LYUBUSHIN, Aleksandr Alekseyevich, prof.; ROMANENKO, V.P., red.; KARPTUK, L.I., tekhn. red.


(Medicine and religion)
Pharmacological evaluation of *Ligularia macrophylla*


(2pp) The effect of *Ligularia macrophylla* root, given to live frogs, rabbits and dogs and tested with isolated frog heart, gave the therapeutic effects reported by previous investigators but showed no toxicity of the root on heart. The dose in dogs and rabbits was from 1 to 10 cc. of infusion per kg of body wt., injected subcutaneously.

Julian F. Smith
Study of the antidiuretic action of sodium bicarbonate.

L. A. Lyubetski, Farmakol. i Toksikol. 3, No. 6, 64-8 (1940).—Dogs under mild morphine narcosis (0.01 g. per kg. of body wt. given subcutaneously) were given 5% NaHCO₃ soln. intravenously in 2-cc. portions at minutes intervals up to 10 cc., then in 10-cc. portions up to 100 cc. Respiration, cardiovascular activity and blood pressure were increased. These effects were also exerted by EOGH. Because of this action NaHCO₃ is recommended for use against depression of the same functions by EOGH. Because of this action NaHCO₃ is recommended for use against general narcosis and pathic states involving shock.

J. F. Smith
Pharmacology of Eremosparton aphyllum

A. A. Klyuchnikov (Kazakh Republic, Pavlodar, Kazajsk.

Eremosparton aphyllum is a poisonous plant growing in

Kazakhstan. Parts above the roots are toxic in alkaloids.

The ext. (1:10) in Ringer soln. (dose 25 mg kg-1) causes

stiffness, motor nerve stimulation, and intensified reflexes

in frogs. A dose of 100 mg kg-1 kills frogs in 1-2 hrs. In

potassium the central nervous system, though the reflexes

peripheral nervous remain unnoticeable. Isolated frog heart,

perfusion with more dilute 1:100, slows increased width

time without change of rhythm, at 1:200, 1:10 it is reflected...

Micro-chromatropic action, with decreased amplitude, and

cardiac failure in diastole. Intravenous injection of 1

gm in decerebrate dogs dose 1 kg kg-1 slows

function, lowers blood pressure, and increases pulse rate.

In 5 tests with human digits (isolated by the Kocher

method) perfusion with 1:100 caused a prolonged

vasoconstrictor effect. Thus it appears that lowered blood

pressure in dogs is due to selective action on the vasomotor

centers, not to cardiac depression, nor to peripheral action

on the vessel walls.

John F. Smith
LYUBUSHIN, A.A.

Comparative evaluation of toxicity of aqueous and alcohol extracts from hibernated panic grass and from culture of Fusarium Tr. Vesesoluz. obsh. fiziol. no. 1:119-120 1952. (CLML 24:1)

1. Delivered 3 March 1949, Chkalov.
LYUBUSHIN, A.A.

(Aleksander Alekseyevich)

"Some Experimental Data on the Problem of Intravenous Infusion of Sodium Bicarbonate," (Dissertation), Academic degree of Doctor in Medical Sciences, based on his defense, 1 March 1954, in the Council of the Second Moscow State Medical Inst im. Stalin.

Chkalov State Medical Inst.

2 Oct 57
Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 3, p 178 (USSR)

AUTHOR: Lyubushin, A. A.

TITLE: The Mineral Waters of Bugurslan (Bugurslanskiye mineral'nye vody)


ABSTRACT: The mineral waters of the Bugurslan region may be divided into two groups according to the depths at which the aquifers occur. In the first, the waters have a comparatively low mineralization (0.5 to 2.0 g/liter) and are of the sodium-calcium-magnesium-bicarbonate-chlorite type, with large quantities of hydrogen sulfide (200 to 600 mg/liter). The waters of the Bugurslan district belong to this group. The second group consists of deep mineral waters (2000 to 3000 m). The mineralization of these waters, which...
The Mineral Waters of Buguruslan

occur in Devonian strata, reaches 112 to 145 g/liter. The
waters are of the oily sodium-calcium-chloride type. They con-
tain large quantities of bromium and, in places, small quanti-
ties of iodine. They are not radioactive. Analyses were made
on the material from a number of wells, the waters of which are
being considered for utilization. The most suitable waters for
medicinal purposes are of the slightly mineralized hydrogen-
sulfide type.

Card 2/2

S. M. A.
LYUBUSHIN, A.A. (Moskva)

Recurrent leiomyoma of the skin. Arkh. pat. no.10:57-59 '44.
(MIRA 19:10)

1. Patologoanatomicheskaya laboratoriya (zav. A.M. Vakhurkina)
TSentral'noy klinicheskoy rentgeno-radiologicheskoy bol'nitsy
(nachal'nik A.I. Yur'yev) Ministerstva putey soobshcheniya.
LYUBUSHIN, B. A. (Manager) and BARANOVSKIT, I. V. (Head of the Disinfectional Detachment, Rava-Russkaya Inter-Raion Veterinary Laboratory L'vov Oblast').

"Utilization of liquid fuel in the work with Komarov's Disinfectional installation (DUK)."

AUTHOR: Lyubushkin, G., Absolute World Record Holder

TITLE: Above the Absolute World Record (Vyshe absolyutnogo mirovogo rekorda)

PERIODICAL: Kryl'ya Rodiny, 1957, Nr 10, p. 3 (USSR)

ABSTRACT: The author of this short item describes his airplane model, which attained the altitude of 5,103 m and thus established a new world record. This model is equipped with a K-16 engine. The flight of this model was observed by the sports commissars from two airplanes, Yak-18 and An-2. This item is illustrated by a photograph of its author, holding his model.

AVAILABLE: Library of Congress
LYUBUSHKIN, V., kand. tekh. nauk

Schematics of corn grinding and germ separating systems. Nauk.-elev. prom. 28 no. 6:14-17 Ju '62. (NIRA 15/7)

1. Moskovskiy tekhnologicheskiy institut pishchevoy promyshlennosti. (Corn (Maize)) (Grain milling machinery)
LYUBUSHKIN, V., kand. tekhn. nauk

New systems of corn milling. Mekh. - elektroprom. 27, no. 4: 12-15
Ap '61.

(IRA 14:7)

1. Moskovskiy tekhnologicheskiy institut pishchevoy promyshlennosti.
   (Corn milling)
LYUBICHKIN, V. T.


Date: 3 May 1964, Moscow
ZHIGALOV, A.N., kand. ekon. nauk; CHUKHAR'KO, Z.T., kand. ekon. nauk, rezensent; LYUBUSHKIN, V.T., kand. tekhn. nauk, apetared.; MIKS, V.K., red.; KISINA, Ye.I., tekhn. red.

[Utilization of the capital assets of state-owned rural mills]
Ispol'zovanie osnovnykh fondov gosudarstvennykh sel'skokhoziaisstven-nykh mel'nits. Moskva, Pishchepromizdat, 1958. 122 p. (MIRA 11:8) (Flour mills)
LTURUSHKIN, V., kand. tech. nauk

Milling based on collision of grain particles at supersonic speed.
Muk.-elev. prom. 24 no. 7: 21-23 July '58. (MIRA 11:10)

1. Moskovskiy Tekhnologicheskiy institut Pishchevoy Promyshlennosti.
(Grain milling)
LYUBUSHKIN, V.T.; SAKHIYEV, I.S.; ARUTUNOVA, L.S.

Physical properties of corn flakes. Izv. vys. ucheb. zav.; pishch. tekh. no.646–47 '63. (MIRA 17:3)

1. Moskovskiy tekhnologicheskiy institut pishchevoy promyshlennosti, kafedra promyshlennoy pererabotki kukuruzy.
KAZAKOV, Yu. P.; LYKHVIN, V. T.; KAZAKOVA, A. F.


1. Nizhnevodovsky technological institute of food industry, kafedra promyshlennoy pererabotki kukuruzy i kafedra biokhimii i zernovedeniya.
ROZANOV, V. G., kand. tekhn. nauk; LYUBUSHKIN, V. V.

(MIRA 164)

I. Gosudarstvennyy soyuznyy ordena Trudovogo Krasnogo Znameni nauchno-issledovatel'skiy avtomobil'nyy i avtomotornyy institut.

(Automobile trains—Brakes)
LYUBUSHKIN, V.V.; ROZANOV, V.G., kand.tekh.nauk

Improving a braking system with pneumatic driving. Avt.prom. 20
no.9:26-28 S '63.

(MIRA 16:9)

1. Gosudarstvenny soyuzy ordena Trudovogo Krasnogo
Znameni nauchno-issledovatel'skiy avtomobil'nyy i avtomotornyy
institut.

(Motor vehicles—Brakes)
PASHKANG, K.V.; VASIL'YEVA, I.V.; LYUBUSHKINA, S.G.; LAPKINA, N.A.

Landform study of a state farm territory for agricultural purposes. West. Mosk. un. Ser. 5: Geog. 17 no. 4; 6-14 Jl-Ag '62.

(Kaluga Province—Landforms)
RYABCHIKOV, A.M.; LYUBUSHKINA, S.G.

LYUBUSHKINA, S.G.

The Bryansk-Zhidra "poles'e." Vest. Mosk. un. Ser.5: Geog. 16
no. 3:69-71 My-Je '61.
(MIRA 14:5)
(Bolva Valley—Landforms) (Zhidra Valley—Landforms)
GVOZDETSKIY, N.A., prof.; ZHUCHKOVA, V.K., dots.; ALISOV, B.P., prof.;
VASIL'Yeva, I.V., dots.; VARLAMOVA, M.N., tekhnik-kartograf;
DOLGOVA, L.S., dots.; ZVORYKIN, K.V., st. nauchnyy sotr.;
ZEMTSOVA, A.I., assistent; IVANOVA, T.N.; LEEBEDEV, N.P., st.
prepodavatel'; LYUBUSHKINA, S.G.; NESMEYANOVA, G.Ya., mlad.
auchnyy sotr.; PASHKANG, K.V., st. prepod.; POLTARAUS, B.V.,
dots.; RYCHAGOVO, G.I., st. prepod.; SPIRIDONOVA, A.I., dots.;
SMIRNOVA, Yu.D., mlad. nauchnyy sotr.; SOLOTSEV, N.A., dots.;
FEDOROVA, L.S., mlad. nauchnyy sotr.; TSESEL'CHUK, Yu.N.,
mlad. nauchnyy sotr.; SHOST'INA, A.A., mlad. nauchnyy sotr.;
Prinimali uchastiye: BELOUSAHOVA, N.I.; GOLOVIN, N.N.;
KALASHNIKOVA, V.I.; KOBLOVA, L.V.; KARTASHKOVA, T.N.;
PANKOVA, L.I.; UHOKHO, V.; FETROVA, K.A., red.; LOPATINA,
L.I., red.; YERMANAKOV, M.S., tekhn. red.

[Physico-geographical regionalisation of the non-Chernozem
center] Fiziko-geograficheskoe raionirovnie nechernozemnogo
tsentra. Pod red. N.A. Gvozdetskogo i V.K. Zhuchkovoi. Moskva,
Izd-vo Mosk. univ., 1963. 450 p. (MIRA 16:5)
(Physical geography)
VASIL'YEVA, I.V.; LKPINA, N.A.; LYUBUSHKINA, S.G.; PASHKANG, K.V.; RYCHAGOV, G.I.

Leading role of the lithogenic basis in landform formation. Vest. Mosk. un. Ser. 5: Geog. 18 no.4:44-47 Jl-Ag'63. (MIRA 17:2)

1. Geografo-biologicheskiiy fakul'tet Moskovskogo gosudarstvennogo pedagogicheskogo instituta imeni Lenina.
LYUBEZHINA, V.M.

Control of spring and summer tick-borne encephalitis in the Gorny Altai. Trudy TomNIIVS 11:62-65 '60. (MIRA 16:2)

1. Gorno-altayskaya oblastnaya sanitarno-epidemiologicheskaya stantsiya. (ENCEPHALITIS)
   (ALTAI MOUNTAINS—TICKS AS CARRIERS OF DISEASE)
LIUBUSHKINA, V.M.

epid. i Immun. 29 no.11;116 N '58. (MIRA 12:1)

I. Iz Gornoaltayskoy oblastnoy sanitarno-epidemiologicheskoj stantsii, 
(BRUELLOSIS, epidemiology, 
in Russia (Rus))
TEL'FURKOVSKY, V.B.; DMITRENKO, T.A.; ZELENIN, I.Ya.; KOSTYAKOVA, G.K.;
RAKHIMANIN, B.P.; BORISOV, Yu.S., otv. red.; KASHCHINA, N.Ya., red.;
FEVDOVICH, A.G., red.; LYUBUSHKINA, Ye., red.; YEGOROVA, I., tekhn.
red.

[In the land of wide-open spaces and heroic deeds; youth in the
virgin lands] V kraiu prostorov i podvigov; molodezh na tsoline.
Sbornik dokumentov. Moskva, Izd-vo TsK VLKSM "Molodaia gardiia."
(Agricultural laborers)
AUTHORS: Chechernikov, V. I., Lyubutin, I. S.

TITLE: The temperature dependence of the magnetic susceptibility and of resonance absorption in Cr$_2$O$_3$, MnO and NiO


TEXT: A study was made of the temperature dependence of the magnetic susceptibility (100 - 1300\(^0\)K) and of the resonance absorption (3-cm range) in the polycrystalline antiferromagnetic compounds Cr$_2$O$_3$, MnO, and NiO. The samples made available by R. Z. Levitin were of 1 mm diameter and 3 mm high. Measurements were made in an argon atmosphere. The magnetic susceptibility of Cr$_2$O$_3$ has a sharp maximum at 314\(^0\)K; that of NiO a broad maximum at 640 \(^0\)K. The lower the temperature lies under the antiferromagnetic Curie point (\(\Theta_{af} = 314 \(^0\)K) the stronger is the dependence of the susceptibility of Cr$_2$O$_3$ on the magnetic field. For \(T > \Theta_{af}\) the susceptibility decreases with increasing temperature; this dependence is less Card 1/3
The temperature dependence of the... pronounced in the ferromagnetic region. The susceptibility of NiO decreases with increasing field strength. This is explained as due to the existence of ferromagnetic impurities. The susceptibility is independent of the field strength only above 1040 °K. It is assumed that $\Theta_{af}$ of Cr₂O₃ is independent of the magnetic field strength and that $\Theta_{af}$ of NiO becomes lower with increasing field strength. Study of the temperature dependence of the susceptibility in the paramagnetic region shows that the Curie-Weiss law is valid. The paramagnetic Curie point, the Curie-Weiss constant and the magnetic moment (Table) are determined. For temperatures below $\Theta_{af}$ the resonance absorption of Cr₂O₃ falls steeply to a constant value. The decrease of the resonance absorption of MnO begins already in the paramagnetic region. The half-width of the resonance absorption in Cr₂O₃ remains constant in the paramagnetic region; it rises steeply at $\Theta_{af}$. MnO shows similar behavior. The following values were obtained for the $g$-factors: $g = 1.87$ (Cr₂O₃) and $g = 1.90$ (MnO). There are 4 figures and 1 table.
The temperature dependence of the ...  
ASSOCIATION: Kafedra magnetizma (Department of Magnetism)  
SUBMITTED: May 8, 1962  

Table. Paramagnetic Curie point ($\theta_p$, °K); $\theta$, °K; Curie-Weiss constant; magnetic moment.

<table>
<thead>
<tr>
<th></th>
<th>$\theta_p$, K</th>
<th>$\theta$, K</th>
<th>C, mrem</th>
<th>$C_p, \mu_B$</th>
</tr>
</thead>
<tbody>
<tr>
<td>CrO$_{4}$</td>
<td>-450</td>
<td>314</td>
<td>3.4</td>
<td>5.2</td>
</tr>
<tr>
<td>NiO</td>
<td>-2270</td>
<td>640</td>
<td>2.82</td>
<td>4.75</td>
</tr>
<tr>
<td>MnO</td>
<td>-227</td>
<td>122*</td>
<td>3.06</td>
<td>4.98</td>
</tr>
</tbody>
</table>

Card 3/3
AUTHOR: Belov, K. P.; Lgubutin, I. S.

TITLE: Mossbauer effect at Sn-114 nuclei introduced into yttrium iron garnet lattice


TOPIC TAGS: Mossbauer effect, yttrium iron garnet, effective field, tin, quadrupole splitting, chemical shift

ABSTRACT: The effect was measured in yttrium iron garnet Ca$_{0.3}$Y$_{2.7}$Sn$_{0.3}$Fe$_{4.7}$O$_{12}$ in which the Fe$^{3+}$ ions were replaced by Sn$^{4+}$ ions. The resistance of the YIG was on the order of 10$^{10}$ to 10$^{12}$ ohm cm, so that it could be regarded as a dielectric. The source of gamma radiation was Sn$^{119}$ in powdered Mg$_2$Sn deposited on a copper substrate; the thickness of the radioactive layer was 6.5 mg/cm$^2$. The absorber was prepared by depositing 5% mg/cm$^2$ powdered YIG prepared from SnO$_2$ enriched to 87% of Sn$^{119}$ on aluminum foil. The source was at the temperature of liquid nitrogen. The absorber was set in motion relative to the source by means of a cam.
mechanism. Both at room and at liquid-nitrogen temperature the absorption spectrum consisted of six components. In addition, a small peak is observed in the center of the spectrum, possibly due either to a small amount of non-reacting SnO₂ or to formation of a CaSnO₃ phase with perovskite structure. The values of the effective field $H_{ef}$, the quadrupole splitting $e$, and the chemical shift $δ$ for 80 and 295K are:

<table>
<thead>
<tr>
<th></th>
<th>$T = 80^0K$</th>
<th>$T = 295^0K$</th>
</tr>
</thead>
<tbody>
<tr>
<td>$H_{ef}$ kOe</td>
<td>210.5 ± 2</td>
<td>152 ± 3</td>
</tr>
<tr>
<td>$e$, mm/sec</td>
<td>0.17 ± 0.05</td>
<td>0.0 ± 0.1</td>
</tr>
<tr>
<td>$δ$, mm/sec</td>
<td>-1.9 ± 0.1</td>
<td>-1.9 ± 0.1</td>
</tr>
</tbody>
</table>

It follows that the magnetic fields at the tin nuclei in the investigated iron garnet reach large values. They are interpreted as being due to polarization of the electronic core of the tin atom by the exchange fields of the 3d-electrons of the iron atoms. 

We are grateful to Academician I. K. Kikoin and to V. I. Niko- layev for furnishing the source and to R. M. Kuz'min for preparing the Mg₂Sn compound. We are also deeply grateful to V. A. Bryukhanov and N. N. Delyagin for
technical help and numerous valuable consultations." Orig. art. has: 1 figure.

ASSOCIATION: Institut kristallografii Akademii nauk SSSR (Institute of Crystallography, Academy of Sciences, SSSR)

<table>
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<th>13Feb65</th>
<th>ENCL:</th>
<th>00</th>
<th>SUB CODE:</th>
<th>SS</th>
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<tr>
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<td>004</td>
<td>sec/deg</td>
<td>OTHER:</td>
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</tbody>
</table>

Card 3/3
ABSTRACT: This is a continuation of earlier work by the authors (ZhETF, Pisma v redaktsiyu, v. 1, no. 1, 26, 1965), in which it was discovered that the nuclei of non-magnetic tin located in an iron garnet are acted upon by a strong internal effective magnetic field (211 koe), attributed to polarization of the electron core of the tin atoms by the exchange fields of the iron atom 3d-electrons. The present study dealt with the Mössbauer effect of Sn^{119} introduced into the lattice of substituted yttrium iron garnets, to check on the relation between the effective field at the tin nuclei and the magnetic moment of the sublattice. The experimental conditions were the same as in the earlier investigation. It was found that the nuclei of tin ions located in the octahedral ferrite sublattice are acted upon by an effective field whose magnitude
is related to the tin concentration \((x)\). At low values of \(x \leq 0.7\) the effective field was due to simultaneous action of a-a and a-d exchange interactions, but at larger values \(x \geq 0.7\) the effective field was due mainly to the a-d interaction. Authors thank Professor L. M. Belyayev for continuous interest in the work. Orig. art. has: 2 figures and 1 table. 44/55

SUB CODE: 20/ SUBM DATE: 06Apr65/ ORIG REF: 003/ OTH REF: 002
TITLE: Anomalies of the coercive force and of the residual magnetization in substituted rare-earth iron garnets


TOPIC TAGS: gadolinium compound, yttrium compound, garnet, ferrite, coercive force, magnetization

ABSTRACT: The purpose of the investigation was to trace the variation in the character of the anomalies of coercive force at the compensation point in the gadolinium iron garnets in which the magnetic iron ions were replaced by tetravalent ions of tin, and the gadolinium ions were replaced by divalent ions of calcium, in accordance with the stoichiometric formula Ca$_2$Gd$_{3-x}$Sn$_2$Fe$_{5-x}$O$_{12}$ ($0 \leq x \leq 1.2$), and yttrium iron garnets similarly substituted in accordance with the formula Ca$_2$Y$_{3-x}$Sn$_2$Fe$_{5-x}$O$_{12}$ ($0 \leq x \leq 1.2$). The measurements were made with samples measuring 50 x 4 mm by a ballistic method. All the ferrites exhibit an anomalous growth of the coercive force approaching the compensation temperature. It is also seen that the anomaly of the coercive force decreases rapidly with increasing $x$. At the same time, the temperature interval in which the anomalous growth of the
coercive force appears broadens. These ferrites exhibit a maximum of residual magnetization in the low temperature region. Substituted yttrium iron garnets show no low-temperature anomalies of the residual magnetization, but exhibit at temperatures 80--90K small anomalies of the coercive force. The results are attributed to the dilution of the rare-earth sublattice by the calcium ions and of the iron sublattice by the tin ions. "The author is grateful to K. P. Belov for valuable advice and a discussion of the results." Orig. art. has: 6 figures.

ASSOCIATION: Institut kristallografii AN SSSR, Moscow (Institute of Crystallography, AN SSSR)

SUBMITTED: 30Nov64
HR REF SOV: 004
ENCL: 00
OTHER: 002
SUB CODE: SS
ABSTRACT: The effect of temperature on spontaneous magnetization was studied in two systems of substituted garnet ferrites: \( \text{Y}_{3-x} \text{Ca}_x \text{Fe}_{5+y} \text{Sn}_y \text{O}_{12} \) and \( \text{Gd}_{3-x} \text{Ca}_x \text{Fe}_{5+y} \text{Sn}_y \text{O}_{12} \). The two systems were synthesized using conventional techniques. The \( \text{Fe}^{3+} \) ions were replaced with nonmagnetic \( \text{Sn}^{4+} \) ions and to preserve neutrality the \( \text{Y}^{3+} \) and \( \text{Gd}^{3+} \) ions were replaced with \( \text{Ca}^{2+} \) ions. The variation in spontaneous magnetization of the \( C \) sub-lattices was measured. X-ray analysis showed that all compositions had a garnet structure. Magnetization was measured using ballistic methods in fields up to 2000 oersteds. The value of \( \sigma_T \) was measured by
extrapolating the linear part of the isothermal curve to $H = 0$. Measurements showed that a field of 2000 oersteds was sufficient to saturate the samples up to $x = 1.2$. Curie points were determined from the point where the tangent to the $\sigma_x(T)$ curve at the point of inflexion intersects the $x$-axis. It was established that all ferrites of the Gd system have compensation points. The difference between the Curie point and the compensation point reaches a maximum value when $x \approx 0.5$. Orig. art. has: 6 figures, 1 table, 2 formulas.

ASSOCIATION: Moskovskiy Gosudarstvennyy universitet Im. M. V. Lomonosova (Moscow State University)

SUBMITTED: 17Jul64          ENCL: 00          SUB CODE: EM, SS

NO. REF. SOV: 003          OTHER: 005
AUTHOR: Lyubutin, I. S.

ORG: Institute of Crystallography, AN SSSR, Moscow (Institut kristallografi AN SSSR)

TITLE: Effective magnetic fields at Sn^{119} nuclei in iron garnets having compensation points

SOURCE: Fizika tverdogo tela, v. 8, no. 3, 1966, 643-646

ABSTRACT: This is a continuation of earlier investigations (ZhETF v. 49, 747, 1965; ZhETF (pis'ma v redaktsiyu) v. 1, 26, 1965) of the effective magnetic fields acting on nuclei of nonmagnetic tin atoms in substituted yttrium iron garnets. The present study is devoted to the effective magnetic fields at the Sn^{119} nuclei in substituted gadolinium iron garnets Gd_{(3-x)}Ca_{x}Fe_{5-x}Sn_{x}O_{12}, which have compensation points. The main purpose of the investigation was to see whether the gadolinium sublattice exerts an influence on the effective fields at Sn ions situated in the octahedral ferrite sublattice, and in particular whether the effective field vanishes on passing through the compensation point. The gadolinium iron garnets...
tested were those described in an earlier article (Kristallografiya v. 10, 351, 1965), and samples with \( x = 0.1, 0.9, \) and 0.3 were chosen for the measurements. The measurements were made with a \( \text{Ne} \text{Sn} \) source kept at liquid-nitrogen temperature. The absorbers of the investigated ferrites contained tin enriched with \( \text{Sn}^{119} \) to 87%. The absorption spectrum was found to split into six well resolved components, corresponding to the Zeeman interaction between the magnetic moment of the \( \text{Sn}^{119} \) nucleus and the magnetic field. The values of the effective fields acting on the nonmagnetic tin nuclei were found to be \( 163 \pm 3, 155 \pm 3, \) and \( 30 \pm 5 \) koe for the samples with \( x = 0.1, 0.3, \) and 0.9, respectively. These results are the same as obtained earlier for the yttrium iron garnets, so that the existence of a compensation point has no influence on the value of the effective field. The author thanks K. P. Belov for guidance and a useful discussion of the results and L. M. Belyayev for interest in the work. Orig. art. has: 3 figures.

SUB CODE: 20/ SUBM DATE: 31Mar65/ ORIG REF: 003/ OTH REF: 001
BYSTROV, Boris Petrovich, aspirant; LYUBUTIN, Oleg Savelyevich, inzh.


MIRA 18:12

1. Kafedra izmeritel'noy tekhniki Novocherkasskogo politekhnicheskogo instituta (for Bystrov).
TITLE: Investigation of the frequency modulation of quantum oscillations of the magnetic susceptibility of bismuth

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 47, no. 5, 1964, 1711-1716

TOPIC TAGS: bismuth, magnetic susceptibility, quantum oscillation, single crystal

ABSTRACT: The periodic variation of the oscillation frequency of the magnetic susceptibility of bismuth at very low temperatures as a function of the reciprocal magnetic field, observed earlier by one of the authors (Brandt with T. F. Dolgolenko and N. N. Stupochenko, ZhETF v. 45, 1319, 1963), was further investigated at three principal orientations of bismuth single crystals relative to the
suspension axis of the torsion balance used. The temperature was 0.2°C, and the samples and procedure were the same as used in the previous study. The purpose was to investigate this effect in greater detail simultaneously on the hole and electron equal-energy surfaces, thus clarifying the nature of the effect. The tests have shown that variation in the frequency of the hole oscillations is opposite in phase to the variation of the frequency of the electron oscillations. For the electronic high frequency oscillations the effect is much weaker than for the hole oscillations. The periods of the frequency modulation correspond to the periods of the fundamental low-frequency oscillations observed at a given orientation of the magnetic field. Extrapolation into the region of larger fields results in an increase in the frequency of the electronic oscillations and a decrease in the frequency of the hole oscillations in the last period of the low-frequency oscillations. The model proposed by C. G. Grenier et al. (Phys. Rev. v. 132, 1, 1963) for the electron transitions between closed equal-energy sur-
faces, occurring with variation of the magnetic field, is found to agree with the observed singularities in the frequency modulation. "In conclusion we thank A. L. Shal'nikov for interest in the work."

Orig. art. has: 4 figures.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet (Moscow State University)

SUBMITTED: 04Jun64

SUB CODE: SS, EM

NR REF SOV: 002

OTHER: 002

Card: 3/3
VESHEV, A.V.; LYUBTSAVA, T.N.; YAKOVLEV, A.V.

Determining the effective resistance of the medium from measurements of low-frequency electric fields. Uch. zap. LGU no.324:250-294 '64. (MIRA 184)
LIUBUTSKAYA, L. V. (Moskva)

Stability of a plane parallel flow of a viscous liquid under basic constant tangential strain and inclined strong weight. Zhur. vych. mat. i mat. fiz. 1 no. 6; 1139-1143 N-D '61. (MIRA 16:7)
IYUBVIN, V. I.

Obrabotka detalei reduksirovaniem; analiz protsessa, raschet i konstruirovanie oborudovaniia. Moscow, Mosgiz, 1949. 146 p.; plates, diagrams.

Bibliography: p. (144)

(Machining parts by reduction; analysis of the process, calculations and designing of equipment.)

DLC: T5253.L5

DD: Manufacturing and Mechanical Engineering in the Soviet Union.

TITLE: A Rotation-Opetting- and Pressing Machine PK-1 for the Working of Profiled Pressed Parts. (Rotatsionnyy obzhimnoy stanok PK-1 dla obrabotki profil'nykh detalей, Russian)

ABSTRACT: The method of rotation profile pressing when working workpieces with variable round profiles warrants a considerable saving of material, high efficiency, and greater durability. This method was worked out by the Scientific Research Institute for the Construction Machines for the Textile Industry. Among several others, also the author participated in constructing the P.K.I. machine. It operates in an automatic cycle and serves for the cold treatment of spinning spindles, tapered rollers, tapered pins, etc. As semifinished product round iron of Ø 5 - 20 m/m and a length of up to 2.5 m is used. The machine consists of the following main parts: (illustration 2) the working head (A), the profiling mechanism (B), the shifting mechanism for the drum (B), the sledge (Γ), the feeding device (Δ), the lunette (E), the electric oil pump (J), and the control mechanism. These parts and their

operation are described in detail. By improved construction and by using better material this method intends to eliminate all faults occurring with other machines, such as low degree of durability, frequent fractures, etc. The saving of material is said to be 40%.

ASSOCIATION: Not given
PRESENTED BY: Not given
SUBMITTED: Not given
AVAILABLE: Library of Congress
Card 2/2
Lyubvin, Vladimir Ivanovich

Obrabotka detalей rotatsionnym obzhatiyem (Rotary-swaging of Machine Parts)
Moscow, Mashgiz, 1959. 198 p. Errata slip inserted. 4,500 copies printed.

Reviewer: A.I. Zimin, Doctor of Technical Sciences, Professor; Ed. of Publishing
House: G.M. Crushevskaya; Tech. Ed.: B.I. Model'; Managing Ed. for Literature
on Heavy Machine Building (Mashgiz): S.Ya. Golovin, Engineer.

PURPOSE: This book is intended for engineers and technicians, designers, and
technologists concerned with press-forming of metals.

COVERAGE: This book covers the theoretical fundamentals of rotary-swaging, the
deformation of metal with various types of reducing mechanisms, the scheme of
designing rotary-swaging machinery and the determination of optimum regimes for
their operation. The author gives special attention to the design of cams and
tools (dies and hammers), to the description of construction of rotary-swaging machinery,
their working principles, set-ups and adjustments. No personalities are
mentioned. There are 12 references: 11 Soviet and 1 Czech.
Rotary-swaging of Machine Parts

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3. Changing the blank shape in swaging
4. The character of transverse blank reduction

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2. Action of die on the blank at the beginning of the grip
3. Effect of friction forces on grip conditions
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2. Straightening parts and their heat treatment following rotary-swaging
3. Effect of cold deformation on structural changes and the mechanical properties of metal

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AVAILABLE: Library of Congress 00/gnp
Card 5/5 8-12-59
LYUBVIN, V.I., kand.tekhn.nauk; KOSENKO, I.N., kand.tekhn.nauk

Automatic rotary swaging machine for valve stems of engines. Trakt. i sel'khoz mash, 33 no.1:37-39 Ja '63. (MIAA 1:3) (Engines) (Valves)
LYUBYANITSKIY, Grigoriy Davidevich; FNEGEl't, D.P., red.; izd-va,
GVINTS, V.I., tekhn. red.

[Ultrasonic cleaning of parts] Tekhnologiya ul'trazvukovoi
ochistki detalей. Leningrad, 1963. 16 p. (Leningradskii
dom nauchno-tekhnicheskoi propagandy. Obmen peredovym opyтом
Seria: Elektricheskie metody obrabotki materialov, no.6)
(MIAA 16:6)

(Ultrasonic waves--Industrial applications)
TITLE: Ferromagnetic defectoscope for steel tubes in applied circular magnetic fields

SOURCE: Defektoskopija, no. 6, 1965, 3-8

TOPIC TAGS: steel, ferromagnetic material, magnetic field, defectoscope, measuring instrument

ABSTRACT: A method is described for locating defects in ferromagnetic tubes made of hot-rolled and cold-drawn steels. The technique consists of measuring both surface and internal defects simultaneously by an externally placed ferromagnetic probe counter. The method is applied under both static and dynamic conditions with equal success. In the dynamic case, the probe is rotated around the tube at the rate of 1000 rev/min. Curves are obtained depicting the probe count versus the depth of surface defects and the depth of defects on the internal surface of the tube. A large amount of scatter observed in the data is caused primarily by the varied configurations of the defects. For a 4-mm wall thickness, surface defects
appear to start at depths of 0.1—0.2 mm, in the internal surface defects, at 0.2—0.3 mm. The authors express their gratitude to R. J. Yamas for his valuable advice in evaluating this work. Orig. art. has: 6 figures.

SUB CODE: 14/ SUBM DATE: 16Oct65/ ORIG REF: 003
AUTHOR: Oshchepkov, P. K.; Kloyev, V. V.; Begtirev, A. P.; Semenov, O. S.; Lyubynskiy, Ye. A.

ORG: Scientific Research Institute of Introscopy (NII introskopii)

TITLE: VTDN-1 installation for monitoring surface defects in ferromagnetic pipes

SOURCE: Defektoskopiya, no. 6, 1966, 35-42

TOPIC TAGS: pipe, ferromagnetic material, eddy current, nondestructive test/ VTDN-1 flaw detector

ABSTRACT: The authors describe an eddy-current flaw detector with contact-type pickups (type VTDN-1), intended to disclose external cracks, beads, films, deep scratches, hairlines and other defects on the outer surface of hot-rolled ferromagnetic pipes. The secondary-field indicator is a resonant pickup which is placed in contact with the pipe and which consists of a pair of coils. During the test, the pickup rotates around the linearly-moving pipe, thereby scanning the investigated surface along a helical line. The signals from the pickup are detected with a resonant amplifier. The operating principle is based on eddy currents induced in the pipe and an automatic comparison of two adjacent sections of the surface by two pipes. The apparatus consists of mechanical equipment for rotating the pickups, an oscillator block, pickup blocks, an interconnection block, amplifier blocks, an induction block, a blocking and synchronization block, a tuning indicator, and a power supply.
The instrument was tested at the Pervouralskij Novotrubny plant and was found suitable for nondestructive quality control of the outer surface of hot-rolled tubes. It is indicated that by slight modification it can be used for continuous monitoring of pipes as they are produced. Orig. art. has: 3 figures.

SUB CODE: 14/ SUBM DATE: 07Feb66
AUTHOR: Lyuchanskiy, E.R.

TITLE: The behavior of cerium-144 in rats after inhaling it

SOURCE: Lebedinskiy, A.V. and loskalev, Yu.I., eds. biologcheskoye deystviye radiatsii i voprosy raspredeleniya radioaktivnykh izotopov; sbornik rabot. Moscow, Gosatomizdat, 1961, 111-118

TEXT: Due to the shortage of works on the behavior of cerium-144 in the body when inhaled, the author made a study of the behavior of cerium-144 hydrochlorate in rats after entering the body via the respiratory tract. The method used was dynamic inhalation, which maintained a steady dispersion of the aerosols in the inhalation chamber. The chamber used was one designed by V.S. V'erov. A detailed description of this chamber is given. The aerosol concentration ranged from 0.217 to 0.258 μc/l, and inhalation lasted 20 minutes. It was found that 48.7% of the inhaled cerium was retained

Card 1/3
The behavior of cerium-144...

in the rats. Primary deposition of cerium in the lungs was 19.4% of the inhaled, or 41.6% of the retained, amount. Within 10 days about 50% was resorbed from the lungs, while 30.35% of the original content was excreted by the ciliated cells. By the 65th day only 0.91% of the inhaled, or 4.7% of the original, activity was noted in the lungs. During the experiment the cerium concentration was higher in the lungs than in the liver and the skeleton. The rate of resorption from the lungs was higher in the first 30 minutes from the start of inhalation. The main quantities of the resorbed fraction of cerium-144 are deposited in the skeleton and the liver. Its distribution approaches that which occurs with subcutaneous introduction of cerium-144. The isotope is excreted relatively rapidly from the soft tissues. For 65 days a steady accumulation of cerium-144 was noted in the skeleton. Over a period of 16 days 0.4% of the inhaled quantity was excreted with the urine and 0.5% with the stools. There are 1 figure, 3 tables and 15 references: 12 Soviet-bloc and 3 non-Soviet-bloc. The references to the English-language publications read as follows: D. Hamilton, Radiology, 49
the behavior of cerium-144...
LYUCHENKO, J. D.

LYUCHEVSKII, V.P.

Technical production standard is improving. TSetant 36 no.3:20
My-6e '64.

(MIRA 17:11,
The sensitivity of ultrasonic control methods for welding seams of small-diameter tubes (51 mm x 2.5 mm) was investigated. A UZD-7N ultrasonic crack detector (Fig. 1, photograph) was used. The pulse-echo method and an acoustic frequency of 2.5 MHz were applied in the tests. The sound waves were sent in such a way (Fig. 2, diagram) into the tube, as to make them strike the welding seam at an angle of 90°. The maximum heights of the echo pulses thus come to lie in the middle of the scope. Tube specimens having visible defects in the welding seams as well as specimens which had already been subjected to hydraulic tests were investigated. To evaluate the defects, the oscillograms obtained were cut in pieces after ultrasonic control, and then investigated microscopically. It was found that ultrasonic control is insensitive to defects on the specimen surface, but...
Detection of Defects in Welding Seams of Small-diameter Tubes

that it is very sensitive to deep-going surface defects. The quality of the welding seam can be estimated from the size of the echo reflected from the seam and from the size of the final echo. The type and the size of the defect however, can only be estimated in a first approximation by evaluating both echos. Therefore, a special apparatus must be designed in order to render possible the selection of electric pulses (at the amplifier) with respect to time. There are 4 figures and 1 Soviet reference.

ASSOCIATION Dnepropetrovskiy truboprikatnyy zavod (Dnepropetrovsk Tube-rolling Mill)
TITLE: Production of very high magnetic fields by explosives


ABSTRACT: Experiments with the MK-1 and MK-2 explosion devices for the production of very high magnetic field pulses are described. The MK-1 device, which is based on the implosion of an axial flux within a metal shell, essentially resembles the arrangement described by Fowler and others (J. Appl. Phys. 31, 1965, 588). The MK-2, which works on the principle of the expulsion of the field from the solenoid and the subsequent compression of the field by the walls of the coaxial liner, is described here for the first time. Field intensities of $1 \times 10^5$ oe were obtained in experiments with an MK-1 using aluminum liners about 100 mm in diameter. In a subsequent experiment with a stainless steel liner with a copper plated inner surface, a field intensity of
25 x 10^5 ge was achieved by imploding the liner to a 4-mm diameter. A field intensity of 5 x 10^6 ge in a volume of 100 cm^3 was produced by a copper liner 300-mm in diameter, using the MK-2 as the source of the initial field. The MK-2 has a central conductive cylinder enclosed in a coaxial helical solenoid. On one end of the solenoid is a solid cup. A hole in the bottom of the cup holds the end of the central cylinder (see Fig. 1). The central cylinder is filled with an explosive which is ignited from the end opposite that holding the cup. The solenoid cylinder system forms the circuit through which a battery of capacitances is discharged. At the peak value of the discharge current, the expanding conical flare of the cylinder created by the propagating explosion touches the end of the solenoid. The explosion's further development is equivalent to moving a cone into the solenoid and shorting its turns until the cone reaches the cup. At this moment a coaxial is formed whose length and inductance grow smaller as the detonation propagates further along the cylinder. The process is accompanied by a corresponding increase in current and field intensity resulting from compression of the flux. Currents of 5 x 10^7 amp (occasionally up to 1 x 10^8 amp) at an inductance value of 0.01 μH were obtained, and field intensities of 1 to
1.5 \times 10^6 \, \text{oe} \, \text{were recorded within a volume of several liters. An energy of 1 to 2 \times 10^7 \, \text{J} \, \text{was stored in the field, which amounts to about 10 to 20\% of the energy released during the propagation of the explosion within the length of the cup. A receiver of electromagnetic energy was connected to the MK-2 directly or via a transformer, depending on whether the receiver was of low or high inductance. About 50\% of the explosive energy was transferred to the receiver by the latter method, which also permits a spatial separation of the sender and makes possible multi-stage arrangements. In the first stage, the initial field is created by a permanent magnet. The second and the subsequent stages amplify the field received from the preceding stage. Energy transfer was also accomplished by breaking the current-carrying circuit by means of an additional explosive charge and using the breaking surge for the transfer. More than 50\% of MK-2 output was transferred by this method. A special MK device has been created for iron-free air core betatrons as described by Pavlovskiy and others (DAN, 160, no. 1, 1965, 66), and experiments have been carried out with electromagnetic accelerators of the coaxial type. Orig. art. has: 3 figures.}

1. Tsennyye naukovo tekhnicheskiye osnoveniya energeticheskoy promyshlennosti, avtomaticheskoy respublikanskoetdeleniya.
BURAKOVKII, V.I., YEVTIEIEV, Yu.V., LUKDR, N.N.

Congenital stenosis of the aortic orifice; preliminary report.
Grud'khir., n.1:56-61 Ju-Feb. (MLA it:7)

1. Iz oddeleniya vrodenykh porokov serdtsa (zav.-kand. med. nauk. V.I.Burakovskiy) Institutа serdechno-sosudistoy khirurgii
(dir.-prof. S.A.Kolesnikov, nachnyy rukovoditel' - akademik
A.N.Bakulev) AM: SSSR.

(AORTA--ADNORMITIES AND DEFORMITIES)
(AORTA--SURGERY)
KOLESNIKOV, S. A.; BURAKOVSKY, V. I.; MURAV'YEV, M. V.; ROMASHOV, F. N.;
LYUDE, M. N.


(MIRA 15:4)

1. Iz Instituta serdechno-sosudistoy khirurgii (dir. - prof. S. A. Kolesnikov, nauchnyy rukovoditel' - akad. A. N. Bakulev)
AMN SSSR.

(HEART—ABNORMALITIES AND DEFORMITIES)
LYUDEZHAH, A.G.


1. Iz kafedry detskoy khirurgii (zav. - prof. M.D.Kovalovich) Rostovskogo-na-Donu meditsinskogo instituta.
LYUBERS, G. [L'vkers, G.]

Experiments with neutrino. Uspe. fiz. nauk 68 no.1:173-178
My '59. (MIRA L2:5)

(Particles, Elementary)
SOCHESKOV, V.G.; VOLKOV, O.A.; LIDUDIMOV, L.N.; MARTINOVA, L.T.; 
SHEVAKH, N.V.; PANOV, A.I., red.izd-va; PÉN'KOVA, S.A., 
tekhn.red.

Methods of polarographic analysis of raw minerals; results of 
a seminar conducted in 1956, in Sverdlovsk. Metody poliarografi-
cheskogo analiza mineral'nogo syr'ia; itogi seminar, provedennogo 
v 1956 g. v Sverdlovsk. Moskva, Gos.nauchno-tekhn.izd-va lit-ry 
(MIRA 13:12)

2. Vsesoyuznyy institut mineral'nogo syr'ya (for Socheskova, 
Volkov, Martynova, Shmakova). 
(Mines and mineral resources) (Polarography)
KOTEL'NIKOV, S.B.; LYUKIMSON, M.I.; AMITINA, N.I.

Pilot plant for the decontamination of waste waters from the arsenic-soda sulfur purification. Koks i khim. no.3:42-45 '62. (MIRA 17:2)

1. Zhdanovskiy koksokhimicheskiy zavod.
SAZHAROV, I.Ya., kandidat fiziko-technicheskikh nauk; BYUSIN, I.I., inzhener.

Experimental investigation of vibrations in a large generator.
Vest. electroprom. 27 ... 22 1956.

1. Nauchno-isledovatel'skiy institut ministerstva elekroteknicheskoy promyshlennosti.

Turbo generators--Vibration.
AUTHOR: Sakharov, I. S., Candidate Phys.Math.Sci., and Lyudin, I. L.

TITLE: Determination of the dynamic stiffness of the rotor supports of a turbo-generator. (Opryshchenie dinamicheskoy cheshkosti chorny rotor turbo-generatora.)

PERIODICAL: "Vestnik Elektropromyshlennosti" (Journal of the Electrical Industry), 1957, Vol. 28, No. 5, pp. 31 - 34, (U.S.S.R.)

ABSTRACT: The stiffness of rotor supports influences the critical speed of an alternator, and if the support is considered as an oscillating system, it is necessary to know its dynamic characteristics. These cannot be calculated and accordingly experimental determination of the dynamic stiffness of the supports is required. This article gives the results of such a determination.

The oscillations of the bearings were set up by means of an eccentric vibrator with an amplitude force value of 5000 kg at a speed of 5000 r.p.m. The vibrator was driven by a 9 kW d.c. motor. The vibrator was rigidly fixed to a special steel liner which replaced the usual bearing liners at the exciter and the turbine ends. Oscillations of the support in three directions were measured by a vibrometer type UV-2.

To determine the dynamic stiffness of the support of a motor from the exciter end in the vertical direction...
Determination of the dynamic stiffness of the rotor supports of a turbo-generator. (Cont.)

Records were made of three components of the oscillation of the bearing over the speed range from 0 to 3 400 r.p.m. Then the vibrator was installed so that the force acted horizontally and the recordings were repeated. Similar tests were carried out from the turbine end. The speed of the vibrator was increased by stages.

The test results are presented in the form of graphs. The dynamic stiffness of the supports is obtained by dividing the magnitude of the exciting forces by the corresponding amplitudes of vertical or transverse oscillation. On the basis of the experimental results formulae are given for the rigidity of the turbo-generator supports as functions of the speed. The dynamic stiffnesses obtained were used to calculate the critical speed, and the calculated values are compared with experimental ones. The procedure of calculations for determination of the dynamic stiffness of a support from the exciter end is given as an appendix and a particular example is worked out. The results are in good agreement with the experimental data. 3 figures, no literature references.


PURPOSE: This collection of articles is intended for scientific research workers, engineers, and designers in the field of turbomachinery.

COVERAGE: This collection of articles deals with vibrations in turbomachinery. The following topics are discussed: vibrations and stresses in the rotor and bearings of a turbogenerator, vibrations and stability of beams, flexural vibrations of a rotating shaft, whirling speeds of a flexible rotor with two unbalanced masses, acceleration through resonance of a nonlinear system, whirling speed and clearance in bearings, dynamic stresses in blades of an axial compressor, and damping of vibrations. No personalities are mentioned. References follow several of the articles.

Card 1/5
TABLE OF CONTENTS:

Preface


The authors discuss an experimental investigation made on a high-power turbogenerator in order to analyze the real state of stress of the rotor and vibrations of the rotor and bearings. The dynamic behavior of the whole system of joined rotors and bearings is treated. The influences of bases and foundations are not taken into consideration.

Bolotin, V.V. Vibration and Stability of Beams Under Action of Nonconservative Forces

A cantilever rectilinear beam loaded by uniformly distributed following forces acting in the plane of its maximum rigidity is analyzed for stability at planar deformation. Critical parameters of the loading with and without consideration of damping are established.

Card 2/5
Vibrations in Turbomachines (Cont.)

Dimentberg, P.M. Flexural Vibrations of a Rotating Shaft With a Flexible Bar Attached at One End
Connection between the flexural vibrations of the shaft and the bar in their common plane is investigated, and formulas for their frequencies are derived.

Gusarov, A.A. Acceleration Through Critical Speeds of a Flexible Rotor With Two Unbalanced Masses in the Presence of Friction
The author derives a system of two complex differential equations as a solution to the problem. The solution is based on the following assumptions: that the mass of the shaft, the gyroscopic movements of masses caused by deflections of the shaft, and the initial deflections of the shaft are negligible; that the shaft supports are absolutely rigid; that the shaft itself is torsionally rigid; and that the acceleration through critical speeds is uniform.

Rubanik, V.P. Acceleration Through Resonance in One Case of a Nonlinear System
Analysis is made of a nonlinear vibrating system with one degree of freedom having a nonlinear restoring force and excited by a low-frequency sine-shaped disturbing force. The effect of the rate of acceleration on...
Vibrations in Turbomachines (Cont.)


The effect of the clearance in rolling contact bearings on the motion and whirling speed of a rotor is discussed. Rotors having no critical speed are described together with an experimental checking installation for selecting eccentricities of disks.

Rusanova, Ye.I. Investigation of Dynamic Stresses in Blades of an Axial Compressor With a Wide Control Range

The basic results of an experimental investigation of dynamic stresses in blades of an axial compressor by means of wire resistance transducers placed in the root sections are presented. The behavior of the blade at various speeds, including resonance, is described.

Sergeyev, S.I. Damping of Vibrations of Anisotropic Elastic Rotor

Conditions for successful damping of a rotor with unequal elastic coefficients along its principal axis are discussed. The inertias and
Vibrations in Turbomachines (Cont.)

elastic forces acting on transverse displacements of the rotor are taken into consideration.

AVAILABLE: Library of Congress
Experimental determination of the give of the oil film in the sleeve bearings and of the critical velocities of the rotor of a TRZ-100-2 turbogenerator. Vest. elektroprom. 31 no.5:1-8 My '60. (MIRA 13:5)
fiziko-matematicheskikh nauk

Experimental study of elastic centering rings of the banding network of a large turbogenerator. Vest. elektroprom. 32
no. 5-364-40 My '61. (MIRE 15:5)

(Turbogenerators)
ETINGOF, Mira Iosifovna; LYUDIN, Genrikh Lazarovich; SHTEYNBOK, GYu.,
inzh., ved. red.; LYUSTIBERG, V.P., inzh., ved. red.;
SOROKINA, T.M., tekhn. red.

[ET-4-55 strain-measuring amplifier, KT-1 quartz tachometer]
i tekhn.informatsii, 1958. 27 p. (Perevodovoi nauchno-tekhni-
cheskii i proizvodstvennyi opyt. Tezis 31. No.P58-29/5)
(MIRA 16:3)

(Tachometer) (Electronic instruments)
KALININ, Fedor Leontiyevich; MEREZHINSKIY, Yuriy Georgiyevich; LYUDINSKIY, N.A., doktor biol. nauk, otv.red.; SHITAYEWSKAIA, V.I., red.

LYUDNEVICH, A.V., inzhener; PASHKO, N.A., inzhener; BARKER, M.N.,
Inzhener
Introducing the use of large panel interior wall slabs. Sbors.
mat. o nov. tekh. v stroi. 17 no.1:17-19 '55. (MLRA 8:2)
(Walls)
FUDIKOV, V.K., inzhener; LTUDEVIICH, A.V., inzhener.

Building a pumping station in Dniepropetrovsk with concrete work done from afloat. Stroj.prom. 34 no.3:16-18 Mr '56.

1. Tsent Dniepropetrovskpromstroi.
   (Dniepropetrovsk--Pumping Stations)
VAL'KO, B.V.; LYUDKEVICH, I.V. [Lyudkevych, I.V.]; PRUSOV, I.A. [Prueov, I.A.]

IVANOV, B.I.; ISTOMINA, V.N.; LUIDKOVSKAYA, A.A.; KOSTIKOVA, A.Ya.; TALYZENKOVA, G.P.

Preparation of thixotropic paint materials and study of their physico-mechanical properties. Lakokras, mat. i ikh prim. no.1: 28-33 '62. (MIRA 15:4) (Paint materials)