ACC NR: AT6028378 (N) SOURCE CODE: UR/0000/65/000/000/0124/0141

AUTHOR: Vartanov, S. P.; Gagel'gants, A. A.; Krolenko, I. I.; Levchenko, V. A. Malovitskiy, Ya. P.; Milashin, A. P.; Rapoport, S. Ya.; Fedynskiy, V. V.; Shapirovskiy, N. I.; Shekinskiy, E. M.

ORG: none

TITLE: Geological results of marine geophysical exploration in the USSR

SOURCE: International Geological Congress. 22d, New Delhi, 1964. Geologicheskiye rezul'taty prikladnoy geofiziki (Geological results of applied geophysics); doklady sovetskikh geologov, problema 2. Moscow, Izd-vo Nedra, 1965, 124-141

TOPIC TAGS: geophysic expedition, earth structure, seismic prospecting, ocean floor topography, tectonics

ABSTRACT: Marine geophysical exploration have been conducted in the Soviet Union for the purpose of investigating the crustal structure, and regional geological investigations have been made in offshore areas which are potential oil- and gas-bearing structures. The seismic method is the most effective and most often used for offshore investigations. Also successful are gravimetric, magnetic, and electric prospecting methods. The technique of offshore seismic shooting has been greatly improved, making it possible to operate from a moving ship. The geophysical investigations conducted on the Caspian Sea made it possible to distinguish the areas of

Card 1/3

ACC NR: AT6028378

the Pre-Cambrian Epihercynian platform and the Alpine geosyncline. Investigations have been made of the regional structure of the south Caspian depression, oil-bearing regions of its folded margins, and gentle structures of the internal depression. The area of the Epihercynian platform has been found to contain Kara-Bugaz and middle Caspian arches and offshore continuation of the South Mangishlack depression as well as folded zones. The continuations of the South Mangishlack and Karpinsky ridge, the north Caspian zone of marginal uplifts of the Pre-Cambrian platform and the offshore continuation of the Pre-Caspian depression have been thoroughly investigated. A number of structures in the southern part of the Caspian Sea have been prepared for deep drilling. At the Sea of Azov a step-like submergence of the southern slope of the Pre-Cambrian platform has been established, and the Azov rampart, which connects the Epihercynian folded structures of the Northern Caucasus and Crimean steppe has been located. Offshore continuations of the Kerch-Taman dislocations have been studied. At the Black Sea geophysicists have studied the hidden Cretaceous folding and deep-seated faults at the offshore continuation of the Kolkhida depression, submergence of the northwestern Caucasus, buried highs south of the Crimea and the jointing between the Crimean and Dobrudga dislocations. Also the structure of the crust and the structure of the sedimentary strata in the deep-sea areas have been studied. Seismic surveys have been conducted to study the geology of the Paleozoic deposits and the surface of the basement in the eastern Baltic Sea. It has been established that the thickness of the sediments within the offshore continuation of the Polish-Lithuanian syneclise does not exceed 3 km. Interesting results have been obtained from geophysical investigations conducted at

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ACC NR: AT6028378

the Kara Sea near the mouths of the Ob and Yenisey Rivers. The regional structure of the Jamal-Nazim depression and the Taimir foredeep has been defined, major platform structures have been located in the Mesozic strata, and the Taimir has been followed further out into the sea. Deep-seated structure of the Earth's crust has been investigated in the transitional zone between the Asian continent and the Pacific Ocean, and also at the Okhotsk Sea and in the area of the Kamchatka-Kurile ridge. It has been found that the Sakhalin Tertiary folding area extends under the waters of the Okhotsk Sea. Marine geophysical exploration in the USSR will be expanded. Orig. art. has: 7 figures.

SUB CODE: 08/ SUBM DATE: 06Jan65/ ORIG REF: 048

Card 3/3

GAGEN, A.F., inzhener.

Experience using the N-11 automatic oscillographs. Elek.sta. 28 no.8:85 Ag '57. (MIRA 10:10)
(Oscillograph) (Electric lines)

GAGEN, A.F., inzh.

Stand supplying stabilized feed for testing a.c. voltmeters and ammeters by the comparative method. Elek.sta. 28 no.12:72-73 D '57. (MIRA 12:3)

(Electric meters--Testing)

BLYUMENTAL', L.Yu., gornyy inzh.; GAGEN, A.F., inzh.-elektrik.

Counting device for charges being blasted. Gor. zhur. no.12:57 D '58. (MIRA 11:12)

(Blasting) (Counting devices)

307/127-58-12-16/26

AUTHORS: Blyumental', L.Yu., Mining Engineer and Gagen, A.F., Electrical Engineer

TITLE: A Recorder of Exploding Charges (Schëtchik vzryvayemykh zaryadov)

PERIODICAL: Gornyy zhurnal, 1958, Nr 12, p 57 (USSR)

ABSTRACT: The authors constructed a recorder which automatically registers number of explosions occurring during the blasting operations. The principle of this recorder is based on the perception of the sound wave by a microphone, which through an electronic amplifier, transmits the impulses of this wave to an electronic counting grid connected to a counter. A detailed description, and the diagram of the recorder, is given. There is 1 schematic diagram.

Card 1/1

GAGEN, A.F., inzh.

Meter for the number of detonated charges. Gor.zhur. no.7:72 Jl '60. (MIRA 13:7)
(Recording instruments)

SOURCE CODE: UR/0125/66/000/010/0010/0014

ACC NR: AP6036015

AUTHORS: Taran, V. D.; Gagen, Yu. G.

ORG: [Taran] Moscow Institute of the Petrochemical and Gas Industry im. I. M. Gubkin (Moskovskiy institut neftekhimicheskoy i gazovoy promyshlennosti); [Gagen] Lvov Polytechnic Institute, Ivano-Frankov Branch (Ivano-Frankovskiy filial L'vovskogo politekhnicheskogo instituta)

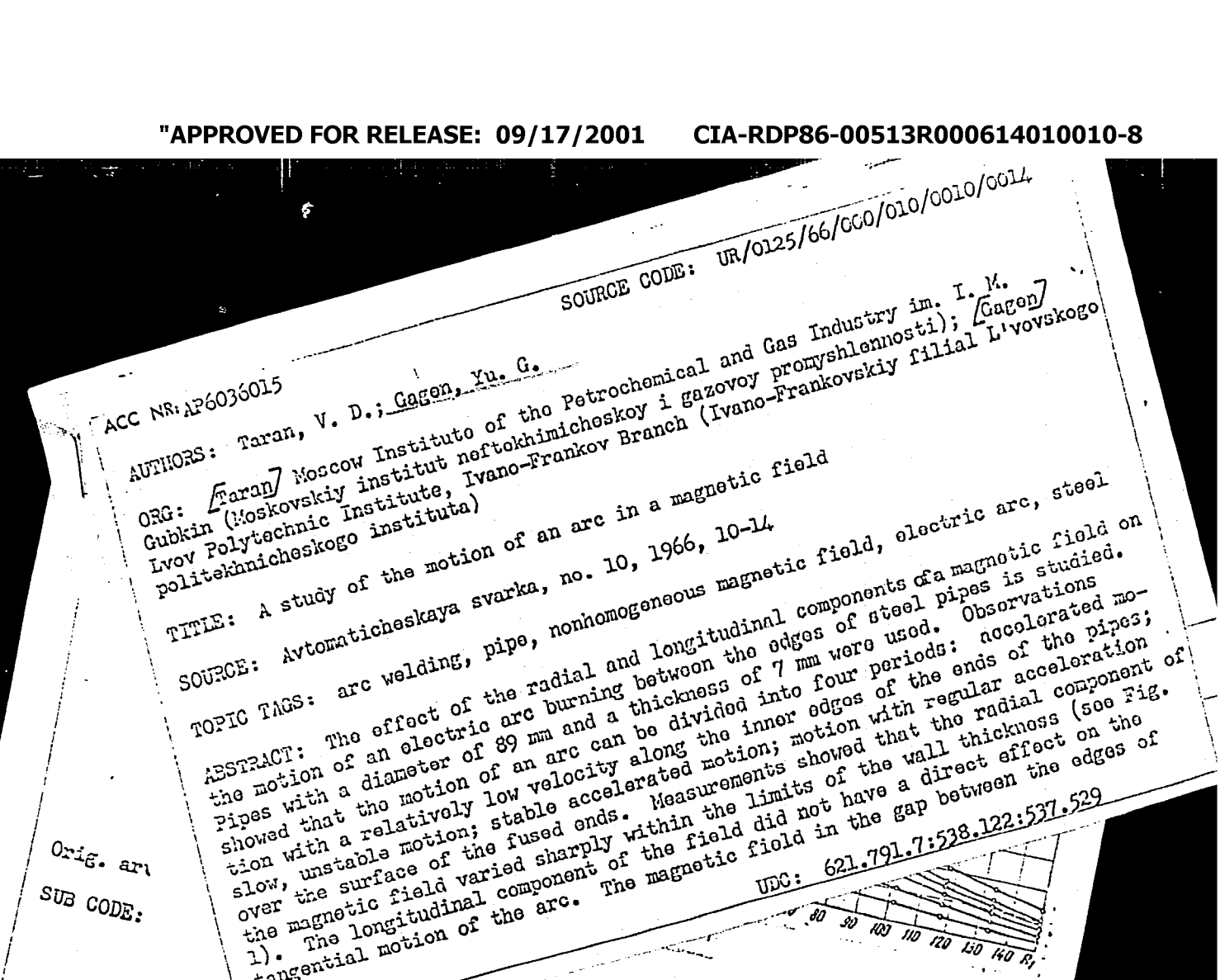
TITLE: A study of the motion of an arc in a magnetic field

SOURCE: Avtomaticheskaya svarka, no. 10, 1966, 10-14

TOPIC TAGS: arc welding, pipe, nonhomogeneous magnetic field, electric arc, steel

ABSTRACT: The effect of the radial and longitudinal components of a magnetic field on the motion of an electric arc burning between the edges of steel pipes is studied. Pipes with a diameter of 89 mm and a thickness of 7 mm were used. Observations showed that the motion of an arc can be divided into four periods: accelerated motion with a relatively low velocity along the inner edges of the ends of the pipes; slow, unstable motion; stable accelerated motion; motion with regular acceleration over the surface of the fused ends. Measurements showed that the radial component of the magnetic field varied sharply within the limits of the wall thickness (see Fig. 1). The longitudinal component of the field did not have a direct effect on the tangential motion of the arc. The magnetic field in the gap between the edges of

UDC: 621.791.7:538.122:537.529



Orig. art

SUB CODE:

Card 1/2 UC

Card 2/2

L 38485-66 EWT(m)/T/EWP(v)/EWP(t)/ETI/EWP(k) IJP(c) JD/HM/HW

ACC NR: AP6019427 (N) SOURCE CODE: UR/0135/66/000/006/0011/0014

AUTHOR: Taran, V. D. (Doctor of technical sciences); Gagen, Yu. G. (Engineer) 38 B

ORG: [Taran] Moscow Institute for the Petrochemical and Gas Industry im. I. M. Gubkin (Moskovskiy institut neftekhimicheskoy i gazovoy promyshlennosti); Ivano-Frankovsk Branch of the Lvov Polytechnic Institute (Ivano-Frankovskiy filial L'vovskogo politekhnicheskogo instituta) [Gagen]

TITLE: Arc heating of the edges of steel tubes

SOURCE: Svarochnoye proizvodstvo, no. 6, 1966, 11-14

TOPIC TAGS: arc welding, temperature distribution, METAL TUBE

ABSTRACT: The article examines the process of the

L 38485-66

ACC NR: AP6019427

The instantaneous position of a given source at a moment of time, in this system, is expressed: $X_\pi = 2k\pi R + v\tau$; $Y_\pi = 0$. The process of propagation of an element of heat $qd\tau/S$, related to a given linear source at the moment of time τ, referred to a fixed system of coordinates, without heat transfer, is expressed by the formula

$$dT(X_0, Y_0, t-\tau) = \frac{qd\tau}{bc\gamma 4\pi a(t-\tau)} \exp\left[-\frac{r_\pi^2}{4a(t-\tau)}\right], \quad (1)$$

where $r_\pi^2 = (X_\pi - X_0)^2 + Y_0^2$ is the square of the instantaneous radius vector. The article continues with a mathematical development of the problem on this basis. Results of the calculations are developed in a series of nomographs. Orig. art. has: 16 formulas and 6 figures.

SUB CODE: 13,20/ SUBM DATE: none/ ORIG REF: 003/ OTH REF: 002

Card 2/2 pb

TARAN, V.D., doktor tekhn.nauk; GAGEN, Yu.G., inzh.

Forces affecting the arc in a magnetic field. Svar.proizv. no.5:3-4 My '65. (MIRA 18:6)

1. Moskovskiy institut neftekhimicheskoy i gazovoy promyshlennosti im. I.M.Gubkina.

TARAN, V.D.; GAGEN, Yu.G.

Heating petroleum-pipe ends with a shifting arc for pressure welding. Mash. i neft. obor. no.5:36-38 '65.

(MIRA 18:6)

1. Moskovskiy institut neftekhimicheskoy i gazovoy promyshlennosti im. akad. I.M.Gubkina.

GAGENEL, Ion, ing.

The pile of fuel for motor vehicles and its possibilities of use.
Rev transport 12 no.1:25-27 Ja '65.

SOV/124-58-8-9214

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 8, p 126 (USSR)

AUTHOR: Gagen-Torn, A.V.

TITLE: Graphing the Stress Distribution in Beams Subjected to Force-couple (Moment) Loads [Graficheskoye postroyeniye epyur dlya balok, zagruzhennykh parami sil (momentami)]

PERIODICAL: Sb. nauchn. tr. Magnitogorskiy gornometallurg. in-t, 1957, Nr 13, pp 65-80

ABSTRACT: Bibliographic entry

Card 1/1

SKOROKHODOV, N.Ye., prof. otv. red.; AGAPOV, V.F., prof. po nauchnoy rabote, dots., red.; BOYARSHINOV, M.I., prof., red.; VESELOVSKAYA, Ye.S., red.; GAGEN-TORN, A.V., red.; GOL'DSHTEYN, N.A., red.; IVANOV, N.I., kand. tekhn. nauk, dots., red.; KORZH, P.D., prof., red.; PETROV, V.M., dots. kand. tekhn. nauk, red.

[30 years of the Magnitogorsk Mining and Metallurgical Institute] XXX let MGMI. Magnitogorsk, 1962. 170 p. (MIRA 17:3)

1. Magnitogorsk. Gorno-metallurgicheskiy institut. 2. Sekretar' partiynogo byuro Magnitogorskogo gorno-metallurgicheskogo instituta (for Petrov). 3. Dekan metallurgicheskogo fakul'teta Magnitogorskogo gorno-metallurgicheskogo instituta (for Ivanov). 4. Zaveduyushchiy kafedroy fiziki Magnitogorskogo gorno-metallurgicheskogo instituta (for Korzh). 5. Zaveduyushchiy kafedroy obrabotki metallov davleniye Magnitogorskogo gorno-metallurgicheskogo instituta (for Boyarshinov).

AKIMOVA, K.I.; BAZHENOV, M.F.; BAKHVALOV, G.T.; BEZKLUBENKO, N.P.; BERMAN,S.I.; BOGDANOV, Ye.S.; BODYAKO, M.N.; BOYKO, B.B.; VINOGRADOV, S.V.; GAGEN-TORN, K.V.; GLEK, T.P.; GOREV, K.V.; GRADUSOV, P.I.; GUSHCHINA,T.N.; YEMEL'YANOV, A.K.; YESIKOV, M.P.; ZDZYARSKIY, A.V.; ZAKHAROV, M.V.; ZAKHAROVA, M.I.: KARCHEVSKIY, V.A.; KOMAROV, A.M.; KORZHENKO, O.T.; LAYNER, V.I.; MAL'TSEV, M.V.; MILLER, L.Ye.; MILOVANOV, A.I.; MIRONOV, S.S.; NIKONOROVA, N.A.; OL'KHOV, N.P.: OSIPOVA, T.V.; OSOKIN, N.Ye.; PERLIN, I.L.; PLAKSIN, I.N.: PROKOF'YEV, A.D.; RUMYANTSEV, M.V.; SEVERIENKO, V.P.; SKREDIN, P.I.; SMIRYAGIN, A.P.; SPASSKIY, A.G.; TITOV, P.S.; TURKOVSKAYA, A.V.; SHAKHNAZAROV, A.K.; SHPICHINETSKIY, Ye.S.; YURKSHTOVICH, N.A.; YUSHKOV, A.V.; YANUSHEVICH, L.V.

Sergei Ivanovich Gubkin. TSvet.met. 28 no.6:60-61 N-D '55. (MIRA 10:11)
(Gubkin, Sergei Ivanovich, 1898-1955)

GAGEN TORN, K.V.

136-2-11/22

AUTHOR: Gagen-Torn, K.V.

TITLE: Speed Characteristics of Presses for Non-ferrous Metals. (Skorostnaya kharakteristika pressov dlya tsvetnykh metallov).

PERIODICAL: Tsvetnyye Metally, 1957, No.2, pp. 61 - 67 (USSR)

ABSTRACT: The characteristics of extrusion presses being used for heavy non-ferrous metals are shown as curves of speed of extrusion against rod diameter, and against pressure, of pressure against plunger movement and of power against speed of extrusion. These are discussed and it is shown that the pressure in the hydraulic accumulator is the sum of the indicator extrusion pressure and the product of the coefficient of resistance and the square of the extrusion velocity. The fundamentals of the methods of establishing speed characteristics for industrial hydraulic extrusion installations are set out. The broad view taken of the relation between pressures and speeds of extrusion enables the process peculiarities associated with freely established extrusion speeds to be explained. The speed characteristic of a press enables some of its main technological parameters to be found by calculation: the value of the self-determined speed of extrusion, the pressure reserve required for working the press at maximal productivity;

1/2

Speed Characteristics of Presses for Non-ferrous Metals.

and also the power developed by the press at various extrusion pressures - which is one of the efficiency indices of the process. There are 4 figures and 3 references, 2 of which are Slavic.

2/2

ASSOCIATION: Giprotsvetmetobrabotka.

AVAILABLE: Library of Congress

AUTHOR: Gagen-Torn, K. V. 136-9-13/14

TITLE: Experimental verification with copper tubes of the calculation of extrusion pressures according to the method based on constant friction stress (I. L. Perlin's formula). (Eksperimental'naya proverka na mednykh trubakh rascheta davleniy pressovaniya po metodu, osnovannomu na postoyannom napryazhenii treniya).

PERIODICAL: Tsvetnyye Metally, 1957, No.9, pp. 82-84 (USSR).

ABSTRACT: The author compares extrusion pressures calculated by I. L. Perlin's formula with experimental values obtained on industrial installations. He used copper-tube extrusion to give data covering the widest range of conditions. Pressures were measured with an autographic manometer and temperatures before extrusion with an optical pyrometer. The results confirmed the ability of Perlin's formula to furnish, with the use of an appropriate empirical coefficient, values sufficiently accurate for practical purposes.
There are 4 references - 2 Russian, 1 English, 1 French.

ASSOCIATION: Giprotsvetmetobrabotka.

AVAILABLE: Library of Congress.
Card 1/1 **1. Copper tubes-Extrusion 2. Mathematical analysis**

137-58-4-7112

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 4, p 115 (USSR)

AUTHOR: Gagen-Torn, K. V.

TITLE: Experiments in Preheating Copper Bars Before Extrusion, in a Producer-gas Atmosphere (Opyty nagreva pered pressovaniyem mednykh slitkov v atmosfere generatornogo gaza)

PERIODICAL: Tr. Gos. n.-i. i proyektn. in-ta po obrabotke tsvetn. met., 1957, Nr 17, pp 90-95

ABSTRACT: To avoid scrap in extrusion of Cu tubes resulting from the pressing in of scale, it is proposed to pre-heat in an atmosphere of producer gas. Experiments conducted under laboratory and factory conditions show that this almost completely eliminates the formation of scale even when the H_2 concentration is low (not over 1 percent), but that elevated unit pressures are required, as scale behaves as a lubricant during extrusion. Development of hydrogen embrittlement in Cu containing O_2 is insignificant and will, under unfavorable conditions, occur in the surface layer to a depth of 1 mm.

Card 1/1 1. Copper--Heat treatment 2. Copper--Extrusion--Processes M. Ts.

GAGEN-TORN, K.V.; KOTOV, V.V.; MATVEYEV, Yu.A.

Technology of pressure working of a welded pipe bend. Izv. vys. ucheb. zav.; Gidrotekhnicheskoye stroitel'stvo no.24:233-235 '65. (MIRA 18:11)

GAGEN-TORN, K.V.; KOTOV, V.V.; Prinimali uchastiye: LEVIN, Z.G.; TSVAYGEL', L.D.

Requirements of industrial emulsions for brass pipe and rod drawing. Trudy Giprotsvetmetobrabotka no.24:264-268 '65. (MIRA 18:11)

DOMBROVSKIY, V.A.; GAGEN-TORN, V.A.; GUTKEVICH, S.M.; POLYAKOVA, T.A.; SVECHNIKOV, M.A.; SHULOV, O.S.

The 20" reflecting telescope with an astrophotometer for photometric, colorimetric and polarimetric studies. Uch.zap.LGU no.328:83-94 '65. (MIRA 18:10)

23820
S/020/61/138/002/002/024
C111/C222

16.4100 16,6500 16.4100

AUTHORS: Gagen - Torn, L.N., and Mikhlin, S.G.

TITLE: On the solvability of nonlinear Ritz systems

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 138, no. 2,1961 258-260

TEXT: The authors give sufficient conditions for the solvability of the Cauchy problem to which the application of the Ritz method is leading for nonlinear problems.
On a linear set dense in the Hilbert space H let be given the functional f(x) ; let f(x) be the potential of a nonlinear operator F(x). Let the Gateaux differential DF(x,h) of F(x) be an operator uniformly positively bounded from below. The minimum of f(x) is sought. The approximate arrangement of Ritz

$$x \approx \sum_{i=1}^{n} a_i x_i \quad , \quad a_i = \text{const, for } a_i \text{ leads to}$$

the system

$$(Df (\sum_{i=1}^{n} a_i x_i) , x_j) = 0 \qquad j = 1,2,\ldots,n$$

Card 1/5

On the solvability of ...

or

$$(F(\sum_{i=1}^{n} a_i x_i), x_j) = 0 \quad , \quad j = 1,2,\ldots,n \quad . \quad (1)$$

According to D.F. Davidenko (Ref. 1, DAN 88, no. 4, 1953) the authors consider the auxiliary system

$$a_j + \lambda\left[(F(\sum_{i=1}^{n} a_i x_i), x_j) - a_j\right] = 0 \quad , \quad j = 1,2,\ldots,n \quad . \quad (2)$$

The differentiation with respect to λ yields

$$\frac{da_j}{d\lambda} + (F(\sum_{i=1}^{n} a_i x_i), x_j) - a_j +$$

$$+ \lambda\left\{\sum_{k=1}^{n}\left[(DF(\sum_{i=1}^{n} a_i x_i, x_k), x_j) - \delta_{jk}\right]\frac{da_k}{d\lambda}\right\} = 0 \quad , \quad j=1,2,..,n \quad (3)$$

where the coefficient matrix for the $da_k/d\lambda$ with the notation

Card 2/5

On the solvability of ...

$$(DF(\sum_{i=1}^{n} a_i x_i , x_k) , x_j) = [x_k, x_j]$$

can be written in the form

$$(1-\gamma) E + \lambda \begin{Vmatrix} [x_1, x_1] & [x_2, x_1] \cdots [x_n, x_1] \\ [x_1, x_2] & [x_2, x_2] \cdots [x_n, x_2] \\ \cdots\cdots\cdots\cdots\cdots \\ [x_1, x_n] & [x_2, x_n \cdots x_n, x_n] \end{Vmatrix} . \quad (4)$$

The determinant Δ_n of (4) for $\lambda \in [0,1]$ is different from zero so that from (3) by solution (rule of Cramer) it follows

$$\frac{da_j}{d\lambda} = \frac{\Delta^j_n}{\Delta_n} = g_j(\lambda , a_1, a_2, \ldots, a_n), \quad j = 1,2,\ldots,n \quad (5)$$

Card 3/5

On the solvability of ...

Let the following conditions be satisfied :

1) $(F(\sum_{i=1}^{n} a_i x_i), x_j)$ and $(DF(\sum_{i=1}^{n} a_i x_i, x_k), x_j)$ are continuous in in $a_1, a_2, \ldots, a_n$ and it holds

$$(F(\sum_{i=1}^{n} a_i x_i), x_j) \leq p_m(a_1, a_2, \ldots, a_n) \qquad (6)$$

$$(DF(\sum_{i=1}^{n} a_i x_i, x_k), x_j) \leq p_{m-1}(a_1, a_2, \ldots, a_n) \quad , \qquad (7)$$

where p_m and p_{m-1} are polynomials of m-th and (m-1)-st degree, respectively.

2) It holds

$$(DF(\sum_{i=1}^{n} a_i x_i, h), h) \geq N(\sum_{i=1}^{n} a_i^2)^{(m-1)/2} \|h\|^2, \quad N = \text{const.} \qquad (8)$$

Card 4/5

On the solvability of ...

Therefrom it follows

$$M\left(\sum_{i=1}^{n} a_i^2\right)^{n(m-1)/2} \leq \Delta_n \leq p_{n(m-1)}(a_1, a_2, \ldots, a_n) \quad . \qquad (9)$$

It is proved that (5) is solvable for $\lambda \in [0,1]$, wherefrom because of (3) the solvability of the Ritz system (1) can be concluded.

There are 3 Soviet-bloc and 1 non-Soviet-bloc references.

ASSOCIATION: Leningradskoye otdeleniye Matematicheskogo institute imeni V.A. Steklova Akademii nauk SSSR (Leningrad Branch of the Mathematical Institute imeni V.A. Steklov of the Academy of Sciences USSR)

PRESENTED: December 24, 1960, by V.I. Smirnov, Academician

SUBMITTED: December 20, 1960

Card 5/5

GAGEN-TORN, L.N.

Solvability of Ritz systems for functionals in the theory of plasticity. Trudy Mat.inst. 66:190-195 '62. (MIRA 15:11)
(Functional analysis)
(Plasticity)

GAGEN-TORN, N.I.

M.K. Azadovskii; obituary. Izv.Vses.geog.ob-va 88 no.1:93-94 Ja-F '56. (MLRA 9:6)
(Azadovskii, Mark Konstantinovich, 1888-1954)

GAGEN-TORN, V.A.

Using filters in the absolute spectrophotometry of the nebula NGC 281. Uch.zap.LGU no.307:165-178 '62. (MIRA 15:9)
(Nebulae)

GAGEN-TORN, V. A.: DOMBROVSKIY, V. A.

Study of Open Galactic Cluster NGC 1502

Photographs taken using the 16" astrograph of the Crimean Observatory with an objective prism (dispersion 250 A/mm at $H\delta$) have been used in making a two-dimensional spectral classification of stars up to $\sim 12^m$ pg in a sky area of 100 X 70' with a center in NGC 1502. There is a brief discussion of the criteria used in classification by luminosity classes. The magnitudes of these same stars were obtained in two types of light, reduced to the B, V system (the plates were obtained using the 10" astrograph of the Astronomical Observatory Leningrad State University). For 32 stars measurements were made of the polarization parameters by electrophotometric and photographic methods. The totality of data obtained, taking into account the known proper motions, made it possible to study the spatial distribution of stars and dust in the neighborhood of NGC 1502. The distance to the cluster is 950 parsecs. Bibliography of 15 items. (Abstract: "Spatial Distribution of Stars, Dust Matter and Interstellar Polarization in the Neighborhood of the Open Galactic Cluster NGC 1502", by V. A. Dombrovskiy and V. A. Gagen-Torn; Leningrad, Uchenyye Zapiski Leningradskogo Gosudarstvennogo Universiteta, 1964, No. 323, pp. 75-93) /From: Moscow, Referativnyy Zhurnal, Astronomiya, 51, Otdel'nyy Vypusk, No. 3, 1965, p. 22, 3.51.180/

DOMBROVSKIY, V.A.; GAGEN-TORN, V.A.

Space distribution of stars, dust matter and interstellar polarization in the region of the open galactic cluster NGC 1502. Uch. Zap. LGU no.323:75-93 '64. (MIRA 17:12)

GAGEN-TORN, V.A.

Photographic polarimetry of Venus. Uch.zap. LGU no.326:95-98 '64.
(MIRA 18:5)

GAGEROV, I.P., TURKINA, M. YA.

"Utershungen uber die Beteiligung von Phenylradikalen an Losungsreaktionrm mit Hilfe von Deuterium."

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

SADIC, ...

"A mother and a physician in a train told about antituberculous vaccination." p. 26. (Borba Protiv Tuberkuloze. Vol. 1, no. 1, Jan./Feb. 1953. Beograd)

SO: Monthly List of East European Accessions, Vol. 3, no. 3, Library of Congress. March 1954. Uncl.

GORYANINOV, Mikhail Abramovich. Prinimal uchastiye OBUKHADKO, B.I., inzh.; GAGIN, B.S., nauchn. red.; BONDAROVSKAYA, G?V., red.; TOKER, A.M., tekhn. red.

[Industrial training of lathe operators] Proizvodstvennoe obuchenie tokarei. Izd.3., perer. i dop. Moskva, Prof-tekhizdat, 1963. 299 p. (MIRA 17:1)

COUNTRY : RUMANIA H
CATEGORY : Chemical Technolgy. Chemical Products and Their Application. Pharmaceuticals. Vitamins. Antibio-*
ABS. JOUR. : RZhKhim., No 17, 1959, No. 61802

AUTHOR : Ciocanelea, V.; Berger, T.; Gagin, F.
INSTITUTE : -
TITLE : New Therapeutically Active Derivative of Thiol, of the Ichthyol type.
ORIG. PUB. : Farmacia (Romin.), 1958, 6, No 4, 317-320

ABSTRACT : A new thiol derivative, close in the composition to ichthyol, was derived from linseed oil. Linseed oil was subjected to chemical treatment: sulfidation, sulfonation, neutralization and purification. A dark brown product resulted having the consistency of honey and a weak specific odor. Described are the method of preparation, physico-chemical properties and results of the taxicity and pharmacodynamic action determinations in the variety of pharmaceutical forms.

*tics.

Card: 1/1

LATUKHIN, G. I.; GAGIN, N.R.; CHERKASOV, A.D.

Well head automatic packer. Neftianik 5 no.10:20-21 O '60.
(MIRA 13:10)

(Packing (Mechanical engineering))

SIL'NYA, V.G.; GAGIN, O.D.; KHAZANOVICH, G.Sh.

Experimental study of a model of a bucket loader in an inclined working. Trudy NPI 130:19-34 '61. (MIRA 15:4)
(Coal handling machinery--Models)

SIL'NYA, V.G.; GAGIN, O.D.; IVANOV, O.P.; KHAZANOVICH, G.Sh.

Methods of determining bucket-loading machine parameters.
Trudy NPI 158:69-78 '64.

Geometry of the operating part of bucket-loading machines.
Ibid.:79-89 (MIRA 18:11)

GAGIN, S.D.

67-6-1/23

AUTHOR: Gagin, S.D., Engineer

TITLE: On the Advantages of Electric Steel Smelting in the Duplex-Process-Oxygen-Converter-Electric-Furnace (Ob effektivnosti vyplavki elektrostali dupleks-protsessom-kislorodnyy konverter-elektropech')

PERIODICAL: Kislorod, 1957, , , , Nr 6, pp. 1-11 (USSR)
Received: April 7, 1958

ABSTRACT: In the introduction the advantages offered by steel smelting in the duplex process with the employment of electric furnaces are discussed, and it is said that, compared with the usual process, production can be increased by double its amount while the costs of electric energy and electrodes can be reduced by three times their amount. For the reduction of the costs of steel smelting products it is further recommended, when producing half-finished products of cast iron, to blow the latter in the main converter during founding with technically pure oxygen, which ensures a more rapid dephosphorization of founding and makes it possible to reduce the process of founding to a minimum of time. On the basis of the examples of the foundry work carried out in the steel plants of "Dneprostal'", "Zaporozhstal'", and others it is said that the prime costs of steel production in the USSR depend mainly on the

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costs of the oxygen used, and because the latter is produced by the steel works concerned themselves in various quantities, also the prime-cost rates of the production of oxygen differ between 20 and 5 kopecks per m^3. In the chapter: Prime-Costs of Half-Finished Products coming from the Main Converter, conditions prevailing in the "Zaporozhstal'" steel works are used as an example: The prime-costs of cast iron from open-hearth furnaces amount to 325 rubles/t; the final prime-costs of the half-finished products produced amount to from 391.4 to 398.9 rubles/t; for 1 t of half-finished products about 50 m^3 of oxygen are necessary, which at present costs 12-14 kopecks per m^3 at the aforementioned "Zaporozhstal'" works. After the intended increase of oxygen production in this plant, this price is to be reduced to 10 kopecks. In the chapter: Technical-economic indices of the work performed by arc furnaces in the duplex process it is said that the annual steel production of one electric furnace amounted to 50 100 t in 1955, and to 56 400 t in 1956. The introduction of the duplex process made it possible to increase production by 223.2% at the cost of the reduction of the time needed for founding by 55.2% (3 h). In the chapter:

On the Advantages of Electric Steel Smelting in the Duplex-Process-Oxygen-Converter-Electric Furnace

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Comparison of the prime-cost prices for steel of the type ШХ15 this price is said to amount to 590-637 rubles/t (according to the prime-costs of oxygen production and the costs of reconstruction). In conclusion it is said that changing over to the duplex process of founding was carried out mainly in the steel plants in the South of the USSR and in the Ural district; in this way the prime-cost price of steel was reduced by 3-7%, and it was possible to reduce current investments by 12.2-15.8%. There are 5 figures, 10 tables, and 8 Slavic references.

AVAILABLE: Library of Congress

Card 3/3

GAGIN, S.D., Cand Tech Sci--(diss) "Smelting of electro-steel by the duplex-process --oxygen converter-electric furnace and its technico-economic effectiveness." Mos,1953. 12 pp ,incl cover. (Min of Higher Education USSR. Mos Order of Labor Red Banner inst im I.V.Stalin), 120 copies (KL,48-53, 104)

SOV/137-59-1-361

Translation from: Referativnyy zhurnal. Metallurgiya, 1959, Nr 1, p 45 (USSR)

AUTHOR: Gagin, S. D.

TITLE: On the Effectiveness of a Method of Electromagnetic Mixing of Metal in Electric Arc Furnaces (Ob effektivnosti primeneniya elektromagnitnogo peremeshivaniya metalla v elektropechakh)

PERIODICAL: Izv. vyssh. uchebn. zavedeniy, Chern. metallurgiya, 1958, Nr 4, pp 181-189

ABSTRACT: The author evaluates the economical effectiveness of employing induction mixing (IM) of metal in electric arc furnaces (EAF) with capacities of 20, 40, and 80 tons employing liquid and solid charge in different economic regions of the USSR. It was computed that the employment of the IM is profitable only if the reduction period of smelting is decreased by at least 30% and if the cost of erecting installations for EAF's with capacities of 20, 40, and 80 tons is not greater than 1.15, 1.25, and 1.36 million rubles, respectively. The author concludes that IM may be expediently employed in EAF's operating on the Duplex process, but questions the need for the employment of this process in EAF's operating on a solid charge, as

Card 1/2

On the Effectiveness of a Method of Electromagnetic Mixing of Metal (cont.)

well as in instances when the cost of these installations exceeds certain optimal values.

A. Sh.

Card 2/2

18(5) SOV/148-59-2-23/24

AUTHOR: Gagin, S.D., Candidate of Technical Sciences

TITLE: Problems of Organizing the Feed and Teeming of Semi-Product in Duplex-Processes With Electric Furnaces (Voprosy organizatsii podachi i zalivki poluprodukta v elektropech' pri dupleks-protsesse) Oxygen Electric Furnace Converter (Kislorodnyy konverter-elektropech)

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Chernaya metallurgiya, 1959, Nr 2, pp 171-175 (USSR)

ABSTRACT: Conversion from solid to liquid charges of electric furnaces calls for the development of systems for the feed, teeming and transportation of semi-products. Satisfactory results can only be obtained by a quick run of operations in the basic stage of the process and by observing strictly regulated production in the duplex shops. The author investigates different variants of semi-product teeming from the side of the pouring span and from the side of the furnace span, taking into account various feed methods. The information includes recommendations on the proper feed method illustrated by schematic drawing (Figure 2-d). There are 2 sets of schematic drawings.

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SOV/148-59-2-23/24

Problems of Organizing the Feed and Teeming of Semi-Product in Duplex-Processes With Electric Furnaces

ASSOCIATION: Moskovskiy institut stali (Moscow Steel Institute). Kafedra ekonomiki i organizatsii proizvodstva (Chair of Production Economics and Organization)

SUBMITTED: February 5, 1959

Card 2/2

23626

S/148/60/000/012/020/020
A161/A133

18.3200

AUTHOR: Gagin, S. D.

TITLE: The slag regime for converter steel melting with oxygen blowing from the top

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Chernaya metallurgiya, no. 12, 1960, 173 - 182

TEXT: The oxygen process developed by the Tsentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii (Central Scientific Research Institute of Ferrous Metallurgy) enables open-hearth iron with up to 0.3% P and 0.07% S to be obtained in basic converters. The possibilities of a more complete dephosphorization, economy of slag-forming materials and reduction in metal losses with slag have been investigated by the Moscow Steel Institute in tests with reduced lime addition and full exclusion of bauxite. Regular shop conditions were imitated. The iron contained 0.6 - 0.9% Si; 1.4 - 1.7% Mn, up to 0.1% P and 0.05 - 0.07% S; the charge consisted of up to 100% of liquid iron. Three variations were tried, with 40 kg/t lime in I, 33.2 kg/t in II, and 21.5 kg/t in III. The first blowing period lasted

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The slag regime for converter steel melting...

5 min, then 50 - 70% of the slag was skimmed; the second period began with an addition of lime and iron ore. The ore was used as coolant. Oxygen was blown at 10 - 12 atm pressure, at a rate of 75 - 80 m^3/ min in both periods, through one water-cooled tuyere with 42 mm diameter nozzle. The temperature of the metal was measured with a platinum-platinorhodium immersion thermocouple. The metal and slag composition were determined by chemical analysis. Water was added with oxygen for cooling in addition to iron ore, in variations I and III only the water froze in the piping during the II. The fluidity of slag was rated by its visual flowing in skimming. The slag was absolutely homogeneous after 5 min in the first period and easily removable from the tuyere which usually is not the case. A part of the lime apparently dissolved in Fe-Si slag instantaneously only up to the moment of calcium monosilicate formation; the basicity of primary slag (about 1.0) confirmed this assumption. The lowered addition of lime did not affect the life of the basic lining. The metal loss with slag was lower than with usual lime additions. The absence of bauxite (normally used for the liquefying of slag) did not affect the desulfuration. It was found that an increasing FeO-content in the slag raises the P_2O_5 content in it and reduces

the P content in the metal. This means that a high FeO content in slag at the end of the first and second blowing period is necessary. High FeO concentrations in slag can be reached by holding the tuyere on a higher level above the metal (Fig. 5), but this is not necessary for the whole heat time. Metal ejections from the converter did not occur at the high tuyere position with the described slag regime, contrary to the oxygen process with the high lime quantity (55 - 70 kg/t) and the high tuyere level above the metal [Ref. 4: O. N. Kostenetskiy. Proizvodstvo stali v konverterakh s produvkoy kisloroda s verkhu ("Steel production in converters with oxygen top blowing", Trudy NTO chernoi metallurgii, Metallurgizdat, 1957, 53]. It was not possible to establish a clear relation between the time of the tuyere staying at one level and the slag basicity, for the number of measurements was not sufficient, but it was clear that 18 - 20% FeO must be present in the slag during the first blowing period and 10 - 12% during the second to reduce the P content in metal to 0.015 - 0.025%. This FeO content in slag could be reached by holding the tuyere 1,400 - 1,550 mm above the metal surface at the end of each period and blowing 75 - 80 m^3/min oxygen for 2 min. Optimum dephosphorization was attained at 1,600 - 1,630°C metal temperature at pouring. The effect of the FeO content in slag at blowing end and P con-

tent in metal can be expressed in equations - for the first period (at 9 - 22% FeO in slag) - $[P] = -0.00031\ (FeO)_I + 0.103$; and for the second period (5 - 14% FeO in slag) - $[P] = -0.0044\ (FeO)_{II} + 0.0739$; and the effect of final metal temperature (in the 1,580 - 1,740°C range): $[P] = 0.000246t - 0.376$, where $[P]$ is the phosphorus content in metal in %; FeO - the FeO content in slag, and t metal temperature in °C. The heat is recommended to be controlled by iron ore additions only, and in quantities necessary to absorb heat; at 0.6 - 0.8% Si in iron, ore quantity may be not below 8% of the weight of liquid iron. Conclusions: 1) A process with lime addition in smaller quantities is feasible. 2) The suggested slag regime cuts lime consumption from 80 - 85 to 45 - 50 kg/t, or 40 - 45%. 3) With skimming primary slag, the suggested regime can increase the iron output. 4) Bauxite can be eliminated; 5) The basicity ($CaO:SiO_2$) of final slag should be maintained at 2.3 - 2.5. Basicity higher than 2.5 is not recommended. 6) The suggested method eliminates slag and metal throws from the converter at high slag acidity, and facilitates the conditions for the automation of the blowing. 7) The lower lime quantity does not impair desulfuration in comparison with the current process practice. 8) The slag acidity can be con-

The slag regime for converter steel melting...

trolled by the tuyere position above the metal surface. 9) The metal temperature and slag acidity at the basicity of 2.3 - 2.5 ensure sufficient elimination of phosphorus from metal. 10) The work of converter operators is facilitated through easy cleaning of the tuyere from slag. There are 6 figures and 5 Soviet-bloc references..

ASSOCIATION: Moskovskiy institut stali (Moscow Steel Institute)

SUBMITTED: April 6, 1960

X

Card 5/7

L 16297-65 EWI(m)/EWP(t)/T/EWP(b) Pad IJP(c)/ASD(m)-3 JD/HW/JG
ACCESSION NR: AP4045807 S/0128/64/000/009/0005/0006/

AUTHOR: Gagin, S. D. (Candidate of technical sciences)

TITLE: Effect of holding the molten metal under vacuum on properties of chromium-nickel alloy

SOURCE: Liteynoye proizvodstvo, no. 9, 1964, 5-6

TOPIC TAGS: chromium nickel alloy, nimonic alloy, alloy vacuum degassing, chromium nickel alloy property, chromium nickel alloy degassing, alloy vacuum induction melting, vacuum induction melting

ABSTRACT: The study of the effect of holding a finished heat of chromium-nickel alloy nimonic in a vacuum induction furnace revealed that the prolonged holding has a negative effect on the gas content. A satisfactory degree of degassing is achieved in the first 6—8 min. Holding prolonged to 21 min increases the total gas content in the alloy from 0.006% to 0.010%, the oxygen content to 0.007%, while the content of nitrogen increases insignificantly (from 0.0014% to 0.0020—0.0030%) and that of hydrogen re-

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L 16297-65
ACCESSION NR: AP4045807

mains unchanged. A prolonged holding decreases the average degassing rate from 5 cu^3/min at 7 min of holding to 1.0 cm^3/min at 21 min. Prolonged holding is at high temperatures of the metal is particularly damaging. Prolonged holding especially affects the alloy properties at 800C; the alloy strength drops by 16—20%[see Fig. 1 of the Enclosure]. Orig. art. has: 4 figures, 1 formula, and 1 table.

ASSOCIATION: none

SUBMITTED: 00 ENCL: 01 SUB CODE: MM

NO REF SOV: 000 OTHER: 000

Card 2/3

L 16297-65
ACCESSION NR: AP4045807

ENCLOSURE: 01

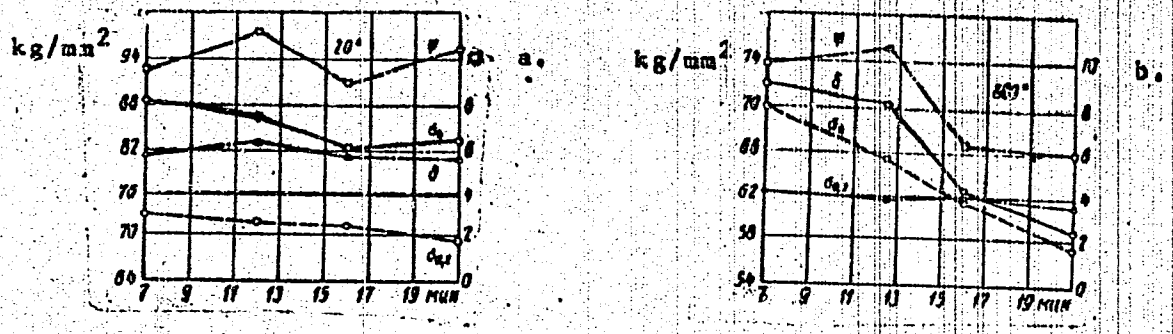

Fig. 1. Effect of prolonged holding under vacuum on the tensile strength (σ_b), yield strength ($\sigma_{0.2}$), elongation (δ), and reduction of area (Ψ) of a Nimonic-type alloy at 20C(a) and 800C(b).

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L 55251-65 EWT(m)/EWP(e)/EWP(t)/EWP(b) Pad IJP(c) JD/HW/JG

ACCESSION NR: AP5010371 UR/0145/65/000/003/0024/0030
621.74

AUTHOR: Gagin, S. D. (Candidate of technical sciences, Docent)

TITLE: Effects of vacuum remelting on gas saturation and properties of a chrome-nickel alloy

SOURCE: IVUZ. Mashinostroyeniye, no. 3, 1965, 24-30

TOPIC TAGS: vacuum melting, chrome nickel alloy, chrome alloy, nickel alloy

ABSTRACT: To study the effects of vacuum remelting on gas saturation and properties of chrome-nickel steel (C- 0.05%, Mn- traces, Si- 0.14, S- 0.01, P- 0.01, Cr- 20.52, Al- 4.0, Fe- 0.32, Ti- 2.44, Ni- base), specimens of the alloy were vacuum remelted in a 10-kg capacity induction furnace. It was found that the concentration of hydrogen and nitrogen remained at roughly 0.0004% and 0.002% respectively, while the oxygen content increased from 0.004 to 0.007% as the time in vacuum was increased from 7 to 21 minutes. The average speed of separation of N_2, H_2, and O_2 was found to decrease from 0.0025%/min, 0.0002%/min, and 0.00077%/min after 7 minutes in vacuum to 0.0008, 0.000063 and 0.00013%/min respectively after 21 minutes in vacuum. Increasing the O_2 separation from 0.0001-0.0005%/min decreased the O_2 content from

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ACCESSION NR: AP5010371

0.0073 to 0.0044% but further increase in speed had negligible effect, thus decreasing the time in vacuum to 7 minutes does not increase the O_2 concentration. Minimum H_2 concentration was found at 12 minutes in vacuum. The reducing properties of carbon during vacuum remelting are thus decreased if the alloy is kept molten in a vacuum atmosphere beyond the optimum time. Extended exposure to vacuum was found to decrease the alloy properties as shown in Fig. 1 on the Enclosure. Orig. art. has: 5 figures and 3 formulas.

ASSOCIATION: Moskovskiy energeticheskiy institut (Moscow Power Engineering Institute)

SUBMITTED: 28Oct64 ENCL: 01 SUB CODE: MM

NO REF SOV: 005 OTHER: 000

Card 2/3

L 55251-65

ACCESSION NR: AP5010371

ENCLOSURE: 01

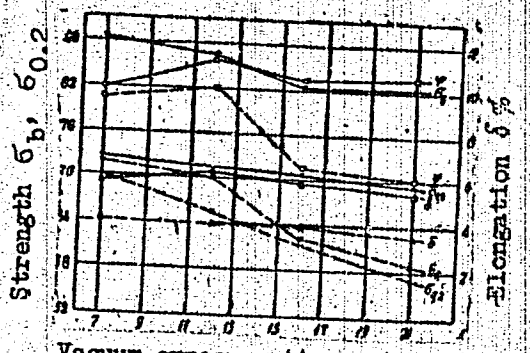

Fig. 1. Alloy properties as a function of vacuum exposure time; temperature: ---- +20C, ----- +800C

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GAGIN, S.D., kand. tekhn. nauk

Effect of temperature conditions on the properties and gas content of a chromium-nickel vacuum-melted alloy. Lit. proizv. no.11:5-7 N '65. (MIRA 18:12)

L 26029-66 EWT(m)/EWP(t) JD/HW/JG

ACC NR: AP6008864 SOURCE CODE: UR/0128/65/000/011/0005/0007

AUTHOR: Gagin, S. D. (Candidate of technical sciences)

ORG: none

TITLE: Effect of temperature regime on the properties and gas content of chromium-nickel alloy during vacuum remelting

SOURCE: Liteynoye proizvodstvo, no. 11, 1965, 5-7

TOPIC TAGS: vacuum melting, temperature dependence, nickel base alloy, chromium containing alloy, vacuum furnace, titanium, aluminum oxide, vacuum degassing

ABSTRACT: This is a continuation of a previous investigation (Gagin, S. D. Liteynoye proizvodstvo, 1964, no. 9) with the difference that it deals with the effect of the temperature of the molten metal (Ni-base alloy) on its content of oxygen, hydrogen and nitrogen, as determined with the aid of a radiation pyrometer, in a vacuum induction furnace ($7 \cdot 10^{-1}$ mm Hg). It is established that as the melt temperature increases from 1150°C to 1260°C, its O content increases from 0.004 to 0.007%; H content, from 0.0002 to 0.00054% (from 2.3 to 6 $cm^2/100$ g); while N content is almost unchanged (0.0026-0.0034%) and the total content of gases increases from 0.0068 to 0.011%. This is apparently due to a decrease in the deoxidizing capacity of C with increasing temperature; the reason for this decrease appears to be the increase in the reaction rate of

Card 1/2 UDC: 621.74.045:669.14.018.44:669.785

L 26029-66

ACC NR: AP6008864

the reduction of the furnace-crucible material by the active elements of the melt, e.g. Ti, the increase in the dissociation rate of the oxides of the lining material (Al_2O_3) and the increase in the solubility of O in the metal. Therefore, the vacuum melting of this alloy should be carried out without its excessive heating to 200-250°C above the liquidus line, i. e. to 1200°C and higher, in order to prevent the increase in the alloy's gas content and the decrease in the deoxidizing capacity of C as well as the concomitant decrease in the strength properties of the alloy. Orig. art. has: 5 figures, 1 table.

SUB CODE: 11, 13/ SUBM DATE: none/ ORIG REF: 006 OTH REF: 000

Card 2/2

GAGIN, T.

PA 161T117

USSR/RUMANIA/Petroleum - Drilling Jan/Feb 50
Machinery
Drills, Oil Well

"Soviet Drill Pipes," T. Gagin, Engr, 3½ pp

"Petrol si Gaze" No 1

Describes drill pipes used in Soviet petroleum industry, listing materials and their technical and mechanical properties. According to aid schedule, Rumanian petroleum industry will receive some drill pipes from USSR.

161T117

21.2100

62057
S/139/59/000/06/014/034
E032/E114

AUTHORS: Gagin, Ye.N., Grebenshchikov, S.Ye., Pisarev, V.E.

TITLE: Some Problems Associated with the Design of an Electron Electrostatic Van de Graaf Generator 19

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Fizika, 1959, Nr 6, pp 95-101 (USSR)

ABSTRACT: This paper was presented at the Inter-Collegiate Conference on Accelerators (Tomsk, February 1958). It describes the Van de Graaf generator at the Physical Institute imeni P.N. Lebedev of the Academy of Sciences, USSR. The machine was completed in 1956. The generator is in a horizontal position and is mounted on three insulating columns 1.8 m long each. The 60 distributing rings and the high voltage electrode are made of duralumin. The high voltage electrode is in the form of cylinder connected to a hemisphere 38 cm in diameter. The electrodes in the accelerating tube are in the form of thin stainless steel discs with apertures 8 cm in diameter. The accelerating tube is 1.8 m long and is made up of 180 electrodes separated by porcelain rings. The width of the belt is 26 cm. The belt moves with a

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ASSOCIATION: Fizicheskiy institut imeni P.N. Lebedeva AN SSSR (Institute of Physics imeni P.N. Lebedev, Academy of Sciences, USSR)

SUBMITTED: December 27, 1958

S/908/62/000/000/003/008
B163/B180

AUTHORS: Gagin, Ye. N., Metal'nikov, Yu. N., Pisarev, V. Ye.

TITLE: Electrostatic Van de Graaff generator and injector for the 680 Mev synchrotron

SOURCE: Uskoritel' elektronov na 680 Mev; sbornik statey. Ed. by Z. D. Andreyenko. Moscow, Gosatomizdat, 1962. 31-40

TEXT: A Van de Graaff generator formerly used for proton acceleration to 800 kev was converted for operation with electrons. For high capture efficiency the voltage was stabilized to $\leqslant 0.06\%$. The path from source to accelerater is 7 m. A pulsed supply system was developed, for the source, for short pulses with a maximum current amplitude of 20 ma. The generator is 1.8 m long, with 60 potential-dividing hoops. The high-voltage electrode is 76 cm diam.; the accelerating tube consists of 180 alternating flat electrodes and porcelain rings; the charging belt, 4-ply rubberized percale, is 26 cm wide, and moves at 21 m/sec. The entire assembly is encased in a steel shell filled with nitrogen at 5.5-7 atm, with relative moisture 0.05%. The electron gun is a

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three-electrode system with a magnetic focussing lens. The emission current pulse is triggered by applying a positive potential to the grid electrode in front of the L cathode. The beam has an opening angle of $0.7 \cdot 10^{-3}$ rad. The trigger pulse has a front of 0.1 μsec, and the duration can be varied from 1 to 40 μ sec. Circuit diagrams are given of the electron source, pulse generating device and stabilization arrangement. There are 6 figures.

S/908/62/000/000/004/008
B163/B180

AUTHORS: Gagin, Ye. N., Kaminir, L. B., Molchanov, S. S., Orlovskiy, G. N., Pisarev, V. Ye., Pyshkin, B. N., Fedotov, A. F., Yakimenko, M. N.

TITLE: System for electron injection into the chamber of the 680 Mev synchrotron

SOURCE: Uskoritel' elektronov na 680 Mev; sbornik statey. Ed. by Z. D. Andreyenko. Moscow, Gosatomizdat, 1962. 41-49

TEXT: The method is the same as in the Dubna 10 Bev proton synchrotron. Particles of constant energy are injected into the magnetic field of the first quadrant almost at right angles to the magnet radius; injection is stopped on reaching the equilibrium orbit of the chamber center, and the accelerating field is switched on direct injection is impossible, due to the design of the accelerator magnet and the high-voltage injector (injection energy 0.8 Mev). The electron beam from the Van de Graaff generator is first deflected by a magnetic 60° sector field and then injected by three pairs of deflection plates for a total deflection of

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30°, into the synchrotron chamber. Between the Van de Graaff exit and the magnetic deflector there is a magnetic corrector consisting of two pairs of magnetic polepieces to correct the eccentricity of the accelerated beam with respect to the geometrical axis. Directly behind the magnetic deflector is a 1.5 kv electric deflector which can be used to select short pulses of 1 μ sec. When switched off, the beam passes through a horizontal slit diaphragm. The alignment can be checked on two fluorescent screens. A double electrostatic corrector and two capacitors adjust the position and angle of the beam in the deflectors of the injector, which are in one of the straight sections of the accelerator. Each plate can be separately adjusted by translation and rotation from outside without destroying the vacuum. The radius of curvature of the orbit in this deflection system is 60 cm. The voltage across each pair of plates can be controlled separately. A rough estimate shows that an instability of $2 \cdot 10^{-3}$ rad in the radial and $5 \cdot 10^{-3}$ rad in the axial component of the injection angle produce an intensity loss of 20%. The instabilities of the supply sources are of the order of 0.01 to 0.06%. Circuit diagrams are given for the d.c. amplifier and the rectifier for the reference voltage. There are 5 figures and 1 table.

S/908/62/000/000/007/008
B163/B180

AUTHORS: Babkin, V. M., Bozin, G. M., Gagin, Ye. N., Yeremin, L. V., Metal'nikov, Yu. N., Orlovskiy, G. N., Petukhov, V. A., Pisarev, V. Ye., Sedov, N. G., Shorin, K. N.

TITLE: Some starting-up and operating problems of the 680 Mev synchrotron

SOURCE: Uskoritel' elektronov na 680 Mev; sbornik statey. Ed. by Z. D. Andreyenko. Moscow, Gosatomizdat, 1962. 64-74

TEXT: The momentary particle orbit during the first revolutions is distorted due to a number of uncontrollable deviations from the ideal magnetic field configuration. This must be corrected in order to capture a sufficient part of the injected electrons. Indicating devices measuring deviations help to find the initial conditions, e.g., the correct injection angle and timing for which the free oscillations about the equilibrium orbit become minimal during the first revolutions. Similar methods were used to correct for deviations of the median surface of the magnetic field from the geometrical symmetry plane. For these measurements

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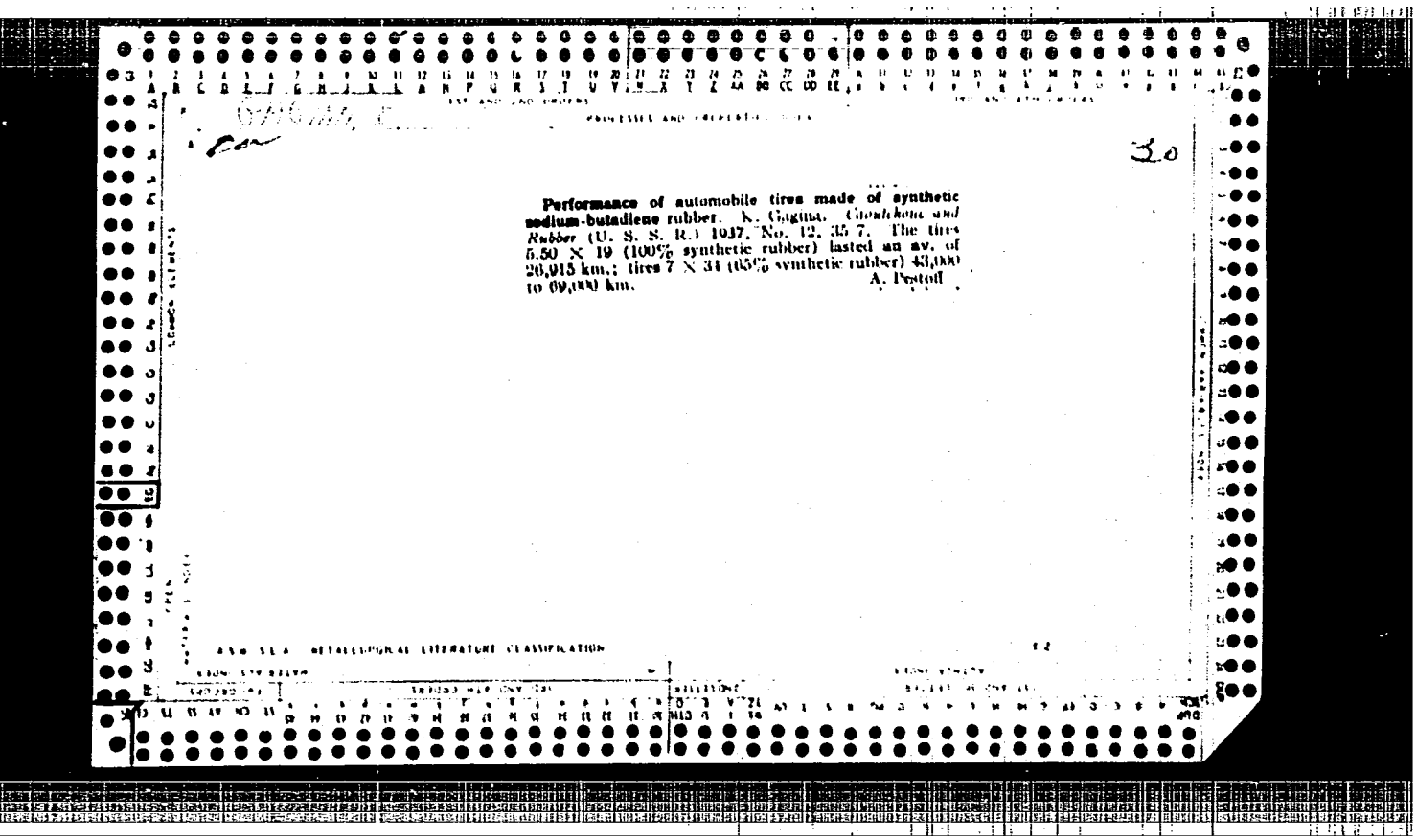
S/908/62/000/000/007/008
B163/B180

a chopper was used, consisting of an electric deflector immediately behind the 60° magnetic sector field in the injection line, by which short pulses of 1-2 μsec duration could be selected from the injected beam. The signalling devices were flags and grids coated with luminescent paint, sometimes in connection with photomultipliers. In this way the orbit deviations could be reduced to 2-3 cm in radial in 1-2 cm in vertical direction. In the quasibetatron and the synchrotron acceleration stages the envelope of all oscillating orbits was measured by movable vanes, three or four in each sector. In the first stage, about 15 μsec, the accelerating field is disconnected but the magnetic field is growing. When the momentary particle orbit has been reduced, at 0.2 to 0.3 mm per revolution, from the inflector to the central chamber radius, the accelerating electric field is switched on. Under optimal conditions, the capture coefficient is 2%, which corresponds to $2.5 \cdot 10^9$ electrons per cycle. To avoid undesirable resonance effects from the passing electron beam in the resonator during the first stage the resonator is detuned, and the second stage is performed at a smaller orbit radius. When the field is switched off at the end of the accelerating cycle, the magnetic field is still rising and the electrons hit the target, a tungsten wire 1 mm

Some starting-up and operating ...

diam, inside the acceleration orbit. The intensity of the γ radiation produced was measured in a thick-walled graphite ionization chamber. A total γ energy per cycle of $2 \cdot 10^9$ Mev could be achieved, and the number of accelerated electrons per cycle was of the order of 10^8. There are 6 figures.

Card 3/3



Performance of automobile tires made of synthetic sodium-butadiene rubber. K. Gagina. *Caoutchouc and Rubber* (U. S. S. R.) 1937, No. 12, 35-7. The tires 5.50 X 19 (100% synthetic rubber) lasted an av. of 26,915 km.; tires 7 X 34 (65% synthetic rubber) 43,000 to 69,000 km.

A. Pestoff

S.C.L.

6C - Synthetic Rub. & Allied Products

Method of control of the vulcanising properties of tyre-repair rubber. K. F. Gagina (Kauchuk i Rezina, 1940, No. 11, 29-30). R.A.B.R.M. Translation No. 108, translated by H. Schurer. A method is described for controlling the vulcanisation properties of rubber used in tyre repair. A test piece is put into a frame to be vulcanised, suitable conditions being described. A simple device has been developed to obtain permanent set values, based on the idea of cutting part of a rubber strip into three test "tongues," two of which are stretched. (RAM.1424)

1946

GAGINA, K.

Formation of rubber films from solutions and aqueous dispersions. D. M. Sandorbirskiĭ and K. Gagina (Sci. Research Inst. Rubber Ind., Moscow). *Kolloid. Zhur.* 15, 448-54(1953).—Films, 0.2 mm. thick, made by drying latex of natural rubber (Revertex) (I) or butadiene-styrene latex (II), had tensile strengths of 8.2 and 3.8 kg. wt./sq. cm., total elongation 775 and 625%, residual elongation 33 and 30%, and residual tension 45 and 15%, resp. When such films were dissolved in benzene and the solvent was vaporized, the remaining films had smaller tensile strengths (4.5 and 2.0), total elongation (575 and 375%), and residual elongation (10 and 8%), and a larger residual tension (72 and 50% for I and II, resp.). The films from aq. dispersions had a smaller residual elongation, but almost recovered their initial shape after swelling in benzene vapor and drying in a vacuum, while the diam. of those from solns. contracted (e.g., by 15%) and their thickness increased (e.g., by 30%). The amt. of H_2O vapor absorbed by a film was greater (25–26%) for films from a soln., while the other films absorbed, e.g., 19% H_2O vapor. In the films from aq. dispersions, the hydrophilic components of the latex form a net, while in the films from solns. these components are present as discrete fragments. J. J. Bikerman

10-12-54
mlf

GAGINA, K.

CH ✓ Formation of rubber films from solutions and aqueous dispersions. D. M. Sandomirskii and K. Gagina (Sci. Research Inst. Rubber Ind., Moscow). *Rubber Chem. and Technol.* 28, 627–33(1955)(in English).—See *C.A.* 48, 7327b. C. C. Davis

GAGINA, T. N.

USSR/Biology - Ornithology

Card 1/1 : Pub. 86 - 34/40

Authors : Gagina, T. N.

Title : The blue magpie in the Irkutsk district

Periodical : Priroda 43/4, 117-118, Apr 1954

Abstract : Observations of ornithologists establish the fact that the blue magpie also inhabits the Irkutsk region as against the accepted statements in published literature that this bird is only to be found eastward from Lake Baikal. Illustration.

Institution : .....

Submitted : .....

T. N. GAGINA.

USSR/Biology - Zoology

Card 1/1 : Pub. 86 - 29/38

Authors : Gagina, T. N.

Title : The sable and the muskrat

Periodical : Priroda 43/12, page 115, Dec 1954

Abstract : An increase in the number of sables in the region near Irkutsk is noted. A study of the habits of this animal showed that it invades the areas occupied by the muskrats and drives out the latter animal, but that the hides of sables caught on the muskrat grounds are of inferior quality.

Institution : .....

Submitted : .....

GAGINA, T.N.

Amphibians and reptiles from the shores of Lake Baikal. Zam. po faune i flore Sib. no.18:12-14 '55. (MIRA 11:1)

Wildlife preservation.

1. Kafedra okhotovedeniya i zoologii Irkutskogo sel'skokhozyaystvennogo instituta.
(Baikal region--Reptiles) (Baikal region--Amphibia)

Gagina, T. N.

USSR/Biology - Ornithology

Card 1/1 Pub. 86 - 35/37

Authors : Gagina, T. N.

Title : Birds of central Vilyuy

Periodical : Priroda 44/4, 124 - 125, Apr 1955

Abstract : A review is made of the book, "Birds of Central Vilyuy", by B. Andreyev, auspices of the Institute for Training of Teachers of the Yakut Autonomous Soviet Socialist Republic, Yakutsk, 1953, 127 pages. One hundred and fifty-nine species of birds are presented in the book. Extracts of Yakut folklore are also included in the book, which is given a high rating.

Institution : .....

Submitted : .....

Gagina, T. N.

USSR/Biology - Snake distribution

Card 1/1 Pub. 86 - 21/36

Authors : Skalon, V. N., Prof.; and Gagina, T. N.

Title : Distribution of snakes around Baikal

Periodical : Priroda 44/6, 108 - 109, Jun 1955

Abstract : To the information in published literature that snakes inhabit the southern portion of the Baikal region near the city of Irkutsk naturalists add the finding of such varieties as Ancistrodon halys and Elaphe dion to the north and northeast of lake Baikal. Four Russian and Soviet references (1906-1929).

Institution : .....

Submitted : .....

GAGINA, T.N., Cand Bio Sci--(diss) "Birds of Baykal and Pribaykal and their economic significance." Tomsk, 1958. 20 pp (Tomsk State U im V.V. Kuybyshev), 175 copies (KL,26-58,107)

GAGINA, T.N.

Recent data on the distribution of birds in Eastern Siberia.
Ornitologiia no.3:219-225 '60. (MIRA 14:6)
(Siberia, Eastern--Birds)

GAGINA, T.N.

Recent data on the distribution of some brids in Eastern Siberia. Trudy Probl. i tem. sov. no.9:92-96 '60. (MIRA 13:9)

1. Irkutskiy sel'skokhozyaystvennyy institut.
(Siberia, Eastern--Birds)

GAGINA, T.N.

History of studies on reptiles and amphibians in Siberia during the period of Soviet regime. Trudy Vost. Sib. fil. AN SSSR no.30:99-103'61. (MIRA16:6)
(SIBERIA--REPTILES--RESEARCH)
(SIBERIA--AMPHIBIA--RESEARCH)

GAGINA, T.N.

Notes and additions to the list of birds in Eastern Siberia. Trudy BGZ no.4:203-207 '62.

Rarely wintering birds in the Baikal Lake region. Ibid.:229-230 (MIRA 17:9)

GAGINA, T.N.

Birds accidentally found in Eastern Siberia. Ornitologiia no.4:367-372 '62. (MIRA 16:4)

(Siberia, Eastern--Birds)

GAGINA, T.N.

Some ornithological findings in the Karenga Valley (Vitim basin).
Ornitologiia no.7:463-464 '65.
(MIRA 18:10)

GAGINA, T.N.

Capercaillie in the Baikal Lake region. Zool.zhur. 44 no.10:1578-1579 '65. (MIRA 18:11)

1. Irkutskiy sel'skokhozyaystvennyy institut.

ZHUKOVA, A.A., kand. med. nauk (Moskva); GUREVICH, Yu.Ya. (Moskva); FENENKO, N.F. (Zhdanov, Donetskaya oblast', UkrSSR); GINEVSKIY, Ya.M. (Moskva); GAGINA, T.N. (Alma-Ata); VERESHCHAGIN, N.K., prof. (Leningrad); ABRAMOV, L.S.; SERGEYEV, A.S. (Moskva)

New books. Priroda 54 no.8:19, 35, 70, 102, 122-125 Ag '65. (MIRA 18:8)

1. Institut geografii AN SSSR, Moskva (for Abramov).

GAGINA, T.N.

Relation between the forms of game bird management and economic and physicogeographical factors. Izv. Alt. otd. Geog. ob-va SSSR no.5:200-202 '65. (MIRA 18:12)

1. Irkutskiy sel'skokhozyaystvennyy institut.

USSR/Cultivated Plants - Potatoes. Vegetables. Melons. M

Abs Jour : Ref Zhur Biol., No 18, 1958, 82363

Author : Gagina, Ye.V., Zolotukhina, Yu.S.

Inst : Scientific Research Institute of Agriculture of the Central Chernozem Belt

Title : Tomato and Cucumber Varieties for the Hothouses of Kirovskaya Oblast'

Orig Pub : Byul. nauchno-tekhn. inform. N.-i. in-ta s. kh. ser.-vost. r-nov nechernozem. polosy, 1957, No 2-3, 27-30

Abstract : Tomato varieties Ural'skiy mnogoplodnyy, Teplichnyy Brezhneva, Budennovka and Gruntovyy Gribovskiy were studied. Seedlings were prepared in the hothouses with natural soil 45-50 days prior to being transplanted in a permanent place at the rate of 5 plants per 1 square meter. The culture was guided by one stem by tying

Card 1/2

FIOSHIN, M.Ya.; VASIL'YEV, Yu.B.; GAGINKINA, Ye.G.

Influence of the nature of the cation on the Kolbe electrosynthesis. Dokl. AN SSSR 135 no.4:909-912 '60. (MIRA 13:11)

1. Institut elektrokhimii Akademii nauk SSSR. Predstavleno akademikom A.N.Frumkinym.

(Reduction, Electrolytic) (Oxidation, Electrolytic) (Acetates)

Abstract : Iso-$C_5H_{11}OH$ is oxidized to iso-C_4H_9COOH with $KMnO_4$ in an alkaline medium at 10 to 15°, the yield is 83%. $(CH_3)_2CHCHBrCOBr$ is condensed with $NH_2COOC_2H_5$ in toluene (1 : 1.2 moles), yield of $(CH_3)_2CHCHBrCONHCOOC_2H_5$ (I) is 80%, melting point - 110 to 111°. 1 mole of $(CH_3)_2CHCHBrCONHCONH_2$ and

Card 1/2

RUMANIA/Organic Chemistry - Synthetic Organic Chemistry. G-2

Abs Jour : Ref Zhur - Khimiya, No 14, 1958, 46640

1.1 moles of KI are heated 30 min. in a mixture of acetone with alcohol, poured out into water, and $(CH_3)_2CHCHICONHCONH_2$ is obtained, melting point 179 to 180°. $(CH_3)_2CHCHICONHCOOC_2H_5$ is obtained of 1 mole of I and 1.2 moles of KI in alcohol in the same way (4 hours).

GAGIU, Teodora

ROMANIA

MARCOVICI, M., MD; GOLOSOVA, Eleonora, MD; GAGIU, Teodora, Technical Assistant.

"Dr. I. Cantacuzino" Institute (Institutul "Dr. I. Cantacuzino"), Bucharest - (for all)

Bucharest, Viata Medicala, No 3, 1 Feb 63, pp 169-174.

"Serological Study on the Efficacy of Attenuated Poliomyelitis Vaccine and Comments on the Efficacy of the Salk Vaccine."

(3)

MARCOVICI, M.; GOROMOSOVA, Eleonora; GAGIU, Teodora, assistante technique.

Contribution to the study of poliomyelitis eradication in the city of Bucharest. Arch. roum. path. exp. microbiol. 23 no.3: 731-736 S'63

1. Travail de l'Institut "Dr. I. Cantacuzino"; Service des Entero-viroses, Bucarest.

GAGIU, TRAIAN

USSR, RUMANIA/Petroleum - Derricks Mar/Apr 50
Oil Wells

"Soviet Methods of Moving Derricks," Traian Gagiu, Engr

"Petrol si Gaze" No 2, pp 72-77

PA 162T102

Describes Soviet methods of moving derricks: (a) derrick on rollers, equipment on sleds: (b) derrick and equipment on sleds (Kovalov method), or iron sheets (Saushkin): (c) derrick with drilling equipment, motors, sheds, etc., using motors of drilling hoists. Also gives method of Sovrompetrol following directions of Soviet Engr N. F. Vashchenko. In 1949

162T102

USSR, RUMANIA/Petroleum - Derricks (Contd) Mar/Apr 50

24 metal derricks and 12 wooden derricks were moved 180-965 m, 23 with hoists, 13 without hoists.

162T102

GAGIU, T.

Boring with an electric drill. p. 7. TEHNICA NOUA. (Asociatia Stiintifica a Inginerilor si Tehnicienilor) Bucuresti. Vol. 3, No. 36, Feb. 1956.

So. East European Accessions List Vol. 5, No. 9 September, 1956

1. GAGIYEV, G. I.
2. USSR (600)

4. Komi A.S.S.R. - Poultry
7. Progressive practice in chick raising on collective farms of the Komi A. S. S. R.
Ptitsevodstvo, no. 4 1952.

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

GAGIYEV, G.I.

"The Large Horned Cattle of Koma ASSR and Ways to Perfect it Further";

dissertation for the degree of Candidate of Agricultural Sciences (awarded by the Timiryazev Agricultural Academy, 1962)

(Izvestiya Timiryazevskoy Sel'skokhozyaystvennoy Akademii, Moscow, No. 2, 1963, pp 232-236)

GAGIYEV, P.P., Cand Med ~ci -- (diss) "New anatomo-functional method of treating fractures of the distal end of the radius." Ordzhonikidze, 1956 19 pp. (Sverdlovsk State Med Inst. Severo-Osetinkiy State Med Inst) 200 copies (KL, 32-58, 111)

P. P.

GAGIYEV, R.R., kand.med.nauk

Plastic splints for the forearm and hand. Khirurgiia 37 no.5: 130-131 My '61. (MIRA 14:5)

1. Iz gospital'noy khirurgicheskoy kliniki (zav. - prof. G.L. Shapiro) Severo-osetinskogo meditsinskogo instituta.
(SPLINTS (SURGERY))