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83236

S/033/60/037/04/012/012
E032/E314

AUTHOR: Pavlov, N.N., Professor

TITLE: Letter to the Editor

PERIODICAL: Astronomicheskiy zhurnal, 1960, Vol. 37, No. 4,
p. 781

TEXT: The present letter is concerned with a paper by
A.V. Butkevich, published in this journal, 1960, No. 4, Vol. 37,
p. 161 and entitled "On the Application of Principles of Geodesy
in Practical Astronomy". It is argued that the formulae which
Butkevich quoted in the form:

$$\epsilon_{\omega}^m = \frac{\epsilon_{\omega}^2}{\tau} = \frac{\epsilon_{\omega}}{\sqrt{\tau}}$$

should, in fact, read:

$$\epsilon_{\omega}^m = \frac{\epsilon_{\omega}^2}{\tau} = \epsilon_{\omega}' = \epsilon_1$$

Card 1/1

37190

S/035/62/000/004/004/056

AC01/A10:

3.1200
3.1410

AUTHOR: Pavlov, N. N.

TITLE: The preliminary catalog of right ascensions of the stars observed at Pulkovo during IGY with a Φ -3 (F-3) photoelectrical transit instrument

PERIODICAL: Referativnyy zhurnal, Astronomiya i Geodeziya, no. 4, 1962, 14, abstract 4A132 ("Izv. Gl. astron. observ. v Pulkove", 1961, v. 22, no. 1, 2 - 24, English summary)

TEXT: The catalog was compiled on the basis of observations from June 1957 to April 1959. Altogether 20,366 observations of 505 stars were utilized. The mean epoch of the catalog is 1958.5. Several measures were undertaken to improve the accuracy of observations which were conducted by four observers, namely: mechanical stability of the instrument was improved, its thermal shielding was ensured, etc. The mean square error of one observation of one star, reduced to equator, was obtained to be $\pm 0^s.0146$ which is close to the accuracy attained with Danjon's astrolabe. Systematic errors were determined only for the zenith zone

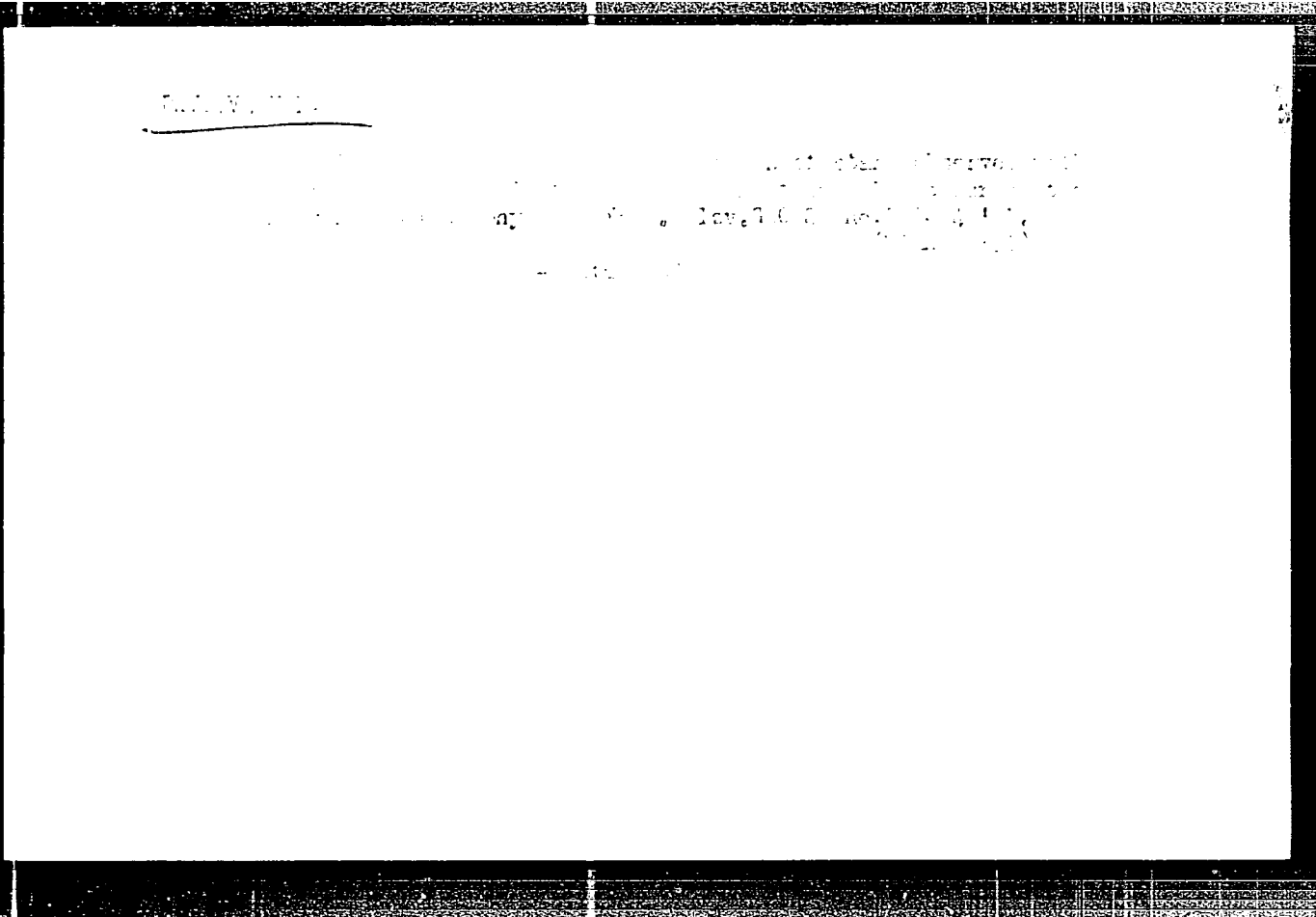
Card 1/3

S/035/62/000/004/004/056
A001/A101

The preliminary catalog of...

of observations; observations of stars in the equatorial zone were improved only with respect to random errors. Observations in the lower culmination were used for determining errors of the $\Delta\alpha_\delta$ -type. Systematic errors of the $\Delta\alpha_\delta$ -type were determined by several methods: several variants of the simplified cyclic method (see RZhAstr, 1959, no. 6, 4286) and the free chain method which is characterized by the absence of fixed groups of stars, also in several variants. The system of catalog $\Phi 6'$ ($F6'$) was obtained by means of reduction of the adopted initial system using systematic corrections derived by the abovementioned method, reducing to the absolute azimuth and to the FK3 system in equator. The $F6'$ catalog was compared with the catalogs FK3, N30, Pu α 1, FK3R, $\Phi 2$ (F2), KF 3 (KG3) and the catalog obtained by Guino from observations with Danjon's astrolabe; the comparison showed that in respect to the total (random+systematic) error the $F6'$ catalog in the zenith zone occupies the first place in accuracy (mean square error is $\pm 0^s.0056$) and the third place in the equatorial zone. In the zone of $\sim 60^\circ$ declinations the $F6'$ catalog can compete with the best fundamental systems. In respect to errors of the $\Delta\alpha_\delta$ -type the $F6'$ system is between the catalogs Pu α 1 and Pu α 2 and also between N30 and Guino's catalog. In respect to $\Delta\alpha_\delta$ errors in north declinations the new catalog is very close to N30 and Pu α 1, which con-

Card 2/3



PAVLOV, N.N.; STARITSYN, G.V.

Variation of the rate of the earth's axial rotation during the International Geophysical Year and International Geophysical Cooperation. Astron.zhur. 39 no.1:123-134 Ja-F '62.

(MIRA 1582)

1. Glavnaya astronomicheskaya observatoriya AN SSSR.
(International geophysical year, 1957-1958)
(Earth-Rotation)

S/026/62/000/005/010/010
D036/D113

35B3

AUTHORS: Pavlov, N.N., and Staritsyn, G.V.

TITLE: Change in the Earth's speed of rotation about its axis

PERIODICAL: Priroda, ^{SI-}no. 5, 1962, 120-121

TEXT: In Professor N.N. Pariyskiy's opinion, the seasonal annual variation in the Earth's speed of rotation about its axis is most likely caused by seasonal atmospheric circulation, in particular by the winter maximum and summer minimum of atmospheric pressure over Eurasia. It is thus considered that the advance by about 1 month of this variation in 1959 was due to the early spring in this region, in particular to the early thaw of snow, which would alter conditions for the arrival of solar radiation on the Earth's surface and thus affect the weather. Temperature readings are given showing that spring did indeed arrive earlier in 1959 in Europe and Northern Asia. It is considered that the prism astrolabe in Paris showed a large change in the Earth's speed of rotation about its axis in July 1959 because of local refraction due to the variation in atmospheric circulation. This

Card 1/2

FLEYER, A.G., otv. red.; PAVLOV, N.N., red.; PANCHENKO, N.I., red.;
POLOBED, V.V., red.; FELOROV, Ya.F., red.

[otation of the earth; materials of the expanded plenum
of the Committee for the Study of the Earth's Rotation of
the Astronomical Council of the Academy of Sciences of the
U.S.S.R. on April 10-13, 1962, in Kiev] Vrashchenie Zemli;
materialy rasshirennogo plenuma Komissii po izucheniiu
vrashchenia Zemli Astronomicheskogo soveta AN SSSR, Kiev,
10-13 aprelia 1962 g. Kiev, Izd-vo AN USSR, 1963. 309 p.
(MIRA 17:9)

1. Akademiya nauk URSS, Kiev. Holovna astronomichna obser-
vatoriya.

ACCESSION NR: AT4045938

S/0000/63/000/000/0005/0007

AUTHOR: Pavlov, N. N.

TITLE: Scientific problems of a modern universal time service

SOURCE: AN SSSR. Astronomicheskiy sovet. Komissiya po izucheniyu vrashcheniya Zemli. Plenum. 1st, Kiev, 1962. Vrashcheniye Zemli (Rotation of the Earth); materialy* plenuma. Kiev, Izd-vo AN USSR, 1963, 5-7

TOPIC TAGS: astronomy, time service, universal time, atomic clock, earth rotation, earthquake, latitude service, longitude service

ABSTRACT: The introduction of highly precise atomic clocks has radically changed the problems, mission and possibilities of a time service. The principal problems of a time service, discussed briefly in this communication, are: 1) longitude determination; 2) determination of change in longitude; 3) determination of nonuniformity of the earth's rotation on its axis. Particular attention is given to the factors responsible for a change in longitude: 2) changes in the position of the earth's poles; 2) horizontal displacements of the earth's surface, caused by tectonic movements; 3) changes in plumb line deflection under the influence of lunar-solar attraction and geological factors; 4) changes in local refraction in the surface air layer, associated with the wind effect and changes in local

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ACCESSION NR: AT4045938

conditions (vegetation, buildings); 5) changes in refraction in the observatory building as a result of installation of heat-releasing instruments or a changed influence on the observatory building from the outside; 6) changes in systematic instrument errors inherent in the instrument or caused by environmental factors; 7) changes in the personal errors of observers or errors of the recording instrument; 8) influence of errors of proper motions of stars in the reference catalogue; 9) influence of errors of astronomical constants, especially nutation. The factors of greatest importance are instrument and personal errors and errors associated with local refraction. The influence of the motion of the earth's pole on changes in longitude indicates a deep internal relationship between the developing longitude service and the long-existing latitude service. In the future they should be combined into a single pole service. According to modern concepts, the non-uniformity of the earth's rate of rotation on its axis can be attributed to several factors: seasonal changes in the earth's rotational rate with an annual period apparently caused by seasonal circulation of the earth's atmosphere and secular changes caused by tidal friction and various slow processes within the earth. The discontinuous changes in the earth's rate of rotation which are sometimes observed can be attributed to turbulent movement in the earth's liquid core, or according to Danjon, to the influence of solar

Cord

2/3

ACCESSION NR: AR4021599

s/0269/64/000/002/0013/0013

SOURCE: RZh. Astronomiya, Abs. 2.51.111

AUTHOR: Pavlov, N. N.

TITLE: A rational type of instrument for determination of precise time of astronomical observations

CITED SOURCE: Tr. 15-y Astrometr. konferentsii SSSR, 1960. M.-L., AN SSSR, 1963, 246-266

TOPIC TAGS: astronomy, time service, earth rotation, longitude change, transit instrument, star, star right ascension, star transit, star catalogue, atomic time standard, zenith refraction

TRANSLATION: Under present-day conditions, when the use of atomic time and frequency standards makes it possible to establish a uniform time scale with great accuracy, the problems of the time service require a study of the earth's rotation on its axis, determination of longitude and corrections of right ascensions of stars in the reference catalogue. The advantages and shortcomings of photo-

Cord 1/2

ACCESSION NR: ARL021599

graphic zenith telescopes, the prismatic astrolabe and transit instrument are discussed and it is concluded that the transit instrument is most suitable for solution of the mentioned problems. The transit instrument makes it possible to observe the declination of stars in a broad zone, facilitating the tie-in of observations at different latitudes, is best adapted for observations for an independent catalogue of star right ascensions and it can be used relatively easily for photoelectric recording of star transits. Errors associated with use of a transit instrument are analyzed and ways to eliminate them are indicated. An important source of systematic errors in astronomical observations is anomalous refraction caused by the sloping of air layers of different density near the instrument. However, when a transit instrument is used it is possible to determine the influence of zenith refraction from the observations themselves (an appropriate method is described).

DATE ACQ: 09Mar64

SUB CODE: AS

ENCL: 00

Card 2/2

ACCESSION NR: AP4016583

S/0115/64/000/002/0004/0005

AUTHOR: Pavlov, N. N.

TITLE: Creating the best pendulum clock in the world

SOURCE: Izmeritel'naya tekhnika, no. 2, 1964, 4-5

TOPIC TAGS: pendulum clock, Huygens pendulum clock, Short pendulum clock, Fedchenko pendulum clock, astronomical pendulum clock, pendulum oscillation isochronism, AChF-3 clock

ABSTRACT: The design of a new type of astronomical pendulum clock by Feodosiy Mikhaylovich Fedchenko is claimed. An original 3-spring pendulum suspension ensures the isochronism of oscillations. A clockwork pushing the pendulum at its equilibrium positions by electromagnetic impulses has been designed. The resulting clock (AChF-3) is claimed to have a diurnal variation of only 0.2-0.3 microsec and to work for years without any care. Also, a new type

Card 1/2

ACCESSION NR: AP4016583

of thermal compensation was developed by the same inventor. The pendulum weight is supported at a point situated below its mass center. The price of the new clock is about 3,000 rubles, while that of the Short clock is over 10,000 rubles. The AChF-3 clock has been installed at various astronomical observatories in the Soviet Union, including the Pulkovo Observatory. Orig. art. has: 1 figure.

ASSOCIATION: Gosudarstvennyy komitet standartov, mer i izmeritel'nykh priborov (State Committee for Standards, Measures, and Instruments)

SUBMITTED: 00

DATE ACQ: 12Mar64

ENCL: 00

SUB CODE: AS, SD

NO REF SOV: 000

OTHER: 000

Card 2/2

KLYUCHEV, inzh.; PAVLOV, N.N., inzh. (Leningrad); PAPERNOV, L.Z., kand.tekhn.
nauk (Moskva); NYURENBERG, V.A., dots. (Moskva)

Urgent problems in standardizing the qualitative indices of wire-
broadcasting channels; responses to I.A. Shamshin's article
published in no.4, 1958 of this periodical. Vest.sviazi 18 no.12:8-10
D '58. (MIRA 11:12)

1. Laboratoriya Gor'kovskoy direksii radiotranslyatsionnykh setey
(for Klyuchev).

(Wire broadcasting)

PAVLOV, N.M., inzhener.

"Selection, installation and use of arc-suppression coils." Elek.
sta. 27 no.10:63 0 '56. (MIRA 9:12)
(Electric coils)

PAVLOV, N. N.

PA 65T32

USSR/Communications
Relays, Telephone
Telephones - Apparatus

Apr 1948

"The Choice of a System for Cooling Tubes in the Output Stages of Wired Broadcasting Stations," N. N. Pavlov, I. A. Shamshin, Engineers, 4 pp

"Vest Svyazi - Elektro-Svyaz'" No 4 (97)

Three-ring (bell) telephone system for large cities requires powerful booster stations. Gives methods to determine the number of booster stations required for any given municipal network. Much interest is displayed in methods for proper cooling of the tubes of large booster stations. Briefly describes some of the methods used for such cooling.

65T32

PAVLOV, N.N.

Determination of the permissible stray inductance value of
the output transformers of large broadcast amplifiers. Trudy
ucheb. inst. svyazi no.14:85-92 '68. (MIRA 17:9)

1. Leningradskiy elektrotekhnicheskii institut svyazi im.
prof. M.A. Konch-Bruyevicha.

KORNIYENKO, G.I.; PAVLOV, N.N., kand.tekhn.nauk

Increasing the reliability of a standard flip-flop
with junction transistors by means of a buffer stage.
Avtom.i prib. no.3:27-31 JI-S '62. (MIRA 16:2)

1. Vychislitel'nyy tsentr AN UkrSSR.
(Electronic digital computers)

ZABARA, S.S.; KOLOTUSHCHENKO, E.F.; PAVLOV, N.N.

Transistor amplifying cells for digital computers. Avtom.1
prib. no.1:40-44 Ja-Mr '62. (MIRA 15:3)

1. Vychislitel'nyy tsentr AN USSR.
(Electronic digital computers)

15

✓ The means of increasing adhesion of polyamide films to
 poly(vinyl chloride) (PVC) is given by David (Desnoir) and Lecher
 and Lecher (1961) (see also Lecher and Desnoir, 1963).
 Technol. Ind. Le. Ind. Prom. 5: 87-90 (1963). Artificial
 leather with a poly(vinyl chloride) (I) surface generally has
 a "nonleather," somewhat sticky surface. Spraying with
 an 8% soln. of polyamide (II) in EtOH gives a much better
 surface, but the adhesion of the II film of I is insufficient.
 Much better results are obtained by addn. of 1% of a sub-
 stantive resin (III) on the wt. of the I film. The adhesion
 resistance of II to I films increases from 200 to 300 g./cm.
 width.
 L. Masner

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PAVLOV, N.H., assistant

Water-resistance of hydrophilic polymers. Izv.vys.ucheb.
zav.; tekhnolog.prom. no.3:12-19 '59. (MIRA 12:12)

1. Moskovskiy tekhnologicheskiy institut legkoy promyshlennosti.
Rekomendovana kafedroy tekhnologii iskusstvennoy kozhi.
(Polymers) (Leather substitutes)

PAVLOV, N.N., inzh.; ARBUZOV, G.A., doktor tekhn.nauk, prof.

Modification of polyamide with chromium compounds. Report No.1.
Izv. vys. ucheb. zav.; tekhn. leg. prom. no. 1:24-29 '60.
(MIRA 14:5)

1. Moskovskiy tekhnologicheskiy institut legkoy promyshlennosti.
Rekomendovana kafedroy tekhnologii iskusstvennoy kozhi.
(Polyamides) (Chromium compounds)

PAVLOV, N.N., inzh.; KUZNETSOV, A.R., inzh.; ARBUZOV, G.A., doktor tekhn.
nauk, prof.

Complexometry of trivalent chromium. Report No.1. Izv. vys.
ucheb. zav.; tekhn. leg. prom. no. 1:54-59 '60. (MIRA 14:5)

1. Moskovskiy tekhnologicheskiy institut legkoy promyshlennosti.
Rekomendovana kafedroy neorganicheskoy i analiticheskoy khimii.
(Chromium--Analysis)

PAVLOV, N.N., inzh.; ARBUZOV, G.A., doktor tekhn. nauk, prof.

Modification of polyamides with chromium compounds. Report
No. 2. Izv. vys. ucheb. zav.; tekhn. leg. prom. no.2:15-24
'60. (MIRA 13:11)

1. Moskovskiy tekhnologicheskii institut legkoy promyshlennosti.
Rekomendovana kafedroy tekhnologii iskusstvennoy kozhi.
(Polyamides)

PAVLOV, N.N., inzh.; KUZNETSOV, A.R., inzh.; ARBUZOV, G.A., doktor tekhn.
nauk, prof.

Complex formation with trivalent chromium. Report No.3:EDTA
determination of trivalent chromium in high polymer films. Izv.
vys.ucheb.zav.; tekhn.prom. no.3:28-30 '60. (MIRA 13:8)

1. Moskovskiy tekhnologicheskii institut legkoy promyshlennosti.
Rekomendovana kafedroy neorganicheskoy i analiticheskoy khimii.
(Chromium compounds) (Polymers)

PAVLOV, N.N., inzh.; ARBUZOV, G.G., doktor tekhn.nauk, prof.

Polyamide modification with chromium compounds. Report No.3:
Mechanical properties of polyamide in the presence of succinic
complexes of chromium. Izv.vys.ucheb.zav.; tekhn.prom. no.3:
31-39 '60. (MIRA 13:8)

1. Moskovskiy tekhnologicheskii institut legkoy promyshlennosti.
Rekomendovana kafedroy tekhnologii iskusstvennoy kozhi.
(Polyamides) (Chromium compounds)

PAVLOV, N.N., inzh.; ARBUZOV, G.A., doktor tekhn.nauk, prof.

Using chromium compounds for the modification of polyamides.

Report No. 4. Izv.vys.ucheb.zav.; tekhn.prom. no.4:31-38

'60.

(MIRA 13:10)

1. Moskovskiy tekhnologicheskiy institut legkoy promyshlennosti.
Rekomendovana kafedroy tekhnologii iskusstvennoy kozhi.
(Polyamides) (Chromium compounds)

PAVLOV, N.N., inzh.; ARBUZOV, G.A., doktor tekhn.nauk, prof.

Modification of polyamide with chromium compounds. Report No.5:
Study of the quantitative relations manifested in the course of
irreversible bonding of chromium compounds with polyamide. Izv.
vys. ucheb.zav.; tekhn.prom. no.6:55-63 '60. (MIRA 14:1)

1. Moskovskiy tekhnologicheskiy institut legkoy promyshlennosti.
Rekomendovana kafedroy tekhnologii iskusstvennoy kozhi.
(Chromium compounds) (Polyamides)

15 8150

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S/081/61/000/018/027/027
B101/B147

AUTHORS: Pavlov, N. N., Arbutov, G. A.

TITLE: Change of properties of films of polymers containing hydroxyl or carboxyl groups by chromium (III) compounds

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 18, 1961, 589, abstract 18 316 (Nauchn. tr. Mosk. tekhnol. in-t legkoy prom-sti, no. 17, 1960, 29 - 34)

TEXT: A preliminary study was made of the modification process of polyvinyl alcohol (PV) and polyacrylic acid (PA) by Cr^{3+} compounds. A specific interaction was found to take place between the polymers mentioned and the Cr compounds. The properties of PV and PA change significantly when Cr salts are introduced. The modulus of elasticity of PV films increases. PV films containing strongly basic Cr chlorides or Cr succinates, acquire a certain water resistance. Introducing Cr salts into PA enables the latter to form films. The results of this preliminary study show that it is possible to obtain new hydrophilic products differing from the initial polymers in their properties. [Abstracter's note: Complete translation.]
Card 1/1

PAVLOV, N.N. assistant; KUZNETSOV, A.R., assistant; ARBUZOV, G.A., doktor
tekhn.nauk, prof.

Quantitative analysis of chromium (III) in the solutions and films
of high polymers. Nauch.trudy MTILP no.18:1-47 '60. (MIRA 15:2)

1. Kafedra neorganicheskoy i analiticheskoy khimii Moskovskogo
tekhnologicheskogo instituta legkoy promyshlennosti.
(Chromium--Analysis) (Polymers)

PAVLOV, N.N., inzh.; KUZNETSOV, A.R., inzh.; ARBUZOV, G.A., prof., doktor
tekh.nauk

Studying the stability of aluminum (III) complex compounds. Izv.
vys.ucheb.zav.; tekhn.prom. no.2:22-28 '61. (MIRA 14:5)

1. Moskovskiy tekhnologicheskoy institut legkoy promyshlennosti.
Rekomendovana kafedroy neorganicheskoy i analiticheskoy khimii.
(Aluminum compounds)

S/081/62/000/016/026/043
B168/B186

AUTHORS: Pavlov, N. N., Arbuzov, G. A., Panteleyeva, D. S.

TITLE: Investigation into the effects of adding aluminum and iron (III) salts to polyamide films

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 16, 1962, 520, abstract 16P50 (Izv. vyssh. uchebn. zavedeniy. Tekhnol. legk. prom-sti, no. 3, 1961, 20-25)

TEXT: The effects of $FeCl_3$, $AlCl_3$ and $CrCl_3$ on the properties of AK 60/40 polyamide films were investigated with a view to using polyamides as finishing material and in the production of leather. The films obtained were subjected to mechanical and thermomechanical tests, and their permeability to steam and solubility in ethanol were also determined. It was found that salts of Al, Cr and Fe affect the mechanical properties (by increasing the softness and elasticity) of the polyamide and their order of increasing modifying action is given as: $FeCl_3 < AlCl_3 < CrCl_3$. Polymer films retain their solubility in alcohol both before and after

Card 1/2

Investigation into the effects of...

S/081/62/000/016/026/043
B168/B186

preliminary processing with water. The permeability to steam of the modified films is ~10 % higher than that of films of the initial polyamide in the case of FeCl_3 and ~30 % higher in that of AlCl_3 .

[Abstracter's note: Complete translation.]

Card 2/2

KUZNETSOV, A.R., assistant; PAVLOV, N.N., kand.khimicheskikh nauk, assistant

Chelatometry of barium solutions. Nauch.trudy MTILP no.23;
62-66 '61. (MIRA 15:9)

1. Kafedra neorganicheskoy i analiticheskoy khimii Moskovskogo
tehnologicheskogo instituta legkoy promyshlennosti.
(Barium) (Chelatometry)

S/032/61/027/002/022/026
B124/B201

AUTHORS: Arbuzov, G. A., Kuznetsov, A. R., and Pavlov, N. N.

TITLE: Apparatus for the titration of dark-colored solutions

PERIODICAL: Zavodskaya laboratoriya, v. 27, no. 2, 1961, 225-226

TEXT: A special apparatus (see Fig.) has been worked out for those cases in which it is difficult to establish exactly the color changes in the point of equivalence in the presence of intensely colored admixtures or when the color change of the indicator in the end point of reaction is not sufficiently clear. A certain volume of the analyzed, dark-colored solution is poured into the 250-500 ml round and flat-bottom flask 1 which rests upon the electromagnetic mixer 2. The titration takes place by intensive mixing, and, if necessary, also by heat treatment. A parallel beam from light source 3 is passed through the titrated solution, and forms a colored spot 5 on the screen 4. The end point of titration is determined by the clear change of the color spot, which is by far better observable compared with ordinary illumination. Contrasts can be accentuated in the color change of the spot by way of color shifting, which

Card 1/3

Apparatus for the...

S/032/61/027/002/022/026
B124/B201

is brought about by placing an appropriate light filter 6 in the path of the light beam. Thus, e.g., it is suitable to use a blue filter for the transition from red to yellow, whereby the color changes from violet to green, which is visually easier to detect. When the color change of the spot is masked by admixtures, color shifting can be attained either by illuminating the spot on the screen by a secondary light source or by means of a colored screen. In the latter case, the color of the filter or of the screen is complementary to the color of the masking admixtures. If, e.g., the admixtures are blue, filter or screen must be yellow. No light from other light sources must hit the screen. The procedures described were applied by the authors to the trilonometric determination of trivalent chromium (Ref.1). The Trilon excess in the titration of chromium is bound by a nickel salt, whose excess is titrated with the same Trilon B solution in the presence of murexide. The color turns from yellow over orange, red, and red-violet to violet. The color change of the indicator is masked by the dark-blue color of the chromium complex. When using the apparatus and a blue light filter, the color of the spot on the white screen turns from yellow over red to pale blue. The latter color change is abrupt, which fact simplifies the visual determination

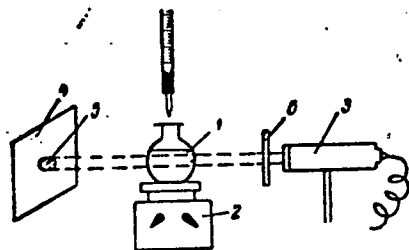
Card 2/3

Apparatus for the...

S/032/61/027/002/022/026
B124/B201

of the end point of reaction, and reduces the error of the determination. The point of equivalence exactly corresponds to this transition. When using the device described it was possible to reduce the determination error from 5 to about 0.5%. The chromium content in the sample was 32.3 mg, and the Trilon consumption was 5.96 ml. [Abstracter's note: This is a full translation]. There are 1 figure, 1 table, and 1 Soviet-bloc reference.

ASSOCIATION: Moskovskiy tekhnologicheskii institut legkoy promyshlennosti
(Moscow Technological Institute of the Light Industry)



Card 3/3

PAVLOV, N.N., kand.tekhn.nauk

Structure formation of hydrophilic polymers with mineral compounds.
Izv.vyx.ucheb.zav.; tekhn.prom. no.1:34-39 '62. (MIRA 15:2)

1. Moskovskiy tekhnologicheskoy institut legkoy promyshlennosti.
Rekomendovana kafedroy neorganicheskoy i analiticheskoy khimii.
(Polymers)

PAVLOV, N. N., kand. tekhn. nauk; KUZNETSOV, A. R., inzh.

New method of trilonometric determination of chromium (III).
Izv. vys. ucheb. zav.; tekhn. leg. prom. no. 4:46-48 '62.
(MIRA 15:10)

1. Moskovskiy tekhnologicheskii institut legkoy promyshlennosti.
Rekomendovana kafedroy neorganicheskoy i analiticheskoy khimii.

(Chromium—Analysis)

8/190/62/004/010/010/010
B101/B186

AUTHORS: Pavlov, N. N., Chesunov, V. M.
TITLE: Relation between the evaporation kinetics of vaporization
and the structure of polyamide solutions
PERIODICAL: Vysokomolekulyarnyye soyedineniya, v. 4, no. 10, 1962,
1547-1551

TEXT: The effect of polyamides on the evaporation kinetics of ethanol solutions was used to determine the concentration of free, active groups of polyamide (amido, carboxy, and amino groups) not saturated by cohesion. A 10% solution of AK 60/40 (AK 60/40) polyamide (60% hexamethylene diamine adipate + 40% caprolactam) in 80% ethanol was used. The content of free, active groups was changed by adding Cr(III) salts. The solvent evaporated at 36°C (temperature of the solvent surface) and the vapor was analyzed by liquid-gas chromatography. Results: Evaporation of the solvent consisted of two parts: up to a time t_0 which in this case was ~ 16 min, the alcohol : water ratio remained constant. Then, the water content of the vapor increased with $W = 1/(0.059 + bt)$, where

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S/190/62/004/010/010/010
B101/B186

Relation between the evaporation ...

W = % H₂O in vapor, τ = time, and b = coefficient. b was found to be
 -0.615·10⁻³ in solution I (80% ethanol without AK 60/40), -1.65·10⁻³ in
 solution II (1% Cr₂O₃ in the form of a CrCl₃ solution in 80% ethanol),
 -2.59·10⁻³ in solution III (10% AK 60/40 in 80% ethanol), and -1.73·10⁻³
 in solution IV (solution III and addition of 4.5% Cr₂O₃ in the form of
 CrCl₃). The higher values of b in solutions II and III are explained by
 the formation of ethanol complexes of chromium (solution II) or
 AK 60/40 (solution III), whereby the volatility of ethanol is reduced.
 The lower value of b in solution IV is due to the binding of free, active
 groups of polyamide in the chromium complexes. For the content A of free,
 active groups, the following values are obtained: solution III
 A₃ = 100 - X; solution IV A₄ = 100 - X - a, where X is the content of
 saturated, active groups. A₃ = -(2.59·10⁻³ - 0.615·10⁻³) = β₃;
 A₄ = -(1.73·10⁻³ - 0.615·10⁻³) = β₄, where β is a linear function of A, is
 obtained since in solution I, A₁ = 0. From A₃ : A₄ = β₃ : β₄ it follows

Card 2/3

Relation between the evaporation ...

S/190/62/004/010/010/010
B101/B186

that X is 84.5%. Hence, AK 60/40 dissolved in 80% ethanol contains 15.5% free, active groups. There are 2 figures. The English-language reference is: A. Keller, J. Polymer Sci., 17, 291, 1955.

ASSOCIATION: Moskovskiy tekhnologicheskii institut legkoy promyshlennosti (Moscow Technological Institute of Light Industry)

SUBMITTED: June 29, 1961

Card 3/3

S/032/62/028/004/021/026
B124/B101

AUTHOR: Pavlov, N. N.

TITLE: Device for determining mechanical properties of polymers

PERIODICAL: *Zavoiskaya laboratoriya*, v. 28, no. 4, 1962, 497 - 498

TEXT: In the device described in this paper the slip of the lower grip of the sample on an inclined plane moving at a controlled velocity and having a given angle of slope is used to vary the velocity of strain in a broad range. With α varying between 15 and 75°, values of v (strain velocity) from 0.027 to 37 mm/sec can be obtained. Determinations of equilibrium moduli of stress relaxation, high-temperature tests in inert atmospheres, and tests concerning the temperature dependence of elongation at constant load can be performed with slightly modified types of the device described. There are 1 figure and 1 table.

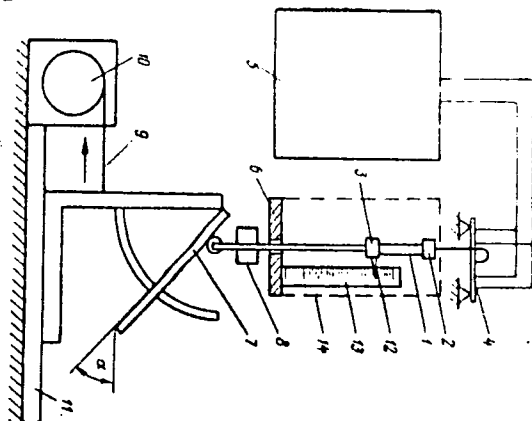
ASSOCIATION: Moskovskiy tekhnologicheskii institut legkoy promyshlennosti
(Moscow Technological Institute of Light Industry) /

Card 1/2

Device for determining ...

S/032/62/028/004/021/026
B124/B101

Fig. Diagram of the device used to determine the mechanical properties of polymers: (1) Test sample; (2) upper clamp; (3) lower clamp; (4) calibrated elastic plate carrying strain gauges; (5) recording device for amplified currents generated by deformation of the plate; (6) guide sleeve; (7) inclined plane; (8) load; (9) flexible coupling; (10) winding-up drum; (11) base; (12) pointer; (13) millimeter scale; (14) electrically heated chamber.



Card 2/2

KUZNETSOV, A.R., inzh.; PAVLOV, N.N., kand. tekhn. nauk; ARBUZOV, G.A.,
doktor tekhn. nauk, prof.

Use of barium salts for ion precipitation from latexes of
carboxylate rubbers. Izv. vys. ucheb. zav.; tekhn. leg. prom.
no.2:55-59 '63. (MIRA 16:10)

1. Moskovskiy tekhnologicheskiy institut legkoy promyshlennosti.
Rekomendovana kafedroy tekhnologii iskusstvennoy kozhi i plenochnykh
materialov.

PAVIV, I.N., kand. ekon. nauk, nauch. rabotnik, IZMIRNIN, I.M., nauch. rabotnik

Trilionsobremennyye izmeneniya v ekonomike i sotsialno-politicheskom razvitiye
Ruschi. Izv. vuzov. 1985. No. 1-2. S. 1-13.

1. Kafedra ekonomiki i sotsialno-politicheskoy ekonomiki, IZMIRNIN, I.M., nauch. rabotnik
Kafedra ekonomiki i sotsialno-politicheskoy ekonomiki, IZMIRNIN, I.M., nauch. rabotnik

PAVLOV, N.N.; ARBUZOV, G.A.; PAVLOV, S.A.; YAO DE-IN [Yao Te-ying]

Action of chromium and aluminum salts on mixed polyamides.
Vysokom. soed. 5 no.10:1558-1561 0 '63. (MIRA 17:1)

1. Moskovskiy tekhnologicheskij institut legkoy promysh-
lennosti.

PAVLOV, N.N.; KUZNETSOV, A.R.

Trilonometric determination of Cr^{3+} and Al^{3+} present together.
Zav. lab. 29 no.9:1059 '63. (MIRA 17:1)

1. Moskovskiy tekhnologicheskij institut legkoy promyshlennosti.

S/0138/64/000/005/0025/0028

ACCESSION NR: AP4038908

AUTHORS: Kuznetsov, A. R.; Pavlov, N. N.; Arbuzov, G. A.

TITLE: The modifying effect of barium and chromium salts on the properties of carboxyl containing latex films

SOURCE: Kauchuk i rezina, ²³⁻no. 5, 1964, 25-28

TOPIC TAGS: latex film, carboxyl, barium, chromium, barium chromium fixation, tanned latex film, physicomechanical film property, latex SKS 30 1

ABSTRACT: Investigation of latex SKS-30-1 containing 20% solids and 4.23% free methacrylic acid was conducted. Films of this material were prepared in special molds lined with heavy kersy tissue impregnated with aqueous solutions of $BaCl_2$ or $CrCl_3$ and with a mixture of these salts in various proportions. The tissue was subsequently dried by a fan and an infrared lamp. Latex was poured into the molds to form layers of the desired thickness and was allowed to react for 90 seconds with the salts from the tissue lining. Next, the films were placed for one day on filter paper and heated for 50 minutes at $110^{\circ}C$. The water treatment of the

Card 1/3

ACCESSION NR: AP4038908

films consisted of rinsing them for 10 minutes in tap water and then heating them. The modifying effect of the polyvalent metal treatment was evaluated by changes which took place in the values of the relative equilibrium modulus of the film under a constant load of 8 kg sec/cm². The Ba and Cr content of the films was estimated by the Trilon technique. Experiments with the effect of either BaCl₂ or CrCl₃ treatment at pH in the 3.8-11.2 range revealed a nonlinear increase of the modulus at the higher pH values. It was also found that while in the BaCl₂ treatment the time of the rinsing of the film did not affect the modulus value, an early rinse of the films treated with CrCl₃ affected it adversely. The tests involving the treatment of the films with mixed BaCl₂-CrCl₃ solutions (in various ratios and at various pH values) showed generally higher values of the modulus with higher percentages of CrCl₃ and also with a higher pH. It was also determined that at a BaCl₂:CrCl₃ ratio of 8:1 and a pH of 11.2 there occurs a significant drop in the modulus value. This the authors attributed to the formation of macrocrystalline structures in the films. The role of ions and their mobility in affecting the strength of the films are discussed. Orig. art. has: 4 charts.

Card 2/3

ACCESSION NR: AP4038908

ASSOCIATION: Moskovskiy tekhnologicheskii institut legkoy promyshlennosti (Moscow
Technological Institute of Light Industry)

SUBMITTED: 00

DATE ACQ: 05Jun64

ENCL: 00

SUB CODE: 00

NO REF SOV: 005

OTHER: 000

Card 3/3

PAVLOV, N.N.

Investigating the physicomæchanical properties of metal powders and rolled metal powder strip. Trudy LPI no.238:25-33 '64.

Leading and pressure on the rolls during the vertical rolling of metal powders. Ibid.:34-40 (MIRA 17:11)

A L 13016-66

ACC NR: AT600092B

EWP(e)/EWT(m)/EWP(w)/EWA(d)/T/EWP(t)/EWP(k)/EWP(s)/EWP(b)/EWA(c)

IJP(e) SOURCE CODE: UR/2563/65/000/251/0040/0043

AUTHOR: Vyaznikov, N. F.; Pavlov, N. N.; Odynets, G. L.

ORG: Leningrad Polytechnic Institute imeni Kalinin (Leningradskiy politekhnicheskii institut)

TITLE: Production of bimetallic strips with cermet magnetic layers on nonmagnetic cores

SOURCE: Leningrad. Politekhnicheskii institut. Trudy. no. 251, 1965. Metallovedeniye (Metal science), 40-43

TOPIC TAGS: cermet, austenitic steel, powder metallurgy, metal bonding, metal grain structure

ABSTRACT: A method was developed for producing nonmagnetic strips of 2-3 mm thickness with highly coercive magnetic layers (0.08-0.10 mm) applied by powder methods. 20N24Kh2 austenitic nickel steel with an average composition of 0.20% C, 24% Ni and 2% Cr was selected for the nonmagnetic core. ANKOTI, a carbon-free dispersion hardening alloy, was chosen for the magnetic layer. This alloy had an average composition of 9% Al, 14% Ni, 30% Co, 4% Cu and 4% Ti (remainder Fe). 20N24Kh2 steel was melted in a high frequency furnace, poured into 10 kg ingots, hot-rolled and cold-rolled into strips 30 mm width and 2-3

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L 13016-66

ACC NR: AT6000928

mm thickness. Due to the brittleness of ANKOTI at both high and low temperatures, powder processing was used. The powder (0.01-0.05 mm diameter) was purified and degreased and applied to the core by cold-rolling and subsequently sintered to bond the layer by diffusion. The sintering was done at 1100, 1150, 1200 and 1250°C for 2, 4, 6 and 8 hrs in a hydrogen atmosphere, in vacuo, in argon and in sealed iron tubes. The surface conditions of the respective treatments were compared metallographically. The surfaces of the powder particles formed films of oxides which are hard to reduce upon heating which hindered the sintering process. The microstructure of ANKOTI showed dispersed γ' -Ni₃(TiAl) within the grains of solid solution and as a fine network along the grain boundaries. The structure of the cermet form of ANKOTI (sintered powder) had grains of solid solution with separated inclusion of the γ' phase. Low magnification micrographs were shown of the bimetallic strip after sintering at 1100, 1200 and 1250°C. At 1100°C, the layer showed much porosity and had low strength. Equations are presented for the experimental parameters of each process. The best bonding of the powder to the core was attained by using an average unit pressure of 40 to 50 kg/mm². Orig. art. has: 7 figures.

SUB CODE: 11/ SUBM DATE: 00/ ORIG REF: 000/ OTH REF: 000

Card 2/2

ACC NR: AP7004043 (A) SOURCE CODE: UR/0323/66/000/005/0037/0040

AUTHOR: Yurkina, N. S. (Engineer); Pavlov, N. N. (Candidate of technical sciences; Docent)

ORG: Moscow Technological Institute of Light Industry (Moskovskiy tekhnologicheskii institut legkoy promyshlennosti)

TITLE: Reaction of polynuclear tanning of trivalent complexes of trivalent chromium with AK 50/50 polyamide powder

SOURCE: IVUZ. Tekhnologiya legkoy promyshlennosti, no. 5, 1966, 37-40

TOPIC TAGS: polyamide, chromium compound, polyamide powder, tanning complex, chromium complex

ABSTRACT: A method for the production of highly dispersed AK 50/50 polyamide powder with the minimum amount of emulsifiers and organic solvents is described. A 20% polyamide suspension in 80% ethanol was heated and the resultant solution was cooled until jellied. The jellied compound was held at least 48 hr at 4 to 6 C and subsequently stirred for 3 to 5 min in the presence of

Card 1/2

VIAZNIKOV, N.F.; PAVLOV, N.N.; ODYNETS, G.L.

Obtaining bimetal bands with a magnetic ceramic metal layer
on a nonmagnetic base. Trudy LPI no. 251:40-43 '65
(MIRA 19:1)

SLYUSARSKIY, L.K.; PAVLOV, N.N.; DOGADKIN, B.A.

Certain characteristics of sulfur vulcanization in the presence
of dicumyl peroxide. Koll.zhur. 27 no.3:441-445 My-Je '65.
(MIRA 18:12)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii imeni
Lomonosova i Politekhnicheskiy institut, Lodz', Pol'skaya
Narodnaya Respublika. Submitted Sept. 29, 1964.

PAVLOV, N.N.

Lot production of standard cells for digital computers. Avtom.
i prib. no.2:43-47 Ap-Je '63. (MIRA 18:8)

1. Institut kibernetiki AN UkrSSR.

W. H.

... .. interaction in the field of
synthetic styrene rubber latex obtained by means of
Kamsh. i rez. 21 no. 4:13-14 Ap '65. (MIR) 12:15.

1. Poakovskiy tehnologicheskiy institut legkoy promyshlennosti.

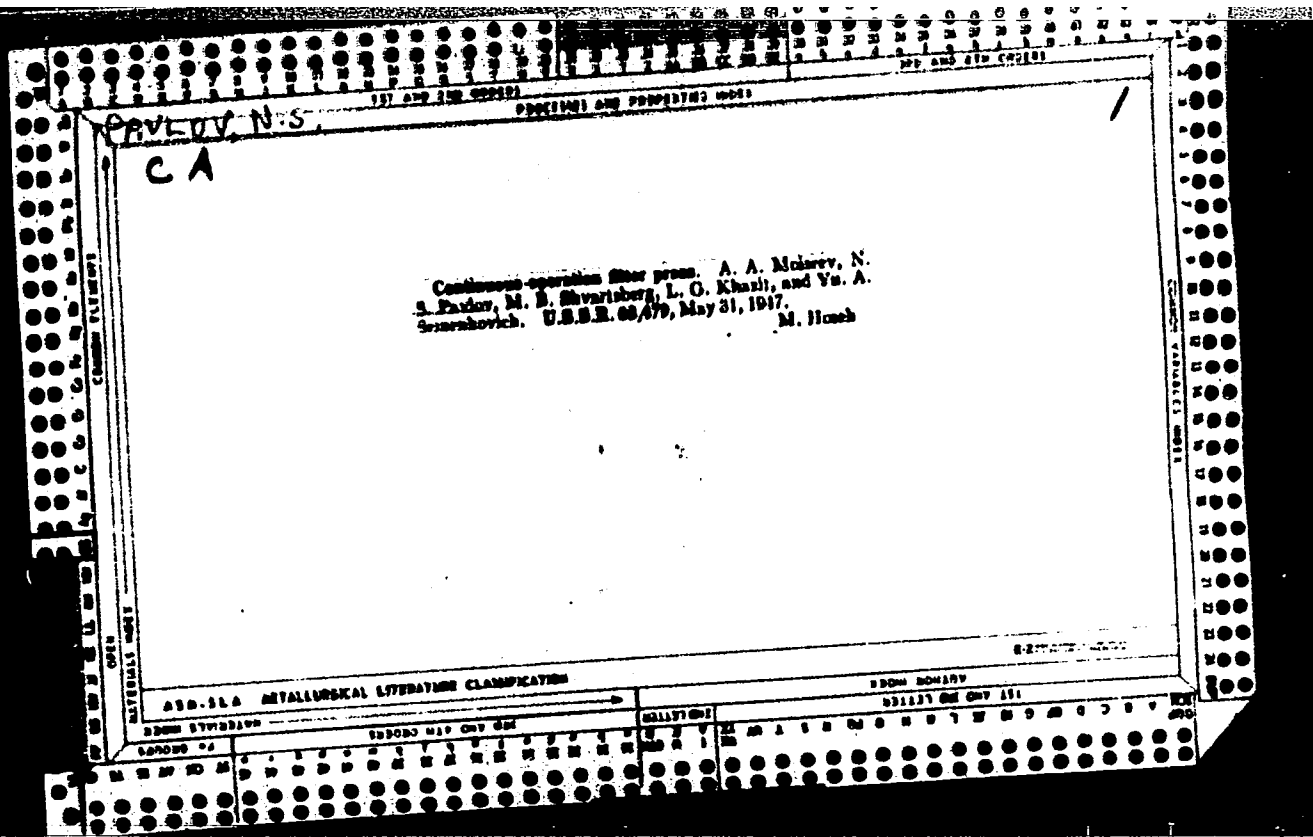
PAVLOV, N.N.

Calculating the grooving of section mills according to the
method of corresponding strips. Trudy LPI no.243:66-68 '65.
(MIRA 18:6)

PAVLOV, N.P. [Paulau, N.P.], inzh.

How to make a Thermos bottle that keeps food cooking. Rab. 1 sial.
35 no.10:24 '59. (MIRA 13:2)

(Thermos bottles)



191 205 100 607223

PROCESSES AND PROPERTIES INDEX

100 AND 4TH CODES

PAVLOV, N. I.

25

Experiments on the oiling of cotton from Egyptian seed. N. I. Pavlov and V. I. Kirilov. *Khlopchatobumash. Tr. Vuz. No. 9-10, 17-19(1940); Chem. Zvest. 1941, 1, 3023.*—The oiling of cotton improves its behavior during spinning. The results obtained with comparative tests between oiled and unoled cotton are described. The textile oil used (in amts. of 0.30-0.34%) had a d. 0.876, ν of 1.87 at 60° and a flash point of 143°. L. Scheffan

ASB-31A METALLURGICAL LITERATURE CLASSIFICATION

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LIBRARY OF CONGRESS

PAVLOV, Nikolay Trofimovich; ZEL'TSMAN, L., red.; SHAYKOVA, N.,
tekhn. red.

[Five hundred days on the ocean; sailor's notes] 500 dni
v okeane; zapiski moriaka. Vladivostok, Primorskoe knizh-
noe izd-vo, 1962. 158 p. (MIRA 16:8)
(Pacific Ocean--Voyages and travels)

PAVLOV, N. T.

Technology

Cotton spinning. (Moskva), Gizlegprom., 1951

9. Monthly List of Russian Accessions, Library of Congress, October 195~~8~~², Unclassified.

PAVLOV, N. V. Cand. Geolog-Mineralog Sci.

Dissertation: "Chemical Composition of Chromium-Spinellids in Relation to Composition of Ultrabasic Intrusive Rocks." Inst. of Geological Sciences, Acad. Sci. USSR
28 Feb 47.

SO: Vechernyaya Moskva, Feb, 1947. (Project #17836)

PA 3/50138

PAVLOV, N. V.

USSR/Geology - Petrography
Myrmekites

Sep/Oct 49

"Myrmekites in Certain Basic Rocks," N. V. Pavlov,
B. Ye. Karakiy, 9 pp

"Iz Ak Nauk SSSR, Ser Geol" No 5

In studying rocks from one of the Soviet anorthosite
masses, myrmekites were found in rocks of anorthosite
and gabbro-norite composition. Microscopic study
showed that myrmekites are found in labradorites,
anorthosites, gabbro-norites, and plagioclase webster-
ites. Advances a theory of the mechanism of myrme-
kite formation.

3/50138

100100, N.V.

GP \checkmark Magnesian magnetite as an indicator for the depths of ore deposition. N. V. Pavlov and I. I. Chuprynina. *Doklady Akad. Nauk S.S.S.R.* 104, 298-301(1955).—Magnesian magnetite (I), typical for the Fe ores of the endogenic middle-Siberian deposits, is a differentiation product of a basic (trap) rock. The chem. compn. of I changes regularly with the depth in which it was formed. I from surface fumaroles of Mt. Vesuvius or Stromboli does not contain Fe(II), all 8 positions in the elementary cell being occupied by Mg (magnesioferrite). Deposits near the surface (in depths of 350-400 m.) connected with basic intrusions (e.g. those of the River Khatangi basin, River Lower Tunguski, and River Ilimpe ya basins) contain 4.9-5.6 atoms Mg and 2.4-3.1 atoms Fe(II). Further, deposits of the Angaro-Ilimsk area (Rudnogorsk, Krasnoyarsk, Kuzhemscoe, etc.), of depths between 850 and 1000 m., which are derived from rather removed basic intrusions, contain 1.25-2.45 atoms Mg, 5.55-5.75 atoms Fe(II), 0.05-0.40 atoms Ti, and 1.5-3.5 atoms Al. The I deposits occurring in the contacts of gabbro-dabase intrusions with limestones are typical for depths of 1000-1800 m.; the Fe ores of Tunguski, Telakoe, and Anakit are characterized by only 0.7-1.25 atoms Mg, 6.75-7.8 atoms Fe(II), 0.1-0.9 atoms Ti, and 0.35-2.0 atoms Al. The O potential was highest in the medium which formed the Mg-rich magnesioferrite and lowest in the deep-seated contact-metasomatic mineralizations which contain Mg in the magnetite structure only in very low amts. W. Ritt

①

Inst. Geol. Sci., AS USSR

Pavlov, N.V.

Hypogenic magnetite-hematite oolites from iron-ore deposits of the Angaro-Ilimsky region. N. V. Pavlov
(Inst. Geol., Ore Deposits, Petrography, Mineralogy and Geochem., Acad. Sci. USSR, Moscow). *Izv. Akad. Nauk S.S.S.R., Ser. Geol.*, 1956, No. 1, p. 20. A report giving characteristics of internal structure of different oolites and characteristics of their mineralogical and chemical composition. Clayton S. Macy

AGS

20

PAVLOV, N.V.

Magnetite in Kozhma magnetite ore deposits. Trudy Min. muz. no.8:
77-84 '57. (MIRA 11:3)
(Ilem Valley--Magnetite) (Angara Valley--Magnetite)

AUTHOR:

Pavlov, N.V.

NOV-11-58-9-1014

TITLE:

Problems of the Origin of the Endogenetic Magnetite Ores of the Tunguska Syncline of the Siberian Plateau (Voprosy genezisa endogennykh magnetitovykh rud Tungusskoy sineklizy Sibirskoy platformy)

PERIODICAL:

Izvestiya Akademii nauk SSSR , Seriya geologicheskaya, 1958, Nr 9, pp 3-24 (USSR)

ABSTRACT:

The iron ore deposits of the Angara-Ilim region of the Tunguska syncline never attracted much attention, being considered of little importance. Geologists connected their formation with the thermal activity of basic volcanic minerals. It was then considered that basic magmata could not form large accumulations of ores, because of the small contents of volatile mineralizers. In 1931, S.S. Smirnov (Ref. 15) propounded the theory that the reserves were in the hundreds of millions of tons. He expressed the opinion that the ore formation process is genetically connected with plutonic magmatic hearths of basic rocks, which were rich in volatile mineralizers, and not with the erosion-opened trappean bodies. The presence of such volatile components was indicated by large pneumatolytic and hydrothermal aureoles of transformed rock containing the

Card 1/3

Problems of the Origin of the Endogenetic Magnetite Ores of the Tunguska
Syncline of the Siberian Plateau

007-11-58-9-1/14

ore bodies. His theory was substantiated by later research. The Tunguska syncline covers an area of more than 1,000,000 square km. Four large iron ore regions are there: 1) the Angara-Ilim region; 2) the Tunguska river iron ore field; 3) the Podkamennaya Tunguska river-Bakhta region and 4) the Ilimpeya river region. The study of all these regions showed a close connection of the ore-formation process with disruptive dislocations which preceded the period of ore formation. The sources of minerals, which formed the magnetite deposits, were the ore bearing solutions separated in various periods from plutonic hearths of the basaltic magma which - before the ore formation in the upper levels of the plateau - formed the trappean bodies. Zones of breaks which served as ways of penetration for basaltic magma which formed the traps. This article is a summing up of the findings of many geologists, who, since 1931, worked in these regions. They were: V.S. Sobolev, N.P. Anikeev, V.P. Zorin, S.A. Doktorovich-Greb-nitskiy, late A.N. Zavaritskiy, I.I. Chuprygina, M.K. Kosygin, G.V. Roslyakov, P.Ye. Offman, A.T. Suslov, I.N. Chirkov, T.N. Spizharskiy, I.I. Krasnov, V.L. Masaytis, M.M. Odintsov, A.F.

Card 2/3

DDV-11-58-9-1/14

Problems of the Origin of the Endogenetic Magnetite Ores of the Tunguska
Syncline of the Siberian Plateau

Lebedev, V.A. Vakar, M.L. Lur'ye, S.V. Obruchev, K.I. Bogdanovich, and the author.

There are 5 maps, 3 diagrams and 18 Soviet references.

ASSOCIATION: Institut geologii rudnykh mestorozhdeniy, petrografii, mineralogii i geokhimii AN SSSR, Moskva (The Institute of Geology of Mineral Deposits, Petrography, Mineralogy and Geochemistry of the AS USSR, Moscow)

SUBMITTED: March 12, 1958

1. Iron ores--USSR 2. Iron ores--Geology

Card 2/3

PAVLOV, N.V.; YANCHENKO, M.T.

New data on magnesioferrites. Geol. rud. mestorozh. no.2:74-80
Mr-Apr '59. (MIRA 12:9)

1. Institut geologii rudnykh mestorozhdeniy, petrografii, mineralo-
gii i geokhimii AN SSSR.

(Magnesioferrite)

5(1)
AUTHORS: Zhelnin, A. A., Candidate of Technical Sciences, Pavlov, E. V.,
Neverov, A. N. SOV/64-59-4-14/27

TITLE: Enrichment of Sylvine Rock by Flotation
(Obogashcheniye sil'vinitovoy rudy flotatsiyey)

PERIODICAL: Khimicheskaya promyshlennost', 1959, Nr 4, pp 53-56 (USSR)

ABSTRACT: There are at present some factories in the USSR producing potassium chloride and artificial Carnallite, which for that purpose need large quantities of steam. The flotation method makes possible to reduce the steam consumption considerably, which is necessary for the processing of Sylvinite rocks. The results are given, which were obtained by checking the industrial enrichment of Sylvinite of the Verkhnekamskiy Deposit, in the testing plant of the Bereznikovskiy kaliyniy kombinat (Berezniki Potassium Kombinat). A Sylvinite rock (crushed to 10 mm) of the following composition was used as raw material: mineral salt appr 70%, Sylvine appr 26%, with smaller quantities of gypsum and insoluble compounds. The sieve data of the rock (Table 1) and those of the insoluble compounds (Table 2) are given. The rock crushed contained to 33% of the size 0.75 mm.

Card 1/3

Enrichment of Sylvine Rock by Flotation

S07/64-59-4-14/27

Since the mud falling into the enrichment products renders their dehydration more difficult, and deteriorates the quality of the product, the crushing-, classification-, and mud-removing scheme of the rock was especially carefully worked out. The scheme of the test plant (Fig) is given as well as the process of crushing and of removing the mud before the enrichment of the rock. The sieve data of the classification product are also given (Table 3). The removing of the mud was carried out by flotation; for the purpose of loosening the mud, an alkaline starch solution and a collector-frothing agent FR-2 were added to the pulp. After having removed the mud the flotation was carried out by means of orthodecylamine, in which case KCl passes over into the mud. The content of KCl in the concentrate purified was 94-95%. Dehydration of the concentrate was carried out by means of centrifuges (humidity up to 4-5%) and drying drums. The yield in KCl amounts to 87%. It was found that no corrosion of the apparatus occurs, which is obviously due to the use of surface active substances. Some instructions as to the use of the individual devices (flotation machine "Mekhanobr 6A", Dorr-concentrator et al) are given. Technical and economic

Card 2/3

Enrichment of Sylvine Rock by Flotation

SOV/64-59-4-14/27

investigations carried out by the VNIIG have shown that the flotation makes possible a saving of 4%, as compared with chemical processing. There are 1 figure, 3 tables, and 1 reference.

Card 3/3

VOL'PSON, P.I.; LUKIN, L.I.; DYUKOV, A.I.; KUSHNAREV, I.P.; PEK, A.V.;
RYBALOV, B.L.; SONYUSHKIN, Ye.P.; KHROSHILOV, L.V.; CHERNYSHEV,
V.F.; BIRYUKOV, V.I.; GARMASH, A.A.; DROZHININ, A.V.; KARAMYAN,
K.A.; KUZNETSOV, K.P.; LOZOVSKIY, V.I.; MALINOVSKIY, Ye.P.;
NEVSKIY, V.A.; PAVLOV, N.V.; ROMENSON, B.M.; SAMONOV, I.Z.;
SIDORENKO, A.V. [deceased]; SOPKO, P.F.; CHEGLOKOV, S.V.; YUDIN,
B.A.; KREYTER, V.M., doktor geologo-mineral.nauk; retsenzent;
KOTLYAR, V.N., doktor geologo-mineral.nauk, retsenzent; GRUSHEVOY,
V.G.; doktor geologo-mineral.nauk, retsenzent; NAKOVNIK, N.I., doktor
geologo-mineral.nauk, retsenzent; KUREK, N.N., doktor geologo-mineral.
nauk, retsenzent; LIIGEN'KIY, S.N., retsenzent; SHATALOV, Ye.T., doktor
geologo-mineral.nauk, red.; KRISTAL'NIY, B.V., red.; SERGEYEVA, N.A.,
red.izd-va; GUROVA, O.A., tekhn.red.

[Basic problems and methods of studying structures of ore provinces
(Continued on next card)]

VOL'PSON, P.I.---(continued) Card 2.

and deposits] Osnovnye voprosy i metody izucheniia struktur rudnykh polei i mestorozhdenii. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po geol. i okhrane nedr, 1960. 623 p.

(MIRA 13:11)

1. Akademiya nauk SSSR. Institut geologii rudnykh mestorozhdeniy, petrografii, mineralogii i geokhimi. 2. Moskovskiy institut tsvetnykh metallov i zolota (for Dyukov, Biryukov, Druzhinin, Kuznetsov). 3. Institut mineralogii, geokhimi i kristalloghimi redkikh elementov AN SSSR (for Gernash). 4. Akademiya nauk Armyanskoy SSR (for Karamyan). 5. Balezoloto (for Sidorenko). 6. Institut geologii rudnykh mestorozhdeniy, petrografii, mineralogii i geokhimi AN SSSR (for Melinovskiy, Nevskiy, Pavlov, Chernyshev). 7. Moskovskiy geologorazvedochnyy institut im. S.Ordzhonikidze (for Ronenson). 8. Vsesoyuznyy nauchno-issledovatel'skiy institut mineral'nogo syr'ya (for Samonov). 9. Voronezhskiy universitet (for Sopko). 10. Kol'skiy filial AN SSSR (for Yudin).

(Ore deposits)

PAVLOV, N.V.; CHUPRYNINA, I.I.

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