SOV/106-58-11-9/12

AUTHORS: Golyshko, V.F., and Sil'vinskaya, K.A.

TITLE: A Delay Line with Concentrated Parameters (Liniya zaderzhki s sosredotochennymi parametrami)

PERIODICAL: Elektrosvyaz', 1958, Nr.11, pp.69-76 (USSR)

ABSTRACT: A method is described for designing a delay line to have a prescribed non-uniformity of group-delay time. The line section proposed is most economic and the parameters are determined starting from the best approximation to group-delay time within a given frequency interval. The simplest form of delay line consists of a chain of constant-K low-pass filter sections. The useful bandwidth of the section is about 0.4 of the cut-off frequency. A more satisfactory solution is to use m-derived sections, and Fig.1a shows a convenient lattice form. Fig.2 shows the variation in group-delay time with frequency for various values of m. Mathematically the problem of designing the most uniform time-delay reduces to the requirement that the difference between the expression for time-delay and a constant differs from zero as little as possible. It will be seen from the

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curves of Fig.3 that the useful bandwidth of the m-derived section is between 0.6 and 0.7 of cut-off frequency. If the appropriate design function is denoted by f(y) as at the top of p.71, then since this expression has two independent parameters, m and N, it will belong to the class of functions deviating least from zero if the number of points of maximum deviation is larger than the number of independent parameters, S. In the present case, S = 2. Differentiating f(y) with respect to y and noting that this expression is zero at only one point when y is less than unity, then the points of maximum deviation are three in number, y_1, y_2 and y_3. Eq.1 follows from the condition of best approximation of the function f(y), and solving it we find the values of the unknowns m and N and also the amount of maximum deviation L. This is given in (2). This last enables us to determine: 1. the optimum value of the coefficient m for a given interval of approximation $k < 1$; 2. the mean delay time of a single section; 3. the absolute amount of deviation of delay-time from constancy. The usual basic section is

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preferred as an unbalanced one: this is shown as a T-section in Fig.1b, where M is the mutual inductance. Fig.4 shows the frequency characteristic of a 5-section delay line measured in the range 0 - 10 Mc/s. If the number of sections in the delay line is increased, then the absolute deviation from constancy of delay also increases. If more complicated derived sections are used with complex-conjugate values of m, then it is possible to obtain a better approximation to constant time-delay (Ref.3). A suitable section in both lattice and unbalanced form is that of Fig.5 whose time delay is determined by (3). Proceeding as before, the Chebyshev polynomial of the third degree will satisfy the requirement in the interval 0 to k^2. The four corresponding values of y are in (4). Table 1 and the curves of Fig.6 give the necessary data on N, L and the derivation constants. Observe that instead of m_1 and m_2 explicitly, m_2 is quoted in terms of η_3, a slightly more complicated function of m_1 and m_2. If we take the doubly-derived T-section of Fig.5b as our basic section, then Table 2 gives the values of all the

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circuit elements in terms of the fraction of total bandwidth which is used. Fig.7 is the response of a 3-section line over the range 0 - 8.5 Mc/s. The two coils coupled by mutual inductance as in Fig.5b are best provided by a tapped single-layer winding as in Fig.8. The last paragraph is a worked example of a delay line giving a delay of $27.5/\omega_0$ secs. in a frequency interval 0 - $0.77\omega_0$. There are 8 figures, 2 tables and 6 references, of which 4 are Soviet and 2 English.

SUBMITTED: June 23, 1958.

Card 4/4

SHTAGER, Valeriy Vital'yevich; SIL'VINSKAYA, K.A., otv.red.; KOMDRASHINA, N.M., red.; SHEFER, G.I., tekhn.red.

[Chebyshev approximations used in calculations of electric circuits] Chebyshevskie priblizheniia, primeniaemye v raschetakh elektricheskikh skhem. Moskva, Gos.izd-vo lit-ry po voprosam sviazi i radio, 1960. 78 p. (MIRA 13:4)
(Chebyshev polynomials) (Electric circuits)

ZNAMENSKIY, Aleksandr Yevgen'yevich; SIL'VINSKAYA, K.A., otv. red.; PETROVA, V.Ye., red.; SLUTSKIN, A.A., tekhn. red.

[Controlled artificial lines] Reguliruemye iskusstvennye linii. Moskva, Gos. izd-vo lit-ry po voprosam sviazi i radio, 1961. 51 p. (MIRA 15:2)

(Radio lines) (Delay lines)

SIL'VINSKAYA, Kira Aleksandrovna; BATRAKOVA, T.A., red.; CHURAKOVA, V.A., tekhn. red.

[Design of equalizers and filters using master forms] Raschet vyravnivatelei i fil'trov pri pomoshchi shablonov. Moskva, Sviaz'izdat, 1963. 95 p. (MIRA 16:9)
(Electric filters)

SIL'VIU, Dan (Bukharest)

Novocaine block in the ischiorectal fossa in some acute and chronic anorectal diseases. Vest. khir. 93 no.8:112-116 Ag '64. (MIRA 18:7)

[illegible], I.

"[illegible] enhancement technique in textile industry.

[illegible] (Bucuresti, Romania) No. 1, Apr. 1957

[illegible] Index of East European Accessions (EEAI) LC Vol. 7, No. 5, 1958

NICOLAU, St. S.; SURDAN, C.; SARATEANU, D.; ATHANASIU, Pierrette; SORODOC, G.; POPESCU-DANESCU, Georgeta; BABES, V.; STEFANESCU, I.; ILIESCU, C.; RADESCU, R.; MALITCHI, E.; CADERE, T.; FLORIAN, I.; PARASCHIVESCU, N.; SETLACEK, D.; DUMITRESCU, St.; SILVIU DAN, S.

A study concerning the rickettsial or pararickettsial etiology of some cardiovascular diseases. Rev. sci. med. 8 no.3/4: 151-158 '63.

1. Member of the Academy of the R.P.R. (for Nicolau).
(RICKETTSIAL DISEASES) (ANTIBODIES)
(CARDIOVASCULAR DISEASES) (ENDOCARDITIS)
(PERICARDITIS) (HEART BLOCK) (CORONARY DISEASE)
(THROMBOPHLEBITIS)

SURDAN, C.; SARATEANU, D.; POPESCU, G.; SORODOC, G.; ATHANASIU, Pierrette; STEFANESCU, I.; SILVIU DAN, S.

Research on the rickettsial or pararickettsial etiology of certain types of thrombophlebitis. Rev. sci. med. 8 no.3/4: 181-184 '63.

(RICKETTSIAL DISEASES) (THROMBOPHLEBITIS)
(VARICOSE VEINS) (TETRACYCLINE)

SURDAN, C.; SARATEANU, D.; POPESCU, G.; ANAGNOSTE, B.; SORODOC, G.; ATHANASIU, P., STEFANESCU, I.; in colaborare cu. SILVIU DAN, S.

Research on the rickettsial or pararickettsial etiology of some thrombophlebitis. Stud. cercet. inframicrobiol. 14 no.2: 161-170 '63.

1. Comunicare prezentata la Institutul de inframicrobiologie al Academiei R.P.R.

(THROMBOPHLEBITIS)
(THROMBOANGIITIS OBLITERANS)
(ERYTHEMA NODOSUM)
(RICKETTSIAL DISEASES)

1. SILVOLSKAYA, YA.
2. USSR (600)
4. Telecommunication--Lithuania
7. Conference of engineers, Sov. sviaz., 3, No. 4, 1953.

9. Monthly List of Russian Accessions, Library of Congress, April, 1953, Uncl.

SILVOVSKY, L.; KALAFUT, S.

Influence of zinc (II) sulfate and triethanolamine on the formation of viscose fiber. p. 104

CHEMICKE PRUMYSL. (Ministeratvo chemickeho prumyslu) Praha, Czechoslovakia
Vol. 9, No. 2, Feb. 1959

Monthly List of East European Accessions (EEAI), LC, Vol. 8, No. 7, July 1959
Uncl.

SIL'VRM, I.

5626

Nastol'nyye elektrolampy s keramicheskimi i derevyannymi podstavkami. M., Koiz, 1954. 13s. s chert. 2L. ill. 21sm. (Tsentr. Sovet Promysl. Kooperatsii SSSR. Tekhn. Upr. Obmen proizvod. Tekhn. Opytom, Luchshiye obraztsy ixdeliy shirokogo potrebleniya. 23). 1.000 ekz. Bespl. avt. Ukazan v kontse Teksta- (54-14636 ZH) 683.8

SO: Knizhnaya Letopis', Vol. 1, 1955

SILVYANCHUK, S.D., inzhener distantsii; POLYAKOVA, V.I., tekhnik (stantsiya Idritsa).

Plane table for calculating curves. Put' i put.khoz.no.12:28-29 D '57. (MIRA 10:12)

1. Idritskaya distantsiya puti Kalininskoy dorogi.
(Railroads--Curves and turnouts)

SIMAKOV, P. V.

"Hygienic Evaluation of the Manufacture of Fused Fluxes and Their Use in Automatic Welding," Gig. i San., No. 9, 1949. Dept. of Hygienic Work, Leningrad State Sci. Res. Inst. of Hygienic Work and Occupational Diseases, -c1949-.

USSR/Agriculture Sep/Oct 48
Husbandry
Low Temperature

"Special Physiological Features in Raising Young Animals at Low Temperatures," A. A. Sil'yander, Cand Biol Sci, Leningrad Inst, Lab of Animal Genetics, 17 pp

"Agrobiol" No 5

Under conditions of sufficient feeding, animals growing up in low temperatures not only are not retarded in development, but are more healthy and less affected by unfavorable conditions than those

60/49T3

USSR/Agriculture (Contd) Sep/Oct 48

raised at higher temperatures. Gives tables comparing internal organs (heart, etc.), development, weight of wool, and other features of goats raised in hot or cold climates.

60/49T3

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550620003-9

[illegible], [illegible]

"The Problems Involved in the Controlled Training of Young Agricultural Animals." Dr Agr Sci, Moscow Order of Lenin Agricultural Acad imeni K. A. Timiryazev, Moscow, [illegible]. ([illegible], No [illegible], Feb 5[illegible])

SO: Sum. No. 631, [illegible] Aug 55-Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions ([illegible])

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550620003-9"

SIL'YANDER, A. A.

SIL'YANDER, A. A. -- "Problems of the Directed Training of Young Agricultural Animals." Moscow Order of Lenin Agricultural Academy imeni K. A. Timiryazev. Moscow, 1956. (Dissertation for the Degree of Doctor in Agricultural Sciences).

So.: Knizhnaya Letopis', No. 6, 1956.

USSR/Farm Animals - Large Horned Cattle. Q-2

Abs Jour : Ref Zhur - Biol., No 18, 1958, 83370

Author : Sil'yander, A.A., Shumskiy, P.I.

Inst : Grodno Institute of Agriculture.

Title : Summer Keeping of Cows under Conditions of Grodno Oblast'.

Orig Pub : Tr. Grodnensk. s.-kh. in-ta, 1957, vyp. 3, 209-212

Abstract : On farms with natural pastures with low productivity cows should be kept in stall-camping conditions for the summer while being permitted to grass outside camping grounds for exercise. It is recommended that on farms where improved highly productive pastures have been created, cows should be changed to pasture-camp keeping.

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KREMENETS, Yu., inzh.; SIL'YANOV, V., inzh.

Limit the upgrade length in designing the longitudinal highway profile. Avt. dor. no.10:11-12 O '64. (MIRA 17:12)

KEROGIN, L.A., inzh.; SIL'YANOV, V.V., inzh.

Constructing an additional lane on ascending roads. Avt. dor. 28 no.2:5-6 F '65. (MIRA 18:6)

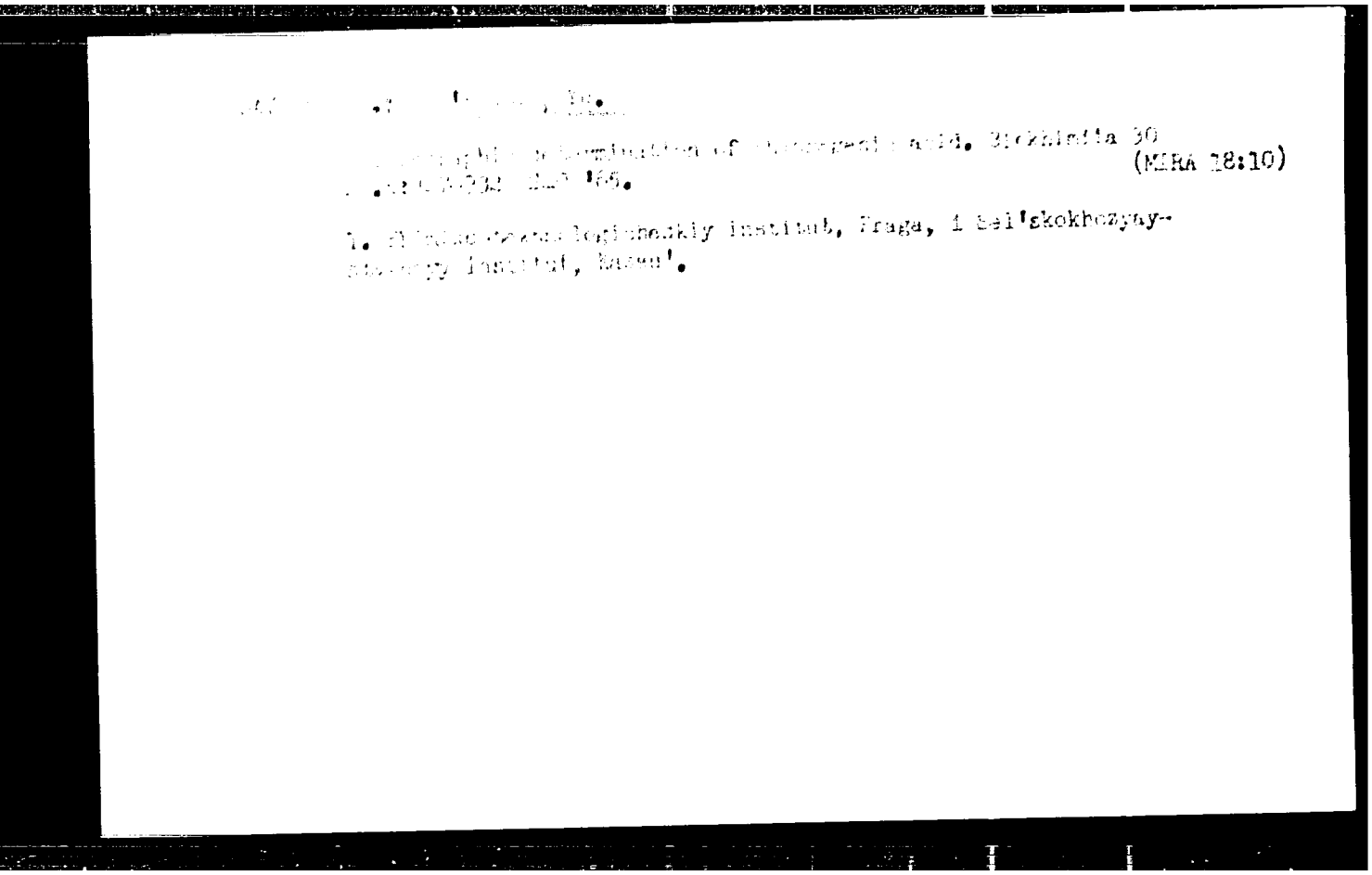
KREMENETS, Yu.A., inzh.; SIL'YANOV, V.V., inzh.

Design of long ascents and descents. Avt.dor. 28 no.10:10-11 O '65. (MIRA 18:11)

LYZLOV, Ye.V., kand. biolog. nauk (pochtovoye otdeleniye Podvyaz'ye, Ryazanskogo rayona, Ryazanskoy obl.); SIL'YANOVA, A.N., starshiy nauchnyy sotrudnik (pochtovoye otdeleniye Podvyaz'ye, Ryazanskogo rayona, Ryazanskoy obl.)

Controlling loose smuts of wheat. Zashch. rast. ot vred. i bol. 7 no.12:24-25 D '62. (MIRA 16:7)

(Wheat--Diseases and pests)
(Seeds--Disinfection) (Smuts)



Bulgaria

SILYANOVSKA, K.

[Academic Degrees]

[Affiliation] Scientific Research Institute on Epidemiology and Microbiology (Nauchno-izsledovatelski institut po epidemiologiya i mikrobiologiya); Director: Vl. KALAYDZHIV.

[Source] Sofia, Khigiena, No 5, Sep-Oct 1962, pp 46-47.

[Data] "Wider Embodiment of Skin Cultures in Laboratory Practice."

L 15617-66 EWA(j)/T/EWA(b)-2 JK
ACC NR: AP6008217 SOURCE CODE: BU/0011/65/018/004/0369/0372

AUTHOR: Silyanovska, K.

ORG: Cancer Research Institute, Sofia

TITLE: Fluorescent-microscopic investigation of cell cultures infected with virus herpes simplex

SOURCE: Bulgarska akademiya na naukite. Doklady, v. 18, no. 4, 1965, 369-372

TOPIC TAGS: virology, fluorescence, microscopy, RNA, DNA, experiment animal, cytology

ABSTRACT: Fluorescent microscopy has been suggested by J. A. Armstrong (Nature, 180, 1957, 4598, 1335) as a method of examining cell cultures infected with viruses. The objective of the present work was to follow the dynamics of the changes of the morphology and character of distribution of RNA and DNA in monkey heart and Detroit 6 cells infected with Virus herpes simplex, by staining them with acridine orange. Results of the morphological and cytological studies of the two types of infected cells show that both of them respond to the infection in analogous manner and

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ACC NR: AP6008217

that discernible differences in the infected cells compared with the normal ones are established in the sixth hour after the infection. The article also contains a detailed description of the experiments and a discussion of the possible explanations of the results. The paper was submitted by Academician I. Emanouilov, 3 December 1964. The author thanks Dr. P. Andonov for his valuable advice in the above investigations. Orig. art. has:6 figures. [JPRS]

SUB CODE: 06 / SUBM DATE: none / OTH REF: 009 / SOV REF: 001

Card 2/2

TISHCHENKO, I.T.; PRIMAK, D.O.; SILYAVKINA, A.N.; SOFIYENKO, N.Ya.; SHEKHET, A.L.; NEVIDNIKH, A.A.

Ways for decreasing and eradicating diphtheria in Kiev. Zhur. mikrobiol., epid.i immun. 32 no.12:106-109 D '61. (MIRA 15:11)

1. Iz Kiyevskoy gorodskoy sanitarno-epidemiologicheskoy stantsii i 5-y detskoy klinicheskoy infektsionnoy bol'nitsy.
(KIEV--DIPHTHERIA--PREVENTION)

SILYAYEVA, M.F., ZHIGALKOVICH, A.S., LEONOV, V.A., MEREZHINSKY V.M., LASTOVSKAYA, T.C., KILCHEVSKAYA, M.A. (USSR)

"Metabolic Processes in Relation to Suppression of Thyroid Gland Function in Animals of Various Ages and at Different Times of the Year."

Report presented at the 5th Int'l Biochemistry Congress, Moscow, 10-16 Aug. 1961

SILYAYEVA, M.F.

Change in the activity of hexokinase and aldolase under X-ray irradiation. Dokl. AN SSSR 7 no.11:735-738 N '63. (MIRA 17:9)

1. Belorusskiy gosudarstvennyy universitet im. V.I. Lenina. Predstavleno akademikom AN BSSR V.A. Leonovym.

SILYAYEVA, M.F. [Siliaeva, M.F.]

Effect of fractional X-ray irradiation on the activity of hexokinase and aldolase in the cerebral and muscular tissues of rats. Vestsi AN BSSR. Ser. biial. nav. no.1:101-106 '64. (MIRA 17:6)

SILYAYEVA, N.F. (Minsk)

Case of congenital toxoplasmotic meningoencephalomyelitis complicated by edematous form of symptomatic erythroblastosis. Arkh. pat. 27 no.5:67-70 '65. (MIRA 18:5)

1. Kafedra patologicheskoy anatomii (zav. - prof. Yu.V.Gul'kevich) Minskogo meditsinskogo instituta i kafedra patologicheskoy anatomii (zav. - prof. V.K.Beletskiy) Ryazanskogo meditsinskogo instituta.

SILYE, Sandor, okleveles epiteszmernok

Building damages in Budapest caused by the changes in soil humidity. Melyepitestud szemle 12 no.10:468-473 O '62.

1. Fovarosi Melyepitesi Tervezo Vallalat osztalyvezetoje.

1. SILYUANOV, V. V.

2. USSR (600)

4. Silyuanov, Vladimir Vasil'evich, 1883-

7. Fiftieth anniversary of work of feldsher V. V. Silyuanov. Ahkandylo. Fel'd. i akush. No. 10, 1952.

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

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Vliyaniye tsentral'noy nervnoy sistemy na venoznoye davleniye pri gipertonicheskoy bolezni i drugikh serdechno-sosudistykh zabolevaniyakh. M., 1960. 10 s. 20 sm. (1-y Mosk. ordena Lenina med. in-t). 100 ekz. B. Ts. - (54-56124)

SILYUK, N.

Equipment of employee and work areas in the German Democratic Republic. Biul.nauch.inform.; trud i zar.plata no.2:52-55 '59. (MIRA 12:5)

(Germanay, East--Office layout)

SILYUK, N.; SHOR, Ye.

Using electronic calculating machines for the automation of office work. Biul. nauch. inform.: trud i zar. plata 4 no.10:68-71 '61. (MIRA 14:10)

(United States—Office practice—Automation)

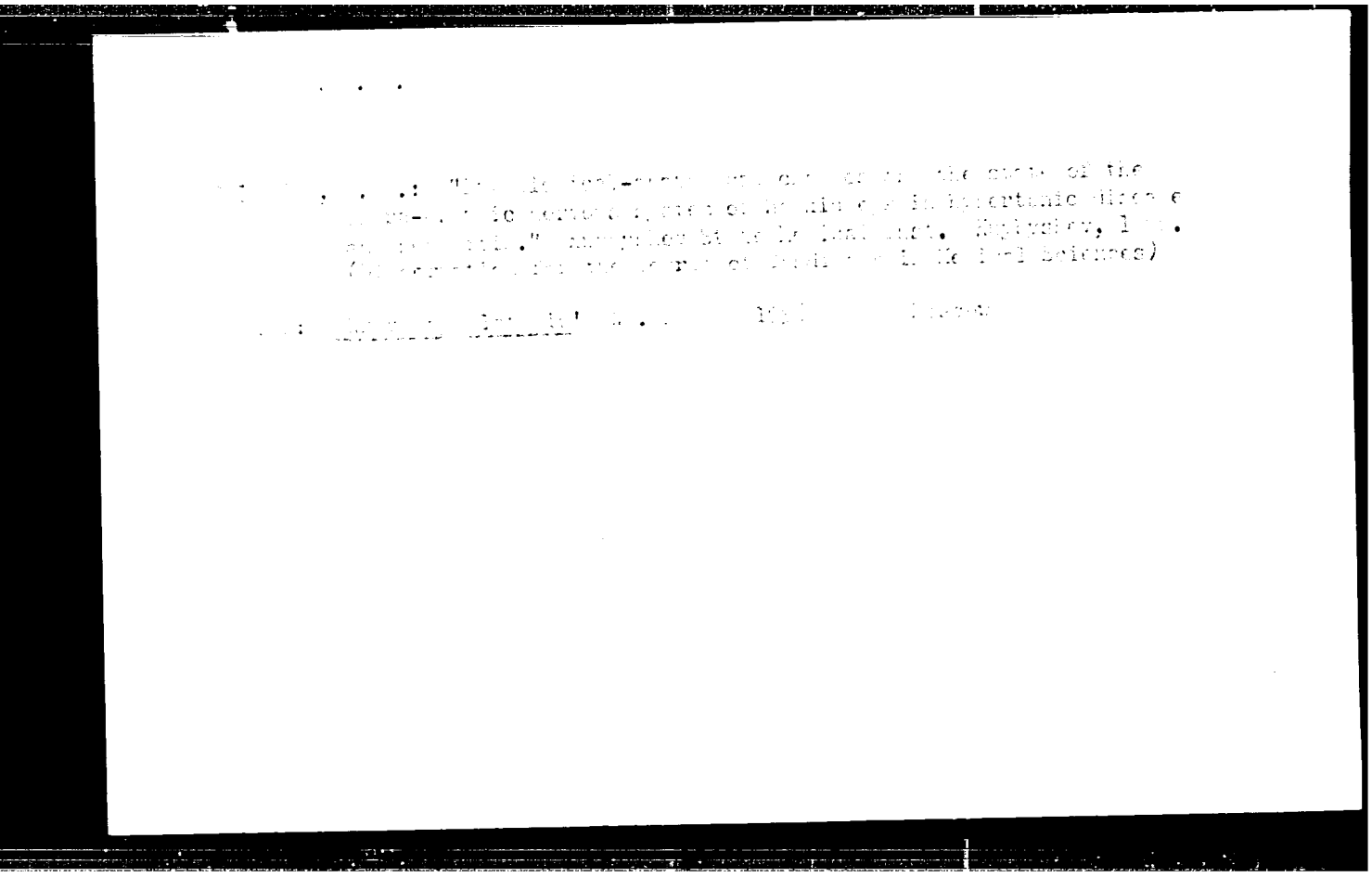
SILYUK, N.

Electric typewriters abroad. Biul. nauch. inform.: trud i zar. plata 5 no.9:63-67 '62. (MIRA 15:10)

(Typewriters)

SILYUKOV, G.D., inzh.; METLITSKIY, B.V., inzh.

Designing compressed-air braking systems for marine engines.
Sudostroenie 24 no.7:34-38 Jl '58. (MIRA 11:9)
(Marine engines) (Air brakes)



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USSR / Human and Animal Morphology (Normal and Pathological). Nervous System. Peripheral Nervous System.

Abs Jour : Ref Zhur - Biologiya, No 9, 1958, No. 40805

Author : Silyutin, V. G.

Inst : Kuybyshev Society of Anatomicopathologists Including a Section of Pathological Physiology

Title : Anatomicopathological Changes and the Condition of the Intrinsic Nervous System of the Kidneys in Hypertension and Nephritis

Orig Pub : Sb. nauchn. rabot Kuybyshevsk. o-va patologoanatomov soktsiyay patofiziol. Kuybyshev. 1957, 207-214

Abstract : In the study of kidneys of 50 cadavers of persons who died of hypertension and nephritis, no changes of the intrinsic nerves were demonstrated in the majority of the cases. Occasionally an irregular impregnation of the nerve fibers was noted with hyper argyrophilia,

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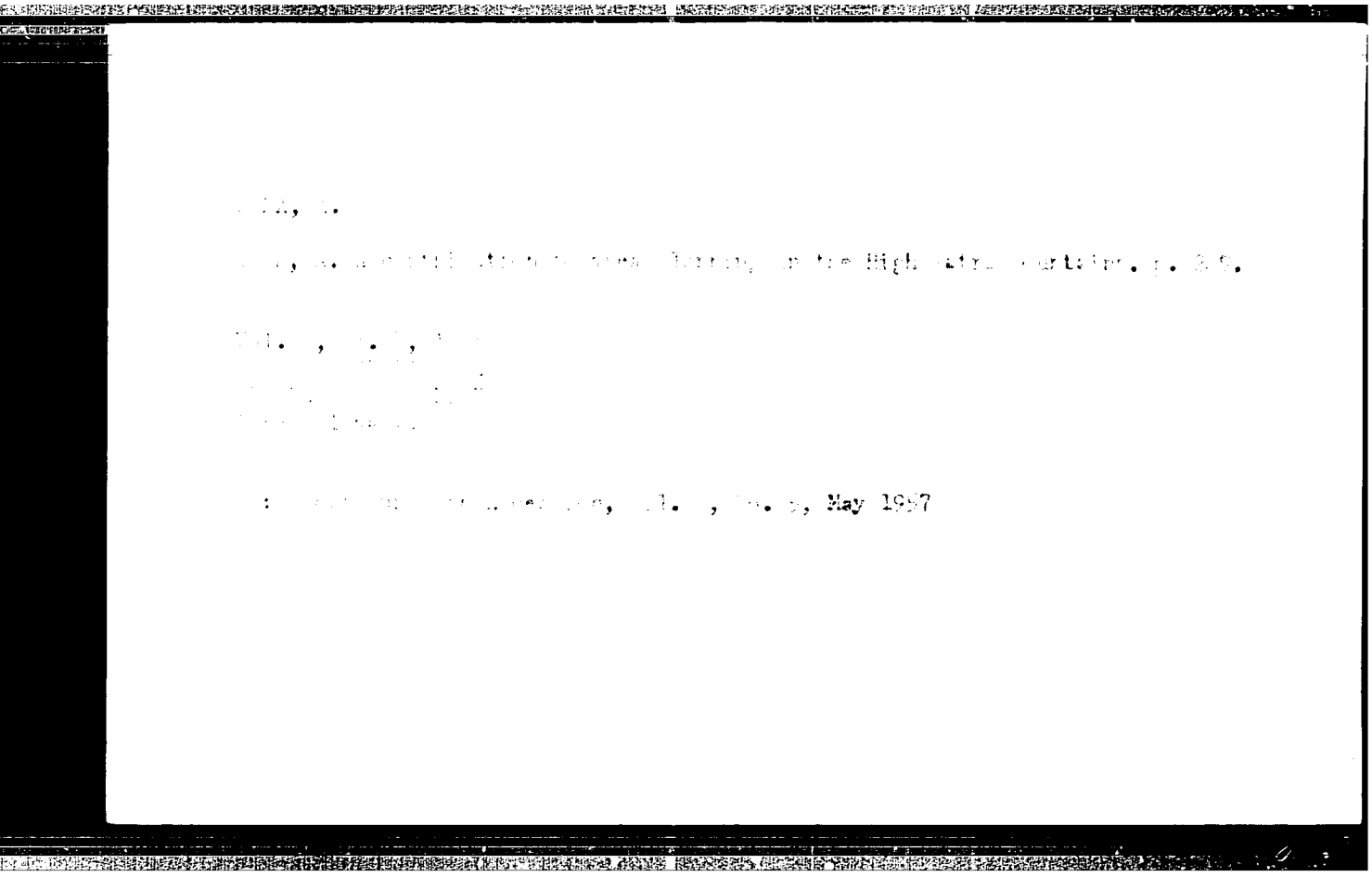


[illegible], A.

"Commuting of the populations of the Great Schutt to and from work and the problems connected with it."

p. 161. (Chesky Lid., Vol 10, No. 3, 1958, Prague, Czechslovakia)

GEOGRAPHY & GEOLOGY

Monthly Index of East European Accessions (EEAI) LC, Vol 7, No. 12, Dec 58

JIMA, A.

[illegible]OGRAPHY & [illegible]OLOGY

Periodicals: [illegible] Vol. 35, No. 12, Dec. 1959.

JIMA, . When was the first health resort founded in the Tatra Mountains? p. 476.

[illegible]

Monthly List of East European Accessions (EEAI) LC Vol. 8, No. 4, April 1959.
Unclas.

SIMA, A.

"Investigation of the High Tatra Mountains"

Geograficky Casopis. Bratislava, Czechoslovakia. Vol. 11, no. 1, 1959

Monthly list of East European Accessions (EEAI), LC, Vol. 8, No. 6, Jun 59, Unclas

SIMA, A., MUDr

Diagnosis of wrapped umbilical cord during labor. Cesk.gyn. 19 no.6:401-403 Nov 55.

1. UPMD Praha-Podoli, reditel prof. Dr Jiri Trapl
(UMBILICAL CORD,
wrapped, diag. in labor)

SIMA, A.;JURCIKOVA, V.;VALENTA, M.

Quadruplets diagnosed during pregnancy. Cesk. gyn. 24[38] no.8: 659-663 O '59.

1. Ustav pro peci o matku a dite, Praha-Podoli, reditel doc. dr. M. Vojta, zasl. lekar CSR Por. gyn. odd. KUNZ v Karlovych Varech, prednosta MUDr. V. Jurcikova.
(QUADRUPLETS)

SIMA, Antonin

Our experience with preventive administration of bismuth in sterile women. Cesk.gyn. 25[39] no.3:239-241 1960

1. Ustav pro peci o matku a dite v Praze-Podoli, reditel doc. MUDr. M. Vojta.
(STERILITY FEMALE ther.)
(SYPHILIS LATENT ther.)
(BISMUTH ther.)

SIMA, Ferenc

High school students in the printing and paper industry plants. Munka 12 no.11:16 N '62.

1. A Pedagogus Szakszervezet munkasvedelmi fofelugyeloje.

SIMA, Frantisek, inz.

Research on biological filters. Vodni hosp 13 no.7:276 '63.

[illegible], J.

"World Nutrition Situation." p. 102 (Vyziva lidu, vol. 8, no. 7/8, July/Aug. 1953, Praha)

SO: Monthly List of East European Accessions, Vol. 3, no. 7, Library of Congress, Feb. 1954, Uncl.

SIMA, Jiri, Ing.

Aerial triangulation with universal instruments. Geod kart obzor 8 no.2:21-25 F '62.

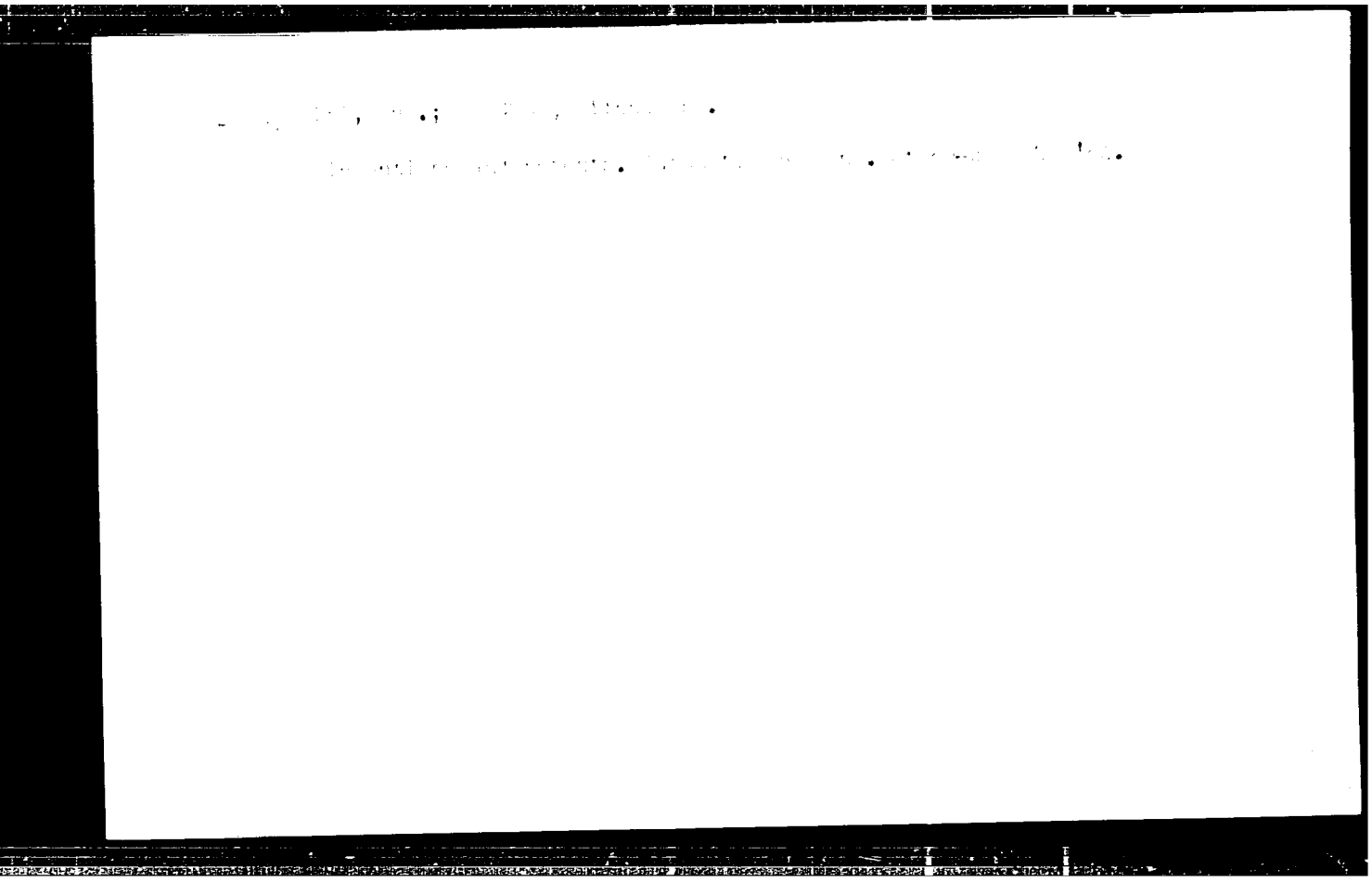
1. Geodeticky a topograficky ustav, Praha.

SIMA, Jiri, ing.; WEISSER, Milan, ing.

Two-way regulator of motor vehicle dynamo voltage. Automatizace 7 no.11:330 N '64.

SIMA, Jiri, inz., WEISSER, Milan, inz.

Inventions and patents. Automatizace 7 no.9:240-241 S '64.



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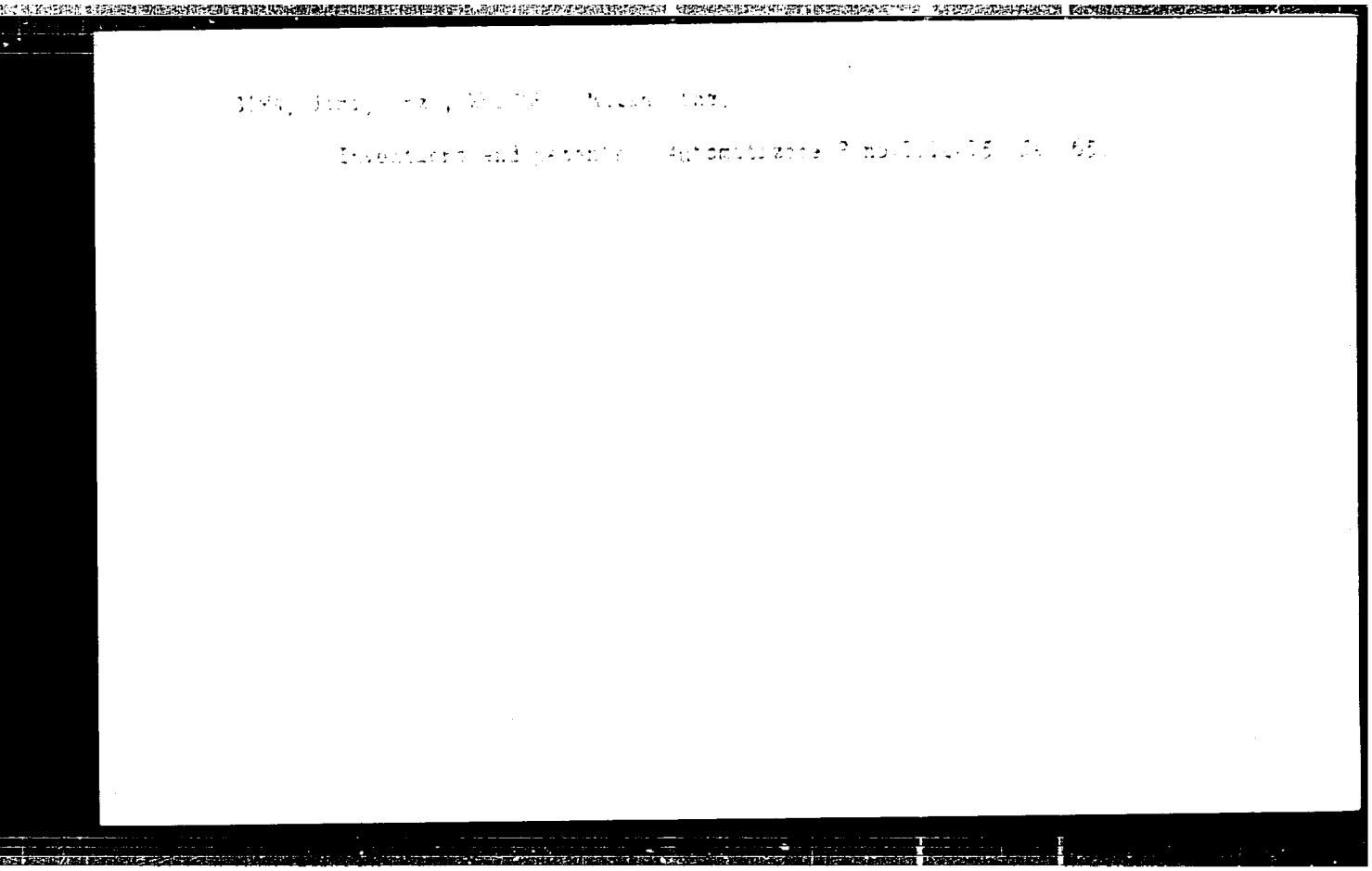
SIMA, Jiri, Inz , WEISSER, Milan, Ing.

Inventions and patents. Automatizace 7 no.12:325 D '64.



SIMA, Jiri, inz., WEISSER Milan, inz.

Inventions and patents. Automatizace 8 no.2:45-46 F '65.

SIMA, Jiri, inz.; WEISSER, Milan, inz.

Inventions and patents. Automatizace 7 no. 3:72-73
Mr '64.

ŠIMA, Jiří, ing. [illegible] Milan, ing.

Inventions and patents. Automatizace 8 no.3:77-78 Mr '65.

S/035/62/000/012/051/064
A001/A101

AUTHOR: Šima, Jiří

TITLE: Identification of control points on country and aerial photographs

PERIODICAL: Referativnyy zhurnal, Astronomiya i Geodeziya, no. 12, 1962, 17 - 18, abstract 12G122 ("Geod. a kartogr. obzor", 1962, v. 8, no. 6, 102 - 107, Czech)

TEXT: An industrial research team of the Prague Cartographic-geodetic enterprise carried out an investigation of identification accuracy of control points distributed on field roads, in forests and populated settlements. From 5 to 15 points were pinned up on every aerial photograph taken not over 11 months prior to the investigation. Then three different persons denoted consecutively with hidden nails the position of each point on the country. The largest side of the error triangle was assumed to be the error in identification of the point. The rms identification error m_1 was calculated for each group of the points. The identification accuracy of common points on photographs was compared in a similar way by means of stereoprocessing instruments by three photogrammetrists

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consecutively. Rms errors m_i' were calculated from divergences of photogrammetric coordinates. Altogether 137 points were investigated. The values of m_i and m_i' varied within the range ± 0.07 - $\pm$ 0.45 m and ± 0.12 - 1.00 m. 10% of points selected on aerial photographs on roads and in populated settlements on the country could not be identified in view of changes occurred. It is pointed out that the error in a point identification on the country by two observers should not exceed 30 cm. Positions of non-fixed control points is determined by the formula:

$$m_p = \pm \sqrt{m_i^2 + m_i'^2 + m_o},$$

where m_o is rms error in determining a point by geodetic (category A) or photogrammetric (category B) methods. According to the Czechoslovakian instruction for 1 : 10,000 - 1 : 5,000 surveys, part II, published in 1959, error m_o for control points of the A category should not exceed ± 0.25 m for initial points of phototriangulation and ± 0.50 m for other control points, and ± 0.70 m for B-category control points. It is proposed, while checking identification, to carry out the linear bridging of a control point to three contour points on lo-

Identification of control points on... S/035/62/000/012/051/064
A001/A101

cality, whose images are pronounced on aerial photographs. Divergences between distances from the control point to the contour point, measured on locality and calculated from photogrammetrically determined coordinates, should not exceed 3 m.

N. Modrinksiy

[Abstracter's note: Complete translation]

Card 3/3

SIMA, Jiri, inz.

Automation of technical and economic mapping by photogrammetric methods. Geod kart obzor 8 no.12:236-237 D '62.

1. Geodeticky a topograficky ustav, Praha.

SIMA, Jiri, inz.

Contribution to the experimental research on photogrammetric mapping of densely built areas. Geod kart obzor 10 no.8:187-190 Ag '64

1. Institute of Geodesy and Topography, Prague.

PRUSA [illegible] KUDELASEK, Radim, inz. CSc.; MARSIK [illegible] inz. CSc.; KRATKY, Vladimir, doc. inz. CSc.; PICHLIK, Vaclav, inz. CSc.; SIMA, Jiri, inz.; GAL, Pavel, prof. dr. inz.; SKLADAL, Ladislav, inz.

Tenth Congress of the International Photogrammetric Society. Geod kart obzor 11 no.4:100-107 Ap '65.

1. Chairman of the Central Administration of Geology and Cartography, Prague (for Prusa). 2. Antonin Zapotocky Military Academy, Brno (for Kudelasek and Kratky). 3. Research Institute of Geodesy, Topography and Cartography, Prague (for Marsik, Pichlik). 4. Institute of Geodesy and Topography, Prague (for Sima). 5. Slovak Higher School of Technology, Bratislava (for Gal). 6. Central Administration of Geology and Cartography, Prague (for Skladal).

Gas chromatography of monohydric phenols. Jaroslav Janák, Radko Komers, and Jiří Šima (Československá akad. věd, Brno, Czech.). *Chem. listy* 52, 2296–310(1958).—With increasing polarity of the mols. of the stationary phase appears a certain selectivity manifested by a relative increase in the adsorption of strongly polar phenols, eventually by a lowered adsorption of those phenols in which steric hindrance leads to a decrease in the dipole moment. Similarly, with increasing mol. wt. the magnitude of the dipole moment of the stationary phase falls. Likewise the selectivity falls with increasing temp. The possibility of H bond formation between the OH group of the phenol and the functional groups of the stationary phase is detd. on one hand by the magnitude of the dipole moment, on the other hand by the degree of steric hindrance. Various examples are given. Specific elution vols. (chromatographic spectra) of 19 phenols on 15 nonpolar and polar phases are tabulated. Of these Apiezon L or dimethylpolysiloxane are suitable for sepn. according to the C no. and erythritol or glucose ethylenemercaptal for sepn. according to the degree of steric hindrance of the OH group. Optimal temp. of sepn. is 150–70°. The reproducibility and validity of the measured surfaces below the elution curve of the chromatogram was studied in relation to the wt. and molar compn. of the mixts. in H and N as supporting gases. In N the deviations of the wt.-% obtained from the surfaces without calibration are in error by about 10 wt.-% of the content of the component, while in H the error for isomers with an equal no. of C atoms in the mol. is smaller, i.e. 2 wt.-% and about 10 wt.-% for the 1st and 2nd member of a homologous series. In neither case can mixts. of homologous phenols be analyzed without calibration.

L. J. Urbánek

Distr: 4E2c(j)/4E3d

L 38576-66 T IJP(c)

ACC NR: AP6027661 SOURCE CODE: CZ/0024/66/000/003/0071/0076

AUTHOR: Sima, Jiri (Engineer)

ORG: Institute of Geodesy and Cartography, Prague (Ustav geodezie a kartografie)

TITLE: New areas of the use of photogrammetry in industry

SOURCE: Geodeticky a kartograficky obzor, no. 3, 1966, 71-76

TOPIC TAGS: photogrammetry, industrial development

ABSTRACT: The article discusses the problems in the use of photogrammetry in industry and describes instruments for near photogrammetry. Examples are given of the application of ground photogrammetry in industrial surveying. This paper was presented by Engineer Ladislav Skladal, Candidate of sciences. Orig. art. has: 2 figures. [Based on author's Eng. abst.] [JPRS: 36,844]

SUB CODE: 08, 05 / SUBM DATE: none / ORIG REF: 003 / OTH REF: 010

Card 1/1 FV UDC: 528.7 (21)

SIMA, Jiri, inz.

Use of photogrammetry and automatic computers in transportation projects. Geod kart obzor 10 no.9/10:239-245 O '64

New method of mechanizing the dump volume determination by means of photogrammetry and automatic computers. Geod kart obzor 10 no. 9/10:256-260, 212 O '64

SIMA, Jiri, inz.

Determination of cubic content in quarries and surface mines by photogrammetric methods with mechanized calculation. Geod kart obzor 9 no. 5: 133-137 My '63.

1. Geodeticky a topograficky ustav, Praha.

SIMA, Jiri, inz.

Determination of the cubic content in quarries and surface mines by photogrammetric methods with mechanized calculation. Geod kart obzor 9 no. 6: 151-155 Je '63.

1. Geodeticky a topograficky ustav, Praha.

SIMA, Jiri, inz.

Transistor circuits for dynamo output control. Sdel tech 10 no.8:292-294 Ag '62.

SIMA, Jiri, inz.

Circuits with controlled semiconductor rectifiers, and their patentability. Sdel tech 11 no.4:143-145 Ap '63.

SIMA, Jiri, inz.

Transistors in ignition circuits of combustion engines.
Sdel tech 11 no.11: 423-425 N'63.

ŠIMA, Jiri, inz.

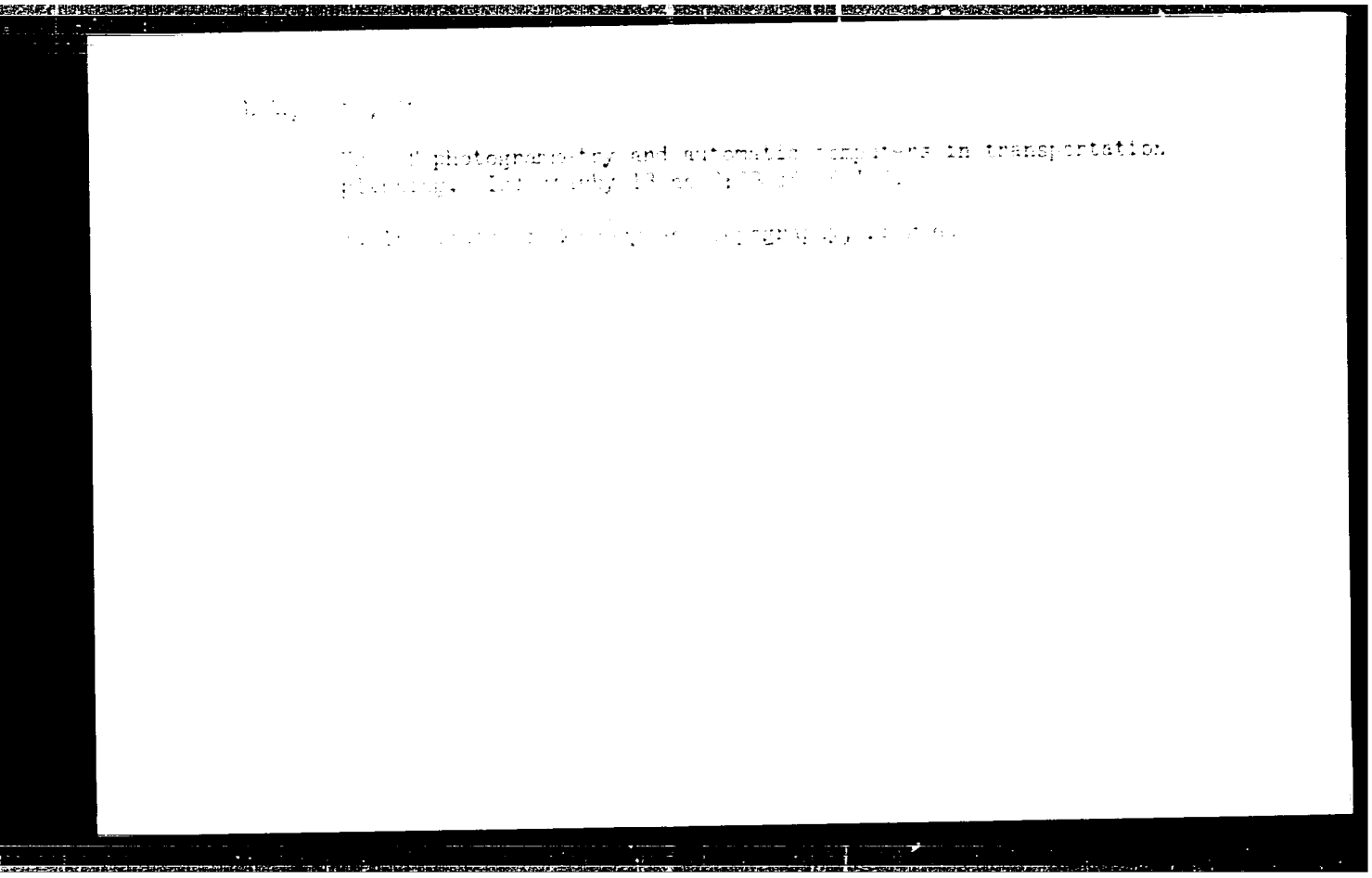
Determining the control points by the double approach method.
Geod kart obzor 10 no. 1: 5-13 '64.

1. Geodeticky a topograficky ustav, Praha.

[illegible], [illegible], [illegible].

[illegible] determining the cubic content [illegible]. [illegible] 164.

1. [illegible] of [illegible] and Topography, [illegible].



SIMA, J.

Sima, J.; Kusy, V. Experiences with the analysis of ethyl fluids. p. 162.
CHEMICKY PRUMYSL. Praha. Vol. 5, no. 4, Apr. 1955.

SO: Monthly List of the East European Accession, (EEAL), LC. Vol. 4, no. 10, Oct. 1955. Uncl.

DEMEL, J., MUDr.; SIMA, J., MUDr.

Blunt injury to the liver. Rozhl. chir. 35 no.4:216-220 Apr 56.

1. Z chirurgickeho nemocnice v Ostrave I, prednosta doc. MUDr. Cestmir Vohnout.
(LIVER, wds. & inj.
blunt inj., surg. (Cz))

SEIA, N.

New thermal methods for refining copper in rotating-tilting furnaces. Metallurgy and Machine Construction, #3:13:Mar. 55

SIMA, P., lector (Brasov)

Considerations on the dynamics of a drop of water. Gaz mat fiz 15 no.11:627-633 N '63.

27824

R/009/61/000/001/005/005
D224/D302

24.4200

AUTHOR: Sima Petre, Engineer

TITLE: Calculating the resistance of pieces subjected to bending at high temperatures

PERIODICAL: Metalurgia şi construcţia de maşini, no. 1, 1961, 76-80

TEXT: The article presents some formulae which may be used for calculating the resistance of pieces subjected to bending at high temperatures, taking into consideration the creeping phenomenon. Considered is a straight bar with two symmetry axes subjected to pure bending, one of the axes being located in the bending plane. The deformation process of the bar is produced by unitary forces, invariable in time, however, different from those of the initial moment. Supposing that the fiber deformation of the material respects the same law in both the stretched zone and the compressed zone, the total deformation of a fiber is the sum of the specific elastic de-

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Calculating the resistance...

formations and the specific deformations due to the creeping phenomenon: $\varepsilon = \varepsilon_{el} + \varepsilon_c$. Neglecting the velocity of the elastic deformation, the variation velocity of the total deformation will be expressed by $v = \frac{d\varepsilon_c}{dt} = y \frac{d}{dt}\left(\frac{1}{\rho}\right) = v_c$, being the curvature radius of the neutral plane of the bar. Thus, $v_c = \frac{d\varepsilon_c}{dt}$ represents the deformation velocity due to the creeping phenomenon. Of the various relations recommended for v_c, the author selected $v_c = K\sigma^n$, in which K and n are the coefficients which depend on the properties of the material and the temperature of the tests. Starting with the expression of the bending moment

$$M_x = \int_A \sigma y \, dA = \Phi \int_A y \frac{n+1}{n} \, dA,$$

the author deduces the expression of the unitary force

$$\sigma = \frac{M_x}{I_{nx}} \cdot y^{\frac{1}{n}}$$

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Calculating the resistance...

in which I_{nx} represents the generalized moment of inertia. This formula may be used for calculating the normal unitary forces at every point of the section, and the unitary force σ_{max}. The calculation difficulty consists in determining I_{nx}. In a rectangular section, I_{nx} is calculated by

$$I_{nx} = 2b \int_0^{\frac{h}{2}} y^{\frac{n+1}{n}} dy = \frac{1}{2^{\frac{n+1}{n}}} \cdot \frac{n}{2n+1} b \cdot h^{\frac{2n+1}{n}} .$$

In the plain circular section, by using the gamma functions, I_{nx} is given by:

$$I_{nx} = \frac{n}{2(3n+1)} \cdot \frac{\left[\Gamma\left(\frac{2n+1}{2n}\right)\right]^2}{\Gamma\left(\frac{2n+1}{n}\right)} \cdot D^{\frac{3n+1}{n}}$$

Denoting the generalized resistance module of the circle by:

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D224/D302

Calculating the resistance...

$$W_{nx} = \frac{I_{nx}}{\left(\frac{D}{2}\right)^{\frac{1}{n}}} = 2^{\frac{1}{n}} \frac{I_{nx}}{D^{\frac{1}{n}}} = 2^{\frac{1}{n}} \frac{n}{3(n+1)} \cdot \frac{\left[\Gamma\left(\frac{2n+1}{n}\right)\right]^2 \cdot D^3}{\Gamma\left(\frac{2n+1}{n}\right)}$$

the size of the generalized resistance module is: W_{nx} (cm^3), and thus:

$$\sigma_{max} = \frac{M_x}{W_{nx}}$$

To facilitate the calculation, the author gives graphs which show the values of the moments of inertia and generalized resistance modules for circular sections up to 15 cm in diameter, n varying between 1 and 12. In case of I and [shapes, the generalized moments of inertia are calculated by neglecting the connections and considering the sections of the profiles to consist of three rectangles. In this case, the generalized moment of inertia will be:

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Calculating the resistance...

$$I_{nx} = \int_A y^{\frac{n+1}{n}} dA = 2\left[g \int_0^{\frac{h}{2}-t} y^{\frac{n+1}{n}} dy + a \int_{\frac{h}{2}-t}^{\frac{h}{2}} y^{\frac{n+1}{n}} dy \right].$$

For both shapes, there results the following expression:

$$I_{nx} = \frac{n}{2n+1} \cdot \frac{1}{2^{\frac{n+1}{n}}} \left[ah^{\frac{2n+1}{n}} - (a-g)(h-2t)^{\frac{2n+1}{n}} \right]$$

For the Rumanian shapes [STAS 564-49 and I STAS 565-49, the author draws the curves of the generalized moments of inertia depending on the n exponent which will be used for calculating the creeping phenomenon appearing at bendings. There are 8 figures, 2 tables and 3 Soviet-bloc references.

ASSOCIATION: Institutul politehnic (Polytechnical Institute), Braşov

Card 5/5

SIMA, Petre, ing., MOSU, Nicolae, ing.

Computing the resistance of the pieces submitted to torsion at high temperatures. Metalurgia constr mas 14 no. 2:164-170 F'62.

1. Institutul politehnic, Brasov.

SIMA, Petre, lector (Brasov)

Applications of the calculus of tensors in theoretical mechanics.
Gaz mat fiz 14 no.10:519-524 O '62.

SIMA, Petre, ing.

Calculation of valve spring resistance. Constr mas 15 no.7: 514-519 Jl'63.

1. Institutil politehnic, Brasov.

SIMA, B. JANOSSY, K.

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Condition for the Production and Quality Properties of Nodular Grey Cast Iron. F. Varga, B. Köröa, E. Chaco, K. Janossy, and B. Sima. (*Kohászati Lapok*, 1954, 9, Aug., 180–192; Sept., 193–211). The development of nodular grey iron production in Hungary and other countries is reviewed. Numerous experiments in the Hungarian Iron and Steel Research Institute confirm the principle that a successful inoculation depends both on the low carbon content and on the superheating of the melt. An increasing steel scrap content in the charge decreases the carbon content in the melt. Simultaneously an increase in tensile strength was observed in case of properly performed inoculations. The inoculation effect of CaSi has always been found better than that of FeSi.—J. K.

VARGA, Ferenc; KOROS, Bela; CHAPO, Elek; JANOSSY, Kazmer; SIMA, Rezso

Manufacturing conditions and properties of modified cast iron. Pt. 2. Koh lap 9 no. 9: Supplement: Ontode 5 no. 9: 193-208 S '54.

VARGA, Ferenc; KALMAN, Lajos; SIMA, Rezso

Experiences in the operation of basic cupola furnaces. Koh lap 12 no. 10: Supplement: Ontode 8 no. 9/10:204-207 S-O '57.

1. Vasipari Kutato Intezet es a Csepel Vas-es Ace lontodek.
2. "Kohaszati Lapok" szerkeszto bizottsagi tagja (for Kalman).

SIMA, V.

"Experiences with the production of cement paving blocks." (p. 154). STAVIVO (Ministerstvo stavebnich hmot) Praha, Vol 32, No 4, Mar. 1954.

SO: East European Accessions List, Vol 4, No 8, Aug 1954

SIMA, V.

SIMA, V. Methods of processing materials used in manufacturing ceramic tiles and the effect of processing on quality of finished products. p. 52

Vol. 34, no. 2, Feb. 1956
STAVIVO
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Praha, Czechoslovakia

So: East European Accession Vol. 6, no. 2, 1957

SIMA, V.

TECHNOLOGY

Periodical: STAVIVO. Vol. 36, no. 12, Dec. 1958.

SIMA, V.; SNEBERK, J. Present situation and trends of development in the production of burned, glazed wall tiles. p. 468.

Monthly List of East European Accession (EEAI) LC, Vol. 8, no. 3 March 1959 Unclass.

L 18311-65 EWT(m)/EPR/T/EWP(t)/EWP(b) Ps-4 IJP(c)/AFTCP JD
ACCESSION NR: AP4049301 Z/0055/64/014/011/0851/0860

AUTHOR: Sima, V.

TITLE: Temperature dependence of growth rate of grains during recrystallization of aluminum alloys

SOURCE: Chekhoslovatskiy fizicheskiy zhurnal, v. 14, no. 11, 1964, 851-860

TOPIC TAGS: aluminum alloy, recrystallization, metallographic method, grain growth rate

ABSTRACT: The growth rate of grains during the recrystallization of AlAg 20% Cu 3.5% and AlAg 20% alloys deformed by 2.75% of the elongation was studied by a modified metallographic method. Specimens were first partly transformed into single crystals; the migration rate of the single-crystal boundaries into a polycrystalline deformed matrix was then observed during annealing. The growth of grains in the alloys studied proceeded much more slowly than in pure aluminum, probably owing to the low driving force of the pro-

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ACCESSION NR: AP4049301

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cess. (This force is represented by the loss of free energy during the transfer of one atom from the deformed grain to the growing single crystal.) The activation of grain growth Q was derived from the experimentally determined temperature dependence of the migration rate of grain boundaries. This dependence was correlated with the mean square amplitudes of the thermal vibrations of atoms. The dependence of Q on interatomic cohesion forces was found to be very conspicuous. Orig. art. has: 3 figures, 4 formulas, and 2 tables.

ASSOCIATION: Institute of Solid State Physics, Czech. Acad. Sci., Prague

SUBMITTED: 08Jan64 ENCL: 00 SUB CODE: MM, SS

NO REF SOV: 001 OTHER: 000

Card 2/2

L 43576-65 EWG(j)/EWT(l)/EWP(e)/EWT(m)/EPF(c)/EWP(i)/EPR/T/EWP(t)/EEC(b)-2/EWP(b)/EWA(c) Pr-4/Ps-4/Pi-4 IJP(c) JD/WW/GG/WH

ACCESSION NR: AT5009586 Z/0000/62/000/000/0229/0230

AUTHOR: Sima, V. (Shima, V.)

TITLE: The recrystallization method for the preparation of single crystals of multiple aluminum alloys

SOURCE: Konference o monokrystalech. 4th, Turnov, 1961. Sbornik referatov. Turnov, VUM, 1962, 229-230

TOPIC TAGS: crystal growth, alloy crystal, aluminum alloy crystal, multicomponent alloy, recrystallization method, copper alloy, silver alloy

ABSTRACT: A method of recrystallization for an AlAgCu alloy (Ag 20%, Cu 3.5%) is described in order to prove that this difficult process is possible if maximum care is taken in forming crystallization nuclei and guaranteeing continuous growth during recrystallization. Granules of 99.99% pure aluminum, coarse doubly-electrolyzed silver crystals (99.9% pure), and 99.99% electrolytic copper were melted together in an argon atmosphere in sealed "Supremax" glass ampules coated with graphite. Each ampule contained 100 grams with a volume of about 50 cm^3 and they were vigorously mixed while being heated at 750 C in an annealing furnace. After repeated mixing they were poured in air into cold copper molds and suddenly chilled with water, forming ingots 100 x 30 x

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