L 08128-67

ACC NR: AP6033577

described can be used for the detection and investigation of local levels in semiconductor instruments and in low-resistance semiconductors, where the method of thermally stimulated conductivity cannot be applied. Orig. art. has: 2 figures.

SUB CODE: 20/ SUBM DATE: 07Apr66/ ORIG REF: 003/ OTH REF: 001/
ATD PRESS: 5102

Card 2/2 nst

L 31755-65 EWT(1)/EWG(v)/EEC(t) Pe-5/Pae-2 GW

ACCESSION NR: AR5005730 S/0313/64/000/010/0016/0016

SOURCE: Ref. zh. Issl. kosm. prostr. Otd. vyp., Abs. 10.62.113

AUTHOR: Pariyskiy, Yu. P.

TITLE: On the radiation belts of Jupiter

CITED SOURCE: Astron. tsirkulyar, no. 285, 27 fevr., 1964, 1-2

TOPIC TAGS: Jupiter, radiation belt, brightness temperature, ir temperature, cosmic ray, polarization

TRANSLATION: Observations of Jupiter, carried out in Pulkovo at λ = 3.02 and 6.5 cm, have shown that T_b = 185 ± 30 and 324K, respectively, whereas in the infrared band T = 125K. The excess radiation is connected with the radiation belt of the planet. The spectrum of the electronic component of cosmic rays is much more

Card 1/2

L 31755-65

ACCESSION NR: AR5005730

gently sloping in the internal parts of the radiation belts than in the external ones. It is concluded that the radiating region at $\lambda = 3.02$ cm is located very close to the surface and is strongly stretched in longitude. To confirm this effect, it is proposed to carry it out at the GAO (Main Astronomical Observatory) polarization observations of Jupiter at centimeter wavelengths. Bibliography, 6 titles. S. Makarova.

SUB CODE: AA ENCL: 00

Card 2/2

VYAZEL'SHCHIKOV, Viktor Petrovich; PARITSKIY, Zakhar Nikonovich; IVANOVSKIY, M.D., prof., red.; MARENKOV, Ye.A., red.; MISHARINA, K.D., red. izd-va; DOBUZHINSKAYA, L.V., tekhn. red.

[Handbook on the treatment of gold-bearing ores and placers] Spravochnik po obrabotke zolotosoderzhashchikh rud i rossypei. Pod red. M.D.Ivanovskogo. Moskva, Metallurgizdat, 1962. 650 p. (MIRA 15:12)

(Gold--Metallurgy)

RABINKII, E. [Rabinkiy, Ye.]; PARITSKII, Sh. [Paritskiy, Sh.]

A device for pipe bending. Ratsionalizatsiia 13 no.4:22 '63.

RABINKIY, Ye.; PARITSKIY, Sh.

Device for pipe bending. Mashinostroitel' no.1:31 Ja '63. (MIRA 16:2)

(Pipe bending)

1. PARIY, F. D.

2. USSR (600)

4. Arboriculture

7. Fight for high viability of forest stock.
Les. khoz. 5. No. 10. 1952.

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

PARIYCHUK, N.M.

Results of testing dusting equipment mounted on trucks and tractors.
Zashch. rast. ot vred. i bol. 3 no.1:21-22 Ja-F '58. (MIRA 11:3)

1. Starshiy nauchnyy sotrudnik Povolzhskoy mashinoispytatel'noy stantsii.
(Spraying and dusting equipment)

PARIYCHUK, M.M.

PARIYCHUK, M.M., inzhener; TIMOFEYEVA, Ye.I., agronom

Model SBN-6 mounted beet seeder for districts of irrigated beet growing. Sel'khozmashina no.4:6-8 Ap '54. (MLRA 7:5)

1. Povolzhskaya MIS. (Drill (Agricultural implement))

PROCESSES AND PROPERTIES INDEX

PARIIVSKAYA (Mme A. P.). Мокрая или белая гниль на Льне, [illegible] Sclerotinia libertiana Fuckel. [Wet or white rot of Flax caused by the fungus *Sclerotinia libertiana* Fuckel.]—*Materials for Mycol. and Phytopath.*, Leningrad, viii, 2, pp. 165–170, 6 figs., 1931.

A brief account is given of a severe outbreak of a white rot of flax stems caused by *Sclerotinia libertiana* [*S. sclerotiorum*], similar to that described from Ireland [*R.A.M.*, ii, p. 118], which was observed in 1929 both in experimental plots and in the peasants' fields in the government of Moscow, this being stated to be the first record of the disease in that region. A new feature of the outbreak was the discovery of fruiting apothecia of *S. sclerotiorum* in the fields: these are described as flat, cinnamon-brown bodies borne on cylindrical stipes tapering downwards. The asci are hyaline, cylindrical, 152·9 to 199·4 by 4·3 to 12·4 μ, intermixed with slender paraphyses. The asci contain eight hyaline, ellipsoidal spores, 9·8 to 16·8 by 4·2 to 8·4 μ in diameter. In the field the mycelium of the fungus was very frequently found passing from cruciferous weeds to flax stems in contact with them, this showing the importance of keeping flax fields clear of weeds. In certain localities the percentage of infection was as high as 42, the consequent reduction in the crop being very considerable.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

PARIYEVSKAYA, A. P.

A. M. Veselova, and A. P. Pariyevskaya, "Orientation of Data on Diseases of Hemp," Za Novoe Volokno, no. 5, 1935, pp. 41-46 73.9 Z12

SO: Sira Si 90-53, 15 Dec 1953

PARIEVSKAIA, A. P. [Co-author]

See: GOLDIN, M. I.

PARIEVSKAIA, A. P. "Practices in the Control of Mosaic and Streak of Tomatoes," 1948.

SO: S IRA SI-90-53, 15 Dec. 1953

PA 63/49T47

PARIYEVSKAYA, A. P.

USSR/Medicine - Plants, Diseases Dec 48
Medicine - Tomatoes

"Practices in the Struggle Against Mosaic and Streak in Tomatoes," M. I. Gol'din, A. P. Pariyevskaya, Inst of Microbiol, Acad Sci USSR, 6 pp

"Dok v-s Ak Sel'khoz Nauk" No 12

Directions for growing healthy tomato plants include: eliminating infected plants before and for months after planting in greenhouses and again on planting in the ground. Antivirus processing of the skin of the seed is important. Lowering

63/49T47

USSR/Medicine - Plants, Diseases - Dec 48
(Contd)

the temperature in greenhouses may contribute to the development of streak. Submitted 22 May 47.

63/49T47

PARIEVSKAYA (Mme A. P.). Вирусное заболевание декоративных растений (мозаичное заболевание **Pelargonium** sp.). [A virus disease of ornamental plants (mosaic disease of *Pelargonium* sp.)]—*Микробиология* [*Microbiology*], 17, 5, pp. 376–379, 2 figs., 1948.

Geraniums in floricultural farms in U.S.S.R. were found to be affected with three types of mosaic [*R.A.M.*, 20, p. 304], the numbers of infected plants varying from 1·1 to 9·8 per cent. Leaf crinkling was present in all three types. The laminae of plants showing type 1 had pale and dark green spots and pale green spotting along the veins. At the end of June the symptoms became masked; at the beginning of August small, round yellow spots with dark green centres appeared also in old leaves; young leaves became slightly wrinkled. In type 2 the leaves showed small, bright yellow spots (sometimes ring-shaped) which later coalesced into larger, diffuse, irregular areas. The symptoms disappeared at the end of June. Type 3 showed the whole lamina covered with small yellow spots. Later larger, bright yellow rings with yellow centres developed, and ultimately vivid yellow spotting appeared between the ring-shaped spots.

The results of experiments showed that the disease can be transmitted by grafting, but not by sap inoculations [loc. cit.]. The symptoms on the infected Meteor variety agreed with those caused by *Pelargonium* virus 1 [pelargonium leaf curl virus], but there were some differences from those described by Pape [ibid., 11, p. 245]. It is suggested that the plants were possibly infected with two viruses, one causing leaf curl, and the other mosaic of different types.

PARIYSKAYA, A N.

E-1

USSR / Virology. Bacterial Viruses (Bacteriophages).

Abs Jour : Ref Zhur - Biol., No 18, 1958, № 81201

Authors : Sveshnikova, M. A.; Pariyskaya, A. N.
Inst : Not given
Title : Actinophage Flora in Different Soils.

Orig Pub : Mikrobiologiya, 1958, 27, No. 1, 99-103

Abstract : To isolate actinophages from soil, a suspension of the soil in distilled water was centrifuged, the supernatant liquid was passed through a Zeiss filter, introduced into a melted nutrient agar cooled to 45-50°, and poured into Petri dishes. The solid medium was inoculated with specific actinomycete cultures; the presence of phages was established by the absence of colonies. By this method, actinophages were successfully found in 4 of 14 samples of hothouse soils examined. The majority of isolated phages proved to be polyvalent. No actinophages were found in the other 10 hothouse

Card 1/2

PARIEVSKAIA, A. P. [Co-Author]

See: GOL'DIN, M. I.

PARIEVSKAIA, A. P. "Materials on the Fly Pest of Tomatoes in the Crimea. Some Data on the Biology of the Vector (Hyalesthes obsoleta S.)," 1950.

SO: SIRA SI-90-53, 15 Dec. 1953

R 42

GOLDIN (M. I.) & PASHKEVSKAYA (Mme A. P.). Материалы по столбуру Томатов в Крыму. [Woodiness of Tomatoes in the Crimea.]—Микробиология [*Microbiology*], 19, 5, pp. 527–531, 1 fig., 1950.

Experiments carried out in the summer of 1949 at the Microbiological Institute of the U.S.S.R. Academy of Sciences, Moscow, confirmed that *Hyalesthes obsoletus* is the main vector of the woodiness disease of tomatoes [tomato big bud virus: *R.A.M.*, 27, p. 48] in the Crimea. The disease was most prevalent in the Zuisk district, where the insect was very abundant. In field tests under natural conditions of infection, the 'stemmed' varieties Jubilee, Alpateva, and Gribovsky were the most resistant, being free from infection in three different localities.

In the course of this study the authors observed in the Krasnodar district tomato leaf curl, a virus disease first described by Sukhov and Vovk (A new virus disease of tomato leaf curl and its vector *Agallia venosa*. *C.R. Acad. Sci. U.R.S.S.*, N.S., 56, p. 433, 1947), and bronzing of tomato leaves [*R.A.M.*, 28, p. 161] also of virus nature [? tomato spotted wilt].

Gol'din, M.I. and Parrevskaya, A.P. (Institute of Microbiology, U.S.S.R. Academy of Sciences Moscow). Studies on the "Stolbur" disease of tomatoes in the Crimea. Data on the biology of the carrier of "Stolbur" (*Holcesthes absoletus*), 527-31

Microbiology U.S.S.R. (Mikrobiologia) vol. 19 No. 6 - 1951

IMSHENETSKIY, A.A., akademik; PARIYSKAYA, A.N.; PETROVA, K.Z.

Transmission of biochemical characteristics in bacteria by transformation. Dokl. AN SSSR 151 no.2:443-445 Jl '63. (MIRA 16:7)

1. Institut mikrobiologii AN SSSR.
(Nucleic acids) (Bacteria)

KURSANOV, A.L.; BROVCHENKO, M.I.; PARIYSKAYA, A.N.

Passage of assimilates into the conducting tissues of rhubarb leaves (Rheum rhaponticum L.). Fiziol. rast. 6 no.5:527-536 S-O '59. (MIRA 13:2)

1.K.A. Timiryazev Institute of Plant Physiology, U.S.S.R. Academy of Sciences, Moscow.
(Plants, Motion of fluids on)

PARIYSKAYA, A.N.

SVESHNIKOVA, M.A.; PARIYSKAYA, A.N.

Actinophage flora in various soils [with summary in English].
Mikrobiologiia 27 no.1:99-103 Ja-F '58. (MIRA 11:4)

1. Institut po izyskaniyu novykh antibiotikov AMN SSSR, Moskva.
(ACTINOMYCES
actinophages in soil (Rus)
(SOIL, microbiol.
actinophages (Rus)

SIKOVA, T.P.; PARIYSKAYA, A.N.

Seasonal changes in the relationship of sections of the genus Penicillium in the soil. Biul.MOIP. Otd.biol. 58 no.5:95-100 '53. (MLRA 6:11) (Penicillium)

SILINA, V.P.; PARIYSKAYA, A.N.

Physiology of roses and grasses infected with Erysiphe graminis.
Biul.Glav.bot.sada no.23:68-76 '55. (MIRA 9:7)

1.Glavnyy botanicheskiy sad Akademii nauk SSSR.
(Grasses--Diseases and pests)(Roses--Diseases and pests)(Mildew)

BERZON, I.S.; PARIYSKAYA, G.N.; STARODUBROVSKAYA, S.P.

Recording high-frequency reflected waves in the Russian Platform. Izv. AN SSSR.Ser.geofiz.no.6:644-656 Je '56. (MLRA 9:9)

1.Akademiya nauk SSSR, Geofizicheskiy institut.
(Russian Platform--Seismometry)

PARIYSKAYA, G.N.

Determining the average velocity by the point of intersection in refraction wave hodographs. Trudy Geofiz.no.35:215-247 '56. (MLRA 10:1)

(Seismic waves)

PARIYSKAYA, G.N.

Studying the composite surface relief of vertically stratified media by systems of longitudinal seismic profiles. Trudy Inst.fiz.zem. no.6:283-319 '59. (MIRA 13:5)
(Seismic prospecting)

Pariyskaya, G.N.

PHASE I BOOK EXPLOITATION SOV/3560

Akademiya nauk SSSR. Institut fiziki zemli

Seysmicheskaya razvedka (Seismic Prospecting) Moscow, Izd-vo AN SSSR, 1959. 374 p. (Series: Its: Trudy, No. 6 /173/) Errata slip inserted. 1,500 copies printed.

Ed.: I.S. Berzon, Doctor of Physical and Mathematical Sciences; Ed. of Publishing House: L.I. Ratnikova; Tech. Ed.: V.V. Volkova.

PURPOSE: The publication is intended for geologists and geophysicists, particularly for those interested in the study of seismic waves and their use in geological prospecting.

COVERAGE: This is a collection of 17 articles published by the Academy of Sciences USSR as transactions of the Institute of Physics of the Earth. The first four articles present mainly an analysis of amplitudinal properties of waves. The second group of four articles deals with problems of frequency analysis of seismic waves. The remaining articles cover a wide field of problems in seismology such as methods of interpretation of dynamic properties of waves, observation of reflected latitudinal waves, design of high-frequency seismic instruments, etc. References are given at the end of each article.

AVAILABLE: Library of Congress

ZNAMENSKIY, V.V.; RYABINKIN, L.A.; PETROV, L.V.; VARTANOV, S.P.; GAGEL'GANTS, A.A.; KOTLYAREVSKIY, B.V.; LOZOVSKAYA, I.F.; LYAKHOVITSKIY, F.M.; MAR'IN, N.I.; OSTROVSKIY, V.D.; PARIYSKAYA, G.N.; RIKHTER, V.I.; RUHO, V.V.; SLUTSKOVSKIY, A.I.; TARUTS, G.M.; TURCHANENKO, N.M.; SHMIDT, N.G.; SHNEYERSON, M.B.; GURVICH, I.I., red.; BORUSHKO, T.I., red.izd-va; GUROVA, O.A., tekhn. red.

[Instructions for seismic prospecting] Instruktsiia po seismorazvedke. Moskva, Gosgeolitekhizdat, 1962. 95 p. (MIRA 15:12)

1. Russia (1923- U.S.S.R.) Ministerstvo geologii i okhrany nedr. (Seismic prospecting)

BERZON, I.S., doktor fiz.-matem. nauk; YEPINAT'YEVA, A.M.; FARIYSKAYA, G.N.; STARODUBROVSKAYA, S.P.; FREMD, V.M., red. izd-va; GOLUB', S.P., tekhn. red.

[Dynamic characteristics of seismic waves in real media]Dinamicheskie kharakteristiki seismicheskikh voln v real'nykh sredakh. [By] I.S.Berzon i dr. Moskva, Izd-vo Akad. nauk SSSR, 1962. 511 p. (MIRA 16:2)
(Seismic waves)

PARIYSKAYA, G. N.

Dissertation defended for the degree of Candidate of Physicomathematical Sciences at the Institute of Earth Physics imeni O. Yu. Shmidt in 1962:

"Several Results of the Interpretation of Dynamic Characteristics of Seismic Waves."

Vest. Akad. Nauk SSSR. No. 4, Moscow, 1963, pages 119-145

STARODUBROVSKAYA, S.P.; PARIYSKAYA, G.N. [deceased]

Utilization of the dynamic characteristics of reflected waves for detecting and tracing layers of variable thickness. Razved. geofiz no.2:3-12 '64. (MIRA 18:5)

PARIYSKAYA, L.V., otv.red.; KOGAN, F.N., otv.red.; NEDOSHIVINA, T.G., red.; VLADIMIROV, O.G., tekhn.red.

[Agroclimatic manual for Buryat-Mongolia] Agroklimaticheskii spravochnik po Buriatskoi ASSR. Leningrad, Gidrometeor.izd-vo, 1960. 189 p. (MIRA 14:4)

1. Russia (1923- U.S.S.R.) Glavnoye upravleniye gidrometeorologicheskoy sluzhby. Zabaykal'skoye upravleniye.
(Buryat-Mongolia--Crops and climate)

L 5339-66 EWT(l)/ETC/EPF(n)-2/EWG(m)/EPA(w)-2 IJP(c) AT
ACCESSION NR: AP5021130 UR/0056/65/049/002/0647/0654

AUTHORS: Gurevich, A. V.; Pariyskaya, L. V.; Pitayevskiy, L. P.

TITLE: Self-similar motion of charged plasma

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 49, no. 2, 1965, 647-654

TOPIC TAGS: plasma flow, plasma charged particle, plasma acceleration, plasma temperature

ABSTRACT: A nonlinear kinetic equation is obtained for the description of the self-similar motion of an electron-ion plasma in the absence of collisions. The results are used to determine the expansion of the plasma that occupies a half space and begins to expand into a vacuum at the initial instant of time. The density and the velocity distributions of the ions are obtained. It is shown that during the course of filling the rarefied half space, some of the ions are accelerated by the resulting electric field to velocities of

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L 5339-66 21

ACCESSION NR: AP5021130

the order of the thermal velocity of the electrons. At the same time, the effective temperature of the ions drops sharply and turns out to be many times smaller than the electron temperature (in the case of identical temperatures in the initial plasma). The results of a numerical calculation are presented. 'The authors are grateful to A. A. Vedenov, V. L. Ginzburg, L. A. Rudakov, A. A. Rukhadze, and V. P. Silin for discussion.' Orig. art. has: 2 figures and 20 formulas.

ASSOCIATION: Fizicheskiy institut im. P. N. Lebedeva Akademii nauk SSSR (Physics Institute, Academy of Sciences, SSSR); Institut fizicheskikh problem Akademii nauk SSSR (Institute of Physics Problems Academy of Sciences, SSSR)

SUBMITTED: 10Mar65 ENCL: 00 SUB CODE: ME

NR REF SOV: 008 OTHER: 001

Card 2/2

PARIYSKAYA, L.V.; KOGAN, F.N.; KALACHEVA, A.P.; CHEREDNICHENKO, G.S.. Prinimali uchastiye: PASHNINA, V.I.; KOROBKOVA, T.N.; BURYAKOVA, G.I.; AGASHKINA, N.S.; ANTOKHINA, G.N.; ANUROVA, V.Ya.; BOBINA, M.L.; YERMAKOVA, Z.P.; YEFREMOV, Yu.A.; POLUTSKAYA, L.G.; SHISHKINA, V.G.; LAPTIYEV, P.P., otv.red.; ROGOVSKAYA, Ye.G., red.; SERGEYEV, A.N., tekhn.red.

[Agroclimatic reference book on Chita Province] Agroklimaticheskii spravochnik po Chitinskoi oblasti. Leningrad, Gidrometeor.izd-vo, 1959. 131 p. (MIRA 13:2)

1. Chita. Gidrometeorologicheskaya observatoriya. 2. Starshiy inzhener-agrometeorolog Chitinskoy gidrometeorologicheskoy observatorii (for Pariyskaya). 3. Chitinskaya gidrometeorologicheskaya observatoriya (for Kogan, Kalacheva, Charednichenko). (Chita Province--Crops and climate)

PARIYSKAYA, T.V.

Desensitizing action of ascorbic acid. Trudy Semipal. med. inst. 2:137-142 '59. (MIRA 15:4)

1. Kafedra pediatrii Semipalatinskogo gosudarstvennogo meditsinskogo instituta (ispolnyayushchiy obyazannosti zaveduyushchego kafedroy T.V.Pariyskaya).
(ASCORBIC ACID) (ANAPHYLAXIS)

BAZHENOVA, K.M., dots.; VOL'FOVSKAYA, R.N., dots.; GARVIN, Leonid Iosifovich, dots.; KALASHNIKOV, B.P., prof.; K'YANDSKIY, A.A., prof.; LEVIN, G.Z., prof.; LOPOTKO, I.A., prof.; PARIYSKAYA, T.V., kand. med. nauk; ROZHDESTVENSKIY, V.I., doktor med. nauk; ROMANOVSKAYA, V.K.; TUR, A.F., prof.; KHVILIVITSKIY, T.Ya., prof.; KHROMOV, B.M., prof.; SHRAYBER, M.G., prof.; D'YACHENKO, P.K., red.

[Manual for the physician on emergency and first aid] Spravochnik vracha skoroi i neotlozhnoi pomoshchi. Izd.2., ispr. i dop. Leningrad, Meditsina, 1965. 355 p. (MIRA 18:4)

PARIYSKAYA, T.V., Cand Med Sci -- (diss) "Desensitizing action of certain curative substances." Len, 1958, 17 pp (First Len Med Inst im Academician I.P. Pavlov. Chair of Pediatrics) 200 copies (KL, 28-58, 110)

PARIYSKAYA, Z. N.

The planning of freight transportation Moskva, Goctorgizdat, 1947. 78 p. maps. (49-15217)

TF662.P3

PARIISKAIA, Z. N.

Planirovanie tovarnykh perevozok. [Planning of goods shipments]. Metody opredeleniia ratsional'nykh putei tovarodvizheniia. Moskva, Gostorgizdat, 1947. 78 p. maps, diagrs.
DLC: TF662. P3

SO: Soviet Transportation and Communications, A Bibliography, Library of Congress Reference Department, Washington, 1952 Unclassified

SOV/112-59-5-8757

14(6)

Translation from: Referativnyy zhurnal. Elektrotekhnika, 1959, Nr 5, p 48 (USSR)

AUTHOR: Okorokov, S. D., Zaporozhets, I. I., and Pariyskiy, A. A.

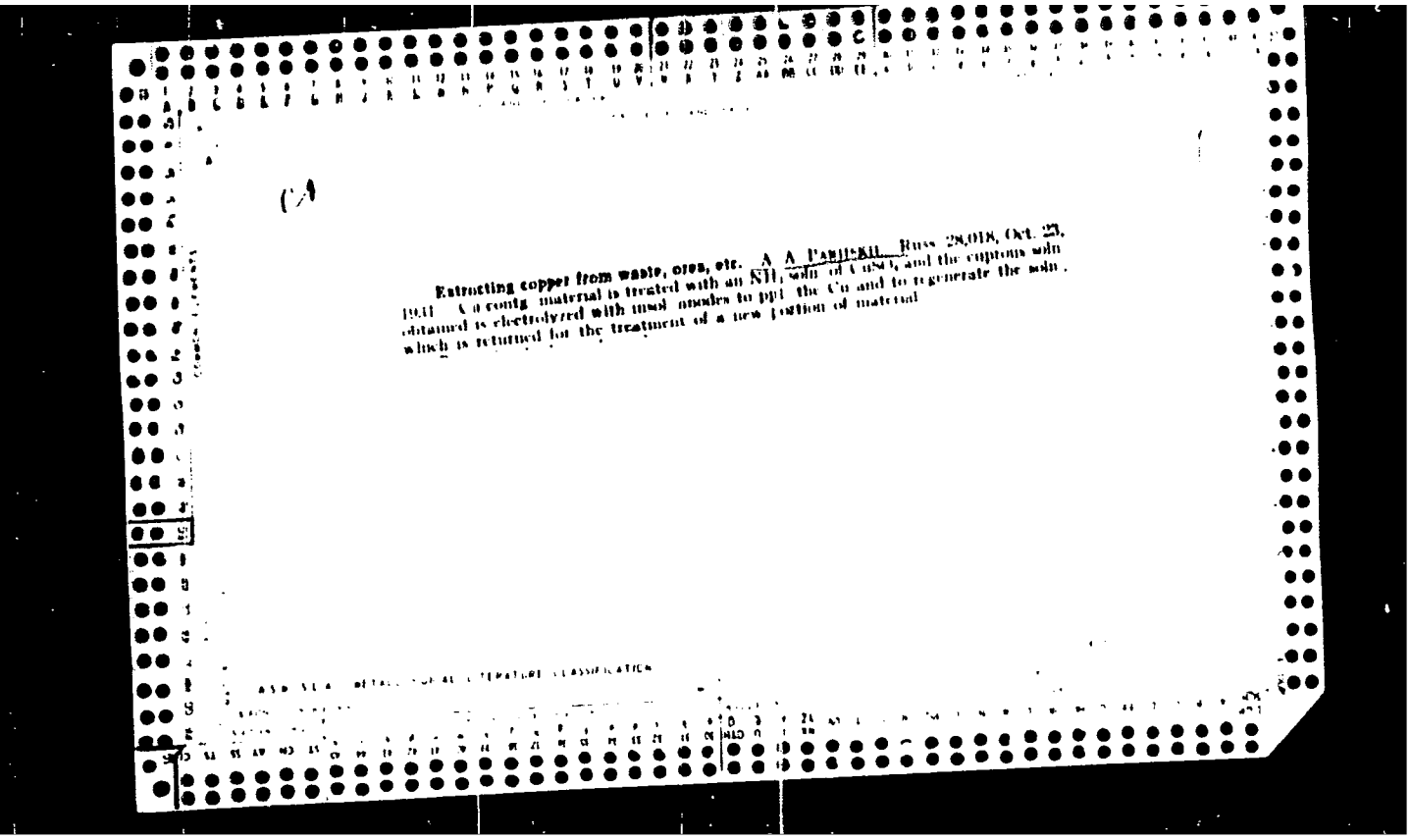
TITLE: Methods for Selecting Materials and Planning Concrete Compositions for Large Hydraulic Structures

PERIODICAL: Nauchno-tekhn. inform. byul. Leningr. politekhn. in-t, 1958, Nr 1-2, pp 17-25

ABSTRACT: Experience of the Chair of Construction Materials, Leningrad Polytechnic Institute, as well as methods and sequence of operations are set forth: (1) breaking up the concrete structure into zones and selecting concrete grades for them; (2) careful analysis of ground and surface waters for aggressiveness; (3) selecting cement grades, and sometimes planning their composition; (4) exploring and choosing the borrow pits with due consideration of all engineering and economic factors; (5) finding the source of desirable coarse aggregate; (6) determining cement requirements and the W/C ratio.

M.K.B.

Card 1/1



(A)

Extracting copper from waste, ores, etc. A. A. Pantskii. Russ. 28,018, Oct. 25, 1931. A Cu-containing material is treated with an NH_4OH soln. of $(NH_4)_2CO_3$, and the cuprous soln. obtained is electrolyzed with insol. anodes to ppt. the Cu and to regenerate the soln., which is returned for the treatment of a new portion of material.

AT - 1 Astronomy

Br. Abs.

Origin of cosmic rays and duration of existence of atoms. V. G. Fesenkov and N. N. Parijski (*Compt. rend. Acad. Sci. U.R.S.S.*, 1943, **39**, 191—194).—From the intensity of cosmic rays it is calc. that the half-life of an "average atom" is $\sim 1{\cdot}6 \times 10^{17}$ years. I. J. B.

BARRE DE SAINT VENANT, Adhemar Jean Claude [1797-1886]; PARIYSKIY, A.A. [translator]; DZHANELIDZE, G.Yu., red.; SNITKO, I.K., red.; AKHLAMOV, S.N., tekhn. red.

[Memoir on the torsion of prisms. Memoir on the flexure of prisms] Memuar o kruchenii prizm. Memuar ob izgibe prizm. Moskva, Gos. izd-vo fiziko-matem. lit-ry. 1961. 518 p. Translated from the French. (MIRA 15:5)

(Elastic rods and wires) (Prisms)
(Barre de Saint Venant, Adhemar Jean Claude, 1797-1886)

S/0049/64/000/011/0029/0039

ACCESSION NR: AP4044025

AUTHORS: Mikhaylova, N. G.; Pariyskiy, B. S.

TITLE: Computing theoretical seismograms for the simplest cases of structure in a medium at normal incidence

SOURCE: AN SSSR. Izv. Seriya geofizicheskaya, no. 1, 1964, 29-39

TOPIC TAGS: seismogram, BESM 2 computer, theoretical seismogram, transition layer, normal incidence, incident wave, reflected wave, refracted wave, double transition layer

ABSTRACT: The authors have set up a program on the BESM-2 for computing theoretical seismograms of plane waves at normal incidence. The computations are made by the difference method. Seismograms have been calculated for waves reflected and refracted at transition and double transition layers. The authors have analyzed the pattern of change in form of the record for waves reflected from transition layers of different thicknesses and for waves refracted at these layers. It is shown that for thin transition layers the form of the reflected wave is similar to the form of the incident wave, but the spectrum is shifted toward lower frequen-

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ACCESSION NR: AP4014025

cies. The form of the refracted wave from the transition layer is almost indistinguishable from the form of the incident wave. A comparison of the forms for the records of waves reflected from a double transition layer and from a layer with constant velocity has shown that there is an insignificant change in displacement for very thin layers. For thick layers the difference becomes appreciable. A comparison of computational results for waves reflected from a transition layer with and without consideration of short waves has shown that when a transition layer is present, interference phenomena in the layer, as a result of short waves, are weak. It is possible then to use the approximation formula of Bortfeld for computations without consideration of the short waves. "The authors express their thanks to V. I. Keylis-Borok and I. S. Berzon for valuable remarks and advice proferred during the prosecution of the work and the reading of the manuscript." Orig. art. has: 7 figures and 16 formulas.

ASSOCIATION: Akademiya nauk SSSR Institut fiziki Zemli (Academy of Sciences SSSR Institute of Physics of the Earth)

SUBMITTED: 18Apr63 DATE ACQ: 14Feb64 ENCL: 00

SUB CODE: AS, PH NO REF SOV: 005 OTHER: 006

Card 2/2

L 11973-66 EWT(1)/EWA(h) GW SOURCE CODE: UR/0387/66/000/001/0013/0023

ACC NR: AP6003333

AUTHOR: Mikhaylova, N. G.; Pariyskiy, B. S.; Saks, M. V.

ORG: Institute of Physics of the Earth, Academy of Sciences SSSR (Institut fiziki Zemli Akademii nauk SSSR)

TITLE: Spectral characteristics of bundles of layers

SOURCE: AN SSSR. Izvestiya. Fizika Zemli, no. 1, 1966, 13-23

TOPIC TAGS: seismography, frequency characteristic, laminar boundary layer, seismic wave, shock wave reflection, wave mechanics

ABSTRACT: The authors consider the frequency characteristics of bundles of layers for reflected waves (the case of normal incidence and plane waves). The characteristics are calculated on a BESM-2 computer and compared with the characteristics of homogeneous layers. The method used for calculation is discussed and the case of a two-layer bundle is examined. The frequency characteristics of bundles with uniformly spaced layers are analyzed as a function of the number, velocity differentiation and thickness of the layers in the bundle. A comparison of the frequency

UDC: 550.834.5

Card 1/3

characteristics of bundles of layers shows several features which distinguish them from homogeneous layers. The extrema for the characteristics of the bundles are not equal. The ratio between two adjacent extrema may be used to determine the nonhomogeneity of the bundle. The difference between this ratio and unity increases as the number of layers decreases and their velocity differentiation increases. The position of the extrema for the characteristics of bundles with respect to the frequency axis is uneven. The number of the extremum decreases as the number of layers in the bundle is reduced. The coefficient of reflection at resonant frequencies may be considerably greater than the maximum coefficients of reflection from thin layers. This explains the extremely intense reflected waves in actual media where the maximum coefficients of reflection from individual thin layers show that there should be no such waves. A comparison of the characteristics of bundles and homogeneous layers shows that it is impossible to use homogeneous layers for approximating bundles with a small number of layers (2-5) when the coefficients of reflection within the bundle are equal to or greater than the coefficients of reflection on its upper surface. Sharp variations in the shape of the frequency characteristics for bundles with a small number of layers when there are slight variations in the thickness of the individual layers in the bundle indicates that discontinuity in the correlation and variation in the shape of the recording for reflected waves in actual media are

L 11973-66
ACC NR: AP6003933

due to changes in the thickness and velocity of the layers in the bundle. Orig. art. has: 5 figures, 2 tables.

SUB CODE: 20/ SUBM DATE: 26Dec64/ ORIG REF: 012/ OTH REF: 003

Card 3/3 vmb

MIKHAYLOVA, N.G.; PARIYSKIY, B.S.

Intensity of waves reflected from the boundaries of the [illegible] in the earth's mantle. Izv. AN SSSR Fiz. zem. [illegible] '65.
(MIRA 18:6)

1. Institut fiziki Zemli AN SSSR.

MIKHAYLOVA, N.G.; PARIYSKIY, B.S.

Calculation of synthetic seismograms for simple cases of the structure of a medium at normal angles of incidence. Izv. AN SSSR. Ser. geofiz. no.1:29-39 Ja'64. (MIRA 17:2)

1. Institut fiziki Zemli AN SSSR.

ACC NR: AT6033688 SOURCE CODE: UR/3231/66/000/001/0092/0106

AUTHOR: Pariyskiy, B. S.; Radchenko, V. P.

ORG: none

TITLE: Longitudinal waves accompanying a fracture

SOURCE: AN SSSR. Institut fiziki Zemli. Vychislitel'naya seysmologiya, no. 1, 1966. Analiz seysmicheskikh nablyudeniy naelektronnykh mashinakh (Use of electronic computers in the analysis of seismic observations), 92-106

TOPIC TAGS: high speed computer, earthquake, seismic modeling, seismic wave, wave mechanics / BESM-2 high-speed computer

ABSTRACT: The article chiefly examines the relation of the dominant wave period to the dimensions of the earthquake focus. This is of special interest in view of the attempts made to estimate the stressed state in the focus according to the relation of earthquake energy to earthquake period. The matter is considered from the standpoint of the plane problem of the excitation of waves due to a discontinuity occurring in a medium represented by a homogeneous ideally elastic space. It is assumed that homogeneous tangential stresses act until a certain

Card 1/2 UDC: 550.34-517:681.142.35

ACC NR: AT6033688

instant in this space. The model of the discontinuity is taken as an ellipse (in the limiting case, a plane slit) at which at the initial instant the tangential stresses begin to decrease to zero. This model corresponds to a strongly extended fracture; the ellipse simulates a zone of inelastic deformations along which displacements occur. The problem reduces to that of the effect of the stresses applied at the initial time instant to that ellipse and the solution is obtained in numerical form, with the polar coordinate being isolated by means of a Fourier transform and the remaining equation being numerically solved with respect to the radial coordinate by means of a BESM-2 high-speed computer. Only longitudinal waves are considered, since a large direct access memory is required to analyze transverse waves. Some findings on the direction in which oscillations are generated within the focus also are obtained but, owing to the idealized treatment of the problem (due to the limited memory capacity of the BESM-2), they cannot be considered absolutely reliable. "The authors are deeply indebted to M. G. Neugauz, A. A. Abramov and L. S. Klabukova for their valuable suggestions and unflagging assistance in this project. Orig. art. has: 17 formulas, 9 figures, 3 tables.

SUB CODE: 08, ~~20~~ 09, 20/ SUBM DATE: none/ ORIG REF: 003/ OTH REF: 001

Card 2/2

VLADIMIROVA, V.I.; ZHAEROVA, G.M.; KADENATSI, B.M.; KAZANSKIY, V.B.; PARTYSKIY, G.B.

Radiation-catalytic transformation of methanol. Dokl. AN SSSR 164 no.2:361-364 S '65. (MIRA 18:9)

1. Institut khimicheskoy fiziki AN SSSR. Submitted February 19, 1965.

KAZANSKIY, V.B.; NIKITINA, O.V.; PARIYSKIY, G.B.; KISELEV, V.F.

Electron paramagnetic resonance study of the radical form of molecular oxygen adsorption on reduced titanium dioxide. Dokl. AN SSSR. 151 no.2:369-372 Jl '63. (MIRA 16:7)

1. Institut khimicheskoy fiziki AN SSSR i Moskovskiy gosudarstvennyy universitet im. M.V.Lomonosova. Predstavleno akademikom V.N. Kondrat'yevym.
(Titanium oxides--Spectra) (Oxygen) (Adsorption)

PARIYSKIY, G.B.

USSR/Physical Chemistry - Kinetics, Combustion, Explosions, Topochemistry, Catalysis. B-9

Abs Jour: Referat.Zhurnal Khimiya, No 3, 1958, 7186.

Author : R. Ye. Mardaleyschvili, G.B. Pariyskiy, V.A. Poltorak, V.V. Voyevodskiy.

Inst : Academy of Sciences of USSR.

Title : Reaction of Deuterium Atoms with Alkenes. Dependence of Methane Deuterization on Concentration of Deuterium Atoms in System.

Orig Pub: Izv. AN SSSR. Otd. khim. n., 1956, No 5, 516-524.

Abstract: The exchange reaction of alkyl radicals with D_2 (RZh-Khim, 1956, 74392) was studied with the application of the mass-spectrometric analysis of D content in the being produced methane. The radicals were formed according to the reaction $D + M \rightarrow R$, where M was C_2H_4, C_3H_6, and iso-C_4H_8. In the cases of C_2H_4 and iso-C_4H_8, the D content in methane increased,

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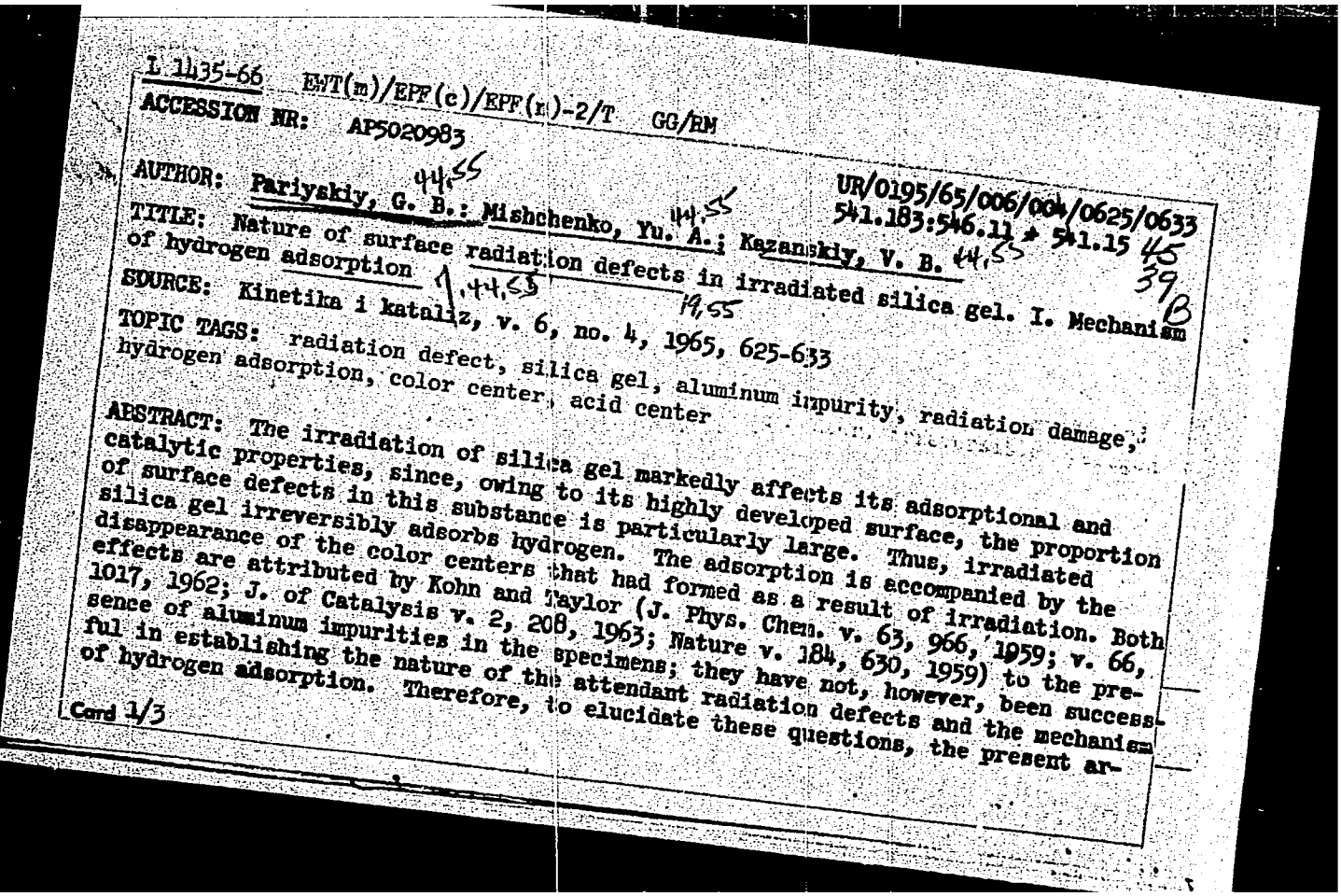
Card : 1/2

PARIYSKIY, G.B.; ZHIDOMIROV, G.M.; KAZANSKIY, V.B.

Spectrum of electron paramagnetic resonance of a methyl radical adsorbed on the silica gel surface. Zhur.strukt.khim. 4 no.3: 364-367 My-Je '63. (MIRA 16:6)

1. Institut khimicheskoy fiziki AN SSSR.
(Methyl group--Spectra)



L 1435-66 EWT(m)/EPF(c)/EPF(n)-2/T GG/RM

ACCESSION NR: AP5020983 UR/0195/65/006/004/0625/0633

AUTHOR: Pariyskiy, G. B.; Mishchenko, Yu. A.; Kazanskiy, V. B. 44,55

TITLE: Nature of surface radiation defects in irradiated silica gel. I. Mechanism of hydrogen adsorption

SOURCE: Kinetika i kataliz, v. 6, no. 4, 1965, 625-633

TOPIC TAGS: radiation defect, silica gel, aluminum impurity, radiation damage, hydrogen adsorption, color center, acid center

ABSTRACT: The irradiation of silica gel markedly affects its adsorptional and catalytic properties, since, owing to its highly developed surface, the proportion of surface defects in this substance is particularly large. Thus, irradiated silica gel irreversibly adsorbs hydrogen. The adsorption is accompanied by the disappearance of the color centers that had formed as a result of irradiation. Both effects are attributed by Kohn and Taylor (J. Phys. Chem. v. 63, 966, 1959; v. 66, 1017, 1962; J. of Catalysis v. 2, 208, 1963; Nature v. 184, 630, 1959) to the presence of aluminum impurities in the specimens; they have not, however, been successful in establishing the nature of the attendant radiation defects and the mechanism of hydrogen adsorption. Therefore, to elucidate these questions, the present ar-

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ACCESSION NR: AP5020983

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ticle describes their investigation by adsorptional, optical, and radiospectroscopic methods. Three varieties of silica gel, each obtained by a different method and having a different content of impurities, were investigated. The first, K-5, was obtained by hydrolysis of a $SiCl_4$ solution and had a surface area of 700±50 m^2/g. The two other specimens were obtained by adding H_2SO_4 to solutions of sodium silicate; the acid was added until a 1N acid solution was obtained, whereupon the precipitate was carefully washed to remove the sulfate ion and dried for 4 hr at 500°C. The surface area of both specimens, which were tagged silica gels I and II, was 300±50 m^2/g. The specimens were irradiated with a Co^{60} γ-radiation source (doses: 10^6 to 2.5×10^7 r). Their absorption spectra in reflected light were then measured with an SF-4 spectrophotometer and their EPR spectra, with an EPR-2 radiospectrometer. It was found that ionizing radiation leads to the formation of free electrons and vacancies. Part of these electrons may be trapped by the protons of the acid centers that had formed as a result of the presence of aluminum impurity, thus leading to the formation of hydrogen. At room temperature the stabilization of H atoms does not occur, and they may react with hydroxyl groups, causing dehydration of the surface. Following departure of the H atom, on the Al atom there remains an uncompensated negative charge which may be neutralized when the vacancy on the adjacent O atom gets stabilized. Thus, the color centers forming under the

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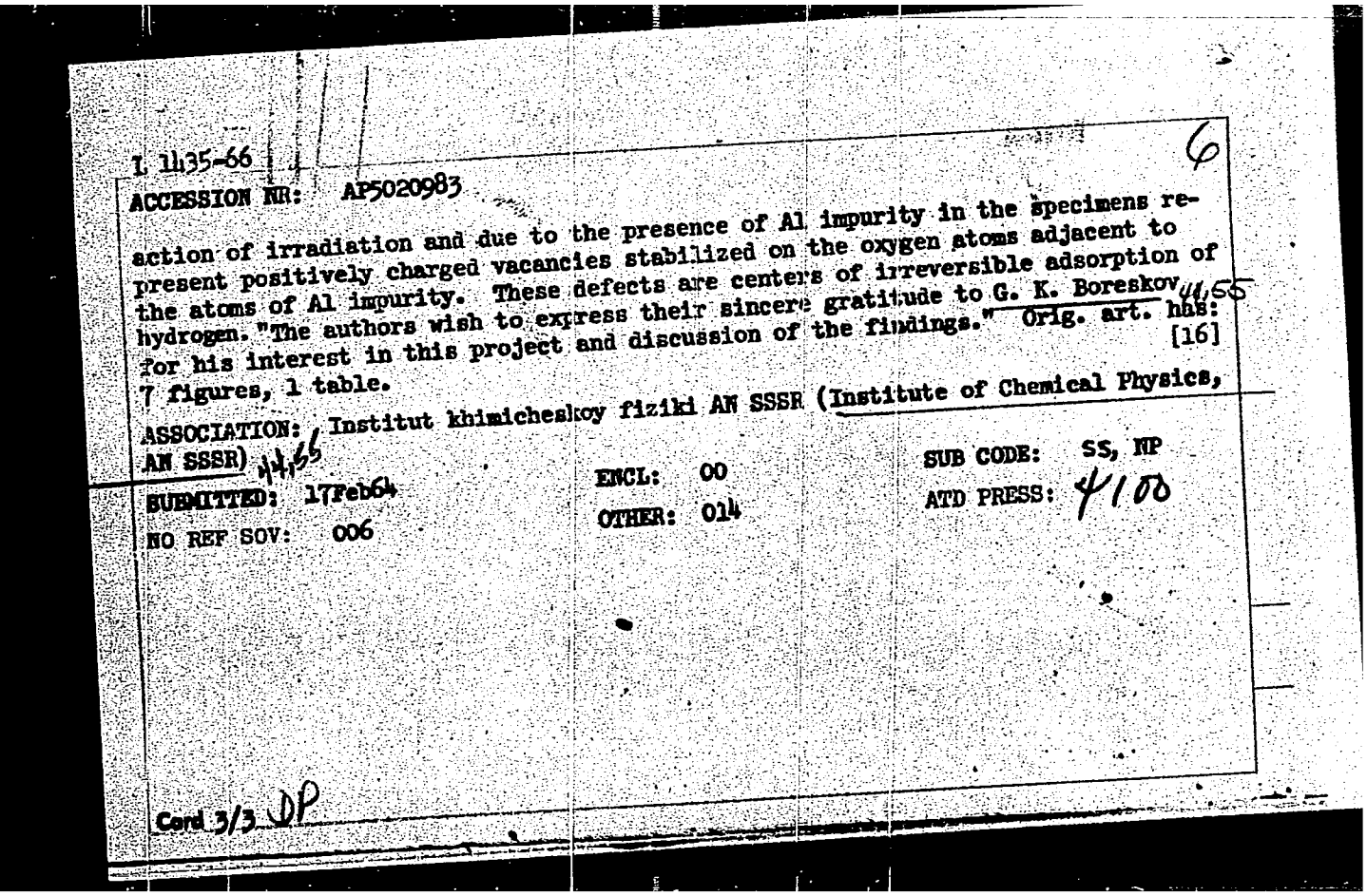

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ACCESSION NR: AP5020983

6

action of irradiation and due to the presence of Al impurity in the specimens re-present positively charged vacancies stabilized on the oxygen atoms adjacent to the atoms of Al impurity. These defects are centers of irreversible adsorption of hydrogen. "The authors wish to express their sincere gratitude to G. K. Boreskov for his interest in this project and discussion of the findings." Orig. art. has: 7 figures, 1 table. [16]

ASSOCIATION: Institut khimicheskoy fiziki AN SSSR (Institute of Chemical Physics, AN SSSR)

SUBMITTED: 17Feb64 ENCL: 00 SUB CODE: SS, NP

NO REF SOV: 006 OTHER: 014 ATD PRESS: 4100

Card 3/3 DP

L 1327-66 EWT(m)/EPF(c)/EPF(n)-2/EWP(j)/EWA(h)/EWA(l) GG/RM

ACCESSION NR: AP5024005 UR/0020/65/164/002/0361/0364

AUTHOR: Vladimirova, V. I.; Zhabrova, G. M.; Kadenatsi, B. M.; Kazanskiy, V. B.; Pariyskiy, G. B.

TITLE: Radiation-catalytic conversion of methanol

SOURCE: AN SSSR. Doklady, v. 164, no. 2, 1965, 361-364

TOPIC TAGS: methanol, gamma radiation, radiation chemistry, electron paramagnetic resonance, free radical, silica gel, alumina, aluminum silicate, semiconductor, heterogeneous catalysis

ABSTRACT: The authors had established earlier that during the combined action of ionizing radiation and solids of different electronic properties, the dielectric-type oxides SiO_2, Al_2O_3, and aluminum silicate $SiO_2 \cdot Al_2O_3$, in which paramagnetic centers and adsorbed radicals were detected, displayed the greatest activity in the conversion of cyclohexane in the adsorbed layer, whereas semiconductors and metals, which had no paramagnetic centers or radicals, were inactive. In order to determine the scope of these findings, a similar study was made on the radiation-catalytic decomposition of methanol in the adsorbed layer at 20°C. Co^{60} gamma radiation being used (dose rate, 4.3×10^{15} ev/g·sec; adsorbed radiation dose, 8.2×10^{19} to

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L 1327-66

ACCESSION NR: AP5024005

7×10^{21} ev/g). It was found that as in the case of the heterogeneous radiolysis of cyclohexane, SiO_2, Al_2O_3, and $SiO_2 \cdot Al_2O_3$ were the most effective catalysts for methanol; the radiation-chemical yield and rate of formation of hydrogen, formaldehyde, and ethylene glycol on silica gel were ten times as high as in the case of homogeneous radiolysis. The electron spin resonance spectra of the radicals formed on SiO_2 and Al_2O_3 were recorded. Oxides with semiconducting properties such as ZnO showed a considerably lesser catalytic activity. The results confirm the relationship established earlier between the radiation-catalytic activity of solids and their electronic properties. The high radiation-chemical yields of hydrogen, formaldehyde, and ethylene glycol during decomposition of methanol on silica gel, aluminum oxide, and aluminum silicate are apparently closely related to the processes of transfer of the energy of ionizing radiation absorbed by these solids to the molecules adsorbed on the surface. Orig. art. has: 1 figure, 1 table. [14]

ASSOCIATION: Institut khimicheskoy fiziki Akademii nauk SSSR (Institute of Chemical Physics, Academy of Sciences, SSSR)

SUBMITTED: 04Feb65 ENCL: 00 SUB CODE: OC, GC

NO REF SOV: 005 OTHER: 004 ATD PRESS: 4103

Card 2/2

KAZANSKIY, V.B.; PARIYSKIY, G.B.; BURSHTEYN, A.I.

Using the electron paramagnetic resonance method in studying the properties of hydrogen atoms formed by γ-irradiation of silica gel. Opt.i spektr. 13 no.1:83-89 Jl '62. (MIRA 15:7)
(Paramagnetic resonance and relaxation) (Silica) (Hydrogen)

44562
S/020/63/148/001/021/032
B144/B186

11.12.10

AUTHORS: Vladimirova, V. I., Zhabrova, G. M., Kadenatsi, B. M., Kazanskiy, V. B., Pariyskiy, G. B.

TITLE: Joint action of radiation and oxide catalysts on the dehydrogenation of cyclohexane

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 148, no. 1, 1963, 101-104

TEXT: The radiation effect on catalytic systems is studied in the dehydrogenation of cyclohexane activated by SiO_2, Al_2O_3, MgO, ZrO_2, ZnO, or NiO. After a vacuum pretreatment of the catalyst at 400°C, cyclohexane vapors were led over it. The determinations concerned: 1) the catalytic properties after irradiation with 0.8 Mev electrons at room temperature, dose $2.4 \cdot 10^6$ rad/sec, energy absorption $1.4 \cdot 10^9$ rad; 2) the paramagnetic properties after gamma irradiation with Co^{60} at - 196°C, dose 3200 mcu, energy absorption $5 \cdot 10^6$ - $1 \cdot 10^8$ rad. 1) A low-temperature dehydrogenation of cyclohexanone took place. Good results were obtained

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with SiO_2, Al_2O_3 and alumosilicate with a H_2 evolution of 0.58, 0.565, and 0.405 mg/g. ZrO_2, MgO and ZnO were hardly active and NiO was completely inactive. On SiO_2, the conversion percentage increased with increasing irradiation dose. Thus, the oxides that proved effective were just those that are ineffective under normal catalytic conditions, even at high temperatures; while the otherwise active ZnO and NiO proved ineffective in catalysis combined with radiation. 2) The e.p.r. spectra revealed additional lines in the irradiated samples which are attributed to the formation of adsorbed free radicals, i.e. C_6H_7. This effect was most marked on SiO_2 and increased with increasing dose. Similar signals were observed for alumosilicate and Al_2O_3. Weak additional lines were observed in MgO and ZrO_2, but their origin was not cleared up. No lines at all were detected for irradiated ZnO and NiO, either with or without adsorption of cyclohexanone. The different activity of the catalysts studied in oxide catalysis combined with irradiation is explained by

their different electron properties. In dielectrics and poor semiconductors the radiation-induced ionization is stronger, since the electrons and holes formed are longer trapped and the paramagnetic centers are resistant at low temperatures, while they vanish so rapidly in ZnO and NiO that no e.p.r. signals could be recorded. There are 2 figures and 1 table.

ASSOCIATION: Institut khimicheskoy fiziki Akademii nauk SSSR (Institute of Chemical Physics of the Academy of Sciences USSR)

PRESENTED: July 30, 1962, by V. N. Kondrat'yev, Academician

SUBMITTED: July 19, 1962

KAZANSKIY, V.B.; PARIYSKIY, G.B.

Electronic paramagnetic resonance spectrum of ethyl radicals adsorbed on a silica gel surface. Kin.i kat. 2 no.4:507-508 Jl-Ag '61. (MIRA 14:10)

1. Institut khimicheskoy fiziki AN SSSR.
(Radicals (Chemistry)—Spectra)

21769

S/195/61/002/002/004/004
B101/B208

24.7900 1035 1160
5.1190 1208 1274 1297

AUTHORS: Mishchenko, Yu. A., Boreskov, G. K., Kazanskiy, V. B., Pariyskiy, G. B.

TITLE: Effect of ionizing radiation on the catalytic and magnetic properties of titanium dioxide

PERIODICAL: Kinetika i kataliz, v. 2, no. 2, 1961, 296

TEXT: Several papers published in the course of the last years studied the possibility of changing the catalytic properties of solids under the influence of high-energy radiation. Kohn and Taylor (Refs. 1, 2) observed a considerable effect of gamma and neutron radiations on the catalytic properties of Al_2O_3 and of catalysts on SiO_2 basis (Ref. 3) in the isotopic H - D exchange. It was the purpose of the present study to investigate the effect of gamma radiation on catalytic and magnetic properties of TiO_2. The catalytic properties were studied by H - D exchange; the magnetic properties by electron paramagnetic resonance. The TiO_2 samples consisted of anatase with specific surface of the order 130 m^2/g. TiO_2 was heated to 500°C for several

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Effect of ...

hours at 10^{-5} mm Hg prior to irradiation. The samples thus treated exhibited no marked catalytic properties at 0°C. They were now irradiated with gamma rays of Co^{60} in vacuo at the temperature of liquid nitrogen with 120 r/sec The integral dose was about $1.7 \cdot 10^{7}$ r. The irradiated samples showed high catalytic activity at the temperature of liquid nitrogen. The catalytic activity was increased by at least 3-4 orders of magnitude. Heating of the irradiated samples to 0°C considerably decreased the catalytic activity. The constant of the reaction rate at 0°C 1 hr after thawing was by about two orders of magnitudes smaller than at the temperature of liquid nitrogen. The TiO_2 samples heated in vacuo at 500°C showed no signal when the epr spectrum was taken. At the temperature of liquid nitrogen, the samples irradiated gave a signal with well-resolved hyperfine structure, total width 400 oersteds, g factor approximately 2. The signal does not change if the sample is stored at the temperature of liquid nitrogen. Short heating to room temperature reduced intensity and changed the shape of the signal. When the samples were kept for 1 hr at room temperature the signal became stable. This parallelism in the changes of catalytic activity and epr signal was also observable in silica gel (Refs. 3-5) and Al_2O_3 (Refs. 2, 6). It

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B101/B208

may be concluded therefrom that irradiation gives rise to the formation of centers (defects, radicals) that cause the increased catalytic activity and the epr signal. The authors are now studying more thoroughly the changes of the epr signal and of the catalytic activity in the annealing of TiO_2 samples and under the action of various gases. References: 1) H. W. Taylor, E. H. Kohn, J. Amer. Chem. Soc., 79, 252, 1957; 2) E. H. Kohn, H. W. Taylor, J. Phys. Chem., 63, 500, 1959; 3) E. H. Kohn, H. W. Taylor, J. Phys. Chem., 63, 966, 1959; 4) E. H. Kohn, private communication on the 2nd International Congress of Catalysis, Paris, July 1960; 5) V. B. Kazanskiy, G. B. Pariyskiy, V. V. Voyevodskiy, Dokl. na II Vsesoyuznom soveshchanii po radiatsionnoy khimii (2nd All-Union Conference on Radiation Chemistry), October, 1960; 6) V. B. Kazanskiy, Yu. I. Pecherskaya, Zh. fiz. khim., 34, 477, 1960. [Abstracter's note: Complete translation of the original paper] There are 6 references: 3 Soviet-bloc and 3 non-Soviet-bloc. The 3 references to English language publications are given in the text of the abstract.

ASSOCIATION: Fiziko-khimicheskiy institut im. L. Ya. Karpova (Physico-chemical Institute imeni L. Ya. Karpov)

SUBMITTED: February 15, 1960

Card 3/3

PARTYSKIY, G. B., VOYEVODSKIY, Vladislav V., KAZANSKIY, V. B.

"Radiation induced surface reactions in silicagel."

report to be submitted for the Faraday Society, General Discussion on Radiation Effects in Inorganic Solids, Gif-sur-Yvette (Seine-et-Oise), France, 11-12 Apr 1961.

Inst. of Chemical Physics, Acad. Sci. USSR, Moscow.

MISHCHENKO, Yu. A.; BORESKOV, G.K.; KAZANSKIY, V.B.; PARIYSKIY, G.B.

Effect of ionizing radiation on the catalytic and magnetic properties of titanium dioxide. Kin. i kat. 2 no.2:296 Mr-Ap '61. (MIRA 14:6)

1. Fiziko-khimicheskiy institut imeni L. Ya. Karpova.
(Titanium oxide) (Gamma rays)

VLADIMIROVA, V.I.; ZHAEROVA, G.M.; KADENATSI, B.M.; KAZANSKIY, V.B.; PARIYSKIY, G.B.

Joint action of radiation and oxide catalysts on the dehydrogenation of cyclohexane. Dokl. AN SSSR 148 no.1:101-104 Ja '63. (MIRA 16:2)

1. Institut khimicheskoy fiziki AN SSSR. Predstavleno akademikom V.N. Kondrat'yevym.

(Cyclohexane) (Dehydrogenation) (Radiation)
(Metallic oxides)

KAZANSKIY, V. B.; PARIYSKIY, G. B.

"The e.s.r. study of free radicals adsorbed on catalysts."

report submitted to 3rd Intl Cong on Catalysis, Amsterdam, 20-25 Jul 64.

Inst of Chemical Physics, AS USSR, Moscow.

KAZANSKIY, V.B., PARIYSKIY, G.B.

"ESR studies of the reactivity and structure of free radicals stablized on solid surfaces."

Report submitted to the Sixth Intl. Symp. on Free Radicals, Cambridge, England 2-5 July 1963

MARDALEYSHVILI, R.Ye.; PARIYSKIY, G.B.; POLTORAK, V.A.; VOYEVODSKIY, V.V.

Deuterium atom reactions with alkenes. Relation of methane deuteration to the concentration of deuterium atoms in the system. Izv.AN SSSR Otd. khim.nauk no.5:516-524 My '56. (MIRA 9:9)

1.Moskovskiy gosudarstvennyy universitet imeni M.V.Lomonosova i Institut khimicheskoy fiziki Akademii nauk SSSR.
(Deuterium) (Methane)

S/195/60/001/004/005/015
B017/B055

AUTHORS: Kazanskiy, V. B., Pariyskiy, G. B., Voyevodskiy, V. V.

TITLE: A Study on the Properties of Hydrogen Atoms Adsorbed on Silica Gel Surfaces by Applying Electron Paramagnetic Resonance

PERIODICAL: Kinetika i kataliz, 1960, Vol. 1, No. 4, pp. 539-541

TEXT: R. Livingston, H. Zeldes, E. H. Taylor (Ref. 1) and N. N. Bubnov, V. V. Voyevodskiy, L. S. Polyak and Yu. D. Tsvetkov found that under the influence of γ-radiation at liquid nitrogen temperature hydrogen atoms, detectable by the EPR method, are formed from adsorbed water molecules or OH groups on the surfaces of glass and silica gel. The properties of the hydrogen atoms adsorbed on the surface of silica gel were studied in the present publication. Co^{60} was used as source of radiation. The EPR spectra were taken at liquid nitrogen temperature on a spectrometer with a high-frequency magnetic field. The spectra of the irradiated silica gel are represented graphically in a figure. The removal of hydrogen atoms from the silica gel surface in presence of ethylene was investigated, and

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A Study on the Properties of Hydrogen Atoms Adsorbed on Silica Gel Surfaces by Applying Electron Paramagnetic Resonance

S/195/60/001/004/005/015
B017/B055

it was found that the desorption rate of hydrogen atoms in presence of ethylene exceeds the desorption rate in vacuum by a factor of thirty. Hydrogen atoms adsorbed at -100 to -150°C react with ethylene and oxygen. There are 1 figure and 3 references: 2 Soviet and 1 British.

ASSOCIATION: Institut khimicheskoy fiziki AN SSSR (Institute of Chemical Physics of the AS USSR)

SUBMITTED: August 2, 1960

Card 2/2

ZHABROV, G.M.; KAZANSKIY, V.B.; VLADIMIROVA, V.I.; KADENATSI, B.M.; PARIYSKIY, G.B.

Emulsion-catalytic conversions of cyclohexane. Neftekhimiia 4 no.5, 763-782 S-O '64. (MIRA 18:1)

1. Institut khimicheskoy fiziki AN SSSR.

45354

S/181/63/005/002/043/051
B102/B186

5.4400

AUTHORS: Kazanskiy, V. B., Pariyskiy, G. B., Aleksandrov, I. V., and Zhidomirov, G. M.

TITLE: Investigation of the interaction of free radicals with the surface of a solid (silica gel) by the e.p.r spectra

PERIODICAL: Fizika tverdogo tela, v. 5, no. 2, 1963, 649 - 659

TEXT: The authors give a detailed analysis of the e.p.r. spectra of atomic hydrogen, methyl, ethyl and polymer radicals adsorbed on several types of silica gels (specific surfaces 290, 300, and 700 m^2/g). The studies were made in order to obtain information on the nature and the geometry of binding and the motions in the adsorbed state. The e.p.r. spectra were taken at λ = 3.2 cm and a hf modulation frequency of 1 Mc. The epr spectrum of adsorbed hydrogen is characterized by a hyperfine splitting constant of A = 1411±0.1 Mc (for free hydrogen it is A_o = 1420.40 Mc) and a great asymmetry of the components. On the basis of the present authors' earlier results (Kinetika i kataliz I, no. 4, 539, 1960) the hyperfine splitting

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Investigation of the ...

constants $A_\perp$ and $A_\parallel$ for $\vec{H} \perp \vec{E}$ and $\vec{H} \parallel \vec{E}$) are calculated:

$$A_\perp = A_{xx} = A_{yy} = A - \frac{47}{60}\frac{\mu_e\mu_n}{a_0^3}\lambda^2; \quad (4a)$$

$$A_\parallel = A_{zz} = A + \frac{47}{30}\frac{\mu_e\mu_n}{a^3}\lambda^2; \quad (4b)$$

$$A = \frac{8}{3}\frac{\mu_e\mu_n}{a^3}(1 - 15.5\lambda^2) = A_0(1 - 15.5\lambda^2); \quad (4c)$$

$\lambda = a^2E/e$. The anisotropy of hyperfine splitting is obtained as

$$A_\parallel - A_\perp = \frac{47}{20}\frac{\mu_e\mu_n}{a^3} = \frac{141}{160}A_0\lambda^2. \quad (5)$$

; z $\parallel$ E and perpendicular to the surface. The anisotropy of the g-factor, $\Delta g = g_\parallel - g_\perp$, is very weak ($\sim 10^{-6}$) and not to be observed in experiment. The polarization energy of the hydrogen atom in the E field was obtained as ~1 kcal/mole. The e.p.r. spectrum of deuterium atoms adsorbed on SiO_2 is considerably narrower and is symmetrical, with smaller amplitudes of the side components. The e.p.r. spectrum of the methyl radicals was measured at -196°C; it consists of four hyperfine structural lines with a distance of 23.1±0.1 oe and with an amplitude ratio of 1 : 8.5 : 13 : 2.5. instead of 1 : 3 : 3 : 1. This can be ex-

plained by the loss of rotational degrees of freedom of CH_3 on adsorption. The e.p.r. spectrum of the ethyl radical consists of 12 lines and can be considered as quadruplet arising on hyperfine interaction of the unpaired electron with the protons of the CH_3 group, each quadruplet line being split into a triplet due to interaction with the CH_2 protons. The e.p.r. spectrum of the polymer radical consists of six broad poorly resolved components (~25 oe distance). The results show that the e.p.r. spectra of adsorbed radicals differ considerably from those of free radicals or of radicals stabilized in solid polycrystalline matrices. The surface effect becomes apparent in a reduction of the hyperfine splitting constant (for hydrogen in a deformation of its electron shell) and in a change of the character of motion due to losses of degrees of freedom or of equilibrium positions of the radicals in the matrices. There are 9 figures and 1 table.

ASSOCIATION: Inatitut khimicheskoy fiziki AN SSSR, Moskva (Institute of Chemical Physics AS USSR, Moscow)

SUBMITTED: September 27, 1962

Card 3/3

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Experimental determination of the formation of a detached shock wave in dead gases. PMTF no.1:98-102 Ja-F '65. (MIRA 18:8)

L 39313-65 EWT(d)/EWT(l)/EWP(m)/EWT(m)/EWP(w)/EWA(d)/EPR/FCS(k)/EWA(h)/EWA(c)
Pd-1/Pi-4 WW/EM
ACCESSION NR: AP5009550 S/0207/65/000/001/0098/0102

AUTHOR: Maslennikov, V. G. (Leningrad); Parivskiy, I. G. (Leningrad); Rozov, S. I. (Leningrad); Stuchenkov, A. M. (Leningrad)

TITLE: Experimental study of the location of a detached shock wave in real gases

SOURCE: Prikladnoy mekhaniki i tekhnicheskoy fiziki, no. 1, 1965, 98-102

TOPIC TAGS: supersonic flow, shock wave, stand off distance, detached shock wave, ballistic shock tube, real gas, vibrational excitation, thermodynamic equilibrium

ABSTRACT: A method is described for measuring the stand-off distance of a bow shock wave from a blunt body in free flight, and the effect of excitation of vibrational degrees of freedom on the location of the detached shock wave in air and in carbon dioxide is investigated by means of a ballistic shock tube. It is stated that this method is free from all errors due to refraction of light in the gas shock

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L 39313-65
ACCESSION NR: AP5009550

layer. A schematic diagram of the setup (see Fig. 1 of the Enclosure) and a description of the experimental procedure are given. Oscillographs of the flow over bodies of various hemispherical shapes and at various velocities from 500 to 2000 m/sec are presented. Theoretical data, with $\gamma = 1.4$, are compared with the results of experimental measurements of the stand-off distance in air from a hemispherical model 15 mm in diameter, at initial pressures of 100 mm Hg and 1 atm, at velocities of M = 1 to 7, and in carbon dioxide from a hemispherical model 57mm in diameter at velocities of M = 2 to 4. An analysis of the results shows that a variation in the initial pressure, at given M, leads to a substantial variation of the stand-off distance and that for all values of the initial pressure, the variation in the stand-off distance with increased M, shows a tendency for establishment of thermodynamic equilibrium in the shock layer. The flow regimes which correspond to a total "freezing" equilibrium and nonequilibrium excitation of vibrations were investigated. Orig. art. has: 7 figures. [AB]

Card 2/4

ARKAD'YEVA, Ye.N.; PARITSKIY, L.G.; RYVKIN, S.M.

Method of long-wave photoelectric sounding of local levels in semiconductors. Fiz. tver. tela 4 no.6:1578-1588 Je '62. (MIRA 16:5)

1. Fiziko-tekhnicheskiy institut imeni A.F.Ioffe AN SSSR, Leningrad. (Junction transistors) (Photoconductivity) (Quantum theory)

PARITSKIY, L. G.

Dissertation defended for the degree of Candidate of Physicomathematical Sciences at the Physics Institute imeni P. N. Lebedev in 1962:

"Investigation of Attachment of Current Carriers and the Kinetics of Impurity Photoconductivity of Semiconductors."

Vest. Akad. Nauk SSSR. No. 4, Moscow, 1963, pages 119-145

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(Continued on next card

ANTIPOV, K.F. ---(continued) Card 2.
GRANOVSKIY, G.I., redaktor; DE[illegible], F.[illegible], redaktor; CHARNKO, D.V., redaktor; [illegible], M.Ye., [deceased]; SOKOLOVA, T.F., [illegible]

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