

KEISEL, Henryk; RYMKIEWICZ, Danuta

Antigenic properties of *Clostridium tetani* liberated from serologically active components of vegetative cells by action of alkali or enzymes.  
Med. dosw. mikrob. 9 no.4:375-386 1957.

1. Z Panstwowego Zakladu Higieny w Warszawie.

(*CLOSTRIDIUM TETANI*, immunology,

antigenic properties of strais liberated from serol. active vegetative cells alkali & enzymes (Pol))

KEISSER, K.

KEISSER, K., diplomirovanny inzhener.

Apparatus and devices for controlling dust and reducing the danger  
of silicosis in mining. Vest. AN Kazakh. SSR 13 no.7:71-87 J1 '57.  
(Mine dusts) (MLRA 10:9)

CHYTILOVA, M.; KEITEL, W.; UHER, J.; PENNDORF, K.

Bone cysts -- a manifestation of an auto-aggressive disease.  
Acta chir. orthop. traum. Cech. 32 no.4:323-324 Ag '65.

1. Vyzkumny ustav traumatologicky, Brno; Medizinische  
Akademie, Magdeburg, DDR.

КПИТЕЛ'ВИСЕР, С.А.

SCALE OF WENT DOWNWARD AT NEW MATERIAL FOR COALING Einsiro, M.D.

expedition. The deposit is... The coal is non-caking or weakly caking. The majority of samples showed 10 to 11% ash, up to 25 g/kg ash, and, on a dry, ash free basis, 45 to 47% volatiles, 7000 to 7200 cal/kg calorific value, 77% carbon ash, 5 to 5.5% lignin. Preparation is easy or average and prepared coal together with low-ash coal not needing preparation would average 9% of the whole, with a sulphur content of 0.9%. The 9% could be increased by separating the middlings.

*Внепролетарский Хим-Тех Ин-т*

~~KEITH, Patrick~~

Vulcanizing and moulding machines for making shoes. Bor  
cipo 13 no.2:55-58 Mr '63.

1. C.I.C. Engineering Ltd., Somerset.

22970

S/166/61/000/002/001/006  
B112/B217

5. 4500 (B)

AUTHORS: Stapodubtsev, S. V., Member of the Academy of Sciences  
Uzbekskaya SSR, Ablyayev, Sh. A., Bakhranov, F.,  
Keitlin, L. G., Yusova, E. N.

TITLE: Study of molecular conversions in a natural gas, produced  
by high-frequency electric discharges

PERIODICAL: Izvestiya Akademii nauk UzSSR. Seriya fiziko-matematicheskikh  
nauk, no. 2, 1961, 3-11

TEXT: The study of chemical conversions is to continue studies of  
different radiation effects on methane. A high-frequency device of the  
type ЛГЕ-36 (LGE-ZB) was used for heating the dielectrics. The experi-  
mental arrangement is schematically represented in Fig. 1: A is a gas  
tank, B a rheometer, T a discharge tube, Л (L) a trap, P a reservoir, M a  
manometer, H a bulb, and D<sub>1</sub> and D<sub>2</sub> are catarrhometers. The reaction  
products were analyzed spectroscopically. The НКС-14 (IKS-14) spectro-  
graph used has a measuring range of 600-10000 cm<sup>-1</sup> and prisms of LiF and

Card 1/5

APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000721420011-3

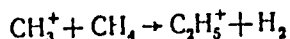
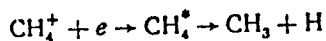
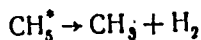
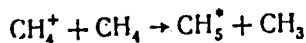
S/166/61/000/002/001/006  
B112/B217

Study of molecular conversions in a...

KCl. The gas contained 98 % methane. The amount of energy absorbed on  
passage through the gas discharge tube was determined from the temperature  
difference T<sub>2</sub> - T<sub>1</sub> at the ends of the discharge tube.

$$E = 2.6 \cdot 10^{19} M C_p (T_2 - T_1) \text{ ev,}$$

where M is the mass of the gas, and C<sub>p</sub> the specific heat at constant  
pressure. Fig. 2 shows the absorption spectrum of the gas. The dashed  
line (1) refers to a gas not subjected to electric discharge, whilst line  
(2) refers to a gas subjected to electric discharge. The effect of  
electric discharge on the gas resulted in the formation of liquid products  
which turned out to be derivatives of alkyl benzenes. The basic products  
are formed as follows:



Card 2/5

KEJDA, Jaromir, MUDr.

Do not underestimate foot care. Siln doprava 12 no.6/7:34-35 '64.

KEJDA, Jaromir, MUDr.

On correct nutrition of drivers. Siln doprava 12 no.9:26-27  
S '64.



KEJDA, Jaromir, MUDr.

Sight, the most precious possession of the driver. Siln doprava  
13 no.1:24-25 Ja '65.

KEJDA, Jaromir, MUDr.

On drugs and their correct use. Siln doprava 12 no.10:24-25 0 '64.

KEJDA, Jaromir, dr.

Do not underestimate fatigue. Siln doprava 13 no.2:27 F '65.

Robert K. JHA J.

KESHA, J

① C H  
Preparation of 1,3-dimethyl-4,5-diaminouracil. J. Hebký  
and J. Kešha (Výzkumný ústav farm. biochem., Prague).  
Chem. Listy 48, 1700-10(1954).—A suitable method for  
prepg. 1,3-dimethyl-4,5-diaminouracil (I) is the reduction of  
1,3-dimethyl-4-amino-5-nitrosouracil (II). Adding portion-  
wise 60 g. anhyd. II to a stirred preheated mixt. (steambath)  
of 60 g. gray cast Fe filings, 75 ml. H<sub>2</sub>O, and 5 ml. concd.  
HCl, dilg. the mixt. with 145 ml. hot water, adding 3 g.  
Na<sub>2</sub>CO<sub>3</sub>, filtering the mixt., and cooling the filtrate gave  
90-5% I. m. 207-8°. The filtrate may also be heated with  
21 ml. 85% HCO<sub>2</sub>H and 1 g. Zn dust 4 hrs. at 70° to give  
90-6% formyl deriv. of I. M. Hudlický

MA  
3E

Kajha, Jiri

4,5-Diamino-2,6-dihydropyrimidines or their tautomers.  
 Jaromir Hebky and Jiri Kajha, Czech. 85,403, Dec. 1,  
 1965. Reduction of 4-amino-5-nitroso-2,6-dihydroxy-  
 pyrimidine (1) or its tautomers with Fe in a medium with pH  
 4-7 is much cheaper than the older procedures, besides  
 yielding purer products. Fe splinters (50 g.), 75 g. water,  
 and 6 g. concd. HCl heated to 100°, stirred 30 min., 60 g.  
 1,3-dimethyl-4-amino-5-nitroso-2,6-dioxotetrahydropyrimidin-  
 e added in small portions (the end of the reduction is  
 manifested by a change in color of the soln. from blue to  
 yellow-brown), the Fe hydroxides filtered off, and the filtrate  
 either (1) cooled, yielding 90-95% yellow crystals of 1,3-di-  
 methyl-4,5-diamino-2,6-dioxotetrahydropyrimidine, or (2) d  
 heated with HCO<sub>2</sub>H, yielding 90-95% 4-amino-5-formyl-  
 amino analog, which is an important intermediary product  
 in the synthesis of theophylline and caffeine. L. J. U.

APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000721420011-3"

CHECHO-SLOVAKIA/Organic Chemistry. Synthetic Organic Chemistry.

E-2

Abs Jour: Ref Zhur-Khimiya, No 6, 1957, 19195

Author : Hobky J. Kajha J.

Inst :

Title : Derivatives of Pyrono, Pyridone and Pyridine V. Synthesis of New Compounds of the Lobelano Typo.

Orig Pub: Chem. listy, 1956, 50, No 5, 834-837

Abstract: Several analogues of lobelone by means of hydrogenation of subst. 2,6-distyryl- $\gamma$ -pyridones are obtained. These compounds add usually only 3 moles H<sub>2</sub> with the formation of bis-phenylthyl-dihydro- $\gamma$ -pyridones (with-out determination of structure); only in one case a saturated derivative of 4-hydroxypyridine is obtained. 2,6-bis-( $\beta$ -phenylthyl)-2,3-dihydro- $\gamma$ -pyridone, yield 67.7%, m.p. 204° (from 70% alc.), obtained by hydrogenation of 2,6-distyryl- $\gamma$ -pyridone over Pt (from PtO<sub>2</sub>) in glacial

Card : 1/4

ASOMA, J.; HEDRA, J.

Pyrone, pyridone, and pyridine derivatives. VI. Synthesis of new substances of the lobelan type. p. 937. (Chemicke Listy, Praha. Vol. 50, no. 6, June 1956.)

SO: Monthly List of East European Accession (EEAL) LC, Vol. 6, no. 7, July 1957. Uncl.

HEBKY, J.; RADEK, O.; KEJHA, J.

Derivatives of phenothiazine. I. 1,3 disubstituted 10-dialkyl-  
aminoalkylphenothiazines. Coll Cz chem 25 no.12:3988-3998 '59.  
(EAI 9:6)

1. Forschungsinstitut für Pharmazie und Biochemie, Prag.  
(Phenothiazine) (Alkyl group) (Amino group)



KEJHA, J.; KVITA, V.

Use of polyphosphoric acid in organic synthesis. p. 164.

CHEMICKÉ LISTY. (Československá akademie věd. Chemický ústav) Praha,  
Czechoslovakia, Vol. 53, no. 2, Feb. 1959.

Monthly List of East European Accessions (EEAI), LC, Vol 8, no. 11, Nov. 1959  
uncl.

HEBKY, J.; KEJHA, J.; KARASEK, M.

Phenothiazine derivatives. II. 1,3,6-tri-substituted and 1,3,6,8-tetrasubstituted phenothiazine-derivatives. Coll Cz chem 26 no.6: 1559-1567 Je '61.

1. Forschungsinstitut für Pharmazie und Biochemie, Prag.

(Phenothiazine)

HEBKY, J.; KARASEK, M.; KEJHA, J.; FIRST, B.

Iodized amino acid and peptide derivatives. Chem Cz Chem 29  
no.11:2814-2821 N '64.

1. Forschungsinstitut fur Pharmazie und Biochemie, Prague.

KEJHA, J.; RADEK, O.; NEMCEK, O.

Contrast media. II. Substituted derivatives of N-phenylurea.  
Cesk. farm. 13 no.9:460-463 N '64.

1. Vyzkumny ustav pro farmacii a biochimii, Praha.

KESEDA, J., MUDr.

What the fear of disease may do. Sln doprava 12  
no.11:26 N '64.

CZECHOSLOVAKIA

RADEK, O.; KEJHA, J.; NEMECEK, O.; KANAC, B.; Research Institute of Pharmacy and Biochemistry (Vyzkumny Ustav pro Farmacii a Biochemii), Prague.

"Contrast Media. III. Iodine Derivatives of Substituted Sulfanilamides."

Prague, Ceskoslovenska Farmacie, Vol 16, No 1, Jan 67, pp 34-38

Abstract [Authors' English summary modified]: 3,5-diiodo-4-amino benzenesulfonamides were prepared by iodination of corresponding 4-aminobenzenesulfonamides substituted on the amidic nitrogen. 1,4-Bis-(3-iodo-4-aminobenzenesulfonyl)piperazine, its triiodo derivative, acetyl derivative of 3,5-diiodo-4-aminobenzenesulfonic acid, and 4-dimethylaminomethyleneamino derivatives were also prepared. These materials were tested for antibacterial activity and for possible use in radiography of some organs. 1 Figure, 1 Table, 12 Western references. (Manuscript received 2 May 66).

1/1

CZECHOSLOVAKIA

KEJHA, J.; RADEK, O.; JELINEK, V.; NEMECZEK, O.; Research Institute of Pharmacy and Biochemistry (Vyzkumny Ustav pro Farmacii a Biochemii), Prague.

"Contrast Media. IV. New Derivatives of 3,5-Diiodo-4-pyridone."  
Prague, Coskoslovenska Farmacie, Vol 16, No 2, Feb 67, pp 92-95

Abstract [Authors' English summary modified]: Preparation of new contrast media based on 2,5-diiodo-4-pyridine-N-alkane acids was investigated. Methyl 3,5-diiodo-4-pyridone-N-valerate, capronate, caprylate, and laurate and their n-butyl, n-amyl, n-octyl, N-dimethyl aminoethyl and hydroxyethyl esters were prepared. Their biological behavior was tested on rabbits; some of the substances showed toxic effects. 1 Figure, 6 Western references.

1/1

KEJHA, V.;SINGER, K.

New laboratory of the Research Institute of Iron Metallurgy for calibrating thermocouples. p. 320

HUTNICKE LISTY. (Ministerstvo hutniho prumyslu a rudnych dolu a Ceskoslovenska vededka technick spolecnost pro hutnictivi a slevarenstiv)  
Brno, Czechoslovakia. Vol. 14, no. 4, Apr. 1959

Monthly List of East European Accessions (EEAI) LC Vol. 8, no. 11, Nov. 1959  
Uncl.



83422

Z/034/60/000/010/005/005  
E073/E535

183200

AUTHORS: Jiskra, Zd., Engineer and Kejha, V.

TITLE: Industrial Furnace

PERIODICAL: Hutnické listy, 1960, No.10, p.815

TEXT: Patent specification Class 18b, 21/02; 18c, 9/01; 40c, 16/01; 80c, 3; 80c, 7; PV 4757-59 dated August 15, 1959. The subject of the invention is a furnace in which a hot plasma stream from a plasma burner is used as a source of heat; this plasma stream heats the inside of the furnace including the charge. Plasma, a very hot ionized gas formed by the passage of gases or steam (usually nitrogen, hydrogen or argon) through an electric arc in the combustion chamber, is the carrier of the high temperature. The arc is usually between the tungsten cathode and a water-cooled copper anode. A burner with a flame length of about 20 cm and an operating temperature of about 16 000°C consumes 90A at a voltage of 60 V and thus the operating costs are low. A sketch of the furnace is reproduced, Fig.3; in this furnace the hot plasma stream 2 emanating from the burner 1 heats the path 3 in the vessel 4, which is made to rotate about its

Card 1/2

S/137/62/000/006/010/163  
A006/A101

AUTHORS: Jiskra, Zdeněk; Kejha, Viktor

TITLE: An industrial furnace

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 6, 1962, 11, abstract 6B63 P  
(Czechoslov. patent no. 98527, 15.02.61)

TEXT: Three designs are proposed for industrial furnaces intended for metal melting or annealing of parts; the heat source is plasma, i.e. a very hot ionized gas flow (N<sub>2</sub>, argon, air) ejected from a plasma torch. The heat flow is formed by the passage of gas through an electric arc between a tungsten cathode and a water-cooled tungsten or Cu-anode, placed in a water-cooled chamber. Peculiarities of the proposed furnace designs are either rotation or rocking of one or several plasma torches, for the purpose of a uniform heating of the molten charge.

S. Glebov

[Abstracter's note: Complete translation]

Card 1/1

ACC NR: AP6035528 SOURCE CODE: CZ/0039/66/027/010/0630/0640

AUTHOR: Espe, Werner; Hix, Peter; Kejhar, Jindrich

ORG: [Espe] Slovak Technical College, Bratislava (Slovenska vysoka skola technicka); [Hix; Kejhar] TESLA Roznov National Enterprise, Vrsovice Enterprise (TESLA Roznov n. p., zavod Vrsovice)

TITLE: Reliable vacuum-tight soldered ceramic-metal joints

SOURCE: Slaboproudny obzor, v. 27, no. 10, 1966, 630-640

TOPIC TAGS: ceramic to metal seal, ceramic product, thermionic tube, solder, vacuum tight solder, corundum

ABSTRACT: The article discusses the advantages and drawbacks of ceramics as materials in the manufacture of thermionic tubes, and presents theoretical considerations on the vacuum tightness of ceramic-to-metal seals. The material and design aspects in the manufacture of a transmitting tube with a reliable vacuum-tight soldered corundum-to-kovar seal are considered in detail. The use of locally manufactured materials in the mass production of ceramic pickup tubes is discussed. Orig. art. has: 18 figures and 4 tables. [Based on authors' abstract]

Card 1/1 SUB CODE: 11/SUBM DATE: none/ORIG REF: 004/OTH REF: 027/

[KS]

KEJIK, C.

KEJIK, C. Harvesting corn for silage by the merchandized means of a machine-tractor station. p. 290. vol. 6 no. 15  
Aug. 1956. MECHANISACE ZEMEDELSTVI, CZECHOSLOVAKIA

SOURCE: East European Accessions List (EEAL) Vol. 6, No. 4—April 1957

VESELA, H.; JELINEK, V.; KEJHOVA, I.

The effect of some cancerostatics on the cytology and on the nucleic acid content in Ehrlich ascites cells in vivo. Neoplasma (Bratisl.) 12 no.4:365-372 '65.

1. Research Institute of Pharmacology and Biochemistry, Praha, Czechoslovakia. Submitted November 10, 1964.

84596

Z/014/60/000/009/001/007  
A205/A026

9,4160 (3201,1105,1137)

AUTHOR: Kejklíčsk, Pavel

TITLE: Miniature Kvantikon "41QV41" - The Smallest TV Pickup Tube<sup>25</sup>

PERIODICAL: Sdělovací technika, 1960, No. 9, pp. 322 - 324

TEXT: The "VUVET - Výzkumný ústav pro vakuovou elektrotechniku" (Research Institute for Vacuum Electroengineering) in Prague developed a miniature TV pickup tube Kvantikon<sup>25</sup> "41QV41" based on the application of the photoconductive effect (vidicon tube). It is the smallest pickup tube so far developed, especially suitable for industrial purposes, traffic control, mines and quarries, and, which can also be installed in geological probes, equipment for pipe checking, etc. Due to its great resolving power, the tube can be used in cameras of portable, battery-fed TV systems for on-the-spot coverage. The Kvantikon "41QV41" (Photo 1) is an all-glass cylindrical tube with a total length of  $90 \pm 2$  mm and a cylinder diameter of  $13.9 \pm 0.3$  mm. The ground-in front plate represents the scanning electrode with the photoconductive layer. The transparent signal electrode, which carries the sensitive layer, has a sealed-in molybdenum ring outlet, the other outlets are centralized on the 6-pronged sintered base supporting the

Card 1/5

84596

Z/014/60/000/009/001/007  
A205/A026

Miniature Kvantikon "41QV41" - The Smallest TV Pickup Tube

entire electrode system (Fig. 8). The electron gun (Photo 2) consists of the indirectly heated hot-cathode (1), the control electrode (Wehnelt cylinder) (2), the first anode with the 40  $\mu$ m limiting aperture (3), the ceramic coupling (4) and the second anode (5), installed at a distance of only 2.5 mm from the scanning electrode screened by an especially developed 30 x 30  $\mu$ m mesh. This mesh effects a homogeneous electrostatic field between the anode and the signal electrode, which guarantees the perpendicularity of the incident electron beam on the photoconductive layer even on the margin of the image. The focusing and the deflection of the low-velocity electron beam are controlled magnetically by a coil system consisting of focusing coils with inserted deflection and alignment coils. The image element has a size of 8  $\mu$ m at a resolving power of 400 lines and the image on the scanning electrode measures only 6 x 4.5 mm. The image reproduction on the 34 cm screen is therefore rather magnified and microscopic defects of the photoconductive layer surface and of the fine mesh (determining the quality of the image background) are also enlarged. A novel method for evaporation depositing of a homogeneous photoconductive layer was therefore developed. This layer is evaporated into the bulb prior to sealing-in the electronic system and rejects

Card 2/5

84596

Z/014/60/000/009/001/007  
A205/A026

Miniature Kvantikon "41QV41" - The Smallest TV Pickup Tube

can be removed before the completion of the tube. The homogeneous layer reaches the required photoconductive properties at a thickness of 1 - 2  $\mu\text{m}$  and has a sensitivity of up to 1,000  $\mu\text{a/Lm}$ , which is especially valuable for operation under poor illumination conditions. The novel hot-cathode allows serial heating together with the other tubes of the camera. Special attention was paid to the alignment of the electronic system, since apertures in the control grid, the first anode and the limiting diaphragm must be axially centered with a tolerance of only 10  $\mu\text{m}$ . The plane parallelism of the fine mesh on the second anode and the scanning electrode must be maintained for sharp focusing of the entire picture area. The output signal of a pickup tube with a photoconductive scanning electrode is generated by the current difference between dark and illumination. The current in the circuit of the signal electrode depends on the electrode potential and the resistance of the photoconductive layer, which changes according to illumination. The greatest current difference is produced at a signal electrode voltage of 16 v and a scanning electrode illumination of 50 Lx (Fig. 3). Suitable photoconductive materials are sharply limited to semiconductors with a specific resistance around  $10^{11}\Omega/\text{cm}$ . The minimum output signal of

Card 3/5



84596

Z/014/60/000/009/001/007  
A205/A026

## Miniature Kvantikon "41QV41" - The Smallest TV Pickup Tube

0.1  $\mu$ a, necessary for a convenient signal-to-noise ratio at a standard of 625 lines, is achieved at a scanning-electrode illumination of 2 Lx (Fig. 4), but can be achieved with more sensitive devices already at an illumination of 1 Lx. The resolving power is 350 - 450 lines, but even better results (resolving power over 450 lines at a scanning-beam current of 0.5  $\mu$ a) were achieved with a test series of "41QV41" camera tubes. Higher electron-beam densities are producing larger output signals, but the resolving power and the tone rendition are considerably impaired. The spectral sensitivity of the camera tube at a bulb illumination of 2,400°K (Fig. 5) shows a maximum at 600  $\mu$ m. A disadvantage of homogeneous photoconductive layers, which have higher dielectric constants than porous layers, is that they exhibit larger after-effects (caused by processes taking place within the photoconductive layer). The oscillogram for after-effects of the 0.15  $\mu$ a output signal of the miniature "41QV41" at a scanning-electrode illumination of 20 Lx is shown in Figure 6, that of the regular "41QV4" tube (also employing a homogeneous photoconductive layer) in Figure 7. The smaller scanning electrode with its lower potential improves the values of the after-effect signal, and the afterglow of the miniature camera tube is compar-

Card 4/5

44306

S/058/62/000/012/044/048  
A062/A101

9.6150

AUTHORS: . Rotter, Robert, Kejkliček, Pavel

TITLE: Semiconductor element and short wave radiation detector prepared therefrom

PERIODICAL: Referativnyy zhurnal, Fizika, no. 12, 1962, 28, abstract 12-3-55ch P (Czechosl. pat., cl. 21g; 18/02, no. 99825, June 15, 1961)

TEXT: The construction of a X- and  $\gamma$ -ray detector is proposed in which the contacts are made in the form of semitransparent metal layers deposited on a photoresistive layer 5 - 15  $\mu$  thick by evaporation in vacuo. It is advisable to employ polycrystalline materials, for they may be used in the range of the exponential dependence of the current on the tension. As photoresistors, PbO, PbS, anthracene, rhombic sulfur, etc. may be utilized.

N. S.

[Abstracter's note: Complete translation]

Card 1/1

45757

S/194/62/000/012/046/101  
D413/D308

9.6150

AUTHORS: Rotter, Robert and Kejkliček, Pavel  
TITLE: A semiconductor element and a short-wave radiation detector made from it  
PERIODICAL: Referativnyy zhurnal, Avtomatika i radioelektronika, no. 12, 1962, 28, abstract 12-3-55 ch (Czech. pat., cl. 21g, 18/02, no. 99825, Jun. 15, 1961)

TEXT: A design is presented for a detector of X- and  $\gamma$ -radiation, in which the contacts are made in the form of semitransparent metallic layers deposited on a photoresistor layer 5 - 15  $\mu$  thick by evaporation in vacuo. It is desirable to use polycrystalline materials, since they may be operated in the exponential region of the current-voltage characteristic. The following may be used as the photoresistor: PbO, PbS, anthracene, rhombic sulfur, etc. [Abstracter's note: Complete translation.]

X

Card 1/1

KEJKA, JAROSLAV

423

Observations & Instru

Hajla, Jaroslav. Trend v meteorologii. (Trends in meteorology)  
Meteorologické Zpravy, 4(3-4):83-85, 1950. 2 figs., 2 tables, 6 refs.  
30 equations. DWR A detailed presentation of theory and practice of  
application of statistical methods to the study of trends in meteorolo-  
gical data. Smoothing techniques and correlation methods are also  
considered and examples given. Subject Headings: 1. Statistical  
techniques 2. Climatic trends. - H.R.

- KEJLA, SP., ed.

Stavebne montazni prace. /1. vyd./Praha, Prace; vydavatelstvo RCH, 1956. 452 p.  
/Installation of building fittings. 1st ed. illus., diagra./

SOURCE: East European List (EEAL) Library of  
Congress, Vol. 6, No. 1, January 1957

KEJLA, Vaclav

Use of ammonia liquor in agriculture. Prum potravin 14 no.5:246  
My '63.

1. Zavody sovetskoceskoslovenskeho pratelstvi, Zaluži u Mostu.

KEJLICKER, K.

[A large rectangular area containing extremely faint, illegible text, possibly a document or photograph. A circled mark is visible in the lower-left corner of this area.]

(10)



KEJMAR, Frantisek

Ensuring the quality of agricultural crops by technical standards. Normalizace 11 no.9:274-275 S '63.

1. Ustredni sprava nakupu zemedelskych vyrobku, Praha.

KEJSEK, Karel; NAVRATIL, Miroslav; GLUCKSMANN, Josef

On the problem of emphysema in persons playing wind instruments.  
Pracovní lek.12 no.2:64-67 Mr '60.

1. Klinika nemoci z povolani, prednosta prof.dr. J. Teisinger.  
Ustav hygieny prace a chorob z povolani v Praze, red.prof.dr.  
J. Teisinger. Zdravotnicke stredisko ND, CUNZ, Praha 2.  
(PULMONARY EMPHYSEMA etiol.)  
(MUSIC)

KEJVAL, J.

Railroad car bodies for automobiles. p. 686.

Speaking with the drivers of the Six-Day Race. p. 689.

Vol. 9, no. 22, Oct. 1955

SVET MOTORU

Praha, Czechoslovakia

So: Eastern European Accession Vol. 5 No. 4 April 1956

KEJVAL, Z.

"Possibilities of Economical Forging." p. 285, Praha, Vol. 4, no. 4, Apr. 1954.

SO: East European Accessions List, Vol. 3, No. 9, September 1954, Lib. of Congress

KEJVAL, Z.

"Modern Types of Passenger Car Chassis", P. 577, (STROJIRENSTVI, Vol. 4,  
No. 8, Aug. 1954, Praha, Czechoslovakia)

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

KEJVAL, Z.

"Car bodies of today." p. 308.

SVET MOTORU. (Svaz pro spolupraci s armadou). Praha, Czechoslovakia,  
Vol. 9, No. 10, May 1955.

Monthly list of East European Accessions (EEAI), LC, Vol. 8, No. 8,  
August 1959.  
Uncla.

KEJVAL, Z.

KEJVAL, Z. Mechanization and automatization of cold-pressing. p. 191.

Vol. 4, No. 5, May 1956

STROJIRENSKA VYROBA.

TECHNOLOGY

Praha, Czechoslovakia

So: East European Accession, Vol. 6, No. 3, May 1957

KEJVAL, Z.

The body cleansing and priming assembly-line method for the Skoda 440 cars.

p. 376 (AUTOMOBIL) Vol. 1, no. 11, Nov.1957,  
Praha, Czechoslovakia

SO: Monthly Index of East European Accessions (EEAI) LC, Vol. 7, No. 3,  
March 1958



KEJVAL, Z.

Bodies of passenger cars at the Paris auto show.

P. 405. (AUTOMOSIL) (Praha, Czechoslovakia) Vol. 1, no. 12, Dec. 1957

SO: Monthly Index of East European Accession (EEAI) LC Vol 7 No. 5, May 1958

KEJAL, Z.

TECHNOLOGY

PERIODICAL: AUTOMOBIL. VOL. 3, no. 2, Fe . 1959

Kejal, Z. The body of a car. p. 44.

Some interesting features in the design of Soviet automobiles derived from the Moskvich L02. p. 47.

Monthly List of East European Accessions (FEAL), LC, Vol. 8, no. 5,  
May 1959, Unclass.

~~KEJVAL~~, Zdenek [Kejval, Z.] (Chekhoslovatskaya Sotsialisticheskaya Respublika)

Basic requirements of motor-vehicle bodies. Avt.prom. no.12:35-38  
D 160.

(MIRA 13:12)

(Motor vehicles--Bodies)

REF ID: A66579

36

PHASE I BOOK EXPLOITATION

SOV/5799

Unkov, Ye.P., Doctor of Technical Sciences, Professor, Ed.

Sovremennoye sostoyaniye kuznechno-shtampovochnogo proizvodstva (Present State of the Pressworking of Metals) [Moscow] Mashgiz, 1961. 434 p. 5000 copies printed.

Ed. of Publishing House: A.I. Sirotin; Tech. Ed.: B.I. Model'; Managing Ed. for Literature on the Hot Working of Metals: S.Ya. Golovin, Engineer.

Title: Kuznechno-shtampovochnoye proizvodstvo v SSSR (The Pressworking of Metals in the USSR) by: A.V. Altykis, D.I. Berezhkovskiy, V.F. Volkovitskiy, I.I. Girsh (deceased), L.D. Gol'man, S.P. Granovskiy, N.S. Dobrinskiy, A.I. Zimin, S. L. Zlotnikov, A.I. Kagalovskiy, P.V. Lobachev, V.N. Martynov, Ye.N. Moshnin, G.A. Navrotskiy, Ya.M. Okhrimonko, G.N. Rovinskiy, Ye.A. Stosha, Yu.L. Rozhdestvenskiy, N.V. Tikhomirov, Ye.P. Unkov, V.F. Shcheglov, and L.A. Shofman; Eds: Ye.P. Unkov, Doctor of Technical Sciences, Professor, and B.V. Rozanov.

Title: Kuznechno-shtampovochnoye proizvodstvo v ChSSR (The Pressworking of Metals in the Czechoslovak SR) by: S. Burda, F. Hrazdil, F. Drastik, F. Zlatohlavek

Card 1/8

Present State of the (Czech.)

SOV/5799

Z. Kejval, V. Kraus, F. Kurka, F. Hajer, K. Marvan, J. Novak, J. Ochnal, K. Paul, B. Semer, M. Hanz, J. Caska, V. Sindelar, and J. Solc; Eds.: A. Hejersa and M. Vlk.

PURPOSE: This book is intended for engineers and scientific personnel concerned with the pressworking of metals.

COVERAGE: Published jointly by Mashgiz and SNTL, the book discusses the present state of the pressworking of metals in the USSR and the Czechoslovak Socialist Republic. Chapters were written by both Soviet and Czechoslovak writers. No personalities are mentioned. There are 129 references: 93 Soviet, 16 English, 8 German, 5 Czech, and 2 French.

TABLE OF CONTENTS:

PRESSWORKING IN THE USSR

Ch. I. The Characteristics of Forging Shops in USSR Plants [A.I. Zimin and Ye.P. Unkov] 5

Ch. II. Methods of Calculating the Pressure for Forging in the Pressworking

Card 2/8

Present State of the (Cont.) 804/5799

of Metals [Ye.P. Unksov] 13

Ch. III. Die Forging on Forging Presses [V.F. Volkovitskiy] 22

Ch. IV. Die Forging on Horizontal Upsetters [I.I. Girsh, deceased] 31

Ch. V. Die Forging on Drop Hammers and [Power-Screw] Percussion Presses  
[Ya. M. Okhrimenko and V.F. Shcheglov] 41

Ch. VI. The Making of Forgings and Shear'd Blanks in Forging Rolls [V.N.  
Martynov] 58

Ch. VII. Die-Sizing in Squeeze-Forming Presses [V.F. Volkovitskiy] 77

Ch. VIII. Rolling-Out Annular Blanks [Yu.L. Rozhdentvenskiy] 82

Ch. IX. The Manufacture of Metal Hardware on Pressworking Automatics  
[G.A. Navrotskiy] 93

Card 3/8

Present State of the (Cont.)

SCV/5799

Ch. X. Bending and Straightening of Sheets, Shapes, and Tubes [Ye.N. Moshnin]	112
Ch. XI. Stamping From Sheets and Strips [S.L. Zlotnikov and G.N. Rovinskiy]	119
Ch. XII. Automatic Pressworking Lines [S.L. Zlotnikov]	145
Ch. XIII. The Equipment of Blank-Producing Shops and Sections in Pressworking [P.V. Lobachev]	159
Ch. XIV. The Production of Blanks for [Machine] Parts by Helical Cross Rolling [B.P. Granovskiy and Ye. A. Stozha]	175
Ch. XV. Metal Extrusion on Hydraulic Presses [A.I. Kagalovskiy and L.A. Shofman]	183
Ch. XVI. Parts Forging From Light-Metal Alloys on Large Hydraulic Presses [L.D. Gol'man and L.A. Shofman]	201

Card 4/8

30

Present State of the (Cont.)	SGI/5T99	
Ch. XVII. Mass Production of Parts [Solid Wheels and Tires] by Forging With Subsequent Rolling [A.V. Altykis, and L.D. Gol'man]		208
Ch. XVIII. Forging and Bending of Plates [Ye.N. Moshain]		216
Ch. XIX. Making Large Forgings on Hydraulic Presses [N.S. Dobrinskiy, and N.V. Tikhomirov]		229
Ch. XX. Drop-Hammer and Crank-Press Forging [D.I. Berezhkovskiy, and V.F. Shcheglov]		224
Bibliography		225

PRESSWORKING IN THE USSR

Ch. I. The Development of Metal Pressworking Processes in the Czechoslovakian Socialist Republic [F. Drastik, Railroad Engineering Institute, Prague]		261
---	--	-----

Card 5/8

Present State of the (Cont.)

SGI/5792

Ch. II. Making Large Forgings [B. Kraus, New Metallurgical Plant imeni Klement Gottwald, Kunšice]	272
Ch. III. The Forging of Rotors for Turbogenerators [J. Novák, Metallurgical Plant imeni Lenin, Píseň]	299
Ch. IV. The Forging of Large Crankshafts [S. Burda, K. Paul, and M. Henz, Metallurgical Plant imeni Lenin, Píseň]	314
Ch. V. Techniques Used in Forging Large Rotors [F. Zlátný, Vítkovice Metallurgical Plant imeni Klement Gottwald, Ostrava]	333
Ch. VI. The Forging of Forked Pipes for Gas Pipelines [J. Částecký, Vítkovice Metallurgical Plant imeni Klement Gottwald, Ostrava]	345
Ch. VII. The Forging of Large Strengthening Rings for the Runners of Mixed-Flow Turbines [P. Kurka, Vítkovice Metallurgical Plant imeni Klement Gottwald, Ostrava]	348

Card 6/8



36

Present State of the (Cont.)	801/5799	
Ch. VIII. Scientific Research Work in the Field of Cold Impact Forging of Metals [F. Hradil, Plant imeni General, Brno]		355
Ch. IX. Experience in the Cold Impact Forging of Non-Ferrous Metals [K. Maryan and J. Odhual, Plant Tesla, National Enterprise, Hloubetin, and V. Sindlak, Scientific Research Institute of Vacuum Electrical Engineering, Prague]		381
Ch. X. The Manufacturing Process and Organization in the Stamping of Bodies at the Automobile Plant "National Enterprise (AZNP) Mladá Boleslav" [Z. Kejval, AZNP, Mladá Boleslav]		397
Ch. XI. The Mechanization of Obsolete Enterprises as a Means of Increasing Labor Productivity [D. Šanzer, Vítkovice Metallurgical Plant imeni Klement Gottwald, Ostrava]		410
Ch. XII. The Initial Pressworking of FeAl Alloys and Large FeCrAl Castings [F. Major and J. Šolc, Scientific Research Institute of Iron, Prague].		

Card 7/8

KEJVAL, Zdenek

Mechanization of the pressing of car body parts. Stroj vyr  
12 no.11:791-800 '64.

1. Automobilove zavody National Enterprise, Mlada Boleslav.

27111

Z/039/61/022/008/006/007  
D260/D303

9,4000 (1003, 1139)

AUTHOR: Kejzlar, Milan, Engineer  
TITLE: A new method of automatic balancing in a thermistor  
for small microwave power measurements  
PERIODICAL: Slaboproudý obzor, v. 22, no. 8, 1961, 483-487

TEXT: The author deals with a new method of automatic d.c. power balancing to a constant total power level. The application of this new method in a microwave power meter is discussed. Its advantage is the possibility of accurate calibration of the microwave power to be measured by a d.c. voltmeter and milliammeter according to the extent of the balancing d.c. power. The Wheatstone bridge represents the basic circuit for microwave power measurements by a thermistor with manual balancing to a constant total power level. Fig. 1 shows the circuit diagram of a thermistor bridge with manual balancing of power. The balance of the bridge, indicated by the galvanometer G, will be adjusted prior to supplying the microwave

Card 1/4

27111  
Z/039/61/022/008/006/007  
D260/D303

A new method of automatic balancing...

power measured by the rheostat  $R_r$ . Upon reaching the balance, the current  $I_1$  flows to the bridge. As all the resistors in the bridge are identical, the d.c. power in the thermistor may be determined from the relation  $N_1 = R_t \frac{I_1^2}{4}$ . After supplying the measured

microwave power, the balancing of the bridge is renewed by reducing the current flowing through the bridge via rheostat  $R_r$  to  $I_2$ ; hence  $N_2 = R_t \frac{I_2^2}{4}$ . The described bridge along with current thermistors

permits evaluating microwave power of 500  $\mu$ W to 6 mW. The manual balancing of power in the bridge has 2 substantial disadvantages: a) it is rather time-consuming, and measurement results may be influenced by temperature change when holding the handle of the thermistor, change in voltage, etc; b) in most cases the measured value is not indicated and must be obtained through calculation. A circuit is given showing the automatic power balancing in the thermistor by the oscillator. The complicated circuit prevents the exact determination of the resistance value of the measuring thermistor.

Card 2/4

27111

Z/039/61/022/008/006/007  
D260/D303

A new method of automatic balancing...

All the above listed shortcomings are abolished by the new method of automatic power balancing in the thermistor by d.c. power. The voltage in the thermistor is measured by a d.c. voltmeter with a large input resistance, parallel connected to the thermistor, and the current flowing through the thermistor is measured by the milliammeter. Other diagrams in the article show a principal circuit diagram for automatic power balancing on the thermistor by d.c. power; a circuit diagram of a microwave power meter; the distribution of the power along the straight line of the constant resistance. The principal technical data of the power meter "TESLA QXC 900 01" are: Supply: from the grid 220 V  $\pm 10\%$ ; Ranges for complete deflection: 500 W, 1.5 mW, 5 mW; accuracies: Range 500 W with an accuracy of  $\pm 10\%$  for complete deflection. Ranges 1.5 mW and 5 mW with accuracy  $\pm 5\%$  for complete deflection; Temperature range:  $-10^{\circ}\text{C}$  up to  $35^{\circ}\text{C}$ . There are 7 figures and 5 references: 2 Soviet-bloc and 3 non-Soviet-bloc. The references to the English-language publications read as follows: E.L. Ginzton: Microwave Measurements. McGraw-Hill Book Co, 1957, pp 148 and 175; C.G. Montgomery: Technique of

Card 3/4

KEKA, Ya.D.

Experience in the briquetting of wood waste. Der. prom.  
14 no.9:31-32 S '65. (MIRA 18:12)

KEKALO, B.V.

On the transfusion of incompatible blood group in anesthesia. Vest.  
khir. 71 no.3:51-52 1951. (CIML 20:11)

1. Of the Ukrainian Institute of Blood Transfusion (Director ---  
A.L. Slobodskoy), Khar'kov.

KEKALO, B. V.

USSR/Medicine - Blood Transfusion

Mar 51

"Transfusion of Blood of Incompatible Groups Under Narcosis," B. V. Kekalo, Ukrainian Inst of Blood Transfusions, Kharkov

"Vest Khirurgii" Vol LXXI, No 3, pp 51, 52

188T78

Patient under pentotal narcosis, with type O (I) blood was given transfusion of A (II) type blood by mistake. Post-transfusion reaction was serious. Could be counteracted by injection of ephedrine into cubital vein, bloodletting, and infusion of blood of correct type. Patient recovered. However, Chechulin reports on case of wounded soldier with type A (II) blood to whom transfusion of B

188T78

Mar 51

USSR/Medicine - Blood Transfusion (Contd)

(III) under narcosis was given while wound was operated on, without ill effects. Case seems to confirm theory of Berezhkin, Zal'tsman, and Serbant of feasibility of transfusion of incompatible blood under narcosis. Patient's blood, however, may have been of weak subgroup A2B.

188T78



KEKALO, B.V.

Modification of closure of the stump in suprapyloric resection  
of the stomach for exclusion. Nov.khir.arkh. no.11:87-89 '61.

(MIRA 14:12)

1. Kafedra fakul'tetskoy khirurgii (zav. - prof. A.Z. TSeytlin)  
Khar'kovskogo meditsinskogo instituta.  
(STOMACH—SURGERY)

S/126/61/012/003/002/021  
E021/E180

AUTHORS: Kekalo, I.B., and Livshits, B.G.

TITLE: A new magnetic-diffusion effect in invar, studied by the method of internal friction

PERIODICAL: Fizika metallov i metallovedeniye, v. 12, no. 3, 1961, 314-321

TEXT: The low temperature transformations in invar were investigated by the method of internal friction since this method is very sensitive to atomic diffusion processes occurring in metals and alloys. The heating device and the sample were placed in a solenoid which enabled measurements of internal friction at different temperatures and in a magnetic field. The samples were 300 mm long and 0.7 mm in diameter. Measurements were carried out in vacuo ( $10^{-3}$  to  $10^{-4}$  mm Hg). The internal friction was calculated from the usual formula. All the experiments were carried out on annealed samples. Good reproducibility of results was obtained. The basic internal friction-temperature curve for invar containing 0.02% carbon has a peak at 200 °C caused by diffusion of carbon atoms into the  $\gamma$ -lattice in a field of elastic  
Card 1/2

S/126/61/012/005/003/028  
E039/E135

AUTHORS: Kekalo, I.B., and Livshits, B.G.

TITLE: On the magnetic diffusion effect in Invar,  
investigated by the internal friction method. II.

PERIODICAL: Fizika metallov i metallovedeniye, v.12, no.5, 1961,  
644-651

TEXT: Ya.S. Shur and I.Ye. Startseva (Ref.2; ZhETF, 1960, v.39, no.3) have shown that cyclic temperature changes cause irreversible changes in the domain structure. In particular they bring about thermal magnetic hysteresis. The aim of the present paper was to investigate the thermal effects on internal friction ( $Q^{-1}$ ) in invar containing 0.26% C. The work is a continuation of previous work by the same authors. They show that heating after stabilising treatment restores the internal friction ( $Q^{-1}$ ) to its original value in accordance with a basic curve. This restoration is more complete for higher rates of heating and by heating to higher temperatures. As a consequence of heating after the stabilisation treatment conditions are created for a new decrease

Card 1/2

On themagnetic diffusion effect ... S/126/61/012/005/003/028  
E039/E135

✓

in  $Q^{-1}$ ; in the example shown at 75 °C and ~190 °C. In the case where the metal is cooled after stabilising treatment and then subsequently heated, there is only a partial restoration of  $Q^{-1}$  at the temperature of this treatment. The cyclic process cooling-heating has a much weaker influence on changes in  $Q^{-1}$  at the temperature of the stabilising treatment than the cyclic treatment heating-cooling. The results obtained are discussed and compared with the proposals introduced in the authors' previous work; i.e. on the tendency for carbon atoms to migrate during the isothermal soaking process to the domain boundary. There are 4 figures and 4 Soviet-bloc references.

ASSOCIATION: Moskovskiy institut stali  
(Moscow Steel Institute)

SUBMITTED: January 24, 1961

Card 2/2

S/126/61/012/006/006/023  
E193/E383

AUTHORS: Kekalo, I.B. and Livshits, B.G.

TITLE: Internal friction of Invar as a function of temperature, carbon content, intensity of magnetization and time factor

PERIODICAL: Fizika metallov i metallovedeniye, v.12, no. 6, 1961, 838 - 845

TEXT: The object of the present investigation was to study the effect of the time factor and intensity of magnetization on the temperature-dependence of internal friction of Invar containing 0.01 or 0.26% C. The investigation was undertaken because neither anomalous properties of this alloy associated with its magnetic characteristics, nor the volume effects associated with redistribution of the C atoms at low temperatures were taken into account in earlier studies of this problem. The measurements were carried out in vacuum ( $10^{-3}$  -  $10^{-4}$  mm Hg) on wire specimens (300 mm long, 0.7 mm in diameter), preliminarily annealed at 800 °C for 15 minutes. The results can be

Card 1/4

Internal friction of ....

S/126/61/012/006/006/023  
E193/E383

summarized as follows.

- 1) On raising the temperature to 260 - 300 °C the internal-friction background  $Q^{-1}$  of Invar rapidly decreases. Its magnitude becomes much lower when the alloy is placed in a magnetic field and is hardly affected by temperature variation below the Curie point.
  - 2) An internal-friction peak is observed at approximately 200 °C. Its height increases with increasing C content and decreases on the application of a magnetic field. In the case of the alloy with 0.26% C, the decrease due to the application of a field of 250 Oe amounted to 60%.
  - 3) The carbon-induced internal-friction peak is shifted towards higher temperatures on the application of a magnetic field, this effect being mainly due to the displacement of the low-temperature branch of the peak; this is illustrated by typical results, reproduced in Fig. 6, where
- $Q^{-1} \times 10^4$  of a specimen with 0.26% C is plotted against temperature (°C); Curves 1 and 2 relate to results obtained
- Card 2/4

Internal friction of ....

S/126/61/012/006/006/023  
E193/E383

without the application of a magnetic field and in an alternating field  $H = 250$  Oe, respectively.

4) Increasing the vibration frequency brings about an increase in the internal-friction background level and a displacement of the internal-friction peak towards higher temperatures, both these effects being independent of the presence of a magnetic field.

5) Calculated values of the activation energy for the C atoms were  $U = 34\,500 \pm 3\,000$  cal/mole at  $H = 0$  and  $U = 35\,800 \pm 3\,000$  cal/mole at  $H = 250$  Oe.

6) The character of the temperature-dependence of internal friction of Invar depends on the experimental conditions, two different internal-friction curves being obtained for the region below the Curie point, depending whether the specimen is heated continuously or held for 2 hours at each test temperature before taking the measurement. The effect of the time factor is demonstrated in Fig. 7, showing a  $Q^{-1}$  versus temperature curve for a specimen with 0.26% C; the low-temperature branch of the curve, indicated by a broken line, relates to results

Card 3/4

Internal friction of ....

S/126/61/012/006/006/023  
E193/E383

obtained on specimens held for 2 h at the test temperature; it will be seen that this treatment brought about a decrease in  $Q^{-1}$ , the magnitude of this effect reaching a maximum at approximately  $90^{\circ}\text{C}$ .

7) The results obtained indicate that the relaxation phenomena in ferromagnetics should be studied both with and without the application of a magnetic field in order to distinguish between the magnetic effects and those associated with redistribution of atoms and structural changes. There are 7 figures and 11 references. 8 Soviet-bloc and 3 non-Soviet-bloc.

ASSOCIATION: Moskovskiy institut stali (Moscow Institute of Steel)

SUBMITTED: November 15, 1960

Card 4/4

S/126/62/013/001/003/018  
E193/E383

AUTHORS: Kekalo, I.B. and Livshits, B.G.

TITLE: Effect of intensity of magnetization on the  
temperature dependence of the internal friction of  
nickel

PERIODICAL: Fizika metallov i metallovedeniye, v.13, no. 1,  
1962, 54 - 61

TEXT: The object of the present investigation was to  
establish the origin of an internal-friction peak observed by  
some workers in nickel at 100 °C. Since it was known that the  
magnetic properties of nickel undergo an anomalous change at  
100 °C, it was considered most likely that there was a  
relationship between the internal-friction peak and the  
specific nature of the magnetic properties of nickel; hence -  
the line of approach chosen by the authors in their experimental  
study, conducted in vacuum on wire specimens 300 mm long, 0.7 mm  
in diameter. The impurity content in the experimental material  
did not exceed 0.05% and all the specimens except one were

Card 1/3

Effect of intensity ....

S/126/62/013/001/003/018  
E193/E583

curves constructed for cold-worked material.  
There are 4 figures.

ASSOCIATION: Moskovskiy institut stali  
(Moscow Institute of Steel)

SUBMITTED: November 25, 1960



Card 5/3



37702

S/126/62/013/004/016/022  
E193/E383

18.8100

AUTHORS: Kekalo, I.B. and Livshits, B.G.

TITLE: Magnetic-field dependence of the internal friction  
and shear modulus of nickel

PERIODICAL: Fizika metallov i metallovedeniye, v. 13, no. 4,  
1962, 599 - 608

TEXT: The object of the present investigation was to study  
the effect of a constant and alternating magnetic field on the  
internal friction of nickel at various amplitudes of elastic  
vibrations, the torsion-pendulum method being used for  
internal-friction measurements. In addition, the field  
dependence of the shear modulus of Ni was studied. The  
investigation was undertaken for the following reasons:

- 1) the low-frequency method of torsion pendulum was used to  
study the magnetic losses by a few investigators only, who  
obtained contradictory results;
- 2) the amplitude-dependence of the internal friction of  
Ni in a wide range of constant and alternating fields has not

Card 1/04

Magnetic-field dependence ....

S/126/62/013/004/016/022  
E193/E383

yet been studied;

5) no attempt has yet been made to correlate data on internal-friction and on the elastic characteristics of Ni determined in constant and alternating fields. The experimental work was carried out on wire specimens of Ni containing less than 0.5% impurities, preliminarily vacuum-annealed at 800 °C. The main results are reproduced in Fig. 6, where the internal-friction ( $Q^{-1} \times 10^4$ , graph a) and variation in shear modulus ( $\Delta G, \% -$  graph b) are plotted against the magnetic-field strength, curves 1 and 1' relating to data obtained in a constant magnetic field on specimens annealed at 900 °C, curves 2 and 2' relating to results obtained in alternating magnetic fields on specimens annealed at 600 °C. These and other results can be summarized as follows: 1. the internal-friction peak is observed in Ni in both constant and alternating magnetic fields. The height of the peak in alternating fields is almost ten times greater than that in constant fields, the peak in the alternating field being displaced towards a low

Card 2/4

Magnetic-field dependence ....

S/126/62/013/004/016/022  
E193/E583

field intensity. 2. The height of the peak increases with increasing amplitude of the elastic vibrations, this relationship being linear in constant fields and nonlinear in alternating fields. 3. The internal friction of Ni is proportional to the amplitude of elastic vibrations, both in the absence of a magnetic field and in constant fields of varying intensity. A nonlinear relationship between the internal friction of Ni and the amplitude of elastic vibrations is observed in constant fields in the intensity range within which the internal friction reaches its maximum value. 4. A negative  $\Delta G$  effect is observed in Ni, both in constant and alternating magnetic fields, the effect being several times greater in alternating fields. The height of the magnetic internal-friction peak and the value of the negative  $\Delta G$  effect are interdependent and so are the field intensities corresponding to the maximum value of internal friction and minimum value of the  $\Delta G$  effect. 5. The magnetic internal friction studied in the course of the present investigation by the low-frequency torsion-pendulum method is associated with losses on magneto-elastic hysteresis.

Card 3/84

Magnetic-field dependence ....

S/126/62/013/004/016/022  
E193/E383

The results obtained are discussed in terms of the theory of reversible and non-reversible elementary magnetic phenomena taking place in ferromagnetic materials under the action of magnetic and elastic forces. There are 7 figures.

ASSOCIATION: Moskovskiy institut stali  
(Moscow Institute of Steel)

SUBMITTED: August 12, 1961

Card 4/84

KEKALO, I.B.; LIVSHITS, B.G.; Prinimala uchastiye: TOVPYGA, O., studentka

Negative  $\Delta G$ -effect and the magnetic internal friction in nickel depending on heat treatment. Fiz. met. i metalloved. 14 no.2:223-230 Ag '62. (MIRA 15:12)

1. Moskovskiy institut stali i splavov.  
(Nickel—Heat treatment) (Internal friction)

KEKALO, I.B.; LIVSHITS, B.G.; Primala uchastiye D'YAKONOVA, N.P.,  
studentka

Dependence of internal friction and shear modulus in nickel on  
the magnetizing field. Fiz. met. i metalloved. 13 no.4:599-608  
Ap '62. (MIRA 16:5)

1. Moskovskiy institut stali.  
(Magnetic fields) (Nickel—Magnetic properties)

S/048/62/026/002/022/032  
B117/B138

AUTHORS: Kekalo, I. B., and Livshits, B. G.

TITLE: Damping capacity method of studying magnetic diffusion effect in invar

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Seriya fizicheskaya, v. 26, no. 2, 1962, 279-283

TEXT: The present paper was presented at a conference on magnetism and antiferromagnetism and is devoted to a study of the peculiar behavior of damping capacity in invar. The experiments were carried out in a vacuum relaxation oscillator type РКФ-ММС (RKF-MIS) (elastic vibrations of approximately 0.5 cps.). All specimens were annealed with two hr cooling from 800°C to room temperature. Damping capacity  $Q^{-1}$  was found to decrease gradually with isothermal soaking at temperatures below Curie point (maximum decrease from 80-100°C). This effect was stronger in high- (0.26 % C) than in low-carbon invar (0.02 % C). Besides this carbon causes the maximum drop at lower temperatures. Transition from one point to another on the stabilized curve does not take place directly on heating through 20-30°C, but with a rise and fall. If a stabilized specimen

Card 1/2

S/048/62/026/002/022/032  
B117/B138

Damping capacity method of...

undergoes treatment by magnetic reversal, or by magnetization followed by soaking at 80°C,  $Q^{-1}$  is at first restored to its former level and then gradually falls again. The minimum field required for even partial restoration of  $Q^{-1}$  after stabilization was found to be approximately the same as its coercive force. Heat reversal (cooling/heating and vice versa) after stabilization at first increases  $Q^{-1}$  above its original level, then there is a gradual fall again. These effects are attributed to interaction between carbon atoms and domain boundaries. A comparison between the results obtained by electrical resistivity measurements and those from the dimensional variations of invar during isothermal soaking showed that the damping capacity method can be used for determining the initial stages of ageing or the independent processes affecting the time-dependent instability of the invar. There are 5 figures and 2 Soviet references

L 15722-65 EWT(m)/EWA(d)/EWP(b)/EWP(w)/EWP(t) ASD-3/AFTC/ESD-3/IJP(c)/ESD(t)/  
 ESD(c)/RAEM(c)/SSD/AFWL/ASD(a)-5/ASD(m)-3/AFETR JD  
 ACCESSION NR: AR4045880 8/0137/64/000/007/I035/I035

SOURCE: Ref. zh. Metallurgiya, Abs. 7I220

AUTHOR: Avraamov, Yu. S.; Kekalo, I. B.; Morgner, V. B

TITLE: Effect of temperature, amplitude and frequency of elastic vibrations on the "magnetic" peak of internal friction in iron

CITED SOURCE: Sb. Relaksats. yavleniya v met. i splavakh. M., Metallurgizdat, 1963 18 27

TOPIC TAGS: temperature, amplitude, frequency, elastic vibration, magnetic peak, internal friction, iron, magnetic field, H lines of force, domain boundary

TRANSLATION: The properties of the magnetic peak of internal friction in electrolytic Fe annealed in H<sub>2</sub> were studied. Measurements were made on a relaxation oscillator built in the form of an inverted low frequency pendulum, in a temperature interval from -196 to +60° with a surface deformation of the sample of 2 · 10<sup>-5</sup> to 1 · 10<sup>-3</sup>. Over the whole temperature interval investigated, internal friction, as a

Card 1/2



L 15722-65  
ACCESSION NR: AR4045880

function of the strength of a changing magnetic field  $H$ , changes along the curve to a maximum. The parameters of the magnetic peak (its height, width,  $H$ , the corresponding maximum value of internal friction) depend on temperature. With a decrease in temperature, the magnetic peak becomes broader, its height increases slightly, and it is displaced in the direction of higher values of  $H$ . At temperatures starting from  $-50^{\circ}$  and up, the parameters of the magnetic peak change only slightly. The parameters of the magnetic peak at  $-196^{\circ}$  depend strongly on the amplitude of the elastic vibrations. With an increase in amplitude, the field of the magnetic peak decreases monotonically according to the hyperbolic law. In cases where the Fe has a larger content of additives, the influence of the frequency of the vibrations on the height of the magnetic peak is not significant. Deformation at  $-196^{\circ}$  brings about the disappearance of the magnetic peak. The effect of the Fe structure (additives, defects arising from cold working) on loss levels determined by irreversible displacements of the domain boundaries results in blocking the domain boundaries. 9 literature titles.

SUB CODE: MM, AS ENCL: 00

Card 2/2

L 15721-65 EWT(m)/EWP(w)/EWA(d)/EWP(t)/EWP(k)/EWP(b) PF-4 ASD-3/AFFTC/ESD-3/  
IJP(c)/ESD(gs)/ESD(t)/SSD/RSD/AFWI/ASD(a)-5/ASD(f)-2/ASD(m)-3/AS(md)2 JD/HW  
ACCESSION NR: AR4045881 S/0137/64/000/007/I035/I035

SOURCE: Ref. zh. Metallurgiya, Abs. 7I221

B

AUTHOR: Kekalo, I. B.; Livshits, B. G.; Morgner, V.; Sokolov, A. Yu.

TITLE: Effect of deformation and magnetic effects on the internal friction of iron

CITED SOURCE: Sb. Relaksats. yavleniya v met. i splavakh. M., Metallurgizdat, 1963, 176-183

TOPIC TAGS: deformation, magnetic effect, internal friction, iron, domain boundary, ferromagnetism

TRANSLATION: Transitory instability of Armco iron and electrolytic iron samples was investigated in various initial states (after demagnetization by a changing field, in a state of residual induction, and after elastic deformation). Study was also made of the recovery of stabilized internal friction brought about by losses due to magnetic hysteresis, as a result of magnetic and deformation (exposure to and removal from elastic stress) effects. Internal

Card 1/2

L 15721-65

ACCESSION NR: AR4045881

friction was measured with an inverted low frequency torsion pendulum at temperatures from  $-196$  to  $+100^{\circ}$ . In the study of Fe annealed in  $H_2$  (in this case there were losses due to magnetic hysteresis), instability was found in the temperature interval from  $-40$  to  $+50$ . Outside this interval, the internal friction of Fe was stable, independent of the initial state of the sample. Instability of internal friction is observed in samples subjected to magnetic (constant and changing field) and deformation effects. An increase in internal friction, as a result of deformation effects, leads to approximately the same level independent of the initial state of the sample, including the state following stabilization of internal friction. The high residual value of internal friction in Fe annealed in  $H_2$  is connected with losses due to magnetic hysteresis, determined by heterogeneous displacements of the domain boundaries under the effect of external elastic stresses. The decrease of internal friction with the passage of time is explained by the redistribution of foreign atoms, as a result of which there comes about a blocking of the domain boundaries and a decrease in losses due to magnetic hysteresis. 10 literature titles.

SUB CODE: MM, AS  
Card 2/2

ENCL: 00

L 11374-65 EWT(m)/EWP(t)/EWP(k)/EWP(b) PF-4 IJP(c)/SSD/ASD(f)-2/ESD(gs)/  
ASD(m)-3/ASD(p)-3/AFWL JD/HW

ACCESSION NR: AR4046552

S/0058/64/000/008/E086/E087

SOURCE: Ref. zh. Fizika, Abs. 8E670

AUTHORS: Avraamov, Yu. S.; Kekalo, I. B.; Morgner, V.

TITLE: Effect of temperature, amplitude, and frequency of elastic oscillations on the "magnetic" peak of internal friction in iron B

CITED SOURCE: Sb. relaks. yavleniya v met. i splavakh, M., Metallurgizdat, 1963, 184-189

TOPIC TAGS: iron, internal friction, temperature dependence, magnetic field intensity, elastic vibration, plastic deformation, domain structure

TRANSLATION: A study was made of the properties of the magnetic peak (MP) of the internal friction (IF) in electrolytic iron annealed in H<sub>2</sub>. The measurements were made on a relaxator assembled in accordance with the scheme of an inverted low-frequency pendulum, in the temperature interval from -196 to +60C, on samples 70 mm long and 0.7 mm in diameter. The plot of the IF as a function of the alternating magnetic field intensity exhibits a maximum in the entire investigated tem-

Card 1/2

L 11374-65

ACCESSION NR: AR4046552

perature interval. The parameters of the given MP (height, width, field corresponding to the maximum IF) depend on the temperature. With decreasing temperature, the MP broadens, its height increases slightly, and the MP shifts toward higher values of the constant-field intensity. The MP parameters at a chosen temperature (-196C) depends strongly on the amplitude (A) of the elastic vibrations. With increasing A the MP field decreases monotonically in accordance with a hyperbolic law; the height of the peak first increases and then decreases. The parameters of the MP are strongly influenced by plastic deformation of the sample. The uniqueness of the variation of the parameters at the MP with the temperature variation is related to the temperature variation of the constants of the magnetic state of the iron and with the accompanying changes in the magnetic domain structure.

SUB CODE:MM

ENCL: 00

Card 2/2

L 15720-65 EMT(m)/EWP(w)/EWA(d)/EWP(t)/EWP(k)/EWP(b) PC-4 ASD-3/AFFTC/ESD-3/  
TJP(c)/ESD(t)/ESD(gs)/ESD(t)/SSD/BSL/AFWL/ASD(a)-5/ASD(:)-2/ASD(m)-3/AS(m)-2 JD/  
HW

ACCESSION NR: AR4045883

S/0137/64/000/007/I035/I036

SOURCE: Ref. zh. Metallurgiya, Abs. 7I223

AUTHOR: Kekalo, I. B.; Livshits, B. G.; Morgner, V. B

TITLE: The effect of elastic deformation and certain magnetic effects on the internal friction of iron 18

CITED SOURCE: Sb. Relaksats. yavleniya v met. i splavakh. M., Metallurgizdat, 1963, 190-197

TOPIC TAGS: elastic deformation, magnetic effect, internal friction, iron, domain boundary, ferromagnetism, temperature dependence

TRANSLATION: Investigations were made on wire samples made of Armco iron and electrolytic iron. Internal friction was measured with an inverted low frequency torsion pendulum; deformation on the surface of the sample was  $6 \cdot 10^{-5}$ . The character of the temperature dependence of the internal friction of both kinds of Fe samples depends hardly at all on magnetization. Refining the Fe leads to a sharp increase in residual internal friction (approximately 3 times) and to the

Card 1/2

L 15720-65

ACCESSION NR: AR4045883

appearance of a dependence of internal friction on magnetization. This increase in residual internal friction is explained by the fact that refining decreases the total amount of impurities in the Fe and renders easier the displacement of domain boundaries by the effect of external stresses, and this in turn leads to an increase in losses due to magneto-elastic hysteresis. An amplitude dependence of internal friction is observed only in the case of Fe annealed in H<sub>2</sub>. In the case of annealed samples, a reversible effect of the influence of preliminary elastic deformation on internal friction is observed. At a given temperature, internal friction depends not only on preliminary deformation, but also on the type of magnetic effect. The change in internal friction effected by preliminary deformation is not connected with plastic deformation, but is determined by magneto-elastic processes and appears reversible in relation to magnetic effects. 15 literature titles.

SUB CODE: MM, AS

ENCL: 00

Card 2/2

KEKALO, I.B.; LIVSHITS, B.G.

Response to remarks made by K. Mishek. Fiz. met. i metalloved. 17 no.  
2:298-300 F '64. (MIRA 17:2)

1. Moskovskiy institut stali i splavov.



PANCHENKO, Ye.V.; PANSHINA, M.M.; BEKALOV, L.B.; BLINKOVA, T.M.; KRYLOVA, L.I.;  
ZHDANOV, V.V.; ZHEVUN, N.P.; LUSHINS, B.G.

Residual stresses in boilers made of AISI steel. Stan. i instr.  
36 no.8:27-29 Ag 1965. (MIRA 18:9)

KEKALG, L. A.

Cand Med Sci - (diss) "Effect of morshinskaya mineral water from source No 1 in the cultivation of B-2 on the gastric function." Chernovtsy, 1961. 18 pp; (Ministry of Public Health Ukrainian SSR, Chernovtsy Med Inst); 200 copies; price not given; (KL, 6-61 sup, 238)

KEKALO, Ya., polkovnik

Value advanced experience and disseminate it. Komm. Vooruzh. Sil 46 no.9:  
30-35 My '65. (MIRA 18:7)

KEKALO, Ya.K., polkovnik

The Communist Party, creator of the nation's air defense, and  
organizer and inspiration of its combat capacities. Vest.protivovozd.  
obor. no.2:8-12 F '61. (MIRA 14:2)  
(Russia--Air Force)

KEKTOBYEV, K. Kh., MATYUSHENKO, O. A. and ORLINK, A. G.

"The Effect on Inadequate Excitants on the Sensibility of Feripheral Vision,  
Ist. Report: The Effect of the Dose (Intensity and Persistance of Action of the  
Excitant", Arkhiv Biolog. Nauk, Vol. 14, 3rd ed., 1936.

KEKTOBYEV, K. Kh.

"Influence of Inadequate Excitations on the Sensibility of Peripheral Vision.  
1st Report: Measurement of Speed at the Initial Stage of Dark-Adaptation",  
Biul. Eksperim. Biologhii i Meditsini, Vol. 4, No. 4, 1937.

KEKTOBYEV, K. Kh.

"The Action of Inadequate Excitants on the Receptors", Dokl AN SSSR, Vol. 14,  
No. 8, 1937.

1938, p. 44.

"The Influence of Inadequate Excitants on the Sensibility of Achromatic Vision.  
5th Report: The Effect of Muscular work", Biul. Eksperim. Biologii i Meditsini,  
Vol. 5, 4th ed., 1938.



КеАТ КеАТ, К. Кн. and КеАТ, П. А.

"On the Problem of Interoceptive Excitations", Akusherstvo i Ginekologhia,  
No. 5, 1939.

KEKTOBEYEV, K. Kh. and SYROVATKO, F. A.

"The Effect of Inadequate Excitations on the Sensibility of Achromatic Vision.  
6th Report: Action of Interoceptive Excitations", *Biul. eksperin. Biolog. i Meditsini*,  
Vol. 7, 4th ed., 1939.

KEITCHEYEV, K. Kh. and OTRAVKIN, E. P.

"Observation of Ultrasonic air Oscillations Through the Measurement of Visual  
Threshokds", Dokladi Akademii Nauk SSSR, Vol. 31, No. 4, 1941.

*Крикопс Кричапанович*      1875  
KEKCHAYEV, K. Kh., Professor

Laboratory of Perception, Institute of Psychology, Moscow State University imeni M. V. Lomonosov

"Psychophysiology of Camouflage and Reconnaissance" -- a monograph devoted to the analysis of the military camouflage and reconnaissance tactics from the standpoint of psychological and physiological sciences.

Gosudorstvennoye Izdatel'stvo "Sovetskaya Nauka" (State Publishing House "Soviet Science"), Moscow, 1942

Treasure Island 070502