA, V. N.

USSR/Biology - Forestry, Soil
Moisture, Soil

1 Aug 49

"Moisture Supply in Forests and Steppes," S. V. Zemn
V. N. Mina, Inst. of For, Acad Sci USSR, 3 1/2 pp

"Dol At Kant SSSR" Vol LXVII, No 4

Table, based on studies of Pellermanovskiy Woods,
Kostiglobov Bayon, Voronezh Oblast, gives moisture
content of soil in volume percentages of absolute
dry weight for woods, cleared areas, and fields.
Forests improve physical properties of soil, supply
conditions necessary for rapid drainage of water to
lower levels and contribute to its accumulation

3/50T4

USSR/Biology - Forestry (Cont'd)

1 Aug 49

1.5 meters below the surface during moist periods.
Submitted by Acad V. N. Subachev 8 Jun 49.

3/50T4

ZONN, S. V. MINA, V. N.

Forest Ecology

Tree-growing properties of soils and the interaction of forest plantings and soils in steppes, Nauch. vop. polezashch. les. No. 1, 1951.

9. Monthly List of Russian Accessions, Library of Congress, July, 1952 ~~1953~~, Uncl.

MINA, V. N.

MINA, V. N.

Forest Soils

Composition of soil atmosphere in forest soils.
Trudy Inst. lesa AN SSSR, No. 7, 1951

Monthly List of Russian Accessions, Library of Congress, March 1952. UNCLASSIFIED.

MINA, V. N.

Forest Soils

Base exchange in oak forests on various soils. Trudy Inst. lesa AN SSSR, No. 7, 1951.

Monthly List of Russian Accessions, Library of Congress, March 1952. UNCLASSIFIED.

MINA, V. N.

MINA, V. N. - "Reaction Between Certain Types of Oak Forest and Soils
in the Southern Forest-Steppe." Sub 22 May 52, Inst of Forestry, Acad
Sci USSR. (Dissertation for the Degree of Candidate in Agricultural
Science).

SO: Vechernaya Moskva January-December 1952

Mina, V. N.

The cycle of nitrogen and mineral elements in the oak forests of the forest steppes. V. N. Mina. *Pochvovedenie* 1955, No. 6, 32-44. Data are presented on the content of CaO , MgO , K_2O , P_2O_5 , SO_4 , SiO_2 , and N in leaves, small branches, large branches, trunk, and roots >2 mm; and <2 mm. in diam. in a 220-year and 40-year forest of the following species: oak, ash, linden, maple, elm, and hazelnut. Similar analyses are reported on the grass stand in the forest and a few other plants. Besides, the compon. of the annual litter and that of the org. matter created during the year (N, P_2O_5 , K_2O , CaO , and MgO) is given for the age groups of forests, 25, 43, 55, and 212 years. J. S. Joffe

COUNTRY : USSR
CATEGORY : Soil Science. Biology of Soils. J
AUTHOR : Mina, V. N.
INST. :
TITLE : Biological Activity of Forest Soils and its Dependence on Physical-Geographical Conditions and the Composition of the Stands
ORIG. PUB. : Pochvovedeniye, 1957. No. 10. 73-79
ABSTRACT : Observations were made on leached-out chernozem of a 27-year old birch grove in the Mokhovskoye Forest, Orlovskaya oblast. It was shown that the increase of CO₂ concentration in soil air of deep horizons is a consequence of the "flow" of CO₂ down along the profile. Its greatest formation is observed in larch forest soil, then follow the soils of oak, birch, and spruce stands and waste land plots. The daily dynamics of CO₂ formation are described for the upper horizons (50-75 cm) of soil under oak, birch and larch. The greatest respiration energies (indicator of biological activity) are possessed by leached-out chernozem. Chernozems
Card: 1/2

MINA, V.N.

Problems in investigating the fertility of forest soils. Poch-
vovedeniye no.6:88-94 Je '59. (MIRA 12:9)

1. Institut lesa Akademii nauk SSSR.
(Forest soils) (Soil fertility)

MINA, V.N.

Comparative evaluation of methods for determining the intensity
of soil respiration. Pochvovedenie no.10:96-100 0 '62. (MIRA 15:11)

1. Laboratoriya issovedeniya pri Gosplane SSSR.
(Gases in soils) (Carbon dioxide)

MINA, V.N.; MAKAROV, B.N.; MATSKEVICH, V.B.; SHTATNOV, V.I.

Methods for studying the soil air regime during station research.
Pochvovedeniye no.6:48-57 Je '63. (MIRA 16:7)

1. Laboratoriya lesovedeniya, Pochvennogo instituta V.V.
Dokuchayeva i Vsesoyuznyy nauchno-issledovatel'skiy institut
udobreniy i agropochvovedeniya, Moskva.
(Gases in soils)

REMEZOV, N.P. [deceased]; RODIN, L.Ye.; BAZILEVICH, N.I.; Primalni
uchastiye: ALEKSANDROVA, V.D.; BORISOVA, I.V.; BYKOVA, L.N.;
ZONNA, S.V.; KARPOVA, V.G.; MINA, V.N.; NECHAYEVA, N.T.;
PONYATOVSKAYA, V.M.; REMEZOVA, G.L.; SAMOYLOVA, Ye.M.;
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communities in the main natural zones of the temperate
zone. Bot. zhur. 48 no.6:869-877 Je '63. (MIRA 17:1)

1. Botanicheskiy institut imeni V.L. Komarova AN SSSR, Lenin-
grad i Pochvennyy institut imeni V.V. Dokuchayeva Ministerstva
sel'skogo khozyaystva SSSR, Moskva.

MINA, V.N.

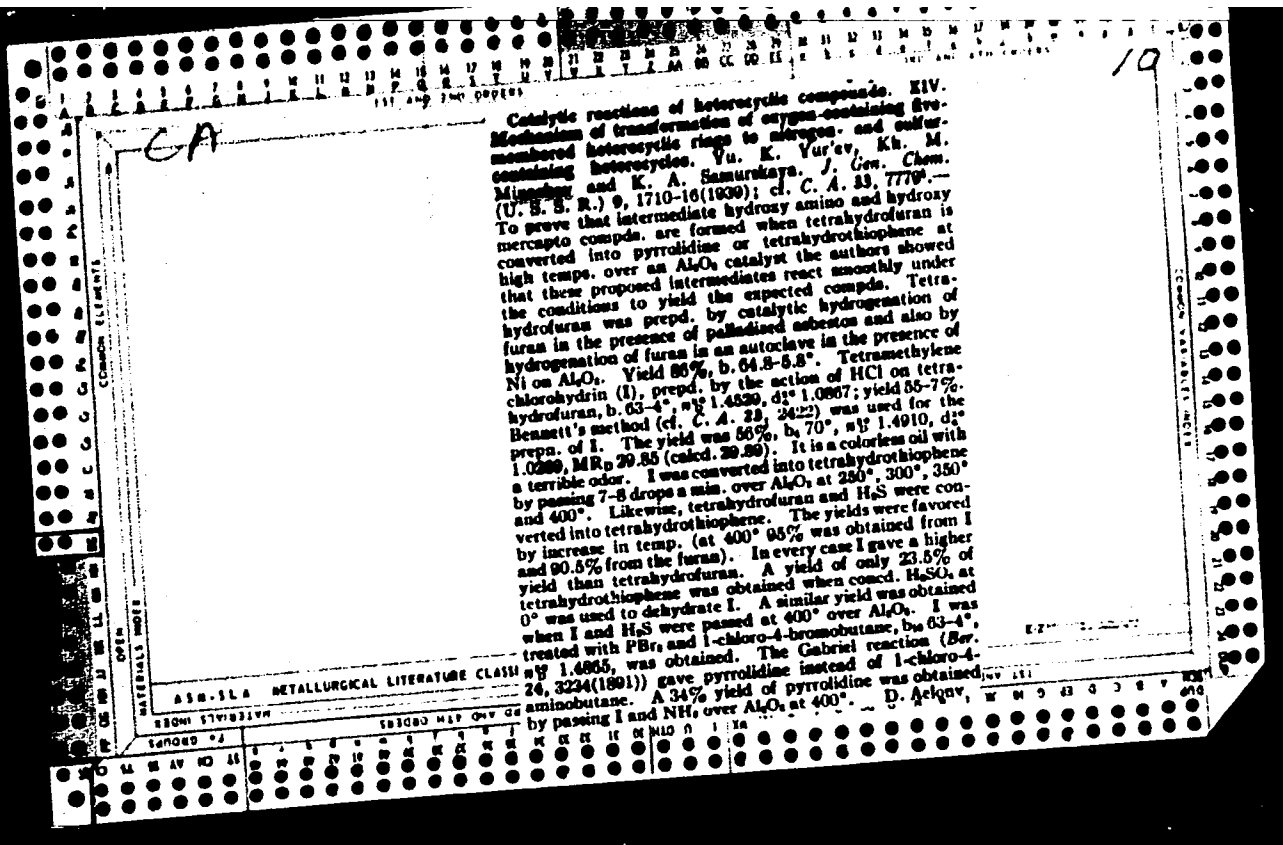
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MINACHEV, Kh. M.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
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Hydrogenation of benzene on platinized carbon of low platinum content. A. M. Rubinshtein, Kh. M. Minachev, and N. I. Shukin. *Doklady Akad. Nauk SSSR*, 197, 9 (1948). — A series of catalysts made under identical conditions but with the Pt content decreasing, by steps, from 20% (standard catalyst) down to 0.1%, showed, in dehydrograms, systematic disappearance of high-index reflections. With increasing diln. of the Pt, the (222) plane reflection disappears first, followed, in that order, by (022), (113), and (002); the reflection on the (111) plane persists throughout, and is only weakened at the lowest Pt content. It proves that the cryst. structure is preserved even at very high diln. of the Pt on an amorphous carrier. The activities of this series of catalysts, expressed in percentage of conversion in hydrogenation of C₆H₆, remain const. = 100% with 4-1% Pt and decrease only slightly (to about 90%) with 0.5-0.1% Pt. This finding, along with the observed persistence of the (111) plane reflections, indicates that the catalytic activity of Pt on active C resides, primarily, in the (111) plane, with

higher-index planes playing only a subordinate role in catalysis. It is consistent with Balandin's location of the hydrogenation-dehydrogenation catalytic activity at octahedral faces of the catalyst, and with his sextet model of plane orientation of ring-shaped mols. on those faces.
N. Thou

U. S. S. R. METALLURGICAL LITERATURE CLASSIFICATION		E. Z. METALLURGICAL LITERATURE CLASSIFICATION	
STANDARD	SYMBOL	STANDARD	SYMBOL

MINACHEV, KH, M.

USSR/Chemistry - Hydrocarbons
Chemistry - Catalysts

Jul 49

"Blocking the Active Centers of Platinized Carbon By Deep Cleavage Hydrocarbon Products," A. M. Rubinshteyn, Kh. m. Minachev, N. I. Shuykin, Inst of Org Chem, Acad Sci USSR, 3½ pp

"Dok Ak Nauk SSSR" Vol LXVII, No 2

Takes up problems involved in a previous article on initial activity in hydrogenating benzene, and structural peculiarities of platanized carbon when its platinum content was progressively decreased. Experiments showed that for episodic laboratory work it was advisable to prepare and use a platinized carbon with 0.15 - 0.25% platinum content. Submitted by Acad N. D. Zelinskiy 25 Apr 49.

PA 54/49T16

CA

Distribution of platinum in a platinumized carbon catalyst.
A. M. Rubinshtein, Kh. M. Mironov, and N. I. Shukin
(Acad. Sci. U.S.S.R.). *Doklady Akad. Nauk S.S.S.R.*
71, 1073-8(1960).—The Pt content was detd. by trans-
mittance to x-rays of sections, taken at different depths,
of cubes of platinumized charcoal of 10.3-8.2 mm. side.
Although the amt. of Pt is highest in the outermost layer
of each grain, it is also found in deeper layers; e.g., in a
cube of 10.3 mm. side, the ratio of the amts. of Pt found
in layers 0-1.3, 1.3-3.4, 2.4-3.7, and 3.7-4.9 mm. deep,
was 6.7:3.6:1.1:1, and in a 6.1 mm. cube, of 0-0.86,
0.86-1.6, and 1.6-3.4 mm. below the surface, the ratio was
2.4:1.3:1. The finer the grains, the more nearly uniform
is the depth distribution of the Pt. The distribution is,
in a way, analogous to that produced in chromatography.
Catalytic reactions can take place not only at the surface
of the catalyst grain but also in its deeper layers.
N. Thon

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LA

Hydrogenation of cycloenes and alkenes on low-percent
platinized carbon. Kh. M. Minachev and N. I. Shulkin

(Acad. Sci. U.S.S.R., Moscow). *Doklady Akad. Nauk S.S.S.R.* 72, 61-3(1960).—C platinized with as little as 0.5% Pt hydrogenates very effectively 1-methylcyclopentene (I), 1-ethylcyclopentene (II), 1-octene (III), and $\text{Me}_2\text{C}=\text{CMe}:\text{CH}_2$ (IV). At 140°, II passed over this catalyst at a space velocity of 0.36, in a strong stream of H_2 , is converted completely into ethylcyclopentane, and I is completely converted into methylcyclopentane at 110°; III is completely hydrogenated to $\text{C}_{11}\text{H}_{22}$ at 140°, and IV to $\text{Me}_2\text{CCHMe}_2$ at 120°. N. Tbon

CA

Hydrogenation and dehydrogenation of hydrocarbons with low-percent nickel catalysts. N. I. Shulkin, Kh. M. Minacheva, and I. D. Rozhdestvenskaya (Acad. Sci. U.S.S.R., Moscow). *Doklady Akad. Nauk S.S.S.R.* 72:911-13 (1970). Catalysts with Ni contents of 0.125-4% were prepd. by 40-65 min. impregnation at 30-35° of 1 g. activated charcoal with 2 ml. soln. of Ni(NO₃)₂, drying at 125°, and reduction in H₂ at 330°. Hydrogenation (I) of C₆H₆ was carried out in a stream of excess H₂ at 115-176°, space velocity 0.025-0.2 l./l. catalyst/hr.; dehydrogenation (II) of cyclohexane at 330-372°, space velocity 0.2. I proceeds to a significant extent with catalysts contg. 1% Ni or more; the reaction is just barely noticeable with 0.5% Ni. In II, the initial activity of the catalyst varies very little with the Ni content varying from 0.5 to 4%; with the progress of the reaction, the

activity of the catalysts falls rapidly, by a factor of 3-4 after 200 min. In reaction I, the degree of hydrogenation is practically independent of the temp. between 120° and 176° and is not affected by a variation of the space velocity by a factor of 4; under these conditions, it attains 100%. Further increase of the space velocity, by a factor of 8 lowers the degree of hydrogenation to 68-70%. At a const. space velocity of 0.06, the activity of the 4% Ni catalyst maintains itself at a near 100% level for more than 25 hrs., ans. that of the 2%, catalyst falls off only slowly. N. Thon

Sep/Oct 51

USSR/Chemistry - Aromatization

Behavior of Five-Membered Cyclics in Contact With Halogen Salts of Metals in the Liquid Phase," M. I. Shuykin, Kh. M. Minachev, N. D. Zelinskiy, Inst of Org Chem, Acad Sci USSR

"Iz Ak Nauk SSSR, Otdel Khim Nauk" No 5, pp 554-559

Studied catalytic action of AlCl₃, ZnCl₂, SbCl₃, SnCl₄, and TiCl₄ on isomerization of cyclopentenes into 6-membered cyclic hydrocarbons. Found that some of chlorides, singly or in equimol mixts, brings about isomerization; that, depending on reaction conditions, process goes in direction of polymerization

199T13

Sep/Oct 51

USSR/Chemistry - Aromatization (Contd)

and that cyclics have inactivating effect on AlCl₃ in respect to conversion of 5-membered to 6-membered cyclic hydrocarbons.

199T13

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178T18

USSR/Chemistry - Hydrocarbons

1 Feb 51

"Hydrogenation and Dehydrogenation of Hydrocarbons in the Presence of Co Catalysts With a Low Metal Content," Kh. M. Minachev, N. I. Shuykin, I. D. Rozhdestvenskaya, Inst Org Chem, Acad Sci USSR

"Dok Ak Nauk SSSR" Vol LXXVI, No 4, pp 543-546

Activated carbon contg 0.5-4.0% Co after treatment with cobalt nitrate can be successfully used for hydrogenation of benzene to cyclohexane, alkenes to alkanes, and cyclenes to cyclanes. Under conditions used, Co is just as effective as Ni.

178T18

CA

Dehydrogenating and hydrogenating properties of low-
 content palladium catalysts. N. I. Shubin, Kh. M.
 Minachev, and A. M. Rubinshtein (Inst. Org. Chem.,
 Acad. Sci. U.S.S.R., Moscow). *Doklady Akad. Nauk
 S.S.S.R.* 79, 89-92 (1981); cf. *C.A.* 63, 7612b; 64, 916c,
 6246b, 7786d. Catalysts with 2.0, 1.0, 0.20, 0.10, and 0.05%
 Pd on active C were tested in dehydrogenation (I) of
 cyclohexane, in a weak stream of H₂, at a space velocity of
 0.2 l./hr./l. catalyst, at 207-2°, and in hydrogenation (II)
 of C₆H₆, in excess H₂, at 0.05 l./hr./l. catalyst at 147-180°,
 with the degree of conversion detd. by refractometry. The
 initial degree of conversion, in I and II, on the above 5
 catalysts (in the order given) were: 82 and 60; 78 and 79;
 64 and 64; 33 and 35; 9 and 0.4%. With time, in I,
 the activity of all catalysts falls, very slowly with the 2.0,
 1.0, and 0.20% Pd catalysts, faster with 0.10 and 0.05%
 Pd; however, even the 0.05% Pd catalyst had still at least
 5% of its initial activity left after almost 12 hrs. In all
 cases, the fall of the activity with time is only gradual and
 very much different from the steep fall of the activity of
 high-Pd catalysts. X-ray data, before and after the reac-

tion showed that the initial lattice deformation either dis-
 appears altogether or at least decreases after the reaction.
 The measured differences of activity are, apparently, due
 not only to the different contents of Pd (in other words, to
 different contact times per unit mass of Pd) but to differences
 of structure of the Pd. Different structure accounts for the
 fact that the low-Pd catalysts are more active and more
 stable than are the previously investigated high-Pd catalysts,
 and have lattice parameters (before the reaction 3.81, 3.81,
 3.80, 3.80, 3.80 Å.; after the reaction 3.82, 3.82, 3.82,
 3.80, 3.80 Å.) quite different from the normal lattice const.,
 3.83 Å., of Pd, whereas the high-Pd catalysts had a lattice
 const. of 4.04-4.05 Å. Evidently, the latter contained
 higher concn. of H. Strong lattice deformation by dis-
 solved H appears to be unfavorable to catalytic activity
 in dehydrogenation. Nor did x-ray examine, of the 0.05-
 2.0% Pd catalysts show presence of a new phase after the
 reaction, in contrast to the high-Pd catalysts. The proper-
 ties of the latter are evidently detd. by the considerable ex-
 pansion of the Pd-Pd distance in the lattice. N. Thom

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CATALYST

Chemical Abst.
Vol. 48 No. 9
May 10, 1954
General and Physical Chemistry

~~Poisoning of platinum catalysts with low contents of active metal on a carrier in dehydrogenation catalysis. Kh. M. Minachev, N. I. Shulkin, and I. D. Rozhdestvenskaya. Bull. Acad. Sci. U.S.S.R., Div. Chem. Sci. 1952, 887-75 (Ensl. translation).—See C.A. 46, 10823r. H. L. H.~~

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Chem

9-2-54
JHP