Begin # 626

TSUKERBERG, L.I.

Work capacity of patients following excision of the larynx in
cancer. Vop. onk. 6 no.6:33-40 Je '60.   (MIRA 14:3)
    (LARYNX-CANCER)   (DISABILITY EVALUATION)

TSUKERBERG, L.I.; RONZIN, A.D.

        Movements of the vocal cords in health and in pathology. Trudy
        VNIIMIO no.3:154-156 '63   (MIRA 18:2)

TSUKERBERG, L.I.

Respiratory function of the larynx. Trudy mol. nauch. sotr.
MONIKI no.1:58-60 '59   (MIRA 16:11)

Respiration in patients following complete excision of the
larynx due to cancer. Ibid. :61-64

1. Iz Otorinolaringologicheskoy kliniki (zav.-prof. I.Ya.
Sendul'skiy) Moskovskogo oblastnogo nauchno-issledovatel'sko-
go klinicheskogo instituta imeni Vladimirskogo.

TSUKERBERG, L.I.

Problem of cerebellar abscesses. Vest.oto-rin. 16 no.2:57-60
                                              (MIRA 7:6)
Mr-Ap '54.

1. Iz otdeleniya bolezney ukha, gorla i nosa (zav. V.V.Geliko-
nova) Respublikanskoy bol'nitsy Mordovskoy ASSR v Saranske.
          (CEREBELLUM, abscess,)   (ABSCESS,
              *   *cerebellum)

TSUKERBERG, L.I.

Influence of laryngectomy on pulmonary reception. Vest. otorin.
22 no.1:48-51 Ja-F '60. (MIRA 14:5)

1. Iz kli:.:l bolezney ukha, gorla i nosa (zav. - prof. I.Ya.
Sendul'skiy) i nauchno-eksperimental'nogo otdela (zav. - prof.
G.P.Konradi) Moskovskogo oblastnogo nauchno-issledovatel'skogo
klinicheskogo instituta imeni M.F.Vladimirskcgo.
            (LARYNX--SURGERY)   (RESPIRATION)

TSUKERBERG, L. I.: *Cand* Master Med Sci (diss) -- "The physiological aspects of respiration following complete removal of the larynx". Moscow, 1958. 14 pp (Acad Med Sci USSR), 200 copies (KL, No 1, 1959, 125)

TSUKERBERG, L.I.

Respiratory function in patients after laryngectomy [with summary in English]. Vest.oto-rin. 20 no.5:91-95 S-O '58   (MIRA 11:12)

1. Iz kliniki bolezney ukha, gorla i nosa (zav. - prof. I.Ya. Sendul'skiy) i eksperimental'nogo otdela (zav. prof. G.P. Konradi) Moskovskogo oblastnogo nauchno-issledovatelskogo klinicheskogo instituta.
            (LARYNX, srugery
                excis., postop. funct., tests of resp. (Rus))
            (RESPIRATION, function tests
                after laryngectomy in humans (Rus))

ARKHANGEL'SKIY, V.M.; AFANAS'YEV, L.L., doktor tekhn. nauk;
DEKHTERINSKIY, L.V.; ILARIONOV, V.A.; SERGEYEV, N.M.;
TSUKERBERG, S.M.; ANOKHIN, V.I., kand. tekhn.nauk,
retsenzent; TSETENKO, V.G., inzh., retsenzent;
YEGORKINA, L.I., red.izd-va; PAKHIMSON, V.A., red. izd-va;
SOKOLOVA, T.F., tekhn. red.

[Motor vehicles; design, operation and repair] Avtomobili;
ustroistvo, ekspluatatsiia i remont. Moskva, Izd-vo
"Mashinostroenie," 1964. 510 p.   (MIRA 17:3)

TSUKERBERG, S.M.; NENAKHOV, B.V.

Testing of automobile tires. Kauch. i rez. 24 no.10:40-43 '65.
(MIRA 18:10)

1. Nauchno-issledovatel'skiy institut shinnoy promyshlennosti.

ARKHANGEL'SKIY, V.M.; AFANAS'YEV, L.L.; doktor tekhn. nauk.;
ILARIONOV, V.A.; SERGEYEV, N.M.; TSUKERBERG, S.M.,
DEKHTERINSKIY, L.V.; ANOKHIN, V.I., kand. tekhn. nauk,
retsenzent; TSETENKO, V.G., retsenzent

[Motor vehicles; their design, operation and repair] Avto-
mobili; ustroistvo, ekspluatatsiia i remont. Moskva, Ma-
shinostroenie, 1965. 510 p.   (MIRA 18:8)

L 04481-67   EWT(m)/EWP(j)   IJP(c)   RM

ACC NR: AP6006516   (A)   SOURCE CODE: UR/0113/65/000/011/0028/0031

AUTHOR: Tsukerberg, S. M. (Candidate of technical sciences); Gordon, R. K.   9
                                                                                    B
ORG: NII of the tire industry (NII shinnc promyshlennosti)

TITLE: Determining the operational properties of automobile tires by simulation

SOURCE: Avtomobil'naya promyshlennost', no. 11, 1965, 28-31

TOPIC TAGS: tire, simulation, dimension analysis, torque, model theory, model test,
automotive industry, TORSION STRESS , IMPACT STRESS, ELASTICITY

ABSTRACT: The authors use the third theorem of dimensional analysis as the basis for
a study of automobile tire operational characteristics. A differential equation is
given for the equilibrium of an element of the rubber-cord shell of revolution loaded
by internal air pressure and an external load. This expression has not been solved
and the authors use the second theorem of dimensional analysis to obtain its solution.
Six parameters are given for the tire model. Difficulty is encountered in modeling
cord thickness. This is eliminated by using the same cord thickness both in the model
and in full-scale testing. The experimental unit for determining some of the opera-
tional characteristics of tires is given. It consists of four parts: power, loading,
support and measuring. The power unit transmits torque to the wheel with the tire
model and varies its rpm. The loading part applies vertical, tangential and lateral

Card 1/2   UDC: 629.11.012.5.001.57

L 04481-67

ACC NR: AP6006516   O

loading to the tire model. The support part is a plate with road surface specimens
which moves in a horizontal direction with wheel rotation. The measuring part de-
termines the torque transmitted to the tire model wheel shaft, as well as the load,
tractive force and tire sag. This unit can also determine the elastic and traction-
contact characteristics and losses on rolling resistance of the tire model. The
radial and lateral rigidity of the tire model are determined. A ±3-5% deviation
exists between the parameter values for the tire model and corresponding values ob-
tained from full-scale testing. This was expected on the basis of the material and
technology used for tire production. The data from this study show that simulation
is an effective method for determining the operational characteristics of automobile
tires. Orig. art. has: 5 figures, 6 formulas.

SUB CODE: 13/ SUBM DATE: None/ ORIG REF: 002

Card 2/2

LEVIN, S.L.; TSUKERBERG, S.M.

Problems in the development of tubeless tires. Kauch. i rez.
16 no.11:9-15 N '57.   (MIRA 11:2)
                        (Tires, Rubber)

BIDERMAN, Vadim L'vovich; GUSLITSER, Ruvim L'vovich; ZAKHAROV,
Sergey Petrovich; NENAKHOV, Boris Viktorovich;
SELEZNEV, Ivan Ivanovich; TSUKERBERG, Solomon Maksimovich;
BUKHIN, B.L., red.; KOGAN, V.V., tekhn. red.

[Motor-vehicle tires; design, construction, testing, and
operation] Avtomobil'nye shiny i konstruktsiia, raschet,
ispytanie, ekspluatatsiia. [By] V.L.Biderman i dr. Mo-
skva, Goskhimizdat, 1963. 382 p.   (MIRA 16:12)
            (Motor vehicles—Tires)

TSUKERBERG, Solomon Maksimovich; KRAMARENKO, G.V., prof., red.;
        TUPITSYNA, L.A., red.; YASHUKOVA, N.V., tekhn. red.

    [New motor-vehicle tires] Novye avtomobil'nye shiny. Moskva,
    Rosvuzizdat, 1963.   64 p.   (MIRA 16:12)
                (Motor vehicles—Tires)

SOV/138-58-9-6/11

AUTHOR: Tsukerberg, S. M.

TITLE: Calculations on Tubeless Tyres (K raschetu beskamernykh shin)

PERIODICAL: Kauchuk i Rezina, 1958, Nr 9, pp 20 - 25 (USSR)

ABSTRACT: The casing of a tubeless tyre is subject to internal
            stress through diffusion of air into the body of the tyre.
            This can cause blistering, or exfoliation of the layers
            if any part of the tyre shows weakness. Tubeless tyre
            must be well bonded, and the interior hermetic layers
            must permit minimum diffusion. Fig.2 shows the character-
            istic distribution of pressure through the side wall of
            a tyre. The pressure drop varies as the thickness and
            permeability of the three main elements, i.e. the in-
            ternal hermetic layer, the carcass, and the outer wall.
            A graphic method of analysis is shown in Fig.3. The
            individual elements of the tyre are drawn with "virtual"
            thicknesses. The thickest layer, usually the carcass,
            is taken as a datum. The other layers are assigned
            "virtual" thicknesses which are their real thickness
            multiplied by the ratio of the permeability of their
            material to the permeability of the datum layer. The
Card 1/3   "virtual" thicknesses are laid out on the abscissa.

Calculations on Tubeless Tyres   SOV/138-58-9-6/11

and a straight line can then be drawn from the point
representing the internal pressure on the ordinate to
the point at atmospheric pressure on the abscissa repre-
senting the outside of the tyre. Pressure at any point
in the tyre can then be determined by converting "virtual"
thickness to real thickness. Figs. 5, 6 and 7 show the
pressure which arises at the boundary of the internal
hermetic layer and the carcass for different thicknesses
of the hermetic layer. The three figures are drawn for
different tyre pressures. Each figure shows curves for
natural rubber, "Nairit", and butyl rubber hermetic layers,
and for these materials in two different sizes of tyre
(260 - 22.5 and 6.00 - 16). The curves are for material
at $70^{\circ}C$. Experimental determination of the actual pres-
sure at different parts of the tyre was carried out, us-
ing the apparatus described in Kauchuk i Rezina Nr 11,
1957, p 9. This indicated wide variation in pressure in
the body of different tyres through factors influencing
the stability of the impermeable layer. Variation in
pressure, at the same thickness level, occurs in differ-
ent parts of a tyre. It was shown, by work at the Moscow
Tyre Factory, that the diffusion pressure in the body of

Card 2/3

Calculations on Tubeless Tyres   SOV/138-58-6-6/11

a tubeless tyre increases during the first 5000 km of use
and then remains almost constant. A study is made of
the effect of damaged or unbonded areas in the body of
the tyre. The focal point at which disruption of the
layers commences is assumed to be circular. Fig.9 shows
the relationship of the "peeling" forces (kg/cm) with
pressure (kg/cm^2) within focal points of different dia-
meters. Similar peeling forces can arise in the absence
of an actual damaged or unbonded area, but where there
are multiple fine pores in the body of the tyre.

ASSOCIATION: Nauchno-issledovatel'skiy institut shinnoy promyshlen-
nosti (Scientific Research Institute of the Tyre In-
dustry)

Card 3/3

TSUKERBERG, S.M.

Calculating air pressure in tubeless tires. Kauch. i rez. 17
no.9:20-25 S '58.   (MIRA 11:10)

1.Nauchno-issledovatel'skiy institut shinnoy promyshlennosti.
        (Automobile--Tires)

TSUKERBERG, S., kand. tekhn. nauk; NENAKHOV, B., inzh.

Tires with air-pressure control. Avt. transp. 37 no.10:47-50
O '59.   (MIRA 13:2)
                    (Automobiles--Tires)

SELEZNEV, Ivan Ivanovich; TSUKERBERG, Solomon Maksimovich; NENAKHOV, Boris Viktorovich; KOLESNIK, P.A., red.; SMIRNOVA, V.K., red. izd-va; GALAKTIONOVA, Ye.N., tekhn.red.; DONSKAYA, G.D., tekhn.red.

[Means for prolonging the life of tires] Puti uvelicheniia probega avtomobil'nykh shin. Moskva, Avtotransizdat, 1960. 47 p.
(MIRA 13:9)

(Tires, Rubber—Maintenance and repair)

Cond. Tech. Sci.

TSUKERBERG, S. M., Engineer

Dissertation: "Operational Qualities of Automobile Tires—Investigation of of Tire Cohesion with Road."

23 Jun. 49

Moscow Highway Inst.

imeni V. M. Molotov

SO Vecheryaya Moskva
Sum 71

TSUKERBERG, S. M., kandidat tekhnicheskikh nauk.

Selecting the type of motor truck for city transportation. Avt.
transp. 32 no.9:12-13 S '54.   (MLRA 7:11)
        (Motor trucks)

TSUKERBERG, S. M.

LEVIN, S., inzhener; TSUKERBERG, S., inzhener, kandidat tekhnicheskikh nauk.

Tubeless tires. Za rul. 15 no.2:13-14 F '57.   (MLRA 10:5)

1. Nachal'nik konstruktorsko-eksperimental'nogo otdela Nauchno-issledovatel'skogo instituta shinnoy promyshlennosti (for Levin).
(Automobiles--Tires)

ARKHANGEL'SKIY, V.M.; AFANAS'YEV, L.L.,doktor tekhn.nauk;DEKHTERINSKIY,L.V.;
ILARIONOV, V.A.; SERGEYEV, N.M.; TSUKERBERG, S.M.; ANOKHIN, V.I.,
kand. tekhn. nauk, retsenzent; TSETENKO, V.G., inzh., retsenzent;
YEGORKINA, L.I., red.izd-va; NAKHIMSON, V.A., red.izd-va;
SOKOLOVA, G.F., tekhn. red.

[Motor vehicles; working principle operation and repair] Avto-
mobili; ustroistvo, ekspluatatsiia i remont. Moskva, Izd-vo
"Mashinostroenie," 1964. 510 p. (MIRA 17:4)

TSUKERBERG, S.M.; NENAKHOV, B.V.; GORDON, R.K.

New kind of tires for trucks. Kauch. i rez. 20 no.9:34-38 S
'61.   (MIRA 15:2)

1. Nauchno-issledovatel'skiy institut shinnoy promyshlennosti.
                    (Motortrucks--Tires)

TSUKERBERG, S.M.; ZAKHAROV, S.P.; NENAKHOV, B.V.; ABRAMOVA, E.Ye.;
     ZUYEV, Yu.S., red.; KUPERMAN, F.Ye., red.; SPERANSKAYA, A.A.,
     tekhn.red.

[High-roadability tires for motor vehicles] Shiny dlia avtomo-
bilei povyshennoi prokhodimosti. Moskva, Gos.nauchno-tekhn.izd-vo
khim.lit-ry, 1960. 71 p.   (MIRA 14:4)
          (Motor vehicles--Tires)

TSUKERBERG, Solomon Makeimovich; ZAKHAROV, Sergey Petrovich; MENAKHOV, Boris Viktorovich; ABRAMOVA, Ella Yefimovna; GRECHKO, V.M., red.; DONSKAYA, G.D., tekhn.red.

[Tires for increasing the roadability of automobiles] Shiny, povyshaiushchie prokhodimost' avtomobilia. Moskva, Nauchno-tekhn. izd-vo M-va avtomobil'nogo transporta i shosseinykh dorog RSFSR, 1959. 43 p.   (MIRA 12:12)
              (Automobiles--Tires)

TSUKERBERG, Solomon Maksimovich

LEVIN, Samuil L'vovich; TSUKERBERG, Solomon Maksimovich; KNOROZ, M.M.,
redaktor; MAL'KOVA, N.V., tekhn.red.

[Tubeless automobile tires] Avtomobil'nye beskamernye shiny.
Moskva, Nauchno-tekhn. izd-vo avtotransp.lit-ry, 1957. 29 p.
(MIRA 10:12)

(Automobiles--Tires)

Tsukerberg, S M

GUSLITSER, R., inzh.; LOKHINA, P., inzh.; TSUKERBERG, S., kand. tekhn. nauk.

Selecting proper tire pressure. Avt. transp. 36 no.1:10-12 Ja '58.
(Automobiles--Tires)   (MIRA 11:1)

ACC NR: AR7000841   SOURCE CODE: UR/0058/66/000/009/D043/D043

AUTHOR: Tsukerblat, B. S.

TITLE: Quantum output of ruby luminescence on the R-line

SOURCE: Ref. zh. Fizika, Abs. 9D336

REF SOURCE: Sb. Materialy IV Konferentsii molodykh uchenykh Moldavii, 1964.
Sekts. fiz.-matem. Kishinev, 1965, 33-35

TOPIC TAGS: crystallography, ruby, crystal, ruby luminescence, R line ruby
luminescence, luminescent crystal, ruby laser

ABSTRACT: A theory of multiphonon aradiational transitions in crystals with
"small-radius" impurity centers is developed and the quantum output of ruby
luminescence in the region of the R-line equal to ~ 1 at 77K and ~ 0.82 at
300K is computed. The theoretical results obtained agree satisfactorily with
available experimental data. V. Khodovoy. [Translation of abstract]
                                                                    [SP]

SUB CODE: 20/

Card 1/1

TSUKERBLAT, B.S.; CHEBAN, A.G.

    Disintegration and formation of F'-centers in ionic crystals. Opt.
i spektr. 16 no.1:69-75 Ja '64.   (MIRA 17:3)

L 31493-66   EWT(1)/T   IJP(c)

ACC NR: AP6013022   SOURCE CODE: UR/0051/66/020/004/0657/0660

AUTHOR: Perlin, Yu. Ye.; Kovarskiy, V. A.; Tsukerblat, B. S.   50

ORG: none   B

TITLE: Contribution to the theory of many-phonon nonradiative transitions between
local states of different multiplicity. I.

SOURCE: Optika i spektroskopiya, v. 20, no. 4, 1966, 657-660

TOPIC TAGS: nonradiative transition, spin orbit interaction, phonon interaction,
electron interaction , SPIN SYSTEM

ABSTRACT: The authors analyze many-phonon nonradiative transitions between levels
of different multiplicity within the framework of the adiabatic approximation.
The electron-phonon interaction is assumed to be small compared with the spin-
orbit interaction, and the non-adiabaticity operator is treated as the perturba-
tion, using a method described by the authors elsewhere (FTT v. 4, 1936, 1962;
Usp, fiz. nauk v. 80, 553, 1963). Possible mechanisms of many-phonon transitions
are discussed, and a general formula is obtained for the probability of nonradi-
ative transition with spin flip due to the spin-orbit interaction. The upper
limiting case, when the spin-orbit interaction is small compared with the electron-

Card 1/2   UDC: 535.330: 548.0

L 31493-66

ACC NR: AP6013022

phonon interaction is considered in detail. The matrix element for the spin-orbit interaction is then regarded as the perturbation. Different expressions for the nonradiative transition are then obtained, depending on whether the electronic part of the matrix element of this transition vanishes or not. Orig. art. has: 17 formulas.

SUB CODE: 20/   SUBM DATE: 14Dec64/   ORIG REF: 004/   OTH REF: 002

Card 2/2 mc

L 09885-67   EWT(1)   IJP(c)   GG

ACC NR: AP6032478   SOURCE CODE: UR/0056/66/051/003/0831/0841

AUTHOR: Tsukerblat, B. S.

ORG: Kishinev State University (Kishinevskiy gosudarstvennyy universitet

TITLE: Optical bands in paramagnetic crystals with degenerate impurity terms

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 51, no. 3, 1966, 831-841

TOPIC TAGS: crystal, paramagnetic crystal, crystal impurity, degenerate impurity, crystal optic property, luminescent crystal, ionic crystal, adiabatic approximation, adiabatic potential splitting, phototransition

ABSTRACT: Broad electron-vibrational impurity light absorption and luminescence bands in ionic crystals containing paramagnetic local centers are investigated within the framework of the adiabatic approximation by the moment method. The effect of configurational instability of a crystal with degenerate impurity-electron levels (adiabatic potential splitting) on the optical spectrum pattern is examined. It is shown that Jahn-Teller distortion of the nuclear configuration in only

Card 1/2

L 09885-67

ACC NR: AP6032478

one electron state does not lead to splitting of the optical band. The theory predicts optical band splitting only in those cases when the same vibrations which are active in the Jahn-Teller effect remove the degeneracy of both electron states involved in the phototransition. Detailed calculations of the band parameters have been performed for ions of the iron group with a d^3 shell. As an example, V- and U-bands in pink ruby are considered. Orig. art. has: 2 figures and 28 formulas. [Author's abstract]

SUB CODE: 20/ SUBM DATE: 17Feb66/ ORIG REF: 011/ OTH REF: 009

Card 2/2

L 04753-67   EWT(1)/EWT(m)/EWP(e)/EEC(k)-2/T/EWP(k)   IJP(c)   WG/WH

AUTHOR: Tsukerblat, B. S.; Perlin, Yu. Ye.

ORG: none

TITLE: On theory of multiphonon nonradiating transitions between the local states of dissimilar multiplicity. II. Quantum yield of ruby luminescence on the R-line (low temperatures)

TOPIC TAGS: electron transition, nonradiative transition, transition probability, transition radiation, ruby laser, ruby optic material, phonon, phonon interaction, crystal lattice energy, crystal lattice parameter, crystal lattice vibration

ABSTRACT: The authors use the adiabatic method to calculate the probability of a multiphonon nonradiation transition $^2E_g \rightarrow \, ^4A_{2g}$ and the quantum yield of ruby luminescence of the R-line. The interaction with optical and acoustical vibrations of the crystal lattice is taken into account. The investigated transition corresponds to the operating levels of ruby lasers and occurs in the second order of perturbation theory via the virtual state $^4T_{2g}$. Other virtual states can be neglected because of their low probability. Taking in account only the strongest interaction of ^2E_g and $^4A_{2g}$

Card 1/2   UDC: 535.37 : 553.824.01

L 04753-67

ACC NR: AP6025948

electron energy levels with the wholly symmetrical lattice vibrations in the crystal, the adiabatic .lectron-oscillatory function is given by

$$\Psi(\Gamma) = \psi_\Gamma(r) \prod_{k,s} \Phi_{N_{ks}}(q_{ks} - q_{k\Gamma}^{(s)}) \prod_{x,\sigma} \Phi_{n_{x\sigma}}(q_{x\sigma} - q_{x\Gamma}^{(\sigma)}),$$

where $\psi_\Gamma(r)$ is the electron wave function from the crystal field theory; Φ_n are wave functions of the harmonic oscillators; indices k, s identify wave vectors and zones of the acoustical phonons; x, σ are correspondingly related to the photons. The values

$$q_{\lambda\Gamma}^{(\rho)} (\lambda = k, x, \rho = s, \sigma)$$

represent the displacements of the equilibrium for the oscillators in the phonon field due to electron-phonon interactions. The authors proceed from the standard expression for the probability of multiphonon nonradiation transitions, derived by the authors in an earlier work, to develop an expression which accounts for both the phonon and photon interactions in the crystal. Based on this expression the probability of nonradiation transition $^2E_g \rightarrow {}^4A_{2g}$ at low temperatures has a value of 1.4 sec^{-1}. Considering the lifetime of the E_g state to be $4.3 \cdot 10^{-3}$ sec the quantum yield, in agreement with the experimental data, is practically equal to unity. Orig. art. has: 25 formulas.

SUB CODE: 20/   SUBM DATE: 14Dec64/   ORIG REF: 004/   OTH REF: 002

Card 2/2 lb

L 5412-66   EWA(k)/FBD/EWT(1)/EWP(e)/EWT(m)/EEC(k)-2/EWP(1)/T/EWP(k)/EWA(m)-2/EWA(h)
ACC NR: AP5027405 SCTB/IJP(c) WG/WH SOURCE CODE: UR/0181/65/007/011/3278/3288

AUTHOR: Tsukerblat, B. S.; Perlin, Yu. Ye.

ORG: Kishinev State University (Kishinevskiy gosudrastvennyy universitet)

TITLE: On the theory of nonradiative transitions involving several phonons in localized paramagnetic centers

SOURCE: Fizika tverdogo tela, v. 7, no. 11, 1965, 3278-3288

TOPIC TAGS: phonon interaction, nonradiative transition, ruby laser

ABSTRACT: The authors calculate the probability of nonradiative multiphonon transitions between the orbital triplets $^4T_{2g}$ and $^2T_{1g}$ in the Cr^{3+} ion (as well as in other ions with d^3 configuration) in an octahedral crystal field. This transition is the "bottleneck" in the relaxation process for population inversion in the working levels of a ruby laser (the single-quantum $^2T_{1g} \to {}^2E_g$ transition takes place at a much faster rate). States of various multiplicity are considered. The spin-orbital interaction of the Cr^{3+} ion is small in comparison with the effective crystal field and may be treated as a perturbation which causes the multiphonon transi-

Card 1/2

4

L 5412-66

ACC NR: AP5027405

tion. The formula for the transition is derived in the adiabatic approximation, taking the Jahn-Teller effect into account. Since the introduction of a chromium ion in place of aluminum in the corundum lattice (Al_2O_3) does not generate quasi-molecular (localized) vibrations, a small number of variables will not suffice to describe the electron-vibration system. The final results are considerably dependent on the parameters of the crystal. The greatest contribution to the probability of the transition is from processes with simultaneous participation of longitudinal and transverse acoustic phonons. The authors thank I. B. Bersuker and B. G. Vekhter for useful consultation. Orig. art. has: 40 formulas, 1 table.

SUB CODE: SS/   SUBM DATE: 28May65/   ORIG REF: 007/   OTH REF: 011

BYK.

Card 2/2

PERLIN, Yu.Ye.; CHEBAN, A.G.; TSUKERBLAT, B.S.

Theory of the capture and scattering of polarons by F-centers.
(MIRA 15:7)
Uch. zap. Kish. un. 49:11-18 '61.
(Electrons—Scattering) (Electrons—Capture) (Quantum theory)

ACCESSION NR: AP4011486   8/0051/64/016/001/0069/0075

AUTHOR: Tsukerblat, B.S.; Cheban, A.G.

TITLE: Disintegration and formation of F' centers in ionic crystals

SOURCE: Optika i spektroskopiya, v.16, no.1, 1964, 69-75

TOPIC TAGS: ionic crystal, F center, F' center, F center formation, F center anni-
hilation, polaron trapping cross section, polaron scattering cross section,
many-phonon transitions, one-phonon transitions, color center, potassium bromide

ABSTRACT: In earlier papers by the authors (A.G.Cheban, Opt.i spektr.10,493,1961;
Yu.Ye.Perlin,A.G.Cheban and B.S.Tsukerblat,Uch.zap.Kishinevsk.univ,Seriya fiz.49,11,
1961; A.G.Cheban,Ibid.49,19,1961) there were considered thermal ionization of F'cen-
ters and the inverse process: direct many-phonon trapping of a polaron by an F cen-
ter with formation of an unexcited F' center. It was shown that, in addition to the
ground state, an F' center has at least one discrete level, which corresponds to mo-
tion of an undeformed polaron in an effective short-range field. In the present pa-
per there are considered two possible mechanisms of thermal trapping (capture) of a

Card 1/2

ACC.NR: AP4011486

polaron by an F center in ionic crystals: the many-phonon and the single phonon pro-
cesses. Equations are derived for the total trapping cross section and for the cross
section for scattering of a polaron by an F center with the formation of an unexcit-
ed F' center at an intermediate stage. For purposes of illustration the trapping and
scattering cross sections are calculated for the specific case of KBr, and the re-
sults of the calculations are compared with the experimental data of A.C.Redfield
(Phys.Rev.94,537,1954). The agreement is considered to be satisfactory: the calcula-
ted total trapping cross section for KBr at 200°K is 7.1×10^{-14} cm^2; the correspond-
ing experimental value is 2×10^{-14} cm^2. Detailed expressions for some of the para-
meters entering into the computation formulas are given in an appendix. "The authors
are pleased to express their gratitude to Yu.Ye.Perlin for assistance in the work."
Orig.art.has: 56 formulas.

ASSOCIATION: none

SUBMITTED: 11Mar63   DATE ACQ: 14Feb64   ENCL: 00

SUB CODE: PH   NR REF SOV: 00   OTHER: 002

Card 2/2

BOYARSKAYA, Yu.S.; VAL'KOVSKAYA, M.I.; TSUKERBLAT, B.S.

Effect of elastic spring-back on the shape of indents made in microhardness measurements. Uch. zap. Kish. un. 49:32-38 '61.
(MIRA 15:7)

(Strength of materials—Measurement) (Elasticity)

ACC NR: AP7005333   SOURCE CODE: UR/0181/66/008/012/3490/3499

AUTHOR: Perlin, Yu. Ye.; Rozenfel'd, Yu. B.; Tsukerblat, B. S.

ORG: Kishinev State University (Kishinevskiy gosudarstvennyy universitet)

TITLE: On the nature of the optical impurity absorption bands and luminescence of crystals activated with rare-earth ions

SOURCE: Fizika tverdogo tela, v. 8, no. 12, 1966, 3490-3499

TOPIC TAGS: activated crystal, luminescence, absorption band, light absorption, impurity center, Stark effect, phonon interaction, electron interaction

ABSTRACT: In view of the fact that the classical theory of the crystalline field, which takes into account the Stark splitting of the levels of the impurity ion by the quenched lattice, is insufficient for the interpretation of the spectra of impurity absorption and luminescence of trivalent ions of rare-earth elements (TR^{3+}) in crystals of the MeF_2 type, the authors employ the theory of impurity light absorption and luminescence in crystals, developed by M. A. Krivoglaz and S. I. Pekar (Trudy, Physics Institute, AN UkrSSR, v. 4, 37, 1953), to explain the influence of electron-phonon interaction on the shape of the impurity absorption or luminescence spectra in the $MeF_2:Ce^{3+}$ spectrum. The concrete examples considered are the $4f \rightarrow 5d$ transitions in the crystals CaS_2, BeF_2, and SrF_2 activated with Ce^{3+}. The interaction between the outer electrons of a small-radius local center with optical and acoustical vibrations of the crystal is taken into account in the adiabatic approximation. It is shown that

Card 1/2

ACC NR: AP7005833

the presence of local oscillations can lead, under certain conditions, to a periodic distribution of intensity in the optical spectrum. The parameters of the optical bands are calculated and a level scheme for the Ce^{3+} in the cubic crystalline field is presented. The theoretical calculations are compared with the experimental data of A. A. Kaplyanskiy et al. (Opt. i spektr. v. 14, 664, 1963) and reasons for some discrepancies are indicated. The authors thank S. I. Pekar, A. A. Kaplyanskiy, and B. Z. Malkin for useful discussion. Orig. art. has: 1 figure, 30 formulas, and 1 table.

SUB CODE: 20/   SUBM DATE: 25Mar66/   ORIG REF: 011/   OTH REF: 004

Card 2/2

MAKSIMOV, A.B., prepodavatel'; TSUKERKANDEL', A.P., prepodavatel'

"Handbook of the foreman in charge of the tools in a woodworking
enterprise." Reviewed by A.B. Maksimov, A.P. Tsukerkandel'.
Der.prom. 11 no.3:27 Mr '62.   (MIRA 15:2)

1. Mekhaniko-tekhnologicheskiy tekhnikum, g. Novosibirsk.
                    (Woodworking machinery)

TSUKERMAN, A. Ye.

Tsukerman, A. Ye.   "A corrective corset for treatment of serious forms of scoliosis,"
In symposium: Uchen. zapiski (Ukr. tsentr. nauch.-issled. in-t ortopedii i travmatologii
im. Sitenko), Khar'kov, 1948, p. 171-77

So: U-3566, 15 March 53,   (Letopis 'Zhurnal 'nykh Statey, No. 13, 1949)

TSUKERMAN, A.; STOYKA, Ye.; STUNGARU, G.

Effect of cortical tonus on food excitability (appetite). Zhur.
vys.nerv.deiat 8 no.2:220-225 '58.   (MIRA 13:1)

1. Danielopulu Institute of Normal and Pathological Physiology,
Academy of Rumanian People's Republic, and Chair of Normal and
Pathological Physiology, Institute for the Advanced Training of
Physicians, Bukharest.
                (CEREBRAL CORTEX, physiology,
                    eff. of tonys on appetete (Rus)
                (APPETITE, physiology,
                    eff. of cerebrocortical tonus (Rus))

Miscellaneous

1404. A SIMPLER METHOD FOR OBTAINING X-RAY PHOTO-GRAPHS WITH A VERY SHORT EXPOSURE. Zuckerman [Zuckerman] & Avdeenko. (*Journ. of Tech. Phys.* (in Russian), No. 4/5, Vol. 12, 1942. pp. 185-194.)

A brief survey is made of the existing methods for obtaining short exposure X-ray photographs, and a report is given on an experimental investigation. One of the conclusions reached is that a standard X-ray equipment can be so modified as to give, under factory conditions, photographs of simple objects with an exposure of the order of a few microseconds without the use of an impulse generator or a special impulse tube.

KIRZON, M.V.; KOL'S, O.R.; TSUKERMAN, A.M.

Further investigation on the novocain stimulating and blocking of nervous
conduction and the products of its disintergration in the organism.
Vest. khir. 71 no.2:74 1951.   (CIML 20:8)

TSUKERMAN, A. M.

KIRZON, M.V.; KOL'S, O.R.; TSUKERMAN, A.M.

Stimulating effect of novocaine on interorceptors. Trudy AMN
(MLRA 7:7)
SSSR 24 no.2:82-99 '53.

(PROCAINE, effects,
*on interoceptive appar. of various organs in frog)

TSUKERMAN, A.M., GURVICH, N.L.

Arrest of experimental auricular fibrillation by electrical defibril-
lation of the auricles [with summary in English]. Exper.khir. 1 no.3:38-44
My-Je '56   (MIRA 11:10)

1. Iz Instituta khirurgii imeni A.V. Vishnevskogo (dir. — chlen-
korrespondent AMN SSSR prof. A.A. Vishnevskiy) AMN i laboratorii
eksperimental'noy fiziologii (zav. — prof. V.A. Negovskiy) AMN SSSR.
        (AURICULAR FIBRILLATION, exper.
                eff. of electric defibrillation in dogs (Rus))

VAN NES, K.; VAN WESTERN, H.A.; PLATE, A.F., doktor khimicheskikh nauk [translator], redaktor; TSUKERMAN, A.M., redaktor; KORNILOV, B.I., tekhnicheskiy redaktor.

[Aspects of the constitution of mineral oils] Sostav maslianykh fraktsii nefti i ikh analiz. Perevod s angliiskogo. . Perevod, redaktsiia i primechaniia A.F.Plate. Moskva, Izd-vo inostran.lit-ry, 1954. 263 p.   (MLRA 8:2)
             (Petroleum--Analysis)

CHIBISOV, K.V., redaktor; KHEYNMAN, A.S. [translator]; TSUKERMAN, A.M.,
    redaktor; SHAPOVALOV, V.I., tekhnicheskiy redaktor.

[The physical chemistry of photographic processes] Fizicheskaia khimiia
fotograficheskikh protsessov; sbornik statei. Perevod s angliiskogo
A.S.Kheinmana. Moskva, Izd-vo inostrannoi lit-ry, 1954. 488 p.
                                                        (MIRA 8:1)
[Microfilm]

1. Chlen-korrespondent Akademii Nauk SSSR(for Chibisov).
        (Photographic chemistry)

TSUKERMAN, A. M.

SMIRNOV, V.I., redaktor; ZNAMENSKAYA, V.I., redaktor; TSUKERMAN, A.M.,
redaktor; VITOVSKAYA, I.V. [translator]; GALDIN, N.Ye. [translator];
GOTMAN, Ya.D. [translator]; KONSTANTINOV, M.M. [translator]; GERASI-
MOVA, Ye.S., tekhnicheskiy redaktor.

[Geochemical methods of prospecting for ore deposits; collection of
articles] Geokhimicheskie metody poiskov rudnykh mestorozhdenii; sbornik
statei. Perevod s angliiskogo i nemetskogo I.V.Vitovskoi, N.E.Galdina,
IA.D.Gotmana i M.M.Konstantinova. Moskva, Izd-vo inostrannoi lit-ry,
1954. 582 p. [Microfilm]   (MLRA 8:1)
        (Geochemical prospecting)

TSUKERMAN, A.M.

TERENT'YEV, A.P.; KOST, A.N.; TSUKERMAN, A.M.; POTAPOV. V.M.;
  SERGEYEV, P.G., professor, redaktor; STRUCHKOV, Yu.T.,
  redaktor; MOSKVICHEVA, N.I., tekhnicheskiy redaktor.

[Nomenclature of organic compounds; survey, criticism,
proposals] Nomenklatura organicheskikh soedinenii;
obzor, kritika, predlozhenia. Moskva, Izd-vo Akademii
nauk SSSR, 1955. 302 p.   (MLRA 8:12)
    (Chemistry, Organic--Nomenclature)

TSUKERMAN, A.M.

BRINDLEY, G.W.; ZVYAGIN, B.B.[translator]; FRANK-KAMENETSKAYA, T.A.,
[translator] redaktor; TSUKERMAN, A.M., redaktor; GRIBOVA, M.P.
tekhnicheskiy redaktor.

[X-ray identification and crystal structures of clay minerals;
collection of articles. Translated from the English] Rentgenovskie
metody opredeleniia i kristallicheskoe stroenie mineratov glin;
sbornik statei. Perevod s angliiskogo B.B.Zviagina i T.A.Frank-
Kamenetskoi.Pod red. i s predisl. V.A.Frank-Kamenetskogo. Moskva,
izd-vo inostrannoi lit-ry, 1955. 402 p.   (MLRA 8:11)
        (Clay)   (X-rays)

TERENT'YEV,A.P.; POTAPOV,V.M.; KOST,A.N.; TSUKERMAN,A.M.

Systematic nomenclature of organic compounds.   Vest.Mosk., un
no.6:97-134 Je'55.   (MLRA 9:1)

1. Kafedra spetsial'nogo organicheskogo sinteza.
          (Chemistry, Organic—Nomenclature)

USSR/Chemistry - Nomenclature

TSUKERMAN, A.M.   FD-1683

Card 1/1   : Pub. 129-8/25

Author   : Terent'yev, A. P.; Kost, A. N.; Tsukerman, A. M.

Title   : A new system of numbering atoms in condensed cyclic struct.res

Periodical : Vest. Mosk. un., Ser. fizikomat. i yest. nauk, Vol. 10 69-76. Feb 1955

Abstract   : Proposes a new system for numbering condensed cyclic molecules which
              depends on the structure of the compound and therefore can be used for
              both carbo- and heterocyclic structures. The atoms in the condensed
              cyclic structures are divided into four classes depending on whether
              they are non-junctional, junctional, junctional with three structural
              atoms, or junctional with four structural atoms. Diagrams; eight
              references (one USSR).

Institution : Chair of Organic Chemistry

Submitted   : April 14, 1954

TSUKERMAN, A.M.

In the organic chemistry section of the Moscow Branch of the
D.I. Mendeleev All-Union Chemistry Society. Khim.nauka i prom.
2 no.5:654-655 '57.   (MIRA 10:12)
          (Moscow--Organic chemistry)

TSUKERMAN, A.M.

Translation of chemical nomenclature; algorithm of the translation
of the names of cross-linking [condensed] polycyclic structures.
NTI no.4:23-30 '65.   (MIRA 18:6)

IVANOVSKIY, F.P.,kand. tekhn. nauk, red.; FURMAN, M.S., doktor
    khim.nauk, red.; SAMARIN, B.P., red.; KRICHEVSKIY,I.R., prof.,
    doktor khim. nauk, red.; GOLUBEV, I.F., doktor tekhn.nauk,red.;
    KRASIL'SHCHIKOV,A.I., doktor khim. nauk, red.; KLEVKE, V.A.,
    kand. tekhn. nauk, red.; LEVCHENKO, G.T., kand. khim. nauk,red.;
    GEL'PERIN, I.I., kand. tekhn. nauk, red.; OYSTRAKH, M.L., red.;
    KREYSBERG, A.Ya., red.; TSUKERMAN, A.M., red.; KOGAN, V.V.,
    tekhn. red.

[Chemistry and technology of the products of organic synthesis;
intermediate products for the synthesis of polyamides] Khimiia
i tekhnologiia produktov organicheskogo sinteza; poluprodukty
dlia sinteza poliamidov. Moskva, Goskhimizdat, 1963. 255 p.
                                        (MIRA 17:3)

1. Moscow. Gosudarstvennyy nauchno-issledovatel'skiy i proyekt-
nyy institut azotnoy promyshlennosti. 2.Zamestitel' direktora
Gosudarstvennogo nauchno-issledovatel'skogo i proyektnogo instituta
azotnoy promyshlennosti (for Ivanovskiy). 3. Zamestitel' direktora
po nauchnoy chasti Gosudarstvennogo nauchno-issledovatel'skogc i pro-
yektnogo instituta azotnoy promyshlennosti (for Furman). 4. Glavnyy
inzhener Gosudarstvennogo nauchno-issledovatel'skogo i proyektnogo
instituta azotnoy promyshlennosti (for Samarin). .

TSUKERMAN, A.M.

    New stimulants of growth. Nauka i zhizn' 30 no.5:36 My '63.
                                           (MIRA 16:10)

KORBUT, V.A. (Leningrad); TSUKERMAN, A.M.

What is the right name for element 101. Priroda 52 no.8:124-125
Ag '63.   (MIRA 16:9)

1. Komissiya po nomenklature khimicheskikh soyedineniy AN SSSR,
Moskva (for TSukerman).
                              (Mendelevium)

TERENT'YEV, A.P.; TSUKERMAN, A.M.

New method of identification of organic compounds by their
fusion point. Trudy Kom.anal.khim. 13:54-58 '63. (MIRA 16:5)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova.
        (Organic compounds)   (Melting points)

TSUKERMAN, A.M.; STETSYURA, G.G.

Concerning the automation of the conversion of the names of
organic compounds to a standard form, and the conversion of structural
formulas to systematic names. Soob. LEM AN SSSR no.1:241-
248 '60.   (MIRA 15:2)
    (Chemistry, Organic)
    (Information theory)

TERENT'YEV, A.P., otv.red.; ALIMARIN, I.P., red.; GEL'MAN, N.E., red.;
     KLIMOVA, V.A., red.; KRESHKOV, A.P., red.; KUZNETSOV, V.I., red.;
     LEVIN, E.S. red.; PODGAYSKAYA, Z.I., red.; RUKHADZE, Ye.G., red.;
     TAL'ROZE, V.L., red.; TSUKERMAN, A.M., red.; SHEMYAKIN, F.M., red.;
     SHEYNKER, Yu.N., red.; YERMAKOV, M.S., tekhn.red.

[Conference on organic analysis] Soveshchanie po organicheskomu
analizu. Tezisy dokladov. Moskva, Izd-vo Mosk.univ., 1961. 170 p.
                                        (MIRA 14:4)

1. Soveshchaniye po organicheskomu analizu. 1961.
          (Chemistry, Analytical--Congresses)
          (Chemistry, Organic--Congresses)

TSUKERMAN, A. P., (Kiyev)

Problem of classification of chronic suppurative otitis media in otolaryngological expert evaluation. Vest. otorin. no.5:23-25 '61.
(MIRA 14:12)

(EAR—DISEASES)   (DISABILITY EVALUATION)

TSUKERMAN, A. Ye., zasluzhennyy vrach UkrSSR

    Apparatotherapy in paralytic scoliosis. Trudy Ukr. nauch.-is-
sledovatel'skogo instituta ortop... i travmatologii.Trudy ukr.
nauch.-issl. inst. ortop. i trav., no.15:49-58 '59 (MIRA 16:12)

    1. Iz Ukrain'skogo nauchno-issledovatel'skogo instituta ortopedii
i travmatologii imeni prof. M.I.Sitenko (dir. - chlen-korrespon-
dent AMN SSSR, prof. N.P. Novachenko).

TSUKERMAN, B. A.
    L. V. ALTSHULER, ZhTF, 13, 265-80(1943)

39916

S/044/62/000/007/096/100
C111/C333

27.2700

AUTHORS: Tsukerman, B. G., Kozhin, A. M., Pakhomov, A. F.

TITLE: The influence of noise on the reading of scales on control
             and measuring equipments

PERIODICAL: Referativnyy zhurnal, Matematika, no. 7, 1962, 81,
             abstract 7V397. ("Dokl. Akad. ped. nauk RSFSR", 1961, no.3,
             87-90)

TEXT: The paper deals with an experimental examination of the
influence of short - not fatigue causing - noises without signal charac-
ter on the receptivity of optical information imparted by control and
measuring equipments. Method: The scale of the apparatus was exposed by
the test person with the help of a shutter tachistoscope; in some trials
short (0.5 seconds) expositions were given, in other the test person
closed the shutter of the tachistoscope himself after reading off the
information. The following results were obtained: 1) White noises of
a non-signal type having the intensity of 90 decibels and lasting 10
minutes have no influence on the reading of the information. The speed
and exactness of the reading change only after a 15-20 minute noise
influence. 2) The decrease in the speed and exactness of the reading

Card 1/2

The influence of noise on the . . .   S/044/62/000/007/096/100
                                        C111/C333

with the increasing duration of the noise points to a fatiguing effect.
3) The influence of the noise is noticable in stronger measure when
reading more complex (for the perception) information from the control
and measuring equipments.

[Abstracter's note: Complete translation.]

Card 2/2

TSUKERMAN, B.I.

Paramagnetic spectrum of trivalent chromium in aluminum nitrate.
Zhur.strukt.khim. 4 no.4:625-627 Jl-Ag '63.   (MIRA 16:9)
(Chromium—spectra)(Aluminum nitrate crystals)

S/181/63/005/001/021/064
B102/B186

AUTHORS: Tsukerman, B. I., and Vinetskaya, M. A.

TITLE: Interpretation of paramagnetic resonance spectra of crystals

PERIODICAL: Fizika tverdogo tela, v. 5, no. 1, 1963, 129-136

TEXT: A method is developed which allows of determining the parameters of the spin Hamiltonian of a paramagnetic ion from the spectroscopically observed paramagnetic resonance at a properly chosen frequency. A corresponding method of calculation is described which is especially simple for certain magnetic-field orientations where the total set of resonances can be observed. The energy operator can be given unambiguously but with plus-minus indeterminacy. The spin Hamiltonian is given by   (1)

$$\mathcal{H} = \beta(g_x H_x S_x + g_y H_y S_y + g_z H_z S_z) - B.$$

where g_x, g_y, g_z, the spectroscopic splitting constants and the operator B determine the interaction of the paramagnetic ion with the lattice field. Paramagnetic resonance is observed at $\varepsilon_1 - \varepsilon_2 = h\nu$ where ν is the

Card 1/5

Interpretation of paramagnetic ...

S/181/63/005/001/021/064
B102/B186

spectroscope frequency and $\varepsilon_{1,2}$ are the energies in the states $\psi_{1,2}$. If ψ_{-s}, ψ_{-s+1} ... ψ_s forms any orthonormalized set of wave-functions in the given space, one can go over to a new space R^2 of the order $(2s+1)^2$ based on all possible normal products $\psi_i \psi_j$. The transition from operator $\mathcal{H}$ to operator $\mathcal{H}'$ acting in R^2 is described by

$$\mathcal{H}\psi_1 = e_1\psi_1 \text{ и } \mathcal{H}\psi_2 = e_2\psi_2;$$

$$\mathcal{H}'(\psi_i\psi_j) = (\mathcal{H}\psi_i)\psi_j - \psi_i(\mathcal{H}\psi_j) \qquad \mathcal{H}'\psi_1\psi_2 = (e_1 - e_2)\psi_1\psi_2.$$

$\varepsilon_{1,2}$ are the eigenvalues of $\mathcal{H}$, $\varepsilon_1 - \varepsilon_2$ is that of $\mathcal{H}'$. For $\overline{R^2}$, a semi-space of R^2 one obtains .

Card 2/5

Interpretation of paramagnetic ...

$$\det\left(\mathcal{H}' - \nu E\right) = \det\left(\mathcal{H}'\left(v\right) - \nu E\right) = \det\left(E + \frac{1}{\nu}\,\mathcal{H}'\left(v\right)\left(E - E_1\right)\right) \times$$

$$\times\left(\mathcal{H}'\left(v\right) - \nu E\right)\left(E + \frac{1}{\nu}\left(E - E_1\right)\mathcal{H}'\left(v\right)\right) =$$

$$= \left(-\nu\right)^{2s+1}\det\left(S_i'H - E_1 B'\left(v\right)E_1 + \frac{1}{\nu}\,B'\left(v\right)\left(E - E_1\right)B'\left(v\right) - \nu E_1\right) =$$

$$= \left(-\nu\right)^{2s+1}\det\left(S_i'H - B\right).$$

(6)

with

$$\langle ij\,|\,B\,|\,kl\rangle = \langle i\,|\,B\left(v\right)\,|\,k\rangle\,\delta_{jl} - \langle j\,|\,B\left(v\right)\,|\,l\rangle\,\delta_{ik} -$$

$$- \frac{1}{\nu}\Big(\langle i\,|\,B\left(v\right)\,|\,j\rangle\langle l\,|\,B\left(v\right)\,|\,k\rangle\,\delta_{jl} - \langle i\,|\,B\left(v\right)\,|\,j\rangle\langle k\,|\,B\left(v\right)\,|\,l\rangle\,\delta_{jl} -$$

$$- \langle j\,|\,B\left(v\right)\,|\,i\rangle\langle l\,|\,B\left(v\right)\,|\,k\rangle\,\delta_{il} + \langle j\,|\,B\left(v\right)\,|\,i\rangle\langle k\,|\,B\left(v\right)\,|\,l\rangle\,\delta_{ik}\Big) + \nu\delta_{ik}\delta_{jl}.$$

(7).

Card 3/5

Interpretation of paramagnetic ...   S/181/63/005/001/021/064
                                        B102/B186

The operator $P = \sum\limits_{\mu=0}^{s(2s+1)} H^{2\mu} P_{2\mu}$ is introduced, for which

$$P_{2s(2s+1)} = (g_x^2 H_x^2 + g_y^2 H_y^2 + g_z^2 H_z^2)^{s(2s+1)} = H^{2s(2s+1)}$$

This polynomial can be represented by the operators A and B, as

$$P_{2s(2s+1)-2} = -\frac{1}{2} \sum_{i \neq j, \, k \neq l} \frac{1}{(i-j)(k-l)} \langle ij|B|kl\rangle \langle kl|B|ij\rangle =$$

$$= (AB(v), \, B(v)) + av^2. \qquad\qquad (8).$$

It is shown how the B-matrix can be determined so that for any v (v denotes a rotation that turns the vector $\{g_x H_x, g_y H_y, g_z H_z\}$ into the OZ direction) the corresponding v-value can be found. If this ν is compared

Card 4/5

Interpretation of paramagnetic ...   S/181/63/005/001/021/064
                                          B102/B186

with the true frequency, the coefficients of B and the g-factors can be found. As an example the paramagnetic resonance of Cr^{3+} in TiO_2 is considered ($\nu = 0.5$ cm^{-1}) and the coefficients of the secular equation are calculated. There are 1 table and 1 figure.

SUBMITTED: July 23, 1962

Card 5/5

35038

S/070/62/007/002/004/022
E132/E160

24,7/00

AUTHORS: Tsukerman, B.I., Meyl'man, M.L., and Sorokina, L.P.

TITLE: Radiospectroscopic orientation of crystals

PERIODICAL: Kristallografiya, v.7, no.2, 1962, 224-228

TEXT: The method described can be used for the orientation of crystals with paramagnetic impurities with an accuracy of about 1'. A simple two circle goniometer is used to turn the crystal specimen in the resonator chamber. The loci of particular resonances are followed and the courses are plotted out on a specially constructed sphere. From the shape of the loci the symmetry of the crystal can be identified. Some qualitative analysis of the nature of the paramagnetic impurities can be made.
There are 5 figures.

SUBMITTED: April 18, 1961

Card 1/1

TSUKERMAN, B.I.; MEYL'MAN, M.L.; SOROKINA, L.P.

Radiospectroscopic orientation of crystals. Kristallografiia 7
no.2:224-228 Mr-Ap '62.   (MIRA 15:4)
                    (X-rays crystallography)

29

The quality of casein used in treating leather. R. Mctlitskaya and H. Tsukerman. *Tsentral. Nauch Issledovatel. Inst. Kozhevennoi Prom. Sbornik Rabot* 10, 245-(19(1938)). Tests were made for the purpose of establishing the suitability of casein as a film former on leather. With first-grade casein (gluing ability 0.80 1.33 kg. cm. transparency 0.63 0.70), cracks appear on the film only after 30 min. on heating to 50°; only such casein can be used. The required elastic properties can be attained only with thin films with the use of glycerol and alizarin oil as plasticizers. The alizarin oil used must produce an emulsion which should not break up in 2 3 days, and which should contain at least 3.6% of SO_3 combined with org substances.

A. A. Hochstück

B- 3 - 1

PREPARING VELOUR FROM REJECTED PIG SKINS. V..A.
Goldshtein and B. I. T ukerman (Tsent. Nauch. Issl.
Inst. Kosh. Prom. Sborn. Rabot, 1934, No. 3, 36--37).--
The processes of soaking, treatment with Na_2S and
CaO, softeners, bisulphite, and pickling are described.
The product is tanned with chrome extract (Cr_2O_3 1.8,
H_2O 80%; basicity 45). The finishing and dyeing are
described.   Ch. Abs.(e)

13
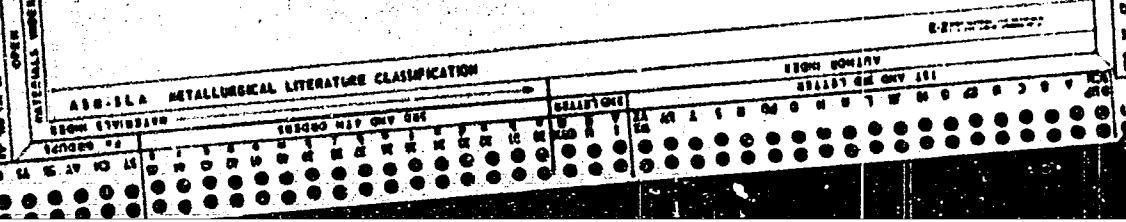
Cleaning valves of internal-combustion engines. A. S. Yeliner and B. B. Tsukerman. U.S.S.R. 67,114, Sept. 30, 1946. To remove deposited lead, valves are treated with a mixt. of AcOH and Na acetate at pH about 3.6 in the presence of Zn dust. M. Hoseh
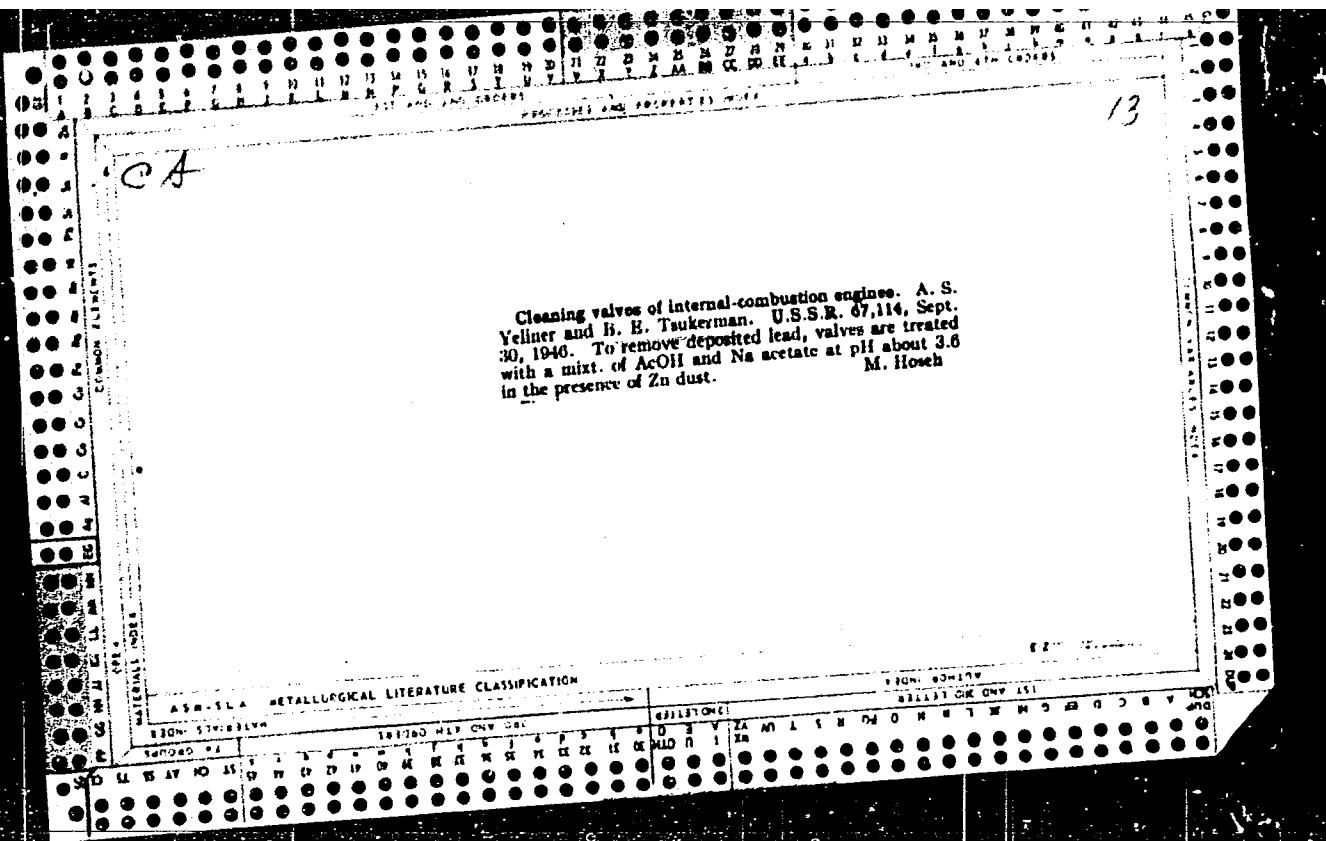
SOV/177-58-4-22/32

AUTHORS: Zyatyushkov, A.I., Colonel of the Medical Corps,
            Candidate of Medical Sciences, and Tsukerman, B.G.

TITLE: The Accommodations and Sick Rate of Submarine Crews
            (Usloviya obitayemosti i zabolevayemosti lichnogo sostava
            na podvodnykh lodkakh) According to Data From Foreign
            Publications (Po dannym inostrannoy pechati)

PERIODICAL: Voyenno-meditsinskiy zhurnal, 1958, Nr 4, pp 74-80 (USSR)

ABSTRACT: The article is founded on data from American, German and
            Italian literature. There is 1 table.

Card 1/1

4,

TSUKERMAN, B. I.; VINETSKAYA, M. A.

Interpretation of paramagnetic resonance spectra in crystals.
Fiz. tver. tela 5 no.1:129-136 Ja '63.   (MIRA 16:1)

(Paramagnetic resonance and relaxation)
(Crystals)

Comparison of domestic (Russian) and foreign casein body colors. B. I. Tsukerman. *Koshtenno-Obuchnaya* *Prom.* 19, Suppl. to No. 1, 60-7(1936); *Chem. Zentr.* 1936, II, 1829.—The Russian and foreign products were compared by measuring particle size, velocity of sedimentation, permeability of the film to water, structure of the film, etc.   M. G. M.

Fixative for casein-base paints. P. F. D'yachenko, B. I. Tsukerman, R. A. Methitskaya, and I. E. Neimark. U.S.S.R. 65,073, March 31, 1946. A soln. of reptptd. casein and blood serum is mixed with a triethanolamine stearate emulsion of montan wax. To this mixt. are added a plasticizer and a tanning substance. M. Hosch

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION
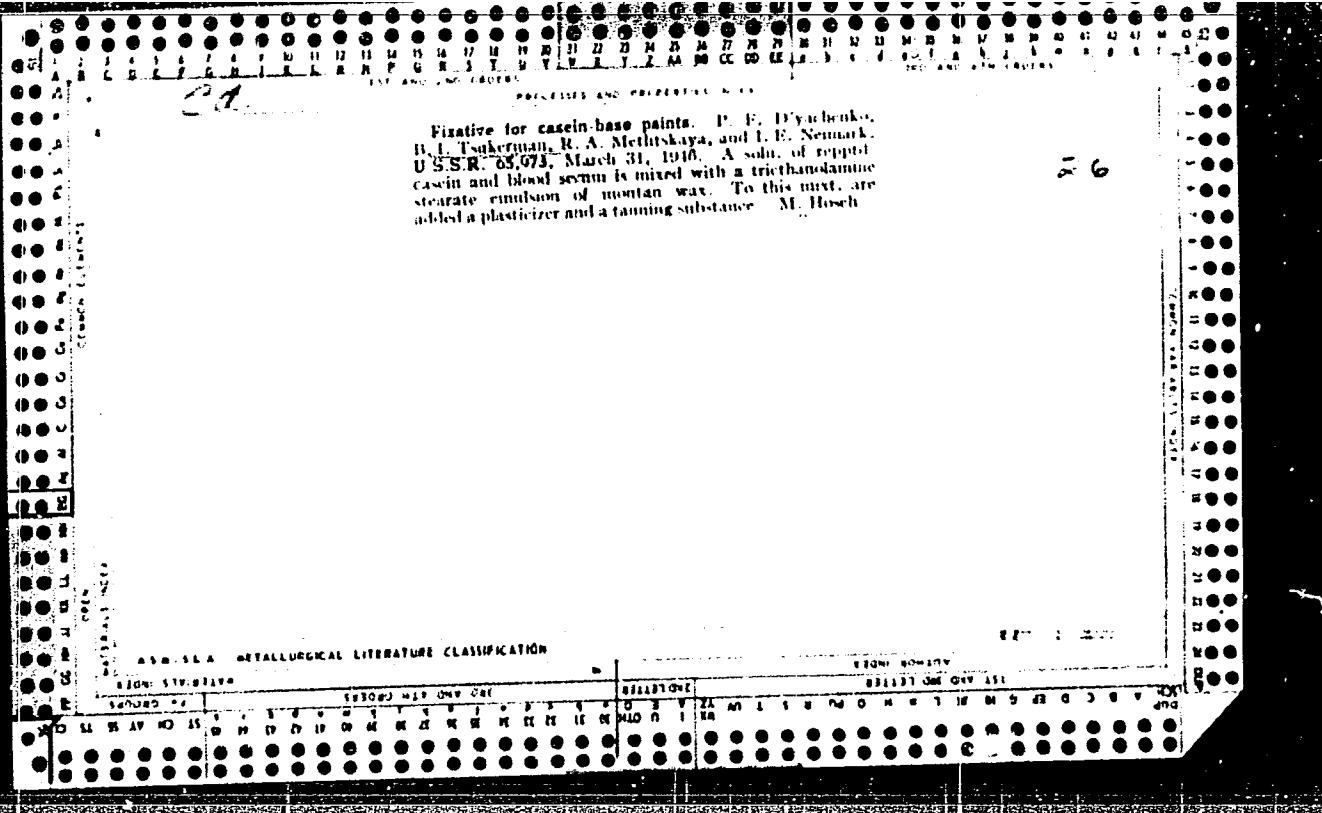
VISHNEVSKIY, A.A., prof.; GALANKIN, N.K., doktor med. nauk; ARAPOV, A.D.;
        AKHMETOV, A.M.; VINITSKAYA, R.S., kand. biol. nauk; VOLYNSKIY,
        Yu.D.; DARBINYAN, T.M., kand. med. nauk; DONETSKIY, D.A., kand.
        med. nauk; KLEMENOVA, Ye.S.; KUDRYAVTSEVA, A.M., kand. med. nauk;
        KRYMSKIY, L.D., kand. med. nauk; LOKSHINA,K.A.;MAZAYEV,P.N.,prof.;PANOVA,
        Yu.M.; PROMTOVA, T.N., kand. biol. nauk; PYL'TSOV, I.M.; SERGEYEVA,
        K.A., kand. med. nauk; KHARNAS, S.Sh., kand. med. nauk; KHRUSHCHEVA,
        kand. med. nauk; TSUKERMAN, B.M., kand. biol. nauk; SHIK, L.L.,
        prof.; GOL'DGAMMER, K.K., red.; BALDINA, N.F., tekhn. red.

[Congenital defects of the heart and large vessels]Vrozhdennye po-
roki serdtsa i krupnykh sosudov; rukovodstvo dlia vrachei. Mo-
skva, Medgiz, 1962. 577 p.   (MIRA 16:1)

1. Deystvitel'nyy chlen Akademii meditsinskikh nauk SSSR (for
Vishnevskiy).
                (CARDIOVASCULAR SYSTEM--DISEASES)

TSUKERMAN, B.M. (Moskva)

Restoration of cardiac function following arrest in experimental
ventricular fibrillation [with summary in English]. Pat.fiziol. i
eksp.terap. 1 no.6:27-34 N-D '57.   (MIRA 11:3)

1. Iz Instituta khirurgii imeni A.V.Vishnevskogo AMN SSSR i laboratorii
eksperimental'noy fiziologii po ozhivleniyu organizma AMN SSSR.
            (VENTRICULAR FIBRILLATION, experimental,
                restoration of cardiac funct. after arrest (Rus))
            (CARDIAC ARREST, experimental,
                in ventric. fibril., restoration of cardiac funct. (Rus))

SHAYLIS, A.I.; TSUKERMAN, B.M.

Diagnosis and therapy of pulmonary artery embolism. [with summary
in English] Eksp. khir. 2 no.1:42-48 Ja-F '57   (MIRA 10:4)

1. Iz Instituta khirurgii imeni A.V. Vishnevskogo (dir.-chlen-
korrespondent AMN SSSR prof. A.A. Vishnevskiy) AMN SSSR.
        (PULMONARY EMBOLISM AND THROMBOSIS, exper.
             diag. & surg. in dogs) (Rus)

TSUKERMAN, B.M,

GALANKIN,. N.K.; TSUKERMAN, B.M.

Surgical treatment of truncus arterious [with summary in English].
Eksper.khir. 2 no.4:8-12 Jl-Ag '57.   (MIRA 10:11)

1. Iz Instituta khirurgii imeni A.V.Vishnevskogo (dir. - deystvitel'-
nyy chlen Akademii meditsinskikh nauk SSSR, zasluzhennyy deyatel'
nauki, prof. A.A.Vishnevskiy) AMN SSSR.
          (CARDIOVASCULAR DEFECTS, CONGENITAL, surg.
               trancus arterious)

TSUKERMAN, B. M.

KRYMSKIY, L.D., kand.med.nauk (Moskva, B-140, Krasnoprudnaya ul., d. 30/34, kv.111); TSUKERMAN, B.M.

Morphological changes in the heart following electrical defibrillation and direct massage. Vest.khir. 79 no.11:86-90 N '57.
(MIRA 11:3)

1. Iz Instituta khirurgii im. A.V.Vishnevskogo AMN SSSR (dir.-prof. A.A.Vishnevskiy).
(HEART, pathology
morphol. changes after electrical defibrillation & direct massage (Rus)
(CARDIAC ARREST,
electric defibrillation & massage, eff. on heart morphol.
(Rus)

TSUKERMAN,B.L., Cand Bio Sci—(ics) "Defibrill tion of the ventricles and auricles in an experiment." Mos, 1958. 18 pp (Acad Med Sci USSR), 200 copies (KL,49-58, 122)

`3 5`

VISHNEVSKIY, A.A., prof.; TSUKERMAN, B.M., kand.biol.nauk; SMELOVSKIY, S.I.,
kand.med.nauk (Moskva)

Control of fibrillating arrhythmia by electrical defibrillation
of the atrium. Klin.med. 37 no.8:26-29 Ag '59.
(MIRA 12:11)
1. Iz Instituta khirurgii imeni A.V.Vishnevskogo AMN SSSR
(dir. - deystvitel'nyy chlen AMN SSSR prof.A.A.Vishnevskiy).
(AURICULAR FIBRILLATION, therapy)
(MITRAL STENOSIS, complications)

SARKISOV, D.S.; DARBINYAN, T.M.; TSUKERMAN, B.M.; KRYMSKIY, L.D.

Production of chronic cardiac aneurysms in rabbits. Eksper. khir.
5 no. 2:53-54 Mr-Ap '60.   (MIRA 14:1)
            (ANEURYSMS)   (CORONARY HEART DISEASE)

SARKISOV, D.S.; DARBINIAN, T.M.; MAZAYEV, P.N.; KRYMSKIY, L.D.; TSUKERMAN,
    B.M.

    Method inducing graduated stenosis of the aorta and its correction
    for studying the reversibility of hypertrophy of the myocardium.
    Eksper. khir. 5 no. 5:11-17 '60.   (MIRA 14:1)
                    (AORTA—DISEASES)

TSUKERMAN, B.M.

Electrical defibrillation of the auricle in 20 patients with mitral
heart defects. Vest. AMN SSSR 16 no.8:32-35 '61.   (MIRA 14:12)

1. Institut khirurgii imeni Vishnevskogo AMN SSSR.
          (ARRHYTHMIA)   (MITRAL VALVE—DISEASES)
              (ELECTROTHERAPEUTIS)

TSUKERMAN, B.S.

Gas processing industry of Canada. Gaz. delo no.12:55-57 '63.
(MIRA 17:10)