STRELTSOV, I. I.

Brown-tail Moth

Protecting young oaks against the brown-tail moth Les i step' 14, no. 5, 1952

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

STREL'TSOV, L.I., nauchnyy sotrudnik (Dnepropetrovsk)

Automatic trap for owlet moths. Zashch.rast.ot vred.i bol. 4 no.6:44 N-D '59. (MIRA 15:11)

(Insect traps)

STREL'TSOV, I.P.

Results of a competition in the Pacific Ocean Basin administration of the Scientific Technological Society for Water Transportation. Biul. tekh.-ekon. inform. Tekh. upr. Min. mor. flota 7 no.4:133-136 '62. (MIRA 16:4)

1. Uchenyy sekretar' Tikhookeanskogo basseynovogo pravleniya Nauchno-tekhnicheskogo obshchestva vodnogo transporta.
(Pacific Ocean—Merchant marine)

VODYANIK, G.M.; STREL'TSOV, I.P.

New drive for NPI-type counter-rotating fans. Trudy NPI 137:81-87 '62. (MIRA 16:10)

AUTHORS: Selivanova, N. M., Zubova, G. A., Strel'tsov, I. S.

SOV/156-58-1-2/46

TITLE: On the Problem of Barium-, Strontium-, and Lead Selenate Crystalline Structure (K voprosu o kristallicheskoy strukture selenatov bariya, strontsiya i svintsa)

PERIODICAL: Nauchnyye doklady vysshey shkoly, Khimiya i khimicheskaya tekhnologiya, 1958, Nr 1, pp. 5 - 8 (USSR)

ABSTRACT: The crystalline structure of the selenates has hitherto much less been investigated than that of the sulfates. Above all the selenates of the bivalent metals which are soluble to only a small extent are insufficiently known. After a survey of publications (Refs 1-5) the authors say that at present the mentioned three selenates may be considered as isomorphous to the corresponding sulfates, i.e.they have an orthorhombic bipyramidal structure (barite type)(Refs 8-10). Since, however, experimental data on the structure of the barite type in the case of lead selenates are lacking in publications, the authors decided to investigate radiologically the three mentioned salts. The production and several constants of the mentioned three salts are described in an experimental part. Figure 1 gives

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the Debye (Debay)-Scherrer (Sherrer) X-ray diagrams. They show that the appearance of the radiograph of the strontium selenate differs from that of barium selenate, it is, however, similar to that of lead selenate. The interplanar spacings of $BaSeO_4$, $SrSeO_4$ and $PbSeO_4$ (Table 2) show similar conditions. The values determined of the refraction indices of all salts in question (Table 1) increase with the rising cation weight. They are in all cases higher than the values of the same indices of the corresponding sulfates (Ref 6). They form a series: tellurides > selenides > sulfides > oxides (Ref 2). The indices of refraction of tellurates, selenates, and sulfates are bound to change in the same order. This would agree with the authors' results. The fact that the lead selenates belong to the crystalline structure type of barite may be considered as proved. The analogy of the Debye (Debay) diagrams of the strontium- and lead selenates is no chance one: it is exclusively due to the approximate ionic radii of Sr^{2+} and of Pb^{2+} (1,27 Å and 1,32 Å)(Refs 13,14). There are 1 figure, 2 tables, and 16 references, 6 of which are Soviet.

On the Problem of Barium-, Strontium-, and Lead Selenate Crystalline Structure SOV/156-58-1-2/46

ASSOCIATION: Kafedra neorganicheskoy khimii Moskovskogo khimiko-tekhnologicheskogo instituta im.D.I.Mendeleyeva (Chair of Inorganic Chemistry of the Moscow Institute of Chemical Technology imeni D.I. Mendeleyev)

SUBMITTED: September 21, 1957

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5(2) SOV/78-4-7-3/44

AUTHORS: Selivanova, N. M., Shneyder, V. A., Strel'tsov, I. S.

TITLE: The Thermal Decomposition of Calcium Selenate (Termicheskoye razlozheniye selenata kal'tsiya)

PERIODICAL: Zhurnal neorganicheskoy khimii, 1959, Vol 4, Nr 7, pp 1481-1487 (USSR)

ABSTRACT: The heating- and cooling-curves of calcium selenate (Fig 1) were plotted by means of the N. S. Kurnakov-pyrometer. The temperature at the beginning of decomposition and at complete decomposition, the melting temperature, and the degree of thermal decomposition between 200-1150° were determined. The salt $CaSeO_4 \cdot 2H_2O$ served as a starting basis. The heating curve up to 600° develops in a manner similar to that in the case of gypsum. The cooling curve is not in agreement with the heating curve, because irreversible processes occur in the case of heating. The data of the analysis of the salt annealed at different temperatures are given by table 1. Table 2 mentions the losses in weight at various temperatures. A microscopical investigation of the salt heated up to 200° shows a mixture of

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The Thermal Decomposition of Calcium Selenate SOV/78-4-7-3/44

$CaSeO_4 \cdot 2H_2O$ crystals and fine needle-shaped crystals of the non-aqueous selenate. Attempts made to produce the semihydrate $CaSeO_4 \cdot \frac{1}{2} H_2O$ were unsuccessful. During heating, modification changes sometimes occur. At 698° decomposition and conversion into selenite begins: $2CaSeO_4 \longrightarrow 2CaSeO_3 + O_2$ with partial volatilization. The final product is calcium oxide and anhydride of the selenic acid. The results obtained do not explain the reversible endothermal effect at 786° of the heating curve. The results of the Debye-Scherrer X-ray pictures are given by table 3. As shown by table 4, calcium selenate is less temperature-resistant than calcium sulfate. The refraction indices of the crystals were determined by A. I. Mayer. There are 1 figure, 4 tables, and 23 references, 10 of which are Soviet.

SUBMITTED: April 11, 1958

Card 2/2

SELIVANOVA, N.M.; SHNEYDER, V.A.; STREL'TSOV, I.S.

Physicochemical study of selenates. Part 9: Thermal decomposition of magnesium selenate. Izv. vys. ucheb. zav; khim. i khim. tekh. 3 no. 5:787-793 '60. (MIRA 13:12)

1. Moskovskiy khimiko-tekhnologicheskiy institut imeni D.I.Mendeleyeva. Kafedra obshchey i neorganicheskoy khimii.
(Magnesium selenate)

85607

S/078/60/005/010/027/030/XX
B017/B067

5 2640 2209, 1273, 1043

AUTHORS: Selivanova, N. M., Shneyder, V. A., and Strel'tsov, I. S.

TITLE: Production of Crystal Hydrates of Magnesium Selenate 27

PERIODICAL: Zhurnal neorganicheskoy khimii, 1960, Vol. 5, No. 10, pp. 2269-2271

TEXT: The crystal hydrates of magnesium selenate were synthesized. The compound $MgSeO_4 \cdot 6H_2O$ was produced by dissolving a stoichiometric amount of purest magnesium oxide in selenic acid, and subsequent crystallization at room temperature. Its specific gravity is 2.01; $MgSeO_4 \cdot 6H_2O$ has the following refractive indices: Ng = 1.495 ± 0.002; Np = 1.464 ± 0.002. The interplanar spacings (d) and the relative lines of intensity of the X-ray pictures of the following compounds are summarized in a table: $MgSeO_4 \cdot 6H_2O$, $MgSeO_4 \cdot 4H_2O$, $MgSeO_4 \cdot H_2O$, and $MgSeO_4$. By heating the crystals of $MgSeO_4 \cdot 6H_2O$ in the air bath at temperatures of 40 and 70°C, a crystal hydrate $MgSeO_4 \cdot 4.5H_2O$ is formed. By heating the crystal hydrate

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Production of Crystal Hydrates of Magnesium Selenate

S/078/60/005/010/027/030/XX
B017/B067

$MgSeO_4 \cdot 6H_2O$ in the air bath at 40°C, the tetrahydrate $MgSeO_4 \cdot 4H_2O$ is formed within four days. The monohydrate $MgSeO_4 \cdot H_2O$ is formed by boiling $MgSeO_4 \cdot 4H_2O$ in glacial acetic acid with reflux in the course of three hours. The anhydrous magnesium selenate $MgSeO_4$ is formed by thermal treatment of $MgSeO_4 \cdot H_2O$ at 350°C. The microscopic pictures of the crystal hydrates $MgSeO_4 \cdot 6H_2O$ and $MgSeO_4 \cdot 4H_2O$ are reproduced in a figure. There are 1 figure, 1 table, and 9 references: 1 Soviet, 1 US, 3 French, 3 German, and 1 Swedish.

SUBMITTED: July 3, 1959

Card 2/2

5.2610 also 2308

84215
S/078/60/005/010/010/021
B004/B067

AUTHORS: Selivanova, N. M., Shneyder, V. A., Strel'tsov, I. S.

TITLE: Thermal Decomposition of Beryllium Selenate

PERIODICAL: Zhurnal neorganicheskoy khimii, 1960, Vol. 5, No. 10, pp. 2272-2279

TEXT: By means of the Kurnakov pyrometer the authors took the heating and cooling curves of beryllium-selenate tetrahydrate in the temperature range 50 - 800°C (Fig. 1). They compared them with the curves obtained for anhydrous beryllium selenate (Fig. 2). From these data as well as from the analyses of the residues on ignition of $BeSeO_4 \cdot 4H_2O$ (Table 1) and $BeSeO_4$ (Table 2), of the loss on ignition of these substances (Table 3), and the Debye-Scherrer X-ray picture (Table 4), they obtained the following results: At 75°C, $BeSeO_4 \cdot 4H_2O$ passes over into $BeSeO_4 \cdot 2H_2O$. At 146°C, a further water loss occurs; and at 213°C, anhydrous $BeSeO_4$ is formed. These processes are accompanied by a partial reduction of Se^{6+} to Se^{4+} and a

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Thermal Decomposition of Beryllium Selenate

84215
S/078/60/005/010/010/021
B004/B067

partial volatilization of Se. Decomposition occurs at 460 - 560°C. BeO is formed without melting of the reaction product. As may be seen from Table 5, dehydration of $BeSeO_4 \cdot 4H_2O$ starts at a temperature lower than that of $BeSO_4 \cdot 4H_2O$. Table 6 lists the decomposition temperatures of the selenates and sulfates of the series Be, Mg, Ca, Sr, Ba. Fig. 3 shows the following thermal stability of the selenates: $BeSeO_4 < MgSeO_4 < CaSeO_4 < SrSeO_4 < BaSeO_4$. The lower thermal stability of the selenates compared to the sulfates is explained by their lower heat of formation and lattice energy. The authors mention papers by S. D. Shargorodskiy and Ya. A. Fialkov (Ref. 17) and Vikt. I. Spitsyn, and V. I. Shostak (Ref. 22). There are 3 figures, 6 tables, and 30 references: 16 Soviet, 3 US, 1 British, 4 German, 5 French, and 1 Austrian.

SUBMITTED: July 3, 1959

Card 2/2

BURMISTROVA, Ol'ga Aleksandrovna; KARAPET'YANTS, Mikhail Khristoforovich, prof.; KARETNIKOV, German Sergeyevich, dots.; KISELEVA, Yekaterina Vasil'yevna, dots.; KUDRYASHOV, Igor' Vladimirovich, dots.; MIKHAYLOV, Vladimir Vasil'yevich, dots.; STAROSTENKO, Yekaterina Pavlovna, dots.; STREL'TSOV, Igor' Sergeyevich; KHACHATURYAN, Ol'ga Borisovna, dots.; GORBACHEV, S.V., doktor khim. nauk, prof., zasl. deyatel' nauki i tekhniki, red.; ALAVERDOV, Ya.G., red.; VORONINA, R.K., tekhn. red.

[Laboratory work in physical chemistry] Praktikum po fizicheskoi khimii. [By] O.A.Burmistrova i dr. Moskva, Vysshaia shkola, 1963. 553 p. (MIRA 16:11)
(Chemistry, Physical and theoretical—Laboratory manual)

RASSUDOVA, N.S.; TEREKHOVA, A.I.; LILO, G.N.; ALEKSANDROVA, N.A.; STREL'TSOV, I.S.; RUBINSHTEYN, B.L.

Synthesis and investigation of the characteristics of nickel titanates and mixed nickel-titanium pigments. Lakokras.mat. i ikh prim. no.2: 25-29 '63. (MIRA 16:4)
(Titanium) (Nickel) (Pigments)

RASSUDOVA, N.S.; STREL'TSOV, I.S.; ALEKSANDROVA, N.A.

Studying the transformation taking place during the synthesis of nickel metatitanates. Lakokras. mat. i ikh prim. no.5:27-29 '63. (MIRA 16:11)

S/078/63/008/003/016/020
B117/B186

AUTHORS: Leshchinskaya, Z. L., Selivanova, N. M., Strel'tsov, I. S.

TITLE: Heat of formation of barium selenite

PERIODICAL: Zhurnal neorganicheskoy khimii, v. 8, no. 3, 1963, 763-764

TEXT: The heat of formation of barium selenite in the reaction of sodium selenite with barium chloride was measured in a calorimeter at 25°C for the first time. The presence of crystalline barium selenite was proved by x-ray diffraction analysis. The standard heat calculated according to Hess's law was ΔH^{o}_{298} = -249.31 kcal/mole. There are 1 figure and 1 table.

ASSOCIATION: Moskovskiy khimiko-tekhnologicheskiy institut im. D.I. Mendeleyeva (Moscow Institute of Chemical Technology imeni D.I. Mendeleyev)

SUBMITTED: May 7, 1962

Card 1/1

LESHCHINSKAYA, Z.L.; SELIVANOVA, N.M.; MAYYER, A.I.; STREL'TSOV, I.S.; MUZALEV, Ye.Yu.

Heats of formation of nickel selenites and cobalt selenites. Zhur. VKHO 8 no.5:577-578 '63. (MIRA 17:1)

1. Moskovskiy khimiko-tekhnologicheskiy institut imeni Mendeleyeva.

SELIVANOVA, N.M.; SAMPLAVSKAYA, K.K.; STREL'TSOV, I.S.; MAZEPOVA, V.I.

Thermal decomposition of aluminum selenate. Zhur. neorg. khim. 8 no.7:1645-1653 Jl '63. (MIRA 16:7)

(Selenates) (Aluminum compounds)
(Thermal analysis)

SELIV. NOVA, N. M.; LESHCHINSKAYA, Z. L.; STREL'TSOV, I. S.

Heat of formation of cadmium selenite. Zhur. fiz. khim. 37 no. 3:668-670 Mr '63. (MIRA 17:5)

1. Moskovskiy ordena Lenina khimiko-tekhnologicheskiy institut imeni Mendelyeyeva.

L 17712-63 EWP(q)/EWT(m)/BDS AFFTC/ASD Pad RDW/JD/JW/WB

ACCESSION NR: AP3004065 S/0076/63/037/007/1563/1567 63 62

AUTHORS: Selivanova, N. M.; Leshchinskaya, Z. L.; Mayer, A. I.; Strel'tsov, I. S.; Muzalev, Ye. Yu.

TITLE: Thermodynamic properties of nickel selenite dihydrate

SOURCE: Zhurnal fizicheskoy khimii, v. 37, no. 7, 1963, 1563-1567

TOPIC TAGS: nickel selenite dihydrate, sodium selenite, nickel nitrate

ABSTRACT: Authors analyzed nickel selenite dihydrate which is stable under ordinary conditions. In this work, the reaction heat of the interaction of nickel nitrate with sodium selenite was measured in a calorimeter at 25C. After this data was obtained, the standard heat of formation of nickel selenite dihydrate from the elementary components was calculated. A further thermodynamic processing of these findings with the incorporation of V. G. Chukhlantsev's data (Zhurn. Analit. Khimii, 12, issue 3, 1957, p. 296) with respect to the solubility of nickel selenite made it possible to compute the change in the standard isobaric potential during the formation of nickel selenite dihydrate from the elementary components as well as the standard entropy of this salt. Orig. art. has: 1 figure and 1 table.

ASSN: Moscow chemical engineering institute.

Card 1/2

CHASNIKOV, I.Ya.; ANZON, Z.V.; TAKIBAYEV, Zh.S.; STREL'TSOV, I.S.

Identification of particles by the photographic emulsion technique. Zhur. eksp. i teor. fiz. 45 no.2:29-37 Ag '63. (MIRA 16:9)

1. Institut yadernoy fiziki AN Kazakhskoy SSR.
(Photography, Particle track)

S[illegible], N.N.; SAZYKINA, T.A.; STREL'TSOV, I.S.

Thermal stability of sodium selenate. Izv. vys. ucheb. zav.; khim. i khim. tekh. 7 no.3:365-372 '64. (MIRA 17:11)

1. Moskovskiy khimiko-tekhnologicheskiy institut imeni Mendeleyeva, kafedra obshchey i neorganicheskoy khimii.

STREL'TSOV, Ivan Vasil'yevich; SEMENOV, Leonid Ivanovich; PYLAYEVA, L.N., red.

[Practice in highway construction in Uzbekistan] Opyt stroitel'stva avtomobil'nykh dorog v Uzbekistane. Tashkent, "Uzbekistan", 1965. 134 p. (MIRA 18:12)

STREL'TSOV, K.

On the road to reconstruction. Sel'.stroi. 14 no.9:28 S '59. (MIRA 12:11)

1. Direktor Ryazanskoy shkoly masterov (desyatnikov).
(Ryazan--Building trades--Study and teaching)

S/058/61/000/007/086/085
A001/A101

AUTHOR: Strel'tsov, K.A.

TITLE: The application of Doppler effect to hydroacoustics

PERIODICAL: Referativnyy zhurnal. Fizika, no. 7, 1961, 370, abstract 7Zh661 ("Tr. Tsentr. n.-i. in-ta morsk. flota", 1960, no. 30, 83 - 90)

TEXT: The author considers theoretical problems of the precision of the Doppler basic formula for an ideal beam, as applied to hydroacoustics. He analyzes briefly main errors and proposes some methods of their taking into account or compensation. The prospect of applying the method considered to automatic navigation (for automation of navigation) is outlined.

[Abstracter's note: Complete translation]

Card 1/1

STREL'TSOV, K.A.

New developments in the design of echo sounders. Inform.sbor. TSNIIMF no.60 Sudovozh.i sviaz' no.15:3-7 '61.

(MIRA 16:2)

(Echo sounding)

AVERKIYEV, Vladimir Pavlovich; KAUFMAN, A.L., retsenzent; LADE, B.F., retsenzent; PAVLOV, G.N., retsenzent; NAZAROV, V.Ye., nauchn. red.; STREL'TSOV, K.A., nauchn. red.; KLIMINA, Ye.V., red.izd-va; KRYAKOVA, D.M., tekhn. red.

[Fish location and electronavigation equipment on ships] Sudovye rybopoiskovye i elektronavigatsionnye pribory. Leningrad, Sudpromgiz, 1963. 31 p. (MIRA 16:12)
(Trawls and trawling--Equipment and supplies)
(Electricity in navigation)

STREL'TSOV, K.N.

5(3); 25(2) PHASE I BOOK EXPLOITATION SOV/2984

Moscow. Dom nauchno-tekhnicheskoy propagandy imeni F.E. Dzerzhinskogo

Plastmassy v mashinostroyenii (Plastics in Machine Building) Moscow, Mashgiz, 1959. 236 p. Errata slip inserted. 8,000 copies printed.

Sponsoring Agency: Obshchestvo po rasprostraneniyu politicheskikh i nauchnykh znaniy RSFSR.

Ed. (Title page): V.K. Lavgorodniy; Ed. (Inside book): B.M. Botkin, Engineer; Ed. of Publishing House: G.M. Konovalov; Tech. Ed.: A. F. Uvarova; Managing Ed. for Literature on Machine Building and Instrument Making (Mashgiz): N.V. Pokrovskiy, Engineer.

PURPOSE: This collection of articles is intended for engineers and technicians in the machine-building industry.

COVERAGE: This collection reviews the progress made by the Soviet Union in the field of manufacturing new plastic materials and fabricating different plastic material articles for use in the machine-building industry. Physicomechanical and dielectric properties of phenolite, decorrosite, fluoroplastics, epoxy resins, polyamides, laminated plastics, and fiberglass plastics are analyzed and their use in machine building described. Characteristics and composition of adhesives and bonding agents are given and the technology of the pressing process described. Methods of coating with plastics as a protection against corrosion are explained, and metallization of plastics achieved by vacuum evaporation is reviewed, as well as equipment used for manufacturing and fabricating plastics and articles made of plastics. Mechanization of certain operations and automatic control of various processes are discussed. No personalities are mentioned. References accompany individual articles.

AVAILABLE: Library of Congress

Card 4/4 TM/gmp 1-19-60

STREL'TSOV, K.S.

5(1)

AUTHOR: Porshitskiy, I. I. SOV/64-59-4-25/27

TITLE: Conference of the Workers of the Plastics Industry (Soveshchaniye rabotnikov promyshlennosti plastmass)

PERIODICAL: Khimicheskaya promyshlennost', 1959, Nr 4, pp 88-89 (USSR)

ABSTRACT: From June 9 to 14, the branch conference of the workers in the plastics industry was held in Moscow. It was organized by the following institutions: Gosudarstvennyy komitet Soveta Ministrov SSSR po khimii (State Committee of the Council of Ministers of the USSR for Chemistry), TsK profsoyuza rabochikh neftyanoy i khimicheskoy promyshlennosti (Central Committee of the Trade Union of the Workers of the Petroleum- and Chemical Industry), Tsentralnoye pravleniye VKHO im. D. I. Mendeleyeva (Central Administration VKHO imeni D. I. Mendeleyev) and Sovety-narodnogo khozyaystva Moskovskogo oblastnogo i gorodskogo ekonomicheskikh rayonov, GNTK SSSR i RSFSR (Councils of the National Economy of the Moscow Oblast'- and Town Economic Districts) GNTK USSR and RSFSR. 1000 persons took part in the Conference. The tasks which were set the plastics industry by the XXI Congress of the CPSU and the May Plenum of the TsK CPSS 1958 were discussed. Beside the Plenary Session, sessions of four different sections

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SOV/64-59-4-25/27

took place. In the session of the section for polymerization plastics and cellulose-ester 16 lectures were held. Among them the following: F. A. Oleynik (Kuskovskiy khimicheskiy zavod) (Kusko Chemical Works) - Research Work With Polyformaldehyde, A. V. Golubeva (NIIPP) - Styrene copolymers, N. S. Lebedev (Yerevanskiy zavod im. S. M. Kirova)(Yerevan Works imeni S. M. Kirov) - Production of Vinyl Chloride With Mercury-free Catalysts. In the section of condensation plastics P. S. Ivanov (Nizhne-Tagil'skiy zavod plastmass)(Nizhniy Tagil Works for Plastics) spoke on "The Technology of the Phenol Formaldehyde Resins According to the Continuous Method". In the session of the section glass plastics 12 lectures and 9 communications of research institutes concerning the results obtained at the production of glass plastics were delivered. The following lectures were held in the section for final processing of plastics: K. S. Strel'tsov (Model'no-konstruktorskiye masterskiye Leningradskogo sovnarkhoza)(Model Constructing Workshop of the Leningrad Sovnarkhoz) "On the Processing of Thermo-plastics to Final Products According to the Pneumatic Method", Z. P. Mitskevich (Kiyevskiy ekonomicheskiy rayon)(Kiyev Economic Rayon), "On Manufacturing Complicated Final Products of

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Polyamides by Casting at Low Pressure Directly From the Fusion Kettle Without the Use of Casting Implements", G. V. Strunnikov (NIIPM) "On the Production and Final Processing of Transparent Soft and Hard Polyvinyl Chloride Mixtures". The congress delegates criticized the work of the Upravleniye plasticheskikh mass i sinteticheskikh smol Gosudarstvennogo komiteta Soveta Ministrov SSSR po khimii (Administration for Plastic Masses and Synthetic Resins of the State Committee of the Council of Ministers of the USSR for Chemistry), and some institutes because of insufficient coordination. Furthermore the insufficient supply with projecting plans of the plastics industry by the Giproplast was criticized. The unsatisfactory development of some Districts of National Economy (Kemerovo, Leningrad, Armenia, et al) was pointed out. The conference supported the decision of the branch conference of the nitrogen industry concerning the introduction of a holiday to be called "Day of Chemists".

Card 3/3

LOSEV, Boris Ivanovich, doktor tekhn.nauk, prof.; STREL'TSOV, Konstantin Nikolayevich; PECHENKIN, A.L., inzh., red.; BRAGINSKIY, V.A., inzh., red.; FREGER, D.P., izd.red.; BELOGUROVA, I.A., tekhn.red.

[Manufacture and assembly of parts made of plastics; a survey] Obrabotka i sborka detalei iz plasticheskikh mass; obzor. Pod red. A.L.Pechenkina i V.A.Braginskogo. Leningrad, 1960. 75 p. (MIRA 14:6)

(Plastics)

STREL'TSOV, K.N.

Ways and means of expanding the processing of sheet thermoplastics. Plast.massy no.5:25-31 '60. (MIRA 13:7)
(Plastics industry--Equipment and supplies)

S/081/62/000/017/086/102
B177/B186

AUTHOR: Strel'tsov, K. N.

TITLE: A new production process for treating thermoplastic sheets

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 17, 1962, 542-543, abstract 17T61 (In collection: Plastmassy v mashinostr. i priborostr. Kiyev, Gostekhizdat USSR, 1961, 520 - 529)

TEXT: To promote efficient manufacturing techniques for the production of finished plastic articles, a technology has been devised for manufacturing galvanic pressure moulds, for high-pressure extrusion (≥15 atm.) and for vacuum-moulding of thermoplastic sheets (viniplast, organic glass, a reinforced copolymer of styrene (СН -η(SN-P)) and polyethylene). This makes it possible to obtain articles of complicated shape, large-sized components, and components simulating cut glass, with considerable simplification and cheapening of the process, and with improvement of quality. The author presents the design and a description of the galvanic extrusion moulds, the high-performance pneumatic stamping moulds and a doublesided fitment. [Abstracter's note: Complete translation.]

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STREL'TSOV, K.

Large details made of sheet thermoplastics. Na stroi.Ros. no.4: 35-36 Ap '61. (MIRA 14:6)

1. Nachal'nik Opytno-konstruktorskikh masterskikh upravleniya khimicheskoy promyshlennosti Lensovnarkhoza.
(Thermoplastics)

BOBRYNIN, Boris Nikolayevich; STREL'TSOV, Konstantin Nikolayevich; ROMANOVSKIY, V.P., kand. tekhn.nauk, red.; VAYNTRAUB, D.A., kand. tekhn. nauk, red.; LEYKINA, T.L., red.izd-va; BARDINA, A.A., tekhn. red.

[Stamping of sheet plastics]Shtampovka listovykh plastmass. Pod obshchei red. V.P.Romanovskogo. Moskva, Mashgiz, 1962. 76 p. (Bibliotechka shtampovshchika, no.8) (MIRA 15:11)
(Plastics—Molding)

STREL'TSOV, Konstantin Nikolayevich; CHEGODAYEV, D.D., red.; TOMARCHENKO, S.L., red.; FOMKINA, T.A., tekhn. red.

[Pressure and vacuum forming methods of processing thermoplastics] Pnevmaticheskaia pererabotka termoplastov. Pod red. D.D.Chegodaeva. Leningrad, Goskhimizdat, 1963. 174 p. (MIRA 16:7)

(Plastic--Molding)

STREL'TSOV, K.N.

Mechanized vacuum-forming technology for the manufacture of articles from sheet thermoplastics. Plast.massy no.4:27-30 '63. (MIRA 16:4)
(Plastics industry—Equipment and supplies) (Plastics—Molding)

ACC NR: AM5020328 Monograph UR/

Losev, Boris Ivanovich; Putintsev, Georgiy Vasil'yevich; Strel'tsov, Konstantin Nikolayevich

Processing and finishing of plastic parts (Obrabotka i otdelka detaley iz plastmass) [Leningrad] Lenizdat, 1966. 234 p. illus., biblio., tables. 10,000 copies printed.

TOPIC TAGS: plastic, plastic industry, industrial production

PURPOSE AND COVERAGE: The book describes modern methods for the processing and finishing of plastics such as machining, heat treatment, ultrasonic and high-frequency induction welding, or spraying. It discusses such problems as: testing methods, assembly of plastic parts, or quality control of finished products. The book is intended for engineers, technicians, and qualified workers. It can be used by college and high school students. There are 96 Soviet references.

TABLE OF CONTENTS (abridged):

UDC: NONE

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ACC NR: AM5026328

SUB CODE: 11/ SUBM DATE: 25Jan66/ ORIG REF: 095/ OTH REF: 001/

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L 51551-65 EWT(1)/EWT(m)/EWG(m)/T/EWP(t)/EWP(b) Pi-4 IJP(c) RDW/JD/CG
ACCESSION NR: AP5010760 UR/0181/65/007/004/1271/1272

40
38
B

AUTHOR: Kireyev, P. S.; Orlova, N. N.; Saurin, V. N.; Strel'tsov, L. N.

TITLE: Shift of edge of intrinsic absorption under the influence of an electric field in films of GaAs, CdS, and CdTe

SOURCE: Fizika tverdogo tela, v. 7, no. 4, 1965, 1271-1272

TOPIC TAGS: intrinsic absorption, absorption edge, electric field effect, thin film, gallium arsenide, cadmium sulfide, cadmium telluride

ABSTRACT: Although the shift of the edge of intrinsic absorption was investigated in many single crystals before, detailed investigations and comparisons with theory were made only for a few of the substances. The authors chose to investigate the effect in films of GaAs, CdS, and CdTe because such films can be produced readily with high resistances and can be investigated with standard apparatus using sources of relatively low voltage. The films were prepared by vacuum sputtering and measurements were made at room temperature. The degree of heating of the sample was monitored during the measurements to be able to account for the influence of the temperature on the measurement results. However, since the temperature rise did

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not exceed 5C, the effect of the temperature could be neglected. The shift of the absorption edge was observed at fields on the order of 5×10^3 V/cm. The results do not agree with the theory of T. S. Moss (J. Appl. Phys. v. 32, 2136, 1961) and measurements will be repeated on films and single crystals using alternating fields and a wide range of temperatures, to check on the causes of this discrepancy. "The authors are deeply grateful to A. P. Landsman for supplying the GaAs and CdTe films." Orig. art. has: 2 figures and 1 formula.

ASSOCIATION: Moskovskiy institut stali i splavov (Moscow Institute of Steel and Alloys)

SUBMITTED: 09Nov64 ENCL: 00 SUB CODE: SS, OP

NR REF SOV: 002 OTHER: 007

Card 2/2

L 24371-66 EWT(1)/EWT(m)/ETC(f)/EWG(m)/T/EWP(t) IJP(c) RDW/JD/GG

ACC NR: AP6009704 SOURCE CODE: UR/0181/66/008/003/0980/0982

AUTHOR: Strel'tsov, L. N.; Kiseleva, N. M.; Kireyev, P. S. 47

ORG: Moscow Institute of Steel and Alloys (Moskovskiy institut stali i splavov) 6

TITLE: Anomalous shift of the intrinsic-absorption edge under the influence of an electric field in films and amorphous samples of selenium

SOURCE: Fizika tverdogo tela, v. 8, no. 3, 1966, 980-982 27

TOPIC TAGS: selenium, absorption edge, line shift, electret, surface property

ABSTRACT: This is a continuation of earlier investigations (FTT v. 7, 2713, 1965) of the intrinsic absorption edge in GaAs, CdS, and CdTe. The present study is devoted to selenium, where instead of the theoretically predicted shift of the absorption edge toward the long-wave side, the shift is toward the shorter wavelength. The amorphous-selenium samples were prepared in the form of plates 200--400 μ thick, or films produced by thermal sputtering in vacuum, ranging in thickness from 1 to 50 μ. The spectra with and without field were obtained with an ISP-51 spectrograph. An incandescent lamp was used as a light source. The spectrograms were analyzed with the aid of a microphotometer (MF-4). The spectra were taken at room and nitrogen temperatures, and the field was 5 kv. To ascertain the cause of the anomalous shift of the intrinsic absorption edge, x-ray pictures were taken of the sample before and after the application of the field, to check on the structural changes brought about by the field. The hypothesis that the shift may be due to the fact that selenium exhibits

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an electret state, whose structure becomes ordered when the field is applied, was rejected on the basis of the experimental data, since no ordering was observed. It is therefore proposed that the anomalous shift is due to the presence of surface states, although the manner in which this causes the shift remain unclear, and calls for additional research. Orig. art.has: 1 figure.

SUB CODE: 07 / SUBM DATE: 06Jul65/ ORIG REF: 002/ OTH REF: 003

Card 2/2

[illegible]

[illegible]

[illegible] Brightness Telegraph, Vol. 1, 1955

STRELTSOV, L. V., BABKOV, S. I., SHAVORONKOV, N. M. and CHERNYKH, G. N.

"Die Kinetik der Isotopenanreicherung in vielstufigen Kolonnen."

Report presented at the 2nd Intl. Conf. on Stable Isotopes.
East German Academy of Sciences, Inst. of Applied Physical Material
Leipzig, GDR, 30 Oct - 4 Nov 1961

STRELTSOV, L.V.; CHERNYKH, G.N.; SHAVORONKOV, N.M.; BABKOV, S.I.;

"Uber die zeitliche Annaherung an den stationaren Zustand bei der Trennung stablier Isotope in Kolonnen." (Berechnungen auf einer elektronischen Rechenmaschine)

Third Working Conference on Stable Isotopes, 28 October to 2 November 1963, Leipzig.

L 44413-66 EWT(1)/EWT(m)/T DS/WW/RO/GW

ACC NR: AP6024433 SOURCE CODE: UR/0362/66/002/007/0770/0771

AUTHOR: Fuks, N. A.; Strel'tsov, L. V.

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B

ORG: Physicochemical Institute im. L. Ya. Karpov (Fiziko-khimicheskiy institut)

TITLE: Methodology of investigating large-particle aerosol settlings in the surface boundary layer of the atmosphere

SOURCE: AN SSSR. Izvestiya. Fizika atmosfery i okeana, v. 2, no. 7, 1966, 770-771

TOPIC TAGS: aerosol chemistry, atmosphere, aerosol, aerosol particle

ABSTRACT: A method of fractionation developed at the Institute for Applied Geophysics (Institut prikladnoy geofiziki) for investigation of the settling of large aerosol particles in the surface layer of the atmosphere has been modified and improved by the authors in order to make it suitable, without laboratory facilities, for investigations of toxic chemical particles deposited by spraying and dusting for various purposes. The main changes in the process were the use of slurry instead of powder, making it possible to obtain clearly defined fractions, and the use of alcohol solutions

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ACC NR: AP6024433

of dyes for staining and identification of fractions, the drying process, and the method of counting the particles. Presented in the original article are histograms showing the distribution of fractions according to particle size (ranging from 19.3—233 μ mm) and a diagram indicating the density of individual particles of various magnitude as they settle after being sprayed at an altitude of 2 m from a duster moving perpendicular to the direction of a wind with a velocity of 1.6 m. Orig. art. has: 2 figures. [KP]

SUB CODE: 04/ SUBM DATE: 17Feb66/ ORIG REF: 002/ OTH REF: 000

Card 2/2

KIRKHOGLANI, V.D., arkhitektor; STREL'TSOV, M.B., inzh.

Standard apartment houses of few stories. Biul.tekh.inform. 4 no.10: 17-19 O '58. (MIRA 11:11)
(Leningrad--Apartment houses)

STREL'TSOV, M.K., kand. tekhn. nauk

Investigating transient processes and calculating basic parameters of controlled crosscut boring machines for steep seams. Ugol' 39 no.7:31-35 Jl '64. (MIRA 17:10)

1. Donetskiy nauchno-issledovatel'skiy ugol'nyy institut.

GUSEV, S.O.; CHEKMAREV, N.P.; STREL'TSOV, M.M.

Publicizing experience in operating trains using mechanical refrigeration and proposals for improving their use. Vest.TSNII MPS 15 no.2:61 S '56. (MLRA 9:12)

(Refrigerator cars)

VLADIMIRSKIY, V.V.; KOMAR, Ye.O.; MINTS, A.L.; GOL'DIN, L.L.; MONOSZON, N.A.; RUBCHINSKIY, S.M.; TARASOV, Ye.K.; VASIL'YEV, A.A.; VODOP'YANOV, F.A.; KOSMAREV, D.G.; KURYSHEV, V.S.; MALYSHEV, I.F.; STOLOV, A.M.; STREL'TSOV, N.S.; YAKOVLEV, B.M.

The 7 bev. proton synchrotron. Prib. i tekh. eksp. 7 no.4:5-9 Jl-Ag '62. (MIRA 16:4)

1. Institut teoreticheskoy i eksperimental'noy fiziki Gosudarstvennogo komiteta po ispol'zovaniyu atomnoy energii SSSR, Nauchno-issledovatel'skiy institut elektrofizicheskoy apparatury Gosudarstvennogo komiteta po ispol'zovaniyu atomnoy energii SSSR i Radiotekhnicheskiy institut Gosudarstvennogo komiteta po ispol'zovaniyu atomnoy energii SSSR.
(Synchrotron)

STREL'TSOV, N.S.; FEDOTOV, G.M.; ROZHDESTVENSKIY, B.V.; GUSTOV, G.K.; GAMULINA, V.Ye.; NIFONTOV, Yu.L.; INDYUKOV, N.N.; BEZGACHEV, Ye.A.; KURYSHEV, V.S.

Design of the electromagnet of the 7 bev. proton synchrotron. Prib. i tekh. eksp. 7 no.4:15-19 Jl-Ag '62. (MIRA 16:4)

1. Nauchno-issledovatel'skiy institut elektrofizicheskoy apparatury Gosudarstvennogo komiteta po ispol'zovaniyu atomnoy energii SSSR i Institut teoreticheskoy i eksperimental'noy fiziki Gosudarstvennogo komiteta po ispol'zovaniyu atomnoy energii SSSR.
(Electromagnets) (Synchrotron)

STRELTSOV, N. S.

L 13271-65 EWT(1)/EWG(k)/EWT(m)/EPA(sp)-2/EPA(w)-2/EEC(t)/T/EEC(b)-2/EWA(m)-2
Pe-6/Po-4/Pu-4/Pa-4/Pi-4 IJP(c)/SSD(b)/SSD(p)-3/ASD/AEDC(b)/AFWL(a)/ESD(gs)/ESD(t)
DW/AT

ACCESSION NR: AP4047415 S/0089/64/017/004/0287/0294

AUTHORS: Gashev, M. A.; Gustov, G. K.; D'yachenko, K. K.; Komar, Ye. G.; Maly*shev, I. F.; Monoszon, N. A.; Popkovich, A. V.; Ratnikov, B. K.; Rozhdestvenskiy, B. V.; Rumyantsev, N. N.; Saksaganskiy, G. L.; Spevakova, F. M.; Stolov, A. M.; Strel'tsov, N. S.; Yavno, A. Kh.

TITLE: Main technical characteristics of the "Tokamak-3" experimental thermonuclear installation

SOURCE: Atomnaya energiya, v. 17, no. 4, 1964, 287-294

TOPIC TAGS: thermonuclear pinch, thermonuclear fusion, plasma research, plasma pinch / Tokomak-3

ABSTRACT: The "Tokamak-3" is intended for the investigation of a toroidal quasi-stationary discharge in the strong longitudinal magnetic field. The toroidal discharge is produced in the vacuum cham-

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ber by a vortical electric field, and acts as an equivalent secondary turn of a pulse transformer. The produced plasma pinch is stabilized with a longitudinal magnetic field of a toroidal solenoid, inside which the vacuum chamber is located. The magnetic core of the pulse transformer carries the primary vortical-field winding, the demagnetization winding, and the winding for induction heating. The setup is fed from special power systems. The electromagnetic system, the power supply, and the vacuum system are described in some detail. The longitudinal field intensity reaches 40 kG. The vortical field values are 250 and 50 V per turn with pulse durations 10 and 50 milliseconds, and with programming of the waveform such as to maintain a constant current in the plasma pinch. The power supply delivers a peak power of 77,000 kW, maximum 7000 A, no-load voltage 11 kV, and stored energy 180 million Joules. The vortical field is fed from four capacitor banks rated 1000 μF at 20 kV, 11,000 μF at 10 kV, 78,000 μF at 5 kV, and 30,000 μF at 5 kV. The capacitor-bank parameters can be varied over a wide range. The vacuum in the liner does

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L 13221-65

ACCESSION NR: AP4047415

not exceed 1--2 x 10^{-7} mm Hg during the interval between gas admission, with the pressure in the outside chamber being 1--2 x 10^{-6} mm Hg. Orig. art. has: 8 figures.

ASSOCIATION: None

SUBMITTED: 23Nov63 ENCL: 00

SUB CODE: NP, ME NR REF SOV: 000 OTHER: 000

Card 3/3

STREL'TSOV, M.V.

Monorail track for conveying compressed naphtalene. Sbor.rats. predlov proizv. no.5:46-47, 60. (MIRA 14:8)

1. Magnitogorskiy metallurgicheskiy kombinat.
(Conveying machinery)

KATSENELENBOGEN, E.D.; IOFIS, Ye.A.; STREL'TSOV, M.V.; SHAMRINSKIY, A.I.; GEODAKOV, A.I.; ZHERDETSKAYA, ~~N.N., redaktor;~~ PANKRATOVA, M.A., tekhnicheskiy redaktor

[Laboratory processing of photographic materials] Laboratornaia obrabotka fotomaterialov. Pod red. E.A.Iofisa. Moskva, Gos. izd-vo "Iskusstvo," 1956. 200 p. (Biblioteka fotoliubitelia, no.3) [Microfilm] (MIRA 10:1)

(Photography)

[redacted]

[illegible] of range finder in the [illegible] type of camera. [illegible] foto [illegible] (MLRA 10:2)

(Optics)

STREL'TSOV, M.

Adjusting the objectives in the "Sorkii" type of camera. Sov. foto 17 no.8,40-53 Ag '57. (MIRA 10:9)
(Cameras--Equipment and supplies)

KATSENELENBOGEN, E.D.; IOFIS, Ye.A., kand.tekhn.nauk; STREL'TSOV, M.V.; SHAMRINSKIY, A.I.; GEODAKOV, A.I.; ZHERDETSKAYA, N.N., red.; SIDOROVA, A.A., tekhn.red.

[Laboratory processing of photographic materials] Laboratornaia obrabotka fotomaterialov. Izd.2., ispr. i dop. Pod red. E.A. Iofisa. Moskva, Gos.izd-vo "Iskusstvo," 1959. 206 p. (Biblioteka fotoliubitelia, no.3) (MIRA 13:1)

(Photography--Developing and developers)
(Photography--Printing processes)

STREL'TSOV, N.

The exchange of progressive experience is a very important problem. Muk.-elev. prom. 27 no.9:8 S '61. (MIRA 15:2)

1. Nachal'nik planovogo otdela Krasnodarskogo mel'kombinata.
(Krasnodar—Grain milling)

STREL'TSOV, N.

Increase in labor productivity and decrease in the cost of production and distribution in the Krasnodar Milling Combine. Muk.-elev. prom. 28 no.1:3-4 Ja '62. (MIRA 16:7)

1. Krasnodarskiy mel'nichnyy kombinat.
(Krasnodar Territory—Flour mills)

SHEL'TSOV, N.

We are preparing the grain receiving equipment for the intake of corn. Muk.-elev. prom. 28 no.6:28-29 Je '62. (MIRA 15:7)

1. Nachal'nik planovogo otdela Krasnodarskogo mel'nichnogo kombinata.
(Corn (Maize)) (Grain elevators)

STREL'TSOV, N.

Reducing the loss of corn seed at the Krasnodar Milling Combine. Muk.-elev.prom. 29 no.1:24-25 Ja '63. (MIRA 16:4)

1. Nachal'nik planovogo otdela Krasnodarskogo mel'nichnogo kombinata.

(Krasnodar--Grain handling)

STREL'TSOV, N.

Useful seminar for economists. Muk.-elev. prom. 29 no.8:32 Ag '63. (MIRA 17:1)

1. Nachal'nik planovogo otdela Krasnodarskogo mel'nichnogo kombinata.

STREL'TSOV, N.; NARTYMOV, A.

Traffic organization and safety. Avt. transp. 42 no.8: 46-47 Ag '64. (MIRA 17:10)

STREL'TSOV, N.N.

ZHELEZNYAKOVA, M.A.; KLYUYEVA, Ya.P.; STREL'TSOV, N.N., redaktor; AKATOVA, V.G., redaktor; KONYASHINA, tekhnicheskiy redaktor

[Construction and operation of gas equipment in public enterprises] Ustroistvo i ekspluatatsiia gazovogo khoziaistva kommunal'nykh predrpiiatii. Moskva, Izd-vo Ministerstva kommunal'nogo khoziaistva RSFSR, 1955. 218 p. (MLRA 8:10)

(Gas distribution)

STREL'TSOV, N.N., inzhener; SALYNIN, Ye.A., inzhener.

Efficent air testing of welded joints of insulated gas pipes. Gor. khoz. Mosk. 29 no.12:28-29 D '55. (MLRA 9:3)
(Gas pipes)

STREL'TSOV, N., inzhener.

Insure the safe use of gas water heaters. Zhil.-kom.khoz. 6 no.3: 23-24 '56. (MLRA 9:8)

(Water heaters)

SOV/

PHASE I BOOK EXPLOITATION

11(3)

Nauchno-teknicheskoye obshchestvo energeticheskoy promyshlennosti Moskovskoye pravleniye

Ispol'zovaniye gaza v promyshlennykh pechakh i kotel'nykh ustanovkakh g. Moskvy i Moskovskoy oblasti; materialy Moskovskogo nauchno-tekhnicheskogo soveshchaniya (Utilization of Gas in Industrial Furnaces and Boiler Units in Moscow and Moscow Oblast'; Materials of the Moscow Scientific and Technical Conference) Moscow, Gostoptekhizdat, 1959. 227 p. Errata slip inserted. 5,000 copies printed.

Ed.: D. B. Ginzburg, Doctor of Technical Sciences; Exec. Ed.: N. I. Stepanchenko; Tech. Ed.: A. S. Polosina.

PURPOSE: This collection of articles is intended for specialists engaged in designing and operating gas units of industrial enterprises and electric power plants.

COVERAGE: The change-over in some industrial enterprises from solid and liquid fuel to natural gas is discussed and further possibilities existing along this line are examined. Advantages of using natural gas as a source of energy are outlined. Different gas burner systems, devices for automatic control of the combustion process, structural features of furnaces operating on natural

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gas, gas-supply systems and the introduction of safety measures in the construction and operation of gas units are described. The book contains many diagrams of gas-supply systems and equipment. No personalities are mentioned. One article is followed by references.

TABLE OF CONTENTS:

Utilization of Gas in Industrial Furnaces (Cont.) SOV/2254

Furman, I. Ya. Problems of the Economic Practicability of Utilizing Gas in Industry 204

Dolotov, G. P., and Ye. A. Kondakov. Safe Utilization of Natural Gas in the Machinery-manufacturing Plants 216

AVAILABLE: Library of Congress

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STREL'TSOV, N.N., inzh.

Using methods applied in Moscow in protecting underground gas pipes by bituminous coating. Gor.khoz.Mosk. 33 no.10:25-27 O '59. (MIRA 13:2)

1. "Mospromgaz."
(Moscow--Gas pipes--Corrosion and anticrossives)
(Protective coatings)

ZHELEZNYAKOVA, M.A.; KLYUYEVA, Ye.P.; STREL'TSOV, N.N., red.; PANCHENKO, M.F., red.izd-va; NAZAROVA, A.S., tekhn.red.

[Operation of gas systems of communal enterprises] Ekspluatatsiia gazovogo khoziaistva kommunal'nykh predpriiatii. Izd.2. Moskva, Izd-vo M-va kommun.khoz.RSFSR, 1960. 219 p. (MIRA 13:12)

(Gas distribution) (Gas appliances)

STREL'TSOV, N.S.

VLADIMIRSKIY, V.V.; KOMAR, Ye.G.; MINTS, A.L.; GOL'DIN, L.L.; KOSHKAREV, D.G.; MONOSZON, N.A.; NIKITIN, S.Ya.; RUBCHINSKIY, S.M.; SKACHKOV, S.V.; STREL'TSOV, N.S.; TARASOV, Ye.K.

Basic characteristics of the projected 50-60 Bev proton accelerator with alternating-gradient focusing. Atom.energ. no.4:31-33 '56. (MLRA 9:12)

(Particle accelerators) (Protons)

STRELTSOV, N. S., KOMAR, E. G., MONOSZON, N. A., FEDOTOV, G. M.

"Some Structural Features of the 10 GeV Synchrotron Electromagnet," paper presented at CERN Symposium, 1956, appearing in Nuclear Instruments, No. 1, pp. 21-30, 1957

STRELTSOV, N.S.

ARKHANGEL'SKIY, F.K.; GASHEV, M.A.; KOMAR, Ye.G.; MALYSHEV, I.F.; MONOSZON, N.A.; STOLOV, A.M.; STREL'TSOV, N.S.

Electric engineering and design problems in constructing large cyclic accelerators. Elektrichestvo no.11:25-34 N '57. (MIRA 10:10)

(Cyclotron)

STREL'TSOV, N.S.

VLADIMIRSKIJ, V.V.; KOMAR, Je.G.; MINC, A.L.; GOL'DIN, L.L.; KOSKAREV, D.C.; MONOSZON, N.A.; NIKITIN, S.Ja.; RUBCINSKIJ, S.M.; SKACKOV, S.V.; STREL'COV, N.S.; TRASOV, Je.K.; MEDONOS, S., inz. [translator]

Main characteristics of the planned proton accelerator for 50-60 BeV energy with sharp focusing. Jaderna energie 3 no.2:56-57 F '57.

21(9) SOV/89-7-2-8/24

AUTHORS: Alekseyev, A. G., Gaenev, M. A., Dondysh, [illegible], Malyshev, I. F., Matora, I. M., Mironov, Ye. D., Monoizon, N. A., Nesenov, L. M., Pirogovskiy, V. V., Romanov, N. A., Strel'tsov, N. S., Fedorov, N. D.

TITLE: A 1.20-Meter Cyclotron With a Magnetic Pole Diameter (Tsiklotron s diametrom polyusov magnita 120 cm)

PERIODICAL: Atomnaya energiya, 1959, Vol 7, Nr 2, pp 148 - 158 (USSR)

ABSTRACT: The device was developed in the Nauchno-issledovatel'skiy institut elektrofizicheskoy apparatury (Scientific Research Institute for Electro-physical Apparatus) in collaboration with the Institut atomnoy energii AN SSSR (Institute for Atomic Energy of the AS USSR). The electro-magnet was designed by N. N. Indyukov, Ye. A. Bergachev, A. V. Klimov under the guidance of B. V. Rozhdestvenskiy and B. Ye. Gritskov (Figs 1 and 2 are cross sections of the electro-magnet). The radial field force was measured in such a way that the error in the center of the field was less than 0.01% of the force of the field. The error at the measurement of the azimuthal inhomogeneity of the field was less than 0.007% of the field force

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in the center of the field. The position of the magnetic plane was determined by the magnetic scale developed by V. V. Pirogovskiy. For the correction of the magnetic field inside rings and discs were used, which are installed between the poles of the magnet and the lids of the vacuum chambers (sectional views are given). The measurements, the construction method and the assembly of the resonance conductor and of the duants are described in detail (there are sectional views). The acceleration chamber and the resonance conductor (there is a detailed sketch) were constructed by A. I. Alyab'yev, I. P. Zhukov, N. N. Rumyantsev under the supervision of B. I. Produvnov. The whole high-frequency installation is shown in a block diagram and there is a short description of part of it. The high-frequency section was developed by G. M. Drabkin, N. V. Venatovskiy and R. Yu. Protasovskiy under the supervision of A. S. Temkin. The vacuum systems were computed by Ya. L. Mikhelis and N. M. Karpenko. The movement of ions in the ion source and in the central part of the cyclotron is of special importance at the acceleration. This movement was thoroughly studied by I. M. Matora. He developed a special deflector system. The focusing system was computed by Yu. G.

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A 1.20-Meter Cyclotron With a Magnetic Pole Diameter SOV/89-7-2-8/24

Basargin. The magnetic quadrupole lenses of N. A. Ostrovskiy and N. I. Konovalova were used in this system. The cyclotron produces 15.7 mev of deuterons while the extreme route of the particle flux can be up to 1 ma. There is a guided beam of 100-200 μa at disposal for normal work and the beam is focussed to a plane of 15.20 mm^2. The control desk, signal equipment and the special electrical installations were designed by V. S. Lyublin, N. B. Nevrov, P. S. Gornikel'working under the guidance of G. S. Gordeychik. Similar cyclotrons, constructed in the USSR, are in operation in Romania, China, Poland and GDR. In the near future a cyclotron of a similar type will be completed in the CSR. The first cyclotron of this type was tested in 1956 by L. N. Baulin, R. N. Letunovskiy, Yu. G. Basargin, A. V. Stepanov, G. A. Malivayko, M. D. Veselov, V. A. Susiov and A. I. Antonov from the Scientific Research Institute for Electrophysical Apparatus and I. I. Afanas'yev, A. A. Arsumanov and M. A. Meshcherov from the Institute for Atomic Energy of the AS USSR. The magnetic quadrupole lenses were tested at the cyclotron of the AN USSR (AS UkrSSR) with the participation of V. A. Aovtun. The fabrication of the cyclotron was supervised by A. V. Kozelevskiy,

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A 1.20-Meter Cyclotron With a Magnetic Pole Diameter SOV/89-7-2-8/24

L. N. Fedulov, V. V. Romanov and K. A. Aeriyev . Ye. G. Kozar gave valuable advice. F. K. Arkhangel'skiy aided the testing of the first cyclotron. Problems concerning the planning of the cyclotron were discussed with D. G. Alkhazov. There are 10 figures and 5 Soviet references.

SUBMITTED: March 12, 1959

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STRELTSOV, N. S.

S/057/60/030/012/002/011
B019/B056

26.2311

AUTHORS: Glukhikh, V. A., Komar, Ye. G., Larionov, B. A., Malyshev, I. F., Monosson, N. A., Stolov, A. M., and Streltsov, N. S.

TITLE: Technical Data and Main Parameters of "Al'fa" Research Installation

PERIODICAL: Zhurnal tekhnicheskoy fiziki, 1960, Vol. 30, No. 12, pp. 1394 - 1405

TEXT: The results obtained by calculation were checked during planning of this research installation on a model having the scale 1/20. The following essential data were given: Mean diameter of the torus: 3200 mm, diameter of the cross section: 1000 mm. Margin of energy of the capacitor battery: 1500 kilojoules. Field strength of the rotational field: 0.2-8 v/cm. Maximum field strength of the magnetic longitudinal field: 1500 oe. Maximum discharge current: 300 ka. Leakage intensity of the six turns of the primary coil: $1.6 \cdot 10^{-5}$ henries. Maximum induction of the magnetic conductor with a discharge current of 300 ka: 12,000 Gauss.

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Weight of the magnetic conductor: 110 t. Weight of the vacuum chamber: 4.5 t; total weight 156 t. The magnetic conductor is made of Э-42 (E-42) transformer steel, the primary coil for the rotational field consists of 25 turns of a copper tube having a diameter of 26 mm. The coil for the longitudinal field consists of a copper tube with rectangular cross section, constructed from 40 single coils having 12 turns each. Current supply is discussed on the basis of the scheme shown in Fig.4. For the pre-ionization in the interior of the chamber, a high-frequency generator is used (4 mc). The outer chamber consists of 27 mm Al-sheets, the inner chamber of 0.2 mm stainless steel, and at the bushings, it is reinforced with 2 mm sheets. The vacuum system consists of 8 diffusion units, two pre-vacuum pumps, and one booster pump. L. B. Zinaburg, D. Ye. Zavarin, Ya. L. Mikhelis, B. I. Predavnov, B. V. Rozhdestvenskiy, D. G. Serokin, et al. took part in developing this research installation. There are 7 figures.

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ASSOCIATION: Nauchno-issledovatel'skiy institut elektrofizicheskoy apparatury (Scientific Research Institute of Electrophysical Apparatus)

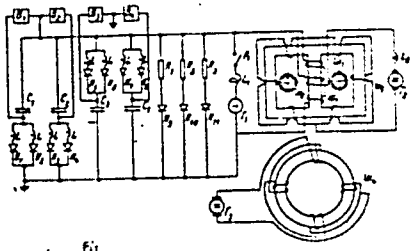

Fig.4

Card 3/4 Рис. 4. Принципиальная электрическая установка

Legend to Fig.4: 1) B_1 - B_4 are thyratron rectifiers. 2) $И_1$ - $И_{11}$ are ignitrons. 3) $Г_2$ and $Г_3$ are generators for degaussing and for the longitudinal field.

80736

S/120/62/000/004/001/047
E039/E420

AUTHORS: Monoszon, N.A., Strel'tsov, N.S., Ostrovskiy, N.A.

TITLE: The basic electromagnetic parameters of the 7 Gev proton synchrotron

PERIODICAL: Pribory i tekhnika eksperimenta, no.4, 1962, 10-15

TEXT: The basic parameters of the electromagnet system are given in detail, e.g. number of C-magnets 98; number of quadrupole lenses 14; azimuthal length of each block 1910 mm; maximum strength of magnetic field 8475 Oe; radius of curvature of equilibrium orbit in C-blocks 31 m; aperture of chamber 110 x 80 mm^2; rise time of the magnetic field 1.55 sec; number of working cycles per minute 10 to 12. The tolerances in the geometrical dimensions necessary to produce a field of the required accuracy are considered, together with the characteristics of the steel used. Special coils are provided to compensate for perturbations produced by residual magnetism at the beginning and end of the working cycle, and for the effect of eddy currents in the steel. A decrease in magnetic permeability of the magnetic system can also be allowed for. Cross-

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sectional diagrams are given of the C-blocks showing the interpolar space. The upper and lower poles have a hyperbolic contour. Coordinates of the boundary of the hyperbolic and neutral poles were calculated and verified by using a model electromagnet. The configuration of and the fields produced by the quadrupole lenses is also discussed. A description of the layout of the main magnetic field exciting coils is given followed by additional data on the magnet system, e.g. maximum excitation current 2500 A; excitation current at 7 Gev 2200 A; time constant of excitation coils 1.7 sec; weight copper 120 tons; weight steel 2500 tons; voltage on coils at the beginning of the cycle 5000 V; peak power 25000 KW. The method of regulating the field is also described. There are 10 figures and 2 tables.

ASSOCIATION: Nauchno-issledovatel'skiy institut elektrofizicheskoy apparaturyy GKAE (Scientific Research Institute for Electrophysical Apparatus GKAE)

SUBMITTED: April 6, 1962

40737

S/120/62/000/004/002/047
E032/E514

AUTHORS: Strel'tsov, N.S., Fedotov, G.M., Rozhdestvenskiy, B.V., Gustov, G.K., Gamulina, V.Ye., Nifontov, Yu.L., Indyukov, N.N., Bezgachev, Ye.A. and Kuryshev, V.S.

TITLE: The construction of the electromagnet for the 7 GeV proton synchrotron

PERIODICAL: Pribory i tekhnika eksperimenta, no.4, 1962, 15-19

TEXT: A description is given (including sectional drawings) of the electromagnet. The electromagnet incorporates four types of magnetic sections, namely: 1) bending sections for radial focusing (total number 42), 2) bending sections for radial defocusing (total number 53), 3) bending sections for radial defocusing, located at points of beam extraction (total number 3), and 4) quadrupole lenses with zero field on the orbit (total number 14). The magnetic circuits of all the sections are assembled from insulated steel sheets (the chemical composition of the steel is similar to Э2 (E2) steel). The hyperbolic pole faces were made on a special milling machine and have a curvature of 2780 cm in the horizontal plane. The system used to retain the

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steel sheets in position was such that the deformation of the hyperbolic face was ±(0.1-0.15)mm after two days and ±0.03 mm after two months. The design of the neutral pole faces of the bending magnets was such that their deformation and the electrodynamic stresses did not exceed 0.05 mm. The main winding consists of 48 turns connected in series and arranged in ten sections. The winding is made of rectangular copper piping which was manufactured by the Leningrad factory "Krasnyy Vyborzhets". In addition to the main winding, there are three compensating coils which are used to correct the magnetic field. Water cooling is used and the insulation is sufficient to withstand 2 kV. The extracting magnets, which are used to extract the beam into the experimental area, consist of a main coil (8 turns; copper piping) and two compensating coils (8 turns each; copper piping). Finally, the quadrupole lenses carry an 18 turn main winding and an 18 turn auxiliary winding, both in the form of copper piping. In order to facilitate the positioning of all the electromagnets, each of them carried special markers which were used to relate their position to the appropriate points

on the basic geodesic grid. Special mechanisms were used to adjust the magnets. They can be adjusted by ±2 cm in the vertical plane to an accuracy of 0.001 cm and by ±8.5 cm in the radial direction to an accuracy of 0.002 cm. The former adjustment is made with the aid of special wedges and the latter by a screw-driven mechanism. The azimuthal adjustment is made by simple wedge devices and can be achieved to an accuracy of ±0.05 cm. There are 6 figures.

ASSOCIATIONS: Nauchno-issledovatel'skiy institut elektrofizicheskoy apparatury GKAE (Scientific Research Institute of Electrophysical Apparatus GKAE) and Institut teoreticheskoy i eksperimental'noy fiziki GKAE (Institute of Theoretical and Experimental Physics GKAE)

SUBMITTED: April 6, 1962

STRELTSOV, N.S.

S/089/62/012/006/003/019
B102/B104

AUTHORS: Vladimirskiy, V. V., Komar, Ye. G., Mints, A. L., Gol'din, L. L., Monoszon, N. A., Rubchinskiy, S. M., Tarasov, Ye. K., Vasil'yev, A. A., Vodop'yanov, F. A., Voshkarev, D. G., Kuryshev, V. S., Malyshev, I. F., Stolov, A. N., Strel'tsov, N. S., Yakovlev, B. M.

TITLE: The design of the 7-Bev proton synchrotron

PERIODICAL: Atomnaya energiya, v. 12, no. 6, 1962, 472-474

TEXT: The history of the first Soviet cyclic accelerator with rigid focusing is briefly described, and the most important data on its planning and operation are presented. Planning was started in 1953. The parameters of this proton accelerator, the energy of which exceeds the antinucleon production threshold, were so chosen that the dependence of the orbital circumference on the particle momenta was completely compensated. This was achieved by employing 14 quadrupole magnets with orbits of negative curvature. Technical data: output current, 10^{10} protons/pulse; maximum field strength, 8475 oe; length of equilibrium orbit, 251.2 m; radius of

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curvature of the trajectories in the bending magnets (C), 51 m, and in the compensation magnets (X), ∞; number of magnetic sectors, 98C + 14X; gap length between the C-magnets, 304.0 mm; gap length around the X-magnets, 417.5 mm; index of the decrease in field strength, 460; internal height and width of the chamber, 60 and 110 mm, respectively; number of betatron oscillations per revolution, 17.75, and per periodic element, 0.91; number of magnets per periodic element, 8; total critical energy, 19.2 Bev; maximum deviation of the periodic orbit with 100% deviation of the momentum from the equilibrium momentum, 1.47 m; rate of energy increase per revolution, 4.3 kev; duration of one cycle, 1.55 sec; 10-12 cycles/min; particle revolution frequency at the beginning of the cycle, 0.11 Mc/sec, and at the end, 1.19 Mc/sec; frequency of synchrocyclotron oscillations, 3600 and 150 cps; weight of the electromagnet steel, 2500 tons; maximum power of the supply system, 25 Mw; Van de Graaff injector (particle energy, 3.8 Mev; field strength 90 oe); admissible deviations from field strength and field gradients, $\sim 10^{-3}$; deviations at the chamber edge due to nonlinearities, $\sim 10^{-2}$; admissible frequency deviation of the accelerating field at the beginning of the cycle, 10^{-3}, and at the end, $5 \cdot 10^{-5}$. There are 1 figure and 1 table.

SUBMITTED: March 12, 1962

Card 2/2

S/076/63/037/003/013/020
B101/B215

AUTHORS: Selivanova, N. M., Leshchinskaya, Z. L., Strel'tsov, N. S.

TITLE: Formation heat of cadmium selenite

PERIODICAL: Zhurnal fizicheskoy khimii, v. 37, no. 3, 1963, 668-670

TEXT: The standard heat of formation of $CdSeO_3$ was determined calorimetrically by causing $CdCl_2$ to react with Na_2SeO_3. Radiographically amorphous $CdSeO_3$ was obtained and ΔH^o_{298} = -137.04 kcal/mole was found on the basis of data obtained by F. Rossini et al. (Selected values of chemical thermodynamic properties, Washington, 1952). The integral heat of solution of crystalline Na_2SeO_3 is -7.05 kcal/mole for a concentration of 1 : 400. There are 1 figure and 2 tables.

ASSOCIATION: Moskovskiy ordena Lenina khimiko-tekhnologicheskiy institut imeni D. I. Mendeleyeva (Moscow "Order of Lenin" Institute of Chemical Technology imeni D. I. Mendeleyev)

~~Card 1/2~~

L 43088-65 EWT(m)/ EPA(w)-2/EWA(m)-2 Pab-10/Pt-7 IJP(c) JT/GS

ACCESSION NR: AT5007918 S/0000/64/000/000/0197/0201

AUTHOR: Vladimirskiy, V. V.; Gol'din, L. L.; Kozhkarev, D. G.; Tarasov, Ye. K.; Yakovlev, B. M.; Gustov, G. K.; Komar, Ye. G.; Kulikov, V. V.; Kalyshev, I. F.; Morozov, N. A.; Popkovich, A. V.; Stolov, A. M.; Strel'tsov, N. S.; Titov, V. A.; Vodop'yanov, F. A.; Kuz'min, A. A.; Kuz'min, V. F.; Hints, A. L.; Rubchinskiy, S. M.; Uvarov, V. A.; Zhadanov, V. M.; Filaretov, S. G.; Shiryayev, F. Z.

TITLE: 60-70 Gev Proton Synchrotron

SOURCE: International Conference on High Energy Accelerators. Dubna, 1963. Trudy. Moscow, Atomizdat, 1964, 197-201

TOPIC TAGS: high energy accelerator, synchrotron

ABSTRACT: A 60-70 Gev proton synchrotron with strong focusing is being constructed not far from Serpukhov, as has been reported earlier (e.g. "Research Institute for Electro-Physical Equipment, Leningrad," in Proceedings of the International Conference on High Energy Accelerators and Instrumentation (CERN, 1959), p. 373). The present report describes parameter changes and improvements in precision structural characteristics of the accelerator, and the present state of construction in mid-1963. The parameters of the magnet are presented in a table. A small change in the original plans permitted an increase in the length of a part of the free

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L 43088-65

ACCESSION NR: AT5007918

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sections, some of which are utilized for input and exit of beams. The super-period design is described. The lengthened sections were obtained as a consequence of shortening the focusing and defocusing blocks by 112 cm. The focusing properties of the magnetic channel were diminished consequently, but very little; and the limiting energy was lowered by 2-3 Gev. The construction of the magnet is described. Each of the magnetic blocks is divided lengthwise into 5 sub-blocks which are enveloped by the common winding. These sub-blocks consist of laminar two-millimeter silicon steel. These steel sheets were stamped out without subsequent mechanical working, and were subjected to sorting and intermixing in order to smooth out their magnetic characteristics. The sub-blocks are constricted by lateral welded plates without adhesion. Provision was made for windings on the poles in order to correct for pole nonlinearity and for variations in the drop reading. These windings make it possible to introduce artificial quadratic (square) nonlinearity that changes the dependence of the frequency of transverse oscillations during a pulse. In order to correct for straying of the residual field, provision has been made for windings on the yoke in series with the main winding. The sub-blocks must undergo calibration on a magnet stand in order to make correcting systems more precise and to determine the most convenient disposition of the sub-blocks along the ring. The winding of the electromagnet is made of aluminum busbars with hollow cores for cooling water. The length of the busbar is so selected that there would be no

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ACCESSION NR: AT5007918

welded joints inside the coils. The winding consists of 4 sections, two of which are disposed on the upper pole and two on the lower. The most important characteristics of the electromagnet and power supply system are described in a table. Also described are the vacuum chamber and accelerating field (obtained by 53 paired resonators with ferrite rings, which operate at the 30-th harmonic of revolution and give accelerating potential of 350 kilovolts). The ring tunnel and the general arrangement of the accelerator are shown in figures and described. The building for the injector and portions of the ring tunnel from the injector to the experimental room have been completed in the main and are ready for installation of equipment. This room, in the form of a single-aisle building without internal supports, permits one to work on beams brought into the inner and outer sides. A 90-meter arch covers this room, whose overall length is 150 meters. Provisions have been made for a second experimental room at the southwest part of the ring. Orig. has 4 figures, 2 tables.

ASSOCIATION: Institute teoreticheskoy i eksperimental'noy fiziki GKAE SSSR (Institute of Theoretical and Experimental Physics, GKAE SSSR). (2) Nauchno-issledovatel'skiy institut elektrofizicheskoy apparatury imeni D. V. Yefremova GKAE SSSR (Scientific Research Institute of Electrophysical Apparatus, GKAE SSSR).

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ACCESSION NR: AT5007918

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(3) Radiotekhnicheskiy institute AN SSSR (Radio Engineering Institute, Academy of Sciences SSSR). (4) Gosudarstvennyy proyektnyy institut GKAE SSSR (State Planning Institute, GKAE SSSR).

SUBMITTED: 26May64 ENCL: 00 SUB CODE: EE, NP

NO REF SOV: 002 OTHER: 001

Card 4/4

GASHEV, M.A.; GUNTOV, G.K.; D'YACHENKO, K.K.; KOMAR, Ye.G.; MALYSHEV, I.P.; MONOSZON, N.A.; POPKOVICH, A.V.; RATNIKOV, B.K.; ROZHDESTVENSKIY, B.T.; RUMYANTSEV, N.N.; SAKSAGANSKIY, G.L.; SPEVAKOVA, F.M.; STOLOV, A.M.; STREL'TSOV, N.S.; YAVNO, A.Kh.

Principal mechanical characteristics of the experimental thermonuclear plant "Tokamak-3." Atom. energ. 17 no.4:287-294 O '64. (MIRA 17:10)

Strel'tsov, O.A.

Kinetics of synthesis of ammonia in the absence of diffusional retardation. A. N. Gerasenkova, M. T. Rusov, and O. A. Strel'tsov (*Dokl. Akad. Nauk SSSR*, 1954, 9, 1015—1016).—The logarithm of the rate constant K for the synthesis of NH_3 on Armco iron, oxidised with steam at 450—470° to Fe_3O_4, and then immersed in $Al(NO_3)_3$ solution and dried, are inversely proportional to $1/T$, indicating an energy of activation of 59·0 ± 1·0 kg.-cal./mole, somewhat greater than that obtained on porous catalysts (40—45 kg.-cal.). The constancy of the values of K over a wide range of NH_3 flow rates suggests that Temkin and Pyzhov's (1939) kinetic equation scheme described the process under these non-diffusional conditions. R. C. MURRAY.

STREL'TSOV, O. A.

USSR/Chemistry - Catalysts

Card : 1/1 Pub. 116 - 18/20

Authors : Strel'tsov, O. A. and Rusov, M. T.

Title : Kinetics of reduction of individual grains of an ammonium catalyst

Periodical : Ukr. khim. zhur. 20, Ed. 4, 438 - 446, 1954

Abstract : The kinetics of hydrogen reduction, of individual grains (of various size) of a technical ammonium catalyst, was investigated in isothermal conditions in a quasi-dynamic system at pressures ranging from 0.8 kg/cm^2, flow rate of 42 liters/hr and gradual temperature increase from ~ 300 to ~500°C. It was established that the process of catalyst grain reduction is retarded by the internal diffusion exchange of the reaction components. The effect of grain size reduction on the activity of the catalyst, is explained. Seven references: 6-USSR and 1-Ukrainian (1937-1950). Tables; graphs; drawing.

Institution : Acad. of Sc. Ukr-SSR, The L. V. Pisarzhevskiy Institute of Phys. Chemistry

Submitted : January 5, 1954

GERASENKOVA, A.N.; RUSOV, M.T.; STREL'TSOV, O.A.

Kinetics of the synthesis of ammonia in conditions free of diffusive inhibition. Dokl.AN SSSR 96 no.5:1015-1016 Je '54. (MLRA 7:7)

1. Institut fizicheskoy khimii Akademii nauk USSR. Predstavleno akademikom A.N.Frumkinym.
(Ammonia)

STREL'TSOV O.A.

USSR.

The effect of reduction conditions on the activity of the smooth surface of an iron catalyst. A. N. Gerasenkova, M. T. Rusov, and O. A. Strel'tsov. *Doklady Akad. Nauk S.S.S.R.* 66, 1170. [illegible] O. A. Strel'tsov, *Dissertation*, L. V. Pisarzhevskii Inst. Phys. Chem., Acad. Sci. Ukr. S.S.R., Kiev, 1949.—The effect of reduction conditions in prepn. of an Fe catalyst on its activity was studied by the flow-circulation method. The sample was a thin, smooth Fe foil promoted with Al_2O_3. The effect of the rate at which the gas mixt. was removed from the reaction vessel during the reduction on the activity of the catalyst was detd. The results show that the faster the gas mixt. is removed, i.e., the less water vapor in the circulating gases, the higher the catalytic activity. J. Rovtar Leach

Strelitsov, O.A.