

LEBEDEVA, O., inzh.; ROZOV, R., inzh.; TYULENEV, V., inzh.

High structure for a seismic district. Prom. stroi. i inzh.  
soor. 4 no.3:43-44 My-Je '62. (MIRA 15:7)  
(Barauni, India--Petroleum coke)  
(Earthquakes and building) (Building, Iron and steel)

TYULENEV, V.G.; ZALKIN, S.L., redaktor.

[Light mechanization in drilling] Malaja mekhanizatsiia v bureni.  
Moskva, Gos. nauchno-tekhn. izd-vo neftianoi i gorno-toplivnoi lit-ry.  
1950. 57 p. (MLRA 7:6)  
(Boring machinery)

TYULENEV, V. G.

"Slow Mechanization in Drilling," Moscow, 1950

XXX

TYULENEV. V.S.

Effect of different compatibility of the parents on the development of calves. Zhur.ob.biol.23.no.6:474-477 N-D'62. (MIRA 16:7)

1. Omskiy sel'skokhozyaystvennyy institut imeni S.M.Kirova  
(CATTLE BREEDING) CALVES)



TYULENEV, Ya.A., kand.tekhn.nauk; YAROSHENKO, V.A., kand.tekhn.nauk;  
SIDOROV, N.N., kand.tekhn.nauk

The bearing capacity of sand foundations of deep cylindrical  
footings. Transp. stroi. 12 no.12:40-43 D '62. (MIRA 16:1)  
(Soil mechanics) (Bridges--Foundations and piers)

TYULENEV, Ye.A., kand.tekhn.nauk

Supporting power of cylindrical footings. Transp. stroi. 13  
no.6:55-56 Je '63. (MIRA 16:9)

(Foundations)

TYULENEV, YE. A.

"Methods of Testing the Strength of Wood by a TsNIS Instrument and the Determination of the Load Capacity of Elements in Wooden Structures (Compressions and Shearings Along the Grain)." Cand Tech Sci, All-Union Sci-Res Inst of Railroad Construction and Planning, Moscow, 1954.  
(RZhMekh, Nov 54)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (11)

SO: Sum. No. 521, 2 Jun 55



TYULENEV, V.G.; CHERNENKO, S.A.

The operation and effectiveness of AUS-3. Neftianik 1 no.10:  
24-26 0 '56. (MLRA 9:11)

1. Nachal'nik sektora Giproneftemasha (for Tyulenev). 2. Glavnyy inzhener proyekta Giproneftemasha (for Chernenko).  
(Oil well drilling--Equipment and supplies)

MOSEKALEV, I.L.; TYULENEV, Ye.A., starshiy nauchnyy sotrudnik

Boring holes at the base of inclined shell-type columnar foundations. Transp. stroi. ll no.7:15-17 J1 '61. (MIRA 14:7)

1. Nachal'nik mostootryada No. 1 Mostotresta (for Moskaev).
2. Vsesoyuznyy nauchno-issledovatel'skiy institut transportnogo stroitel'stva (for Tyulenev).  
(Cka River--Bridges--Foundations and piers)  
(Piling (Civil engineering))

TYULENEV, Ye.A., kand.tekhn.nauk; TER-MIKHELYAN, F.M., inzh.

Effect of clay mortars on the adhesion of concrete to rein-  
forcements. Transp.stroi. 9 no.8:45-46 Ag '59. (MIRA 13:1)

(Omsk--Bridges--Foundations and piers)  
(Reinforced concrete--Testing)

TYULENEV, YE. A.

KHLEBNIKOV, Ye.L. professor; ANDREYEV, O.V., kandidat tekhnicheskikh nauk;  
 BEGAM, L.G., kandidat tekhnicheskikh nauk; BERG, O.Ya., kandidat  
 tekhnicheskikh nauk; GAMAYUNOV, A.I., kandidat tekhnicheskikh nauk;  
 DUCHINSKIY, B.W., kandidat tekhnicheskikh nauk; KAZNY, I.I., kandi-  
 dat tekhnicheskikh nauk; IESOKHIN, B.F., kandidat tekhnicheskikh  
 nauk; LUGA, A.A., kandidat tekhnicheskikh nauk; LYALIN, N.B., kandi-  
 dat tekhnicheskikh nauk; MEL'NIKOV, Yu.L., kandidat tekhnicheskikh  
 nauk; POL'YEVKO, V.P., kandidat tekhnicheskikh nauk; PROKOPOVICH, K.  
 G., kandidat tekhnicheskikh nauk; STRELETSKIY, N.N., kandidat tekhnicheskikh nauk;  
 TYULENEV, Ye.A., kandidat tekhnicheskikh nauk; KHROMETZ,  
 Yu.N., kandidat tekhnicheskikh nauk; SHELESTENKO, I.P., kandidat tekhnicheskikh nauk;  
 SHPIRO, G.S., kandidat tekhnicheskikh nauk; YAROSHENKO,  
 V.A., kandidat tekhnicheskikh nauk; ZELEVICH, P.M., inzhener; CHEGO-  
 DAYEV, N.N.; BOEROVA, Ye.N., tekhnicheskiiy redaktor.

[Technical specifications for designing bridges and pipes for railroads  
 of a normal gauge (TUPM-56) Effective July 1, 1957 by order of Ministry  
 of Means of Communication and the Ministry of Transportation Con-  
 struction, September 15, 1956] Tekhnicheskie uslovia proektirovaniya  
 mostov i trub na zheleznykh dorogakh normal'noi kolei (TUPM-56). Vvedeny  
 v kachestve vremennykh s 1 iul'ia 1957 g. prikazom Ministerstva putei  
 soobshcheniya i Ministerstva transportnogo stroitel'stva of 15 sentya-  
 bria 1956 g. No.250/TsZ/213. Moskva, Gos.transp.zhel-dor.izd-vo, 1957.  
 221 p. (MLRA 10:5)

1. Russia (1923-

U.S.S.R.), Ministerstvo putei soobshcheniya.  
 (Railroad bridges--Design)

CA

Basic factors which determine the structural effectiveness of a flotation cell. Zh. T. Tyshnev. *Gornyi Zhurnal*, No. 8, 19 23 (1940). Critical analysis of the paper by Bocharnikov (*Ibid.*, 129, No. 9, 34-7 (1940)). The principal index in evaluating the effectiveness of a flotation cell is its degree of aeration expressed as the ratio of the vol. of air delivered to the vol. of the cell. M. Hovsh



AMIROVA, S.A.; TYULENEVA, G.Ye.

Investigation of the process of oxidizing roasting of Kachkenar  
slag. TSvet. met. 38 no.1:70-73 Ja '65 (MIRA 18:2)

AMIROVA, S.A.; PECHKOVSKIY, V.V.; VARSKOY, B.N.; TYULENEVA, G.Ye.

Mechanism of the oxidation of a vanadium-containing spinellide. Zhur.  
fiz.khim. 37 no.7:1603-1606 J1 '63. (MIRA 17:2)

1. Permskiy politekhnicheskii institut.



AMIROVA, S.A.; PECHKOVSKIY, V.V.; TYULENEVA, G.Ye.; VARSKOY, B.N.

Investigation of the mineral constituents of oxidized vanadium  
slags. Zhur. prikl. khim. 36 no.5:937-941 My '63. (MIRA 16:8)

1. Permskiy politekhnicheskiy insittut.  
(Vanadium ores) (Metallic oxides)

KEYYER, N.P.; MAMAYEVA, Ye.K.; ALIKINA, G.M.; TYULENEVA, L.I.; AFANAS'YEVA, S.M.

Catalytic properties of chelate polymers based on quinaldine  
bis-thioamides. *Kin.i kat.* 6 no.5:849-853 S-O '65.  
(MIRA 18:11)

1. Institut kataliza Sibirskogo otdeleniya AN SSSR.

ARHUTOV, N.V.; BAZAROV, L.S.R.; POLYAN, Yu.A.; KIRKOV, A.D.; TYURNEVA, L.S.;  
SHUGUROVA, N.A.

Nature of the variation of the composition of solutions in the  
formation process of the fluorite-bearing chambered pegmatite.  
Dokl. AN SSSR 164 no.5:1147-1150 O '65.

(MIRA 18:10)

1. Institut geologii i geofiziki Sibirskogo otdeleniya AN SSSR.  
Submitted February 15, 1965.

DEMIN, G.I.; PLUZHNIKOV, A.I.; CHURAKOV, A.M., inzh.; ZHILIN, I.S., inzh.;  
MAKAROV, D.M., inzh.; LEBEDEV, N.D., inzh.; SHISHLOV, D.D., inzh.;  
IGLIN, V.P., inzh.; YEVLAYEV, E.S., laborant; KISELEV, V.V.,  
laborant; KOTEL'NIKOV, V.V., laborant; TYULENEVA, N.I., laborant

Transfer of a holding furnace to heating by natural gas with  
self-carburation. Stal' 23 no.8:755-758 Ag '63. (MIRA 16:9)

1. Moskovskiy institut stali i splavov (for Demin, Pluzhnikov).  
(Furnaces, Heating)

BORESKOV, G.K.; DZIS'KO, V.A.; TYULIKOVA, T.Ya.

Effect of water and oxygen on the polymerization of ethylene on a  
chromium oxide catalyst. Dokl. AN SSSR 136 no.1:125-128 Ja '61.  
(MIRA 14:5)

1. Fiziko-khimicheskiy institut im. L.Ya.Karpova. 2. Chlen-  
korrespondent AN SSSR (for Boreskov).  
(Ethylene) (Polymerization) (Oxygen) (Water)

TYULINA, L. R., Cand Bio Sci -- (diss) "Powdery mildew on winter wheat in  
Moscow Oblast and measures to combat it," Moscow, 1960, 19 pp, (Moscow  
State University imeni M. V. Lomonosov)  
(KL, 38-60, 107)

VELICHKIN, Ye.A., red.; KARAMTSHEV, I.A., red.; LEVIN, B.I., red.;  
STAVRAKOV, Ye.Kh., red.; TYULENEVA, L.M., red.; TEMKINA, Ye.L.,  
tekhn.red.; KORNEYEVA, V.I.

[Proceedings of the section on construction for transportation]  
Sekttsia transportnogo stroitel'stva. Moskva, Gos. izd-vo lit-ry  
po stroit., arkhitekt. i stroit. materialam, 1958. 372 p. (MIRA 12:1)

1. Vsesoyuznoye soveshchaniye po stroitel'stvu. Moscow, 1958.
2. Zamestitel' ministra transportnogo stroitel'stva (for Levin).  
(Transportation)

TYULENEVA, M.V.

Clinical and radiographic observations in spondylolisthesis.  
Trudy Tsent. nauch.-issl. inst. rentg. i rad. 10:144-148 '59.  
(MIRA 12:9)

(SPINE--DISEASES)



BELIKOV, I.F., kand.biol.nauk; TYULENEVA, N.P.

Biochemical characteristics of soybean varieties of the Maritime Territory. Masl.-zhir.prom. 25 no.10:19-21 '59.  
(MIRA 13:2)

1. Dal'nevostochnyy filial Sibirskogo otdeleniya AN SSSR.  
(Maritime Territory--Soybean--Varieties)

BELOZERSKIY, A.N.; ZAYTSEVA, G.N.; TYULENEVA, N.P.

Chemistry of Azotobacter. Report No.4: Amino acid composition of three Azotobacter species cultured on different sources of nitrogen nutrition [with summary in English]. Mikrobiologiya 27 no.1:7-11 Ja-F '58. (MIRA 11:4)

1. Moskovskiy gosudarstvennyy universitet im. M.V. Lomonosova, Biologo-pochvennyy fakul'tet.

(AZOTOBACTER, metab.

amino acids of 3 species cultured with different nitrogen sources (Rus)

(AMINO ACIDS, metab.

Azotobacter, 3 species cultured with different nitrogen sources (Rus)

ZAYTSEVA, G.N., TYULENEVA, N.P.

Quantitative determination of amino acids on chromatograms through  
the formation of derivatives with ninhydrin. Lab.delo 4 no.3:24-30  
My-Je '58 (MIRA 11:5)

1. Iz kafedry biokhimii rasteniy biologo-pochvennogo fakul'teta  
Moskovskogo gosudarstvennogo universiteta.

(AMINO ACIDS)  
(CHROMATOGRAPHIC ANALYSIS)  
(NINHYDRIN)

SOV/123-59-20-84085

Translation from: Referativnyy zhurnal. Mashinostroyeniye, 1959, Nr 20, p 213 (USSR)

AUTHORS: Yamshanov, P.I., Tyuleneva, T.A.

TITLE: The Lithoidal Fracture Structure of Castings From 35KhNL Grade Steel

PERIODICAL: Sb. statey Ural'skiy z-d tyazh. mashinostr. im. S. Ordzhonikidze, 1958, Nr 4, pp 76 - 87

ABSTRACT: In order to elucidate the nature of the lithoidal fracture of 35KhNL grade steel castings, the temperature at which cracks appear was investigated. In the critical temperature range (700 - 200°C), 35KhNL steel possesses a lithoidal fracture which is characterized by a destruction along the borders of primary grains. The formation of a lithoidal fracture in steel castings can be enhanced by the following factors: the alloying components Cr, Ni; increased metal temperature in the furnace and during the pouring; slow cooling of the metal in the mold; intense liquidation development and considerable gas saturation of the steel. A description is given of the formation scheme of lithoidal structure, which can be eliminated by steel recrystallization, and, in the case of a very stable lithoidal state, by homogenizing. The main reason

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SOV/123-59-20-84085

The Lathoidal Fracture Structure of Castings From 35KhNL Grade Steel

for the development of cold cracks is the low ductility of steel and its high sensitivity to gashes in a cast state. In order to prevent cold cracks in steel castings it is necessary to design the machine parts, if possible, with a uniform wall thickness, to design whenever possible hollow chamfers, not to allow abrupt transitions from one cross-section to another, nor transitions without hollow chamfers, and to disperse the metal feed into the mold, for which purpose more feeders have to be installed, which widen towards the machine part. Moreover, impurities and scab must not be allowed in castings, machine parts with abrupt transitions in body thickness should be longer held in the mold, in order to eliminate more completely the stress, and it is necessary to handle the machine part with care until it has undergone full thermal treatment. 13 figures.

K.V.I.

Card 2/2

TYULENEVA, T. A.

with Yamshanov, P. I. "Stone-like Structure of Fractures in 35kN/L Steel Castings"

with Yamshanov, P. I. "Cracks in Steel Castings"

Making of Large Castings, Moscow, Mashgiz, 1958, 108pp.

(This book was prepared for the 25th Anniversary of the Uralsmashzavod. The stages of founding development in the plant and the plant's progress and achievements in this field are described.

YAMSHANOV, P.I.; TYULENEVA, T.A.

Stony fracture appearance in 35KhNL steel castings. Sbor.st.UZTM  
no.4:76-87 ' 58. (MIRA 11:12)  
(Steel castings--Testing) (Steel alloys--Metallography)

YAMSHANOV, P.I., TYULENEVA, T.A.

Cracks on steel castings. Sbor.st.UZTM no.4:99-109 '58.  
(MIRA 11:12)

(Steel castings--Testing) (Steel--Analysis)



KNUNYANTS, I.L.; PEROVA, Ye.Ya.; TYULENEVA, V.V.

Reactions of perfluore olefins. Part 5. Reactions for the conjugate  
addition of halides. Izv.AN SSSR Otd.khim.nauk no.7:843-849 J1 '56.  
(MLRA 9:10)

1. Institut elementeorganicheskikh soedineniy Akademii nauk SSSR.  
(Olefins) (Halides)

## AUTHORS:

Lutsenko, I. F. and Tyuleneva, V. V.

79-2-49/58

## TITLE:

Reduction of Mercurated Amides of Carboxylic Acids with Phosphorous Acid Esters (Vosstanovleniye merkurirovannykh karbonovykh kislot efirami fosforistoy kisloty)

## PERIODICAL:

Zhurnal Obshchey Khimii, 1957, vol 27, No 2, pp. 497-499 (U.S.S.R.)

## ABSTRACT:

The results obtained during the reaction of trialkylphosphites with mercurated carboxylic acid amides are described. It was found that this reaction leads to a quantitative separation of metallic mercury and formation of carboxylic acid amides and nitriles as well as phosphoric acid esters. The amide radical doesnot become alkylated in this case. Instead of the alkylated amide, the authors obtained good yields of trialkylphosphate and carboxylic acid amides and nitriles. It was observed that the reaction between the mercurated carboxylic acid amide and trialkylphosphite is accompanied by considerable heat liberation. Five minutes' boiling of the reaction mixture resulted in complete separation of the metallic mercury. The trialkoxyphosphazoacyls forming after the separation of the carboxylic acid amide molecule experience

Card 1/2

79-2-49/58

Reduction of Mercurated Amides of Carboxylic Acids with Phosphorous  
Acid Esters

further decomposition into trialkylphosphate and carboxylic acid nitrile.  
It is pointed out that the reaction passes through an intermediate stage  
with the formation of acylimidophosphoric acid esters, which are thermally  
unstable.

There are 6 references, of which 3 are Slavic

ASSOCIATION: Moscow State University

PRESENTED BY:

SUBMITTED: March 13, 1956

AVAILABLE: Library of Congress

Card 2/2

KNUNYANTS, I.L.; PERVOVA, Ye.Ya.; TYULENEVA, V.V.

Addition reactions of perfluoroolefins. Report No. 14: Conjugated  
addition of halides and mercury salts. Izv. AN SSSR. Otd. Khim.  
nauk no. 1:88-93 Ja '61. (MIRA 14:2)

1. Institut elementoorganicheskikh soedineniy AN SSSR.  
(Olefins) (Mercury organic compounds)  
(Fluorine organic compounds)



L 12718-63

ACCESSION NR: AP3002298

acids did not give trifluoroethylene on hydrolysis. Orig. art. has: 3 tables, 4 formulas and 2 figures.

ASSOCIATION: Institut elementoorganicheskikh sovedineniy Akademii nauk SSSR  
(Institute of Organoelemental Compounds, Academy of Sciences SSSR)

SUBMITTED: 15Jan63

DATE ACQ: 16Jul63

ENCL: 00

SUB CODE: 00

NO REF SOV: 004

OTHER: 001

Card 2/2

KNUNYANTS, I.L.; PERVOVA, Ye.Ya.; TYULENEVA, V.V.

Reactions of fluorinated olefins. Report no.17: Competing  
conjugation in perfluoroalkenylphosphinic esters. Izv. AN SSSR.  
Ser.khim. no.9:1576-1583 S '63. (MIRA 16:9)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.  
(Phosphinic acid) (Olefins) (Conjugation (Chemistry))

KNUNYANTS, I.L.; TYULENEVA, V.V.; PERVOVA, Ye.Ya.; STERLIN, R.N.

Pseudophosphonium compounds from triethyl phosphite and  
perfluoroclefins. Izv. AN SSSR. Ser. khim. no.10:1797-  
1801 0 '64. (MIRA 17:12)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.



ACC NR: AP6027957

SOURCE CODE: UR/0020/66/169/003/0094/0027

AUTHOR: Knunyants, I. L. (Academician); Shokina, V. V.; Tyuleneva, V. V.

ORG: Institute of Heteroorganic Compounds, Academy of Sciences, SSSR (Institut elementoorganicheskikh soedineniy Akademii nauk SSSR)

TITLE: Reactions of perfluoro olefins with nucleophilic reagents. Trifluoropyruvic acid and its derivatives.

SOURCE: AN SSSR. Doklady, v. 169, no. 3, 1966, 594-597

TOPIC TAGS: perfluoroethylene oxide hydrolysis, trifluoropyruvic acid derivatives; ETHYLENE OXIDE, OLEFIN, HYDROLYSIS, AMMONOLYSIS

ABSTRACT: In the presence of H<sub>2</sub>O and silica gel at 100°C, perfluoroethylene oxide (I) is easily hydrolyzed to form IV, a stable compound with mp 125-126°C, boils at 156-158°C with decomposition. Hydrolysis of I in the presence of acetone yields the adduct V (mp 111-112°C): Alcoholsis of I yields the ester III, which is saponified with sulfuric acid in the presence of silica gel at 140°C to yield esters VIa and VIb: VIa was also obtained by methylation of IV with diazomethane and saponification of the methylation product.

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UDC: 547.484

ACC NR: AP6027957

Amonolysis of I at  $-40^{\circ}\text{C}$  yields VII (mp  $113-114^{\circ}\text{C}$ );  
Amonolysis of VIII in dry ether yielded IX (mp  $139^{\circ}\text{C}$ ).

[WA-50; CBE No. 11]

SUB CODE: 07/ SUBM DATE: 23Dec65/ ORIG REF: 007

Card 2/2

YAMSHANOV, P.I., kandidat tekhnicheskikh nauk; TYULENEVA, T.A., inzhener.

Causes for the occurrence of stony fracture and cold cracks  
in 35KhNL steel castings. Trudy Ural. politekh. inst. no.60:  
140-143 '56. (MLRA 9:10)

(Steel castings--Testing)

BYULENEVA, M. dots.

In the Scientific and Technical Council of the Ministry of Agriculture  
of the U.S.S.R. Veterinariia 36 no.5:85-89 My '59.

(R12, 12:4)

(Veterinary medicine)

TYLENKOVA, M.F.

Through the Soviet Union. Veterinaria 35 no.2:94-96 F '58.  
(MIRA 11:2)

(Veterinary medicine)

TYULEN'KOVA, M.F.,

In the Council of Science and Technology of the Ministry of Agriculture of the U.S.S.R. Veterinariia 35 no.4:92-93 Ap '58.

(MIRA 11:3)

1. Uchenyy sekretar'- glavnyy vetvrach Veterinarnoy sekti nauchno-  
tekhnicheskogo soveta Ministerstva sel'skogo khozyaystva SSSR.  
(Veterinary medicine)

TYULEN'KOVA, M.F.

In the Technical council of the Ministry of Agriculture of the U.S.S.R.  
Veterinariia 34 no.4:90-92 Ap '57. (MIRA 10:4)  
(Veterinary medicine)

~~TYULEN'KOVA, M.F.~~

In the Technical and Scientific Council of the Ministry of Agriculture  
of the U.S.S.R. Veterinaria 35 no.10:92-94 0 '58. (MIRA 11:10)  
(Veterinary medicine)





TYULIN, A. F.

DECEASED 1955

SEE ILC

*Soil Science*

TYULIN, A.S.  
CA

Methods of increasing the effectiveness of manure and phosphate. A. S. Tyulin. *Soviet Agron.* 9, No. 3, 32-49 (1951).—Expts. in the steppe region show greater losses of  $\text{NH}_3$  from manure piles than in the humal regions. The high temp. and winds cause these losses. Addns. of rock phosphate flour decrease the loss of  $\text{NH}_3$  of manure rich in pentosans and cellulose. Addns. of phosphates to the manure increases their availability with composting. Superphosphate addns. to manure in the humal temperate climate of the Moscow province cuts down the losses of  $\text{NH}_3$ , but in the south (steppe) the losses are still high even with superphosphate. I. S. Ioffe

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

TYULIN, A.T.

Ca

15

The causes and mechanism of an increased cation exchange in various soils after  $\text{Ca}(\text{OH})_2$  treatment. A. Tyulin and B. M. Bystrov. *Trans. 2nd Intern. Congr. Soil Sci., Leningrad 1930 7*, 85-107(1933); (in English).-- A review and extended discussion of lab. expts. with various soils and artificial gels, from which it is concluded that increase in exchange capacity following  $\text{Ca}(\text{OH})_2$  treatment is due principally to activation of "coagels" formed by the mutual pptn. of oppositely charged sols, e. g., negatively charged clay and positively charged  $\text{Fe}_2\text{O}_3\text{aq}$ . This passive gel can again acquire a neg. charge and upon  $\text{Ca}(\text{OH})_2$  treatment  $\text{Ca}^{++}$  is adsorbed, to be released subsequently by exchange with other cations. Thirty-six references. C. J. Schollenberger

COMMON ELEMENTS

OPEN MATERIALS INDEX

ASSOCIATED METALLURGICAL LITERATURE CLASSIFICATION

1ST AND 2ND ORDERS

3RD AND 4TH ORDERS

COMMON MATERIALS INDEX

1ST AND 2ND ORDERS

3RD AND 4TH ORDERS

TYULEN'KOVA, M.F.

In the Scientific and Technical Council of the Ministry of  
Agriculture of the U.S.S.R. Veterinariia 36 no.10:91-93  
0 '59. (MIRA 13:1)

(Veterinary medicine)

TYULENKOVA, M.F.

In the Scientific and Technical Council of the Ministry of Agriculture.  
Veterinaria 36 no.11:93-95 N '59 (MIRA 13:3)  
(Veterinary medicine)

TYULEN'KOVA, M.F.

In the Science and Technology Council of the Ministry of  
Agriculture of the U.S.S.R. Veterinaria 35 no.12:78-80  
D '58. (MIRA 11:12)

(Veterinary medicine)

TYULICHEV, D.V. (Leningrad)

Library of the history of science. Vop.ist.est.i tekhn. no.10:189-190  
'60. (MIRA 14:3)

(Leningrad--Scientific libraries)



S/020/61/136/001/026/037  
E004/BC56

AUTHORS: Boreskov, G. K., Corresponding Member AS USSR, Dzis'ko, V.A.,  
and Tyulikova, T. Ya.

TITLE: The Effect of Water and Oxygen on the Polymerization of  
Ethylene Upon Chromium Oxide Catalysts

PERIODICAL: Doklady Akademii nauk SSSR, 1961, Vol. 136, No. 1,  
pp. 125-128

TEXT: Greatly differing data of the efficiency of chromium oxide catalysts in ethylene polymerization (Refs. 1-3) gave rise to the present paper. Impurities are assumed to have an effect. The present paper gives an account on the effect of water and oxygen on polymerization. The catalyst was made of aluminosilicate carrier, bulk weight 0.43, pore radius 40-60 A, surface 300 m<sup>2</sup>/g. This base was impregnated by chromic acid, dried at 110°C, heated to 250°C, and activated by 4 hours' heating to 400°C at 10<sup>-3</sup> torr. The finished catalyst contained 5% CrO<sub>3</sub>. Primarily, experiments were made with extremely pure ethylene. Purity was attained by

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The Effect of Water and Oxygen on the Polymerization of Ethylene Upon Chromium Oxide Catalysts

S/020/61/136/001/026/037  
B004/B056

passing  $C_2H_4$  at a pressure of 50 atm through carbon filters, through a column with nickel-chromium catalyst (for  $O_2$  removal), and through columns with active  $Al_2O_3$  (removal of water). The solvents, BP-1 (BR-1)-type gasoline, cyclohexane or heptane were also freed from water and oxygen by  $Al_2O_3$  and blowing-through of  $N_2$ . Purified  $C_2H_4$  contained about 5 parts-per-million  $O_2$  and  $H_2O$ , the solvents contained about 5 parts-per-million  $H_2O$ . Polymerization took place in a stainless steel autoclave of 1 liter volume. Special measures (breakoffski for catalyst-containing ampoule, magnetic mixer) prevented access of impurities during the reaction. Processing was as follows: Heating of autoclave to  $200^\circ C$ , evacuation for two hours, cooling down to  $100^\circ C$ , repeated blowing-through of pure  $C_2H_4$ . Subsequently, 300 g of purified solvent were pressed into the autoclave by means of  $N_2$ , followed by  $C_2H_4$  addition up to a pressure of 35 atm. Curves I of Fig. 2 (polymer yield versus catalyst concentration) and Fig. 3

Card 2/ 4

. The Effect of Water and Oxygen on the Polymerization of Ethylene Upon Chromium Oxide Catalysts

S/020/61/136/001/026/037  
B004/B056

(efficiency of the catalyst versus its concentration) illustrate the results obtained with pure  $C_2H_4$ . Curves II were obtained for higher water content (20 parts-per-million). Fig. 4 shows the effect of oxygen upon the efficiency of the catalyst. It is assumed that the impurities are adsorbed on the catalyst and thus obstruct its activity centers. The authors thank B. A. Lipkind, Chief Engineer of the Gor'kovskaya baza NIINP (Gor'kiy Base of the Scientific Research Institute of the Petroleum Industry) for supplying the carrier samples. There are 4 figures and 3 references: 2 Soviet and 1 Belgian.

ASSOCIATION: Fiziko-khimicheskiy institut im. L. Ya. Karpova (Institute of Physical Chemistry imeni L. Ya. Karpov)

SUBMITTED: August 17, 1960

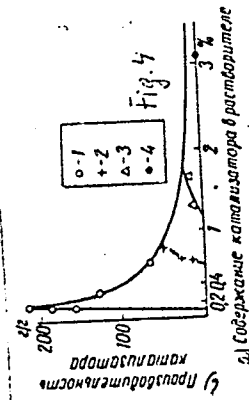
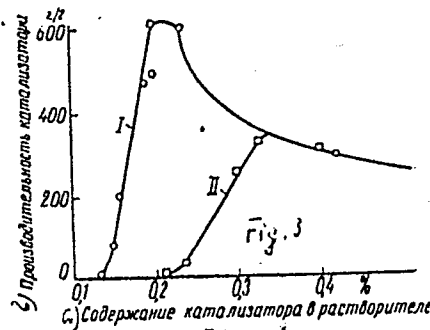
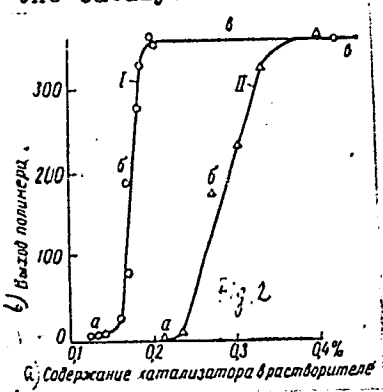
Legend to Fig. 2: I: Water content in the solvent 5 parts-per-million. II: Water content in the solvent 20 parts-per-million; a) content of catalyst in the solvent, b) polymer yield.

Card 3/4

S/020/61/136/001/026/037  
B004/B056

Legend to Fig. 3. I: Water content in the solvent 5 parts-per-million;  
II: water content in the solvent 20 parts-per-million; a) content of  
catalyst in the solvent, b) efficiency of the catalyst.

Legend to Fig. 4. Oxygen content in ethylene 1: 0.0003%; 2: 0.001%,  
3: 0.01% 4: 0.1%; a) content of catalyst in the solvent, b) efficiency of  
the catalyst.



Card 4/4

CA

13

*Effectiveness of fertilizer on ordinary chernozem of the Kamennaya steppe. V. A. Tyulin. Sov. Agron. 6, No. 12, 61-71(1948). The soil in the areas between the forest shelter belts responds much better to fertilization than that in the areas of the open steppe. This is shown not only by the increase in yield, but also by the increase in root growth of different crops. The improved physical and chemical conditions in the areas between the shelter belts stimulate earlier germination of seeds, heavier stand, and general improvement of crops. J. S. Ioffe*

TYULIN, V. A.; BEJS. T. B.

Phosphates

Effect of granulated organic and mineral fertilizers on yield of grain crops and perennial grasses. Sov. agron. 10 no. 8, 1952.

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

TYULIN, V.A., BEUS, T.B.

Compost

Action of organic-mineral composts. Sov. agron. 10. no. 10; Oct. 1952.

9. Monthly List of Russian Accessions, Library of Congress, December 1952<sup>1953</sup>. Unclassified.

The utilization of heavy mineral fertilizers on water-logged soils...  
notified soils...  
August 1954...  
yield



FD-969

USSR/Chemistry - Fertilizers

Card 1/1            Pub. 50 - 12/19

Authors        :    Tyulin, V. A., Cand Agr Sci; Beus, T. B.

Title            :    Improvement of the effectiveness of phosphorite flour as a fertilizer

Periodical    :    Khim. prom., No 7, 432 433 (48-49), Oct-Nov 1954

Abstract       :    Report on the results achieved by using as fertilizers phosphorite or apatite treated with hydrochloric, sulfuric, or nitric acid. Also describe experiments on the use of phosphorite combined with moist superphosphate. In view of the good results obtained by using phosphorites partly decomposed with acid, in the manner described, recommend that this process be applied on a plant scale. Five references, all USSR, 2 since 1940.

Institution    :    Institute of Grain Growing of the Non-Chernozem Belt

VARENITSA, Ye.T., doktor biolog. nauk; TYULIN, V.A., kand. sel'skokhoz. nauk

Use of fertilizers in the non-Chernozem zone. Zemledelie  
no.5:44-49 My '64. (MIRA 17:6)

1. Nauchno-issledovatel'skiy institut sel'skogo khozyaystva  
tsentral'nykh rayonov nechernozemnoy zony.

TYULIN, V.I.; TATEVSKIY, V.M.

Comparative review of certain spectral characteristics of low-pressure mercury lamps. Prib. i tekhn. eksp. 8 no.6 '63. M-D '63.

Mirror-type bulbs for studying the Raman spectra of gaseous substances. Ibid.:156-158 (MIRA 17:6)

1. Khimicheskiy fakul'tet Moskovskogo gosudarstvennogo universiteta.



... geometry of the ...  
... observed data ...  
... absolute ...  
... agree ...  
... large to be attrib-  
... vibrational states ...  
... The authors thank S. F. ...  
Aliyev and A. Ye. Agreonomov for synthesis of the sample and D. I. ...  
... Orig. art. has ...

ANS ...

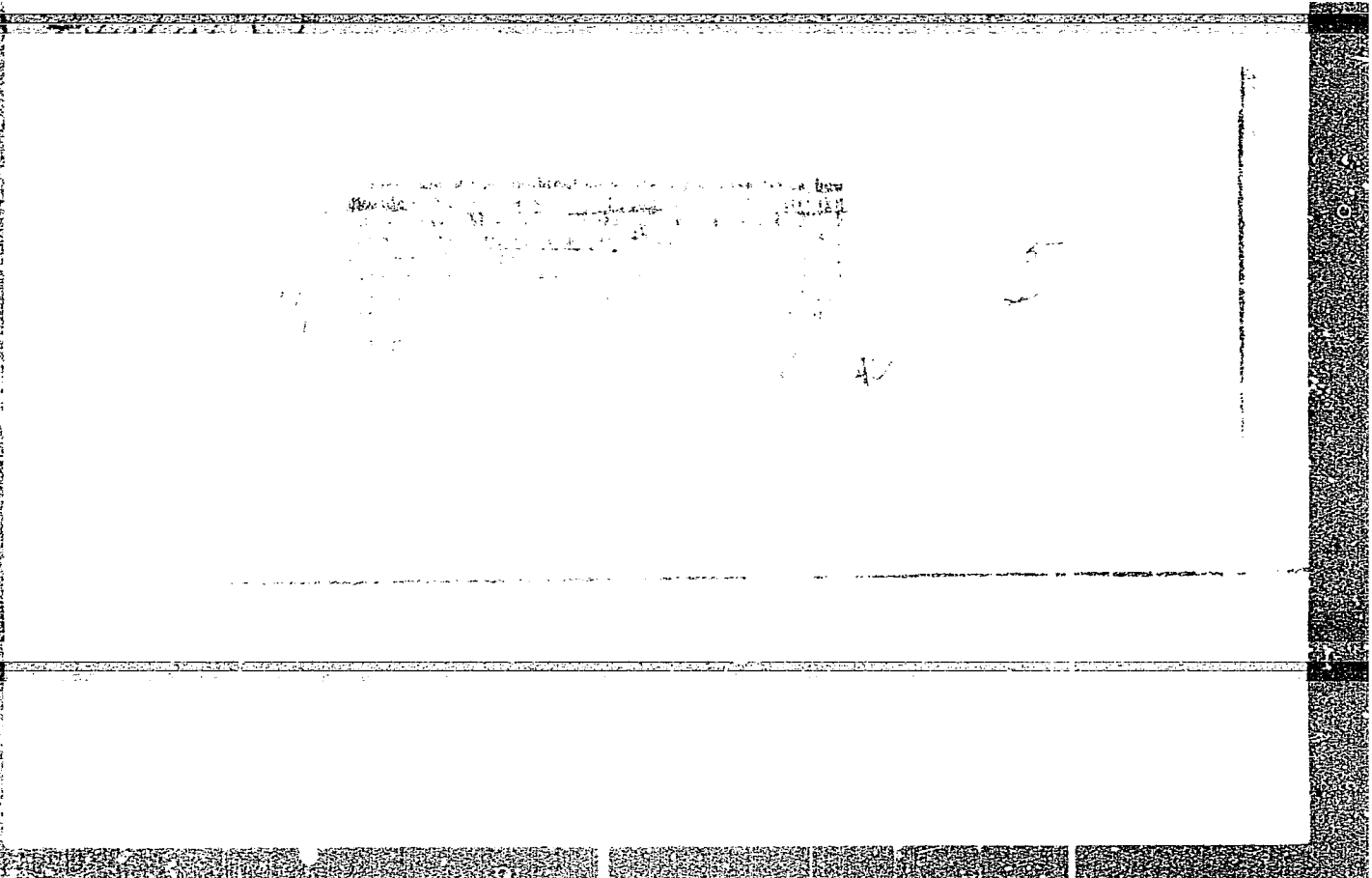
SUPPLEMENT ...

SUPPLEMENT ...

Card ...

ENCL: 00

OTHER: 009



11-01117001024/020  
39/0420

AUTHORS: Tyulin, V.I., Tatevskiy, V.M.

TITLE: A low pressure high-power mercury lamp as a source of excitation in the investigation of rotational Raman spectra

PERIODICAL: Optika i spektroskopiya, v.14, no.4, 1963, 582-585

TEXT: The construction of a low pressure high-power mercury lamp developed by the authors is given (Fig.1). It is fully water-cooled and Kovar seals are used at the electrodes. The intensity and halfwidth  $\Delta\nu$  of the 4358 Å line is used to select the working conditions.  $\Delta\nu$ , as measured using a Fabry-Perot interferometer, increases linearly with current density from  $\sim 0.12 \text{ cm}^{-1}$  at  $\sim 2.5 \text{ A/cm}^2$  to  $0.14 \text{ cm}^{-1}$  at  $\sim 6.5 \text{ A/cm}^2$ . The voltage gradient falls to a minimum of 0.4 V/cm at 3.0 A/cm<sup>2</sup>. The integral intensity and the intensity at maximum both increase nearly linearly with current up to 6 to 7 A/cm<sup>2</sup>. The best working regime for excitation of rotational Raman spectra using the 4358 Å line is as follows: electrode cooling water at 15°C, positive column cooling water at 50°C, current density 6.7 to  
Card 1/2

S/051/63/014/004/024/026  
E039/E420

A low pressure high-power ...

7 A/cm<sup>2</sup> (25 to 27 A for shown dimensions) and voltage 110 to 120 V. The width of the exciting line is then not more than 0.14 cm<sup>-1</sup>. The intensity of the 4358 Å line from this fully cooled lamp at 15 A is 4 times and at 25 A is 7 times more intense than for the corresponding "Toronto type" lamp at 15 A. There are 2 figures.

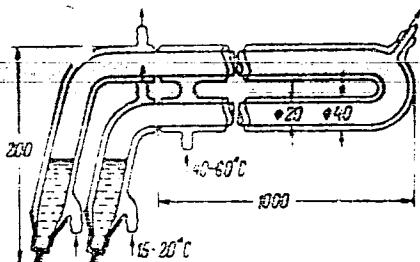


Fig.1. Construction of lamp (dimensions in mm)

Card 2/2



KOPTEV, G.S.; PANCHENKO, Yu.N.; TYULIN, V.I.; TATEVSKIY, V.M.

Calculating the frequency and vibration pattern of two isotopic forms of the molecules of 1,3-butadiene  $C_4H_6$  and  $C_4D_6$ . Opt. i spektr. 19 no.2:194-197 Ag '65. (MIRA 18:8)

DZHESATI, S.; TYULIN, V.I.; PENTIN, Yu.A.

Rotational isomers of an isoprene molecule. Zhur. struk. khim. 6  
no.3:465-467 My-Je '65. (MIRA 18:8)

1. Moskovskiy gosudarstvennyy universitet imeni M.V.Lomonosova.

GRIBOVA, Z.P.; TYULIN, V.I.; TATEVSKIY, V.M.

Rotational Raman spectra. Part 2: Vinyl acetylene  $C_2H_2$ .  
Opt. i spektr. 15 no.3:320-324 S '63. (MIRA 16:10)

TYULIN, V.I.; TATEVSKIY, V.M.

Raman rotation spectra. Part 1. Carbon dioxide CO<sub>2</sub>. Opt. 1  
spektr. 15 no.1:38-41 J1 '63. (MIRA 16:8)

(Raman effect) (Carbon dioxide—Spectra)

PANCHENKO, Yu.N.; PENTIN, Yu.A.; TYULIN, V.I.; TATEVSKIY, V.M.

Vibration spectra of 1,3-D<sub>6</sub>-Butadiene. Opt. i spektr.  
16 no.6:992-997 Je '64. (MIRA 17:9)

ALEKSANDROV, A.P.; TYULIN, V.I.; TATEVSKIY, V.M.

Vibrational spectra of carbon subdioxide ( $C_3O_2$ ) in different  
states of aggregation. Opt. i spektr. 17 no. 1:33-44. J1 '64.  
(MIRA 17:9)

PANCHENKO, Yu. N.; PENTIN, Yu. A.; TYULIN, V. I.; TATEVSKIY, V. M.

Raman spectrum of liquid 1,3-butadiene. Opt. i spektr. 13  
no.6:857-859 D '62. (MIRA 16:1)

(Butadiene) (Raman effect)





TYULIN, V.I.; TATEVSKIY, V.M.

A low-pressure high-power mercury lamp as a source of excitation in studies of Raman rotation spectra. Opt. i spektr. 14 no.4:582-585 Ap '63. (MIRA 16:6)

(Electric lighting, Mercury vapor)  
(Raman effect)

TYULIN, V.I.; TATEVSKIY, V.M.

New method for determining the displacement of lines of Raman  
rotation spectra. Opt. i spektr. 14 no.6:821-822 Je '63.  
(MIRA 16:8)

(Raman effect)

TYUL'ANOVA, A. F., GRISHIN, V. M. and LYUBASHENKO, S. Ya.

"Specific prophylaxis, treatment and some problems of epizootiology  
of Oujeski disease in fur-bearing animals."

Veterinariya, Vol. 37, No. 4, 1960, p. 46

*Tyul'anova - Chief Dr. - Sci. Res. Inst. Fur Bearing Animals and Rabbit Breeding*

Tyulin, V.I.

51-1-2-15/88  
Tatevskiy, V.M.

AUTHORS: Kotov, Yu.I., Tyulin, V.I. and Tatevskiy, V.M.  
TITLE: Raman Spectrum of Gaseous CO<sub>2</sub>. (Spektr kombinatsionnogo rasseyaniya gazoobraznoy CO<sub>2</sub>.)  
PERIODICAL: Optika i Spektroskopiya, 1958, Vol.IV, Nr.2, pp.271-272 (USSR)

ABSTRACT: Using apparatus described earlier (Ref.3) the authors obtained rotational spectrum of CO<sub>2</sub> at 1.5-2 atm pressure on a grating spectrometer with linear dispersion of 6.7 Å/mm in the second order. The spectral width of the spectrometer slit was 0.45 cm<sup>-1</sup>. The figure on p.271 shows a photograph of the spectrum obtained. Iron spectrum was used for calibration. The results are given in the table on p.272. For a linear CO<sub>2</sub> molecule displacements of rotational lines relative to the exciting line are given by

$$|\Delta\nu| = (4B-6D)(J+3/2) - 8D(J+3/2)^3,$$

where B and D are rotational constants, and J is the rotational quantum number. From the results obtained the constant D could not be determined, but one can say

Card 1/2

Raman Spectrum of Gaseous  $\text{CO}_2$ .

SI-4-8-55/55

that it is less than  $2 \times 10^{-6} \text{ cm}^{-1}$ . Neglecting  $D$  the author finds  $B_0 = 0.3895 \pm 0.0004 \text{ cm}^{-1}$ . This value of  $B_0$  agrees well with the value found from infrared spectra (Ref.2, p.422). Values of the vibrational frequencies for fully-symmetric vibration were also obtained. They were found to be 1235.7 and 1388.2  $\text{cm}^{-1}$ ; these values agree with the values given in Refs.4 and 5. There are 1 figure, 1 table and 5 references of which 1 is Soviet, 3 American and 1 a translation of American work into Russian.

ASSOCIATION: Moscow State University. (Moskovskiy gos. universitet)

SUBMITTED: May 17, 1957.

1. Raman spectrum-Carbon dioxide
2. Carbon dioxide-Spectrographic analysis

Card 2/2

TYULIN, V.I.

SUSHCHINSKIY, M.M.; TYULIN, V.I.

Investigation of the degree of depolarization lines in Raman spectra of hydrocarbons with conjugate double bonds. Dokl. AN SSSR 95 no.3:505-508 Mr '54. (MLRA 7:3)

1. Fizicheskiy institut im. P.N.Lebedeva Akademii nauk SSSR.  
Predstavleno akademikom G.S.Landsbergom.  
(Raman effect) (Hydrocarbons)

TYULIN, V. I.

51-6-22/26

**AUTHORS:** Tyulin, V. I. and Tatevskiy, V. M.

**TITLE:** The Apparatus for Production of Raman Scattering Spectra of Gaseous Substances. (Apparatura dlya polucheniya spektrov kombinatsionnogo rasseyaniya gazoobraznykh veshchestv.)

**PERIODICAL:** Optika i Spektroskopiya, 1957, Vol.II, Nr.6, pp. 820-821. (USSR)

**ABSTRACT:** The technique of the study of the Raman scattering spectra of gases is difficult. Only recently apparatus for the study of Raman spectra with short exposure times and high dispersion and resolving power was constructed (Refs. 1-3). In USSR work on the subject started with Ref.4. The present authors constructed a "Toronto" mercury light-source described in Refs. 1 & 3. This source was of the horizontal type with an arc length of 850 mm. A voltage of 70 V and a current of 20 A were used. Two such lamps were prepared by A.I. Prostakov. Ref.1 describes also a multi-beam container for the gas under study. The present authors constructed a similar container for pressures up to 10 atm

Card 1/2

51-6-22/26

The Apparatus for Production of Raman Scattering Spectra of Gaseous Substances.

(Fig.1). The apparatus was used to study CO<sub>2</sub> gas. Spectrum of CO<sub>2</sub> at 3-6 atm was photographed using a spectrograph ИСН -51 with a short-focus camera. At 20 A in the light source the CO<sub>2</sub> doublet 1286-1388 cm<sup>-1</sup> was obtained after an exposure of several minutes. Fig. 2 shows this doublet obtained at 3 atm and 20 minute exposure. Two students of the Moscow State University, A.S. Bayshev and Yu.I. Kotov took part in this work. There are 2 figures and 5 references, 2 of which are Slavic.

SUBMITTED: January 12, 1957.

AVAILABLE: Library of Congress.

Card 2/2



REZNIKOVA, Ye.B.; TYULIN, V.I.; TATEVSKIY, V.M.

Temperature dependence of the infrared absorption bands of  
gaseous 1,3-Butadiene. Opt. i spektr. 13 no.3:364-368  
S '62. (MIRA 15:9)

(Butadiene--Spectra)

S/051/62/013/006/015/027  
E039/E120

AUTHORS: Panchenko, Yu.N., Pentin, Yu.A., Tyulin, V.I., and  
Tatevskiy, V.M.

TITLE: The Raman spectrum of liquid 1 - 3 butadiene

PERIODICAL: Optika i spektroskopiya, v.13, no.6, 1962, 857-859

TEXT: Previous work on the subject is reviewed and the Raman spectrum investigated to elucidate the possibility of relating the weak lines to the second isomer form. Spectra are obtained on ДФС-12 (DFS-12), DFS-4 and ИСП-67 (ISP-67) spectrometers using photographic and photoelectric recording. The 4358 Å line is used for excitation. Two samples of 1-3 butadiene are used, one 97.8% pure (impurity: butane ~2%) and the other 99.7% (impurities: trans-butane 2 ~0.27% with a trace of cis-butane-2). The data are presented in a table, which also contains the most complete data from the literature. Good agreement is obtained with the results of other authors and the differences which occur are discussed in detail. New lines of low intensity are observed in the Raman spectrum of liquid 1-3 butadiene at 1422, 1505, 1606 and 1658 cm<sup>-1</sup>.

Card 1/2

The Raman spectrum of liquid ...

S/051/62/013/006/015/027  
E039/E120

These had all been observed previously in the infrared spectrum of the liquid, and the  $1658 \text{ cm}^{-1}$  line had been found in the Raman spectrum of gaseous 1-3 butadiene. These lines were related to the second isomer form. While it is possible to relate these frequencies it is considered to be premature to attribute them to the second isomer form.

There is 1 table.

SUBMITTED: April 24, 1962

Card 2/2

AUTHOR: Tyulin, V. I.; Tatevskiy, V. M. 51

TITLE: New method for determining line shifts in rotational Raman spectra 21

SOURCE: Optika i spektroskopiya, v. 14, no. 6, 1963, 821-822

TOPIC TAGS: line shifts, Raman spectra

ABSTRACT: The authors propose a reasonably accurate method for determining the shift of rotational lines in Raman spectra. The method is based on calculations using the separation between rotational Stokes and anti-Stokes lines with the same J and a constant which can be determined with reference to a series of standard Hg lines. The Stokes-anti-Stokes separation is determined on a comparator. The procedure has been used by the authors in conjunction with spectroscopic work on a DFS-3 spectrograph. The accuracy in determining the line shifts depends on the intensity and width of the rotational lines and is usually of the order of 0.02-0.03 cm sup -1. Orig. art. has: 6 formulas.

ASSOCIATION: none

Card 1/2

NUMBER: Topilin, V.I., Tatevskiy, V.M.

CR 011  
11

TITLE: Rotational Raman spectra, 1. Carbon dioxide

SOURCE: Optika i spektroskopiya, v.15, no.1, 1963, 38-41

TOPIC TAGS: Raman spectrum, carbon dioxide; gas spectrum

ABSTRACT: The present study is the first of a proposed series of investigations of the rotational Raman spectra of gaseous substances to be undertaken in the Laboratory of Molecular Spectroscopy, Chemistry Department, Moscow State University. Such studies have become feasible owing to the development of powerful low-pressure mercury discharge tubes and multiple-path (mirror end) cells. In the present study two 2-meter Hg tubes were used, the selected line being  $4358 \text{ \AA}$ . The focal distance of the cell mirror was 2 m; the diameter 40 mm; the reflection 97-98%. The cell was designed to withstand pressures of up to 10 atm. The rotational spectrum (microdensitometer trace reproduced) was recorded in the first order with condensing lens and in the second order without a lens at a  $\text{CO}_2$  pressure of 3.5 atm; the exposure times were 2.5 to 10 hours. The frequency shifts of the rotational lines relative to the exciting line for a linear molecule are tabulated. The rotational

Card 1/2

L 13094-3  
ACCESSION NR: AP3003408

constants  $B_0$  and  $D_j$ , entering the equation for the frequency shifts, were determined and are compared with the data of other authors based on the infrared spectrum. "The authors are grateful to Z.P.Gribov and B.Ye.Zaytseva for assistance in the work." Orig.art.has: 1 formula. 2

ASSOCIATION: none

SUBMITTED: 23Oct62

DATE ACQ: 30Jul63

ENCL: 00

SUB CODE: PH,CH

NO SOV REF: 006

OTHER: 009

Card 2/2

L 19974-63

EWP(j)/EPF(c)/EWT(1)/EWT(m)/BDS AFFTC/ASD Pc-4/Pr-4

RM/WM/MAY

ACCESSION NR: AP3007269

S/0051/63/015/003/0320/0324

AUTHOR: Gribova, Z.P.; Tyulin, V.I.; Tatevskiy, V.M.TITLE: Rotational Raman spectra. 2. Vinylacetylene  $C_4H_4$ 

SOURCE: Optika i spektroskopiya, v.15, no.3, 1963, 320-324

TOPIC TAGS: Raman spectrum, rotational spectrum, vinylacetylene

ABSTRACT: The investigation was concerned with the rotational Raman spectrum of vinylacetylene ( $C_4H_4$ ). The spectrum was recorded on a DFS-3 spectrograph with a linear dispersion of  $4.6 \text{ cm}^{-1}/\text{mm}$  in the second order. The vinylacetylene molecule is of interest for such high-resolution Raman studies because it belongs to the class of slightly asymmetrical tops (hitherto, mainly linear and symmetrical top molecules have been investigated). The  $\Delta\nu$  values (shifts) observed in the rotational Raman spectrum are tabulated, and assignments (R, S and S' branches) for the lines are made on the basis of analysis of the experimental data. The values derived for the structure parameters are in agreement with the data in the literature (Tables of Interatomic Distances and Configurations in Molecules and Ions,

Card 1/2

APPROVED FOR RELEASE: 08/31/2001

CIA-RDP86-00513R001757720017-4

L 19974-63

ACCESSION NR: AP3007269

Edited by L.E.Sutton, No.11, London, 1959). The value obtained for the length of the single C-C bond is  $1.43 \text{ \AA}$  (literature  $1.443 \text{ \AA}$ ), and that for the C=C-C angle is  $124.3^\circ$  (literature  $123^\circ$ ). "The writer is grateful to S.I.Subbotin for assistance in the calculations." Orig.art.has: 4 formulas, 1 figure and 3 tables.

ASSOCIATION: none

SUBMITTED: 26Dec62

DATE ACQ: 09Oct63

ENCL: 00

SUB CODE: PH

NO REF SOV: 003

OTHER: 011

Card 2/2

TYULIN, V. V.

"The Role of Deep Flowing in the Cultivation of Easaltic Saline Soils Under Irrigation Conditions." *Card Agr Sci, Moscow Order of Lenin, Acad of Agriculture imeni K.A. Timiryazev, Moscow, 1954.* (KL, No 2, Jan 55)

Sur- of Scientific and Technical Dissertations Defended at USSR Higher Educatio- Institutions (13)  
SO: Sum. No. 598, 29 Jul 55



COUNTRY : USSR  
CATEGORY : Meadow Cultivation L  
ABS. JOUR. : RZhBiol., No.23, 1958, No. 104568  
AUTHOR : Iyulin, V. V.  
INST. : North-Eastern Scientific Research Institute of Agriculture.  
TITLE : The Effectiveness of Liming in the Radical Amelioration  
of Low-Yielding Meadows.  
ORIG. PUB. : Udobreniye i urozhay, 1957, No. 9, 42-45  
ABSTRACT : Effectiveness of liming with marl ( $\text{CaCO}_3$  content - 52-60%)  
has been studied since 1951 at the North-Eastern Institute  
of Agriculture in the building of seeded meadows on a low  
productive, degenerated, excessively wetted in spring  
dryland meadow with a natural yielding ability of 5-3  
centners/ha. With the sowing of grasses on intermediate  
loamy, highly podzolized soil (pH of the salt extract -  
4.5) with buckwheat, on heavy loam (pH 5.3-5.5 and 5.2) with  
a virgin, degenerated bed and on the turned layer of the  
low-yielding meadow, liming increased the yield by 12-18%.

Card: 1/2

COUNTRY :  
CATEGORY :  
ABS. JOUR. : RZhBiol., No. 1959, No. 104563  
AUTHOR :  
INST. :  
TITLE :  
ORIG. PUB. :  
ABSTRACT : Most effective is the application of lime at the rate of 0.2 of hydrolytic acidity (3.5; 1.5 and 2.3 tons/ha respectively in three experiments) in spring into the upper soil layer with the cultivator. Phosphate fertilizer applied under fall-plowed land, increased the yield by 17-20.3%.  
B. D. Alegran

Card: 2/2

TYULIN, V.V., kand.sel'skokhozyaystvennykh nauk

For persistent introduction of green fallows in northeastern districts. Zemledelie 8 no.2:28-32 F '60.  
(MIRA 13:5)

1. Nauchno-issledovatel'skiy institut sel'skogo khozyaystva severo-vostochnykh rayonov Nechernozemnoy polosy.  
(Following)

TYULIN, V.V., kand. sel'skokhozyaystvennykh nauk

Cultivation of green fallows. Zemledelie 8 no.6:54-57 Ja'60.  
(MIRA 13:10)

1. Nauchno-issledovatel'skiy institut sel'skogo khozyaystva  
severo-vostochnykh rayonov Nechernozemnoy zony.  
(Following)