

SVESHNIKOVA, Ye.V.

Structure of the Kumba gabbroid massif and magnetite deposits
associated with it (Southern Ural). Trudy IGEM no.41:48-66 '61.
(MIRA 14:8)
(Ural Mountains--Gabbro) (Ural Mountains--Magnetite)

SVESHNIKOVA, Ye. V.; SHABYNIN, L. I.

Green clinopyroxenes from skarns and some other metasomatic
formations. Zap. Vses. min.ob-va 90 no.2:207-219 '61. (MIRA 14:9)
(Pyroxenes)

VOROB'YEVA, Ol'ga Anisimovna; SAMOYLOVA, Natal'ya Viktorovna;
SWESHNIKOVA, Yekaterina Vladimirovna; ~~AFANAS'YEV, G.D., lotv. red.~~;
MERGASOV, G.G., red.izd-va; POLENOVA, T.P., tekhn.red.

[Gabbro-pyroxenite-dunite belt in the Central Urals] Gabbro-
piroksenit-dunitovyi poias Srednego Urala. Moskva, Izd-vo Akad.
nauk SSSR, 1962. 318 p. (Akademia nauk SSSR. Institut geologii
rudnykh mestorozhdenii, petrografii, mineralogii i geokhimii.
Trudy, no.65). (MIRA 15:6)
(Ural Mountains--Ore deposits) (Ural Mountains--Rocks, Igneous)

SVESHNIKOVA, Ye. V.; KALENCHUK, G. Ye.

Lithium, rubidium, and cesium in alkali rocks of the Yenisey Ridge. Geokhimiya no.12:1055-1065 '62. (MIRA 16:9)

1. Institute of the Geology of Ore Deposits, Petrography, Mineralogy and Geochemistry, Academy of Sciences, U.S.S.R., Moscow.

(Yenisey Ridge--Rocks, Igneous--Analysis)
(Yenisey Ridge--Alkali metals)

SVESHNIKOVA, Yo.V.

Behavior of some groups of chemical elements in the formation of nepheline-syenites of the Yenisey Ridge. Trudy IGEM no.76:125-142 '62. (MIRA 15:9)
(Yenisey Ridge--Nepheline syenite)

AFANAS'YEV, G.D., otv. red.; VOROB'YEVA, O.A., red.; USTIYEV, Ye.K.,
red.; KUZNETSOV, Ye.A., red.; TSVETKOV, A.I., red.;
KOPEV-DVORNIKOV, V.S., red.; SVESHNIKOVA, Ye.V., red.;
MIRAKOVA, L.V., red. izd-vap RYLINA, Yu.V., tekhn. red.

[Magmas and the origin of igneous rocks] Problemy magmy i
genezisa izverzhennykh gornykh porod. Sbornik posviashchen-
nyi stoletiiu so dnia rozhdeniia Frants Ul'evicha Levinsona-
Lessinga. Moskva, 1963. 271 p. (MIRA 16:7)

1. Akademiya nauk SSSR. Otdeleniye geologo-geograficheskikh
nauk. Chlen-korrespondent AN SSSR (for Afanas'yev).
(Magma) (Rocks, Igneous)

AFANAS'YEV, G.D., glav. red.; VOROB'YEVA, O.A., red.; APEL'TSIN,
F.R., red.; USTIYEV, Ye.K., red.; LEBEDEV, A.P., red.;
SVESHNIKOVA, Ye.V., red.

[Origin of alkali rocks; transactions] Proiskhozhdenie
shchelochnykh porod; trudy. Moskva, Nauka, 1964. 146 p.
(MIRA 17:11)

1. Vsesoyuznoye petrograficheskoye soveshchaniye. 3d.
2. Chlen-korrespondent AN SSSR (for Afanas'yev).

SVESHNIKOVA, Ye.V.; ENYAZINA, S.N.; MILITREVA, M.T.

Metamict thorites from nepheline syenite rocks in the Yenisey
Range. Trudy Min. muz. no. 15:239-246 '64.

(MIRA 17:11)

SVESINIKOVA, Ye.V.

Activities of the Petrographic Group of the Institute of the
Geology of Ore Deposits, Petrology, Mineralogy, and Geochemistry.
Izv. AN SSSR. Ser. geol. 29 no.9:120 S '64.

(MIRA 17:11)

SVESHNIKOVA, Ye.V.; BUROVA, T.A.

Minerals of the eudialyte and catapleite group from nepheline
syenites in the Yenisey Range. Trudy Min.suz. no.16:187-197 '65.
(MIRA 1838)

SVESHNIKOVA, Ye.V.; ZHABIN, A.G.; YAKOVLEVSKAYA, T.A.; ALEKSANDROV, V.B.

Columbite containing titanium from alkali massifs. Trudy Min.muz.
no.163266-270 '65. (MIRA 18:8)

PETERSIL'YE, I.A.; ANDREYEVA, Ye.D.; SVESHNIKOVA, Ye.V.

Hydrocarbon gases and disseminated bitumens in the rocks of some
alkali massifs in Siberia. Dokl. AN SSSR 161 no.3:670-672 Mr '65.
(MIRA 18:4)

1. Institut geologii rudnykh mestorozhdeniy, petrografii,
mineralogii i geokhimii AN SSSR i Geologicheskii institut Kol'-
skogo filiala AN SSSR. Submitted November 24, 1964.

PETERSIL'YE, I.A.; ANDREYEVA, Ye.D.; SVESHNIKOVA, Ye.V.

Organic matter in the rocks of some alkali massifs in Siberia.
Izv. AN SSSR, Ser. geol. 30 no.6:26-38 Je '65.

(MIRA 18:6)

1. Geologicheskii institut Kol'skogo filiala im. S.M. Kirova
AN SSSR, g. Apatity, i Institut geologii rudnykh mestorozhdeniy,
petrografii, mineralogii i geokhimii AN SSSR, Moskva.

JVESTKA, E. Ustav Pracovniho Lekarstvi na Kladne. Analysa nemocnosti v
Thomasove ocelarne Analysis of diseases occurring in the Thomas Steel Works Casopis
Lekaru Ceskych, Prague 1949, 88/22 (613-618) Graphs 4 Tables 2

An analysis of 109 workers employed in the Thomas Steel Works. It was found that
34.84% of 22,467 lost working days were due to injuries, 24.64% were ascribed to
infectious diseases and 24% to gastric and pulmonary diseases.

Hora-Brno (VI,4)

SO: Medical Microbiology and Hygiene, Section IV, Vol 3, No 1-6

SVESTKA, B.

Problem in rotation of workers exposed to silicosis hazards in foundries. Pracovni lek. 2 no.6:313-317 Dec 50. . (CLML 20:6)

1. Institute of Industrial Medicine, Kladno.

SVESTKA, B

SVESTKA, B.

Medical care of workers. Zdravot. rev. 25:10, Oct. 50, p.
268-71.

CML 20, 3, March 1951

SVESTKA, Bedrich

evaluation of the previous year and the thematic plan of the
journal Pracovni lekarstvi for 1954. Pracovni lek 6 no.2:66-69
Ap '54. (REAL 3:8)

(INDUSTRIAL HYGIENE,

*Czech. journal Pracovni lekarstvi)

(PERIODICALS,

*Czech. journal Pracovni lekarstvi)

SVESTKA, Bedrich, MUDr; KLIMA, Tomas, MUDr

Task of the industrial health service in prevention of injuries.
Pracovni lek. 6 no.5:265-267 15 Oct 54.

(INDUSTRIAL HYGIENE

in Czech., health serv. in prev. of inj.)

(WOUNDS AND INJURIES, prevention and control

indust. health serv. in Czech.)

SVESTKA, Bedrich, Dr.

Industrial hygiene on the threshold of the second 5-year
plan. Pracovni lek. 8 no. 1: 1-3 Jan 56.

(INDUSTRIAL HYGIENE,
in Czech. (Czech))

EXCERPTA MEDICA Sec. 17 Vol. 3/8 Public Health Aug. 57

SVESTKA B.
2515. SVESTKA B. and KLÍMA T.*Příspěvek k evidenci a rozboru profesionální
urazovosti. Contribution to the evidence and analysis of an
occupational accident rate PRACOVNÍ LÉKARSTVÍ (Praha) 1956,
8/5 (341-349) Graphs 4 Tables 6 Illus. 3

The problem of accident prevention is divided into technical and organizational, public health and medical, and completed by the trade-union education of the employees for safe and healthy work. Recording of the incidence of accidents and morbidity on IBM punch-cards and their elaboration in the mechanical calculating centre, which makes the following statistical computations, is described: the list of all new accidents in the month, both occupational and non-occupational, workers and clerks being listed separately; a list stating the commencement of working incapacity due to accidents; a list stating the termination of working incapacity due to accidents. By analysis of the accident rate according to the number of years of employment in the factory the conclusion is arrived at that 57 to 68% of all accidents affect employees working in the factory for less than 5 yr. It is a problem of new and young employees. Young employees up to 15 yr. constitute from 20 to 28% of the total accident rate. A detailed analysis is given of the accident rate in rolling-mills for one month. Establishment and evaluation of the causes of accidents is the most difficult part of the morbidity analysis. The term 'own fault' which does not explain anything and hinders the campaign against accidents is rejected. On the basis of the authors' own and the Soviet experience, a new classification of causes of accidents is presented. A unified classification of accident causes cannot be established for all accidents, and the classification must be differentiated for accidents associated with work, sports, youth, etc.

SVESTKA, Bedrich, Doc. MUDr.

Prospect of incorporation of industrial hygiene and occupational diseases into a single complex specialty. Pracovni lek. 9 no.3: 177-180 June 57.

1. Lekarska fakulta hygienicka Karlovy university.

(INDUSTRIAL HYGIENE,
incorporation of indust. hyg. & occup. dis. into
specialty (Gz))

(OCCUPATIONAL DISEASES,
same)

BOUSKA, J.; JINDRICOVA, J.; PACHNER, P.; SKRIBKOVA, E.; SVESTKA, B.; TAUFROVA, M.

Tasks of regional health services in the care of workers. Cesk. zdravot
6 no.9:528-539 Sept 58.

(INDUSTRIAL HYGIENE

role of regional health serv. in care of workers (Gz))

SVESTKOVA, V.; SVESTKA, B.; FRAJBIS, Z.

Hygienic evaluation of the hazard to generator-station workers through the chronic exposure to carbon monoxide. J. Hyg. Epidem., Praha 3 no.3:339-355 1959

1. Lehrstuhl für Arbeitshygiene und Berufskrankheiten der medizinischen Hygiene-Fakultät der Karlsuniversität, Prag und Abteilung für Arbeitshygiene der Hygiene-Epidemiologie Station des Bezirksnationalausschusses Prag-Land.

(CARBON MONOXIDE, eff inj)

KLIMA, Tomas, Dr.; SVESTKA, Bedrich, Dr.

Accident and disease statistics in industrial districts of the Kladno
Public Health Industrial Administration. Pracovni lek. 11 no.1-2:99-104
Feb 59.

1. ZUNZ SOMP Kladno a Lekarska fakulta hygienicka KU.
(OCCUPATIONAL DISEASES, statist.
in Czech. (Cz))
(ACCIDENTS, INDUSTRIAL, statist.
same)

SVESTKOVA, V.; ZACEK, J.

Hazards of asbestosis in workers of plants processing asbestos.
Pracovni lek. 12 no.2:59-64 Mr '60.

1. KHES-Praha, reditel MUDr. I. Hofta.
(ASBESTOSIS statist.)

L 29477-66

ACC NR: AP6019955

SOURCE CODE: CZ/0079/65/007/003/0241/0242

AUTHOR: Vinar, O. (Prague); Kulhankova, O.; Jirackova, H.; Svestka, J.; Hubert, J.; Hlavackova, M.; Tomanova, M.; Rikovsky, S.; Strnad, M.; Kloubek, A.; Nahunek, K.; Bartova, D.; Svestkova, E.; Zachova, J.; Cerny, M.; Klik, J.; Ledererova, E.; Topiar, A.; Tesarova, O.; Molcan, J.; Horak, J.; Baudis, P.; Sobotkovicova, J.; Chloupkova, K.; Bojanovsky, J.; Kubicek, V.; Hankovasky, M.; Vinarova, M.; Bastecky, J.; Grof, P.; Dvorakova, M.

ORG: Psychiatric Research Institute, Prague

TITLE: Controlled clinical comparison of 6 neuroleptic drugs [This paper was presented at the 7th Annual Psychopharmacological Meeting, Jeseník, 20-23 January 1965]

SOURCE: Activitas nervosa superior, v. 7, no. 3, 1965, 241-242

TOPIC TAGS: chlorpromazine, pharmacology, psychoneurotic disorder, nervous system drug

ABSTRACT: Chlorpromazine, prochlorperazine, perphenazine, thioridazine, levomepromazine, and chlorprothixene were investigated. 222 patients in groups of 35-39 were used. The effect of the drug was classified according to disappearance, decrease or no change in the symptoms. No difference in the effect of the drug upon schizophrenia symptoms was found. Orig. art. has: 1 figure. [JPRS]

SUB CODE: 06/ SUBM DATE: none ORIG REF: 002/ OTH REF: 003

Card 1/1 *fv*

L 29404-66

ACC NR: AP6019965

SOURCE CODE: CZ/0079/65/007/003/0250/0250

AUTHOR: Salac, M. (Jihlava); Svestka, J.

19
B

ORG: Internal Department, Psychiatric Hospital, Jihlava

TITLE: Liver damage in the course of phenothiazine treatment [This paper was presented at the 7th Annual Psychopharmacological Meeting, Jesenik, 20-23 January 1965]

SOURCE: Activitas nervosa superior, v. 7, no. 3, 1965, 250

TOPIC TAGS: liver, pharmacology, drug treatment

ABSTRACT: 4,100 patients were examined in the period 1961-64. 46.2% of the psychiatric patients were treated with phenothiazine ataractics. 93 instances of liver disease were found; of these 13 cases were found after administration of phenothiazines. This corresponds to an incidence of 6 per 1000 phenothiazine-treated patients. Of the 13 cases 11 were icteric and 2 anicteric. The 2 anicteric cases returned to a normal state 19-31 days after the withdrawal of the drug; in the icteric cases jaundice disappeared in 6 to 59 days after the drug was withdrawn, but only in 4 did the liver return to normal functioning. The course of the disease was in all cases benign with one exception; this was controlled with corticoid treatment and the intestine was sterilized with Neomycine. [Orig. art. in Eng.] [PKS]

SUB CODE: 06/ SUBM DATE: none
Card 1/1 CC

M SVESTKA, L.

7

• Use of Complexones in Chemical Analysis. V.—The Chromometric Determination of Trivalent Cobalt. R. Pribil and L. Svestka (*Coll. Trav. Chim. Technol.*, 1950, 15, (1/2), 31-41).—[In English]. Cf. *ibid.*, 1949, 14, (8/10), 444; *Met. Abs.*, 1949-50, 17, 839. A solution in very dil. HCl of Co and ethylenediamine tetra-acetic acid is oxidized by heating at 100° C. with $K_2Cr_2O_7$, the solution is diluted, made more acid, and excess $K_2Cr_2O_7$ reduced with Na_2SO_3 which does not affect the Co^{III} complex. The Co is then titrated potentiometrically in an inert atmosphere with $CrCl_3$. Mn, Ni, Zn, Cr, and Al do not interfere.—F. M. L.

7100. 1957

CZECHOSLOVAKIA

HADLIK, J.; ~~SVESTKA, J.~~ Psychiatric Hospital, Jihlava. [Orig. version not given].

"Clinical Experience with Proheptatrine VUFB."

Prague, Activitas Nervosa Superior, Vol 8, No 4, Nov 66, pp365-366

Abstract: Proheptatriene was administered to 32 patients suffering from depression; the treatment was continued for 4 weeks. In 5 cases the treatment had to be discontinued because of an aggravation of the somatic state. A substantial improvement was achieved in 5 patients, slight in 9, and moderate in 5. 13 patients did not improve. Undesirable side effects appeared in 14 patients. The effect of the drug appeared within the first week of treatment. The clinical effect of the drug resembles that of amitriptyline. Apart from its antidepressive action, it also has a sedative and hypnotic action. Because of its quick action it is suitable for treatment of non-hospitalized patients. 1 Figure, no references. Submitted at the 8th Annual Psychopharmacological Meeting at Jesenik on 18 - 22 Jan 66, Article is in English.

1/1

SVESTKA, L.

2

USSR

2485. Determination of labile sulphur in photographic gelatin. *Svestka, L. Tr. Vsesoyuzn. Nauch. Issled. Inst. Fotofiz. i Fotohim., 1953, 6 (5-6), 81-84; Ref. Zh. Khim., 1954, Abstr. No. 46855.* The following methods for the determination of organically combined S in gelatin are compared: (i) Sheppard and Haslam (*Ind. Eng. Chem., Anal.*, 1930, 4, 73-75); (ii) Steigmann (*Sci. Ind. Photogr.*, 1949, 20, 318-319); (iii) Abricht (*Sci. Ind. Photogr.*, 1941, 12, 1). The third is the most accurate; this is based on reaction of the labile S with ammoniacal soln. of $AgNO_3$ to form Ag_2S , and potentiometric determination of the excess of $AgNO_3$ with thiocrea or allylthiourea soln., an Ag_2S electrode being used. The method is applied to a study of the kinetics of sulphur cleavage in the hydrolytic decomposition of gelatin. E. HAVES

MAJ gee

SVESTKA, L.

How to determine the degree of washing in photographic emulsions. L. Svestka. *Chem. Průmysl* 5, 239-43 (1955).
—The effect of type and concn. of photographic gelatin on the potential of Ag electrodes in the soln. of AgBr emulsion at various temps., Ag-ion concns., and pH values was studied. These factors influence the pBr value. The solubilities of AgCl, AgBr, and AgI at higher temps. were measured by a concn. cell with the test soln. on one side and 0.01N AgNO₃ on the other side. As a result of this study, the following procedure to test the Ag potential in the emulsion is sug-

Photo

gested: The sample of emulsion nodules is dissolved on a water bath at 40° in seraldarkness. A Ag electrode, a KNO₃ salt bridge connected at the other end with an unsatd. HgCl₂-electrode, elec. stirrer, and a thermometer are immersed in the soln. One to 3 min. after the temp. of the emulsion has reached 40° the electrode attains a const. potential which is a measure for the degree of washing. This potential is then converted to the pBr value by means of a chart.
L. A. Helwich

SVETKA, M.

CZECHOSLOVAKIA

MATYSKA, D.; SVETKA, M.; MACEK, K.

Institute of Physical Chemistry, Czechoslovak Academy of Sciences, Prague
(for all)

Prague, Collection of Czechoslovak Chemical Communications, No 2, Feb
1966, pp 659-673

"Interaction in the polymerization system isoprene-solvent-aluminum
bromide."

SVESTKA, Z.

Briefly about our factory labor school. p. 119.
MECHANISACE ZEMEDELSTVI. Vol. 5, No. 6, Mar. 1955

SO: Monthly East European Accession, (EEAL), LC, Vol. 4, No. 9, Sept. 1955 Uncl.

SVESTKA, Z.

"Recurrent and Revived Active Regions on the Sun." p. 186. (Biulleten
Astronomicheskikh Institutov Chekhoslovakii. Bulletin of the Astronomical Institutes
of Czechoslovakia. Vol. 4, no. 6, Dec..1953. Praha).

SO: Monthly List of ~~Russian~~ Accessions East European Vol. 3, No. 6 Library of Congress, June 195⁴, Uncl.

SVESTKA, Z.

"Rotation of the stars." (p.182). RISE HVEZD. (Ceskoslovenska spolecnost astronomicka) Praha. Vol. 34, No. 8, Nov 1953.

SO: East European Accessions List, Vol. 3, No. 8, Aug 1954.

SVETKA, Z.

Svestka, Z. How we determine the temperature of stars. p.48.

Vol. 4, no. 4, Aug. 1954 CASOPIS CESKOSLOVENSKYCH USTAVU ASTRONOMICKYCH.
Praha, Czechoslovakia

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 5, No. 2
February, 1956

SVESTKA, Z.

"A Note on the Dwarf Flare Stars. In English." p. 4. (BIULLETEN ASTRONOMICHSKIKH INSTITUTOV CZECHOSLOVAKII. BULLETIN OF THE ASTRONOMICAL INSTITUTES OF CZECHOSLOVAKIA. Vol. 5, No. 1, Feb 1954; Praha, Czech.)

So: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, No. 4, April 1955, Uncl..

SVESTKA, Z.

"Secondary periods of long periodic variables. In English." Biulleten Astronomicheskikh Institutov Chekhoslovakii. Bulletin of the Astronomical Institutes of Czechoslovakia, Praha, Vol. 5, No. 3, June 1954, p. 49.

SO: Eastern European Accessions List, Vol. 3, No. 11, Nov. 1954, L.C.

~~SHVESTKA~~, Zd. [Svestka, Zd.]

Physical properties of chromospheric flares. Izv. Krym. astrofiz.
obs. 16:209-211 '56. (MIRA 13:4)

1. Astronomicheskiy institut Chekchoslovatskoy akademii nauk,
Praga.

(Sun)

SVESTKA, Z.; FRITZOVA, L.

Conditions of temperature and the state of excitation in the chromospheric eruptions.

P. 56, (Casopis Ceskoslovenskych Ustava Astronomickych) Vol. 7, no. 5, June 1957
Praha, Czechoslovakia

SO: Monthly Index of East European Acessions (EEAI) Vol. 6, No. 11 November 1957

CZECHOSLOVAKIA/Radio Physics - Radioastronomy.

Abs Jour : Ref Zhur - Fizika, No 6, 1959, 13827

Author : Budejicky, I., Svestka, Z.

Inst : Astronomic Institute, Ondrejov, Czechoslovakia

Title : 536 Mc Radio Events Associated with Chromospheric Flares
During the Year 1956.

Orig Pub : Byul. astron. in-tov Chekheslovakii, 1958, 9, No 2, 48-
60

Abstract : A large amount of statistical material is given on obser-
vations performed during 1956 with the aid of a radio te-
lescope and a spectrohelioscope at the Astronomical Ins-
titute in Ondrejov. A total of 665 short-duration
bursts and flashes of radio radiation were observed,
along with 784 flares in H_{α} . All the above radio dis-
turbances are grouped into nine types, in accordance with

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- 109 -

SVESTKA, Z.

AUTHOR: Shvestka, Zdenek, Doctor SOV-25-58-8-21/61

TITLE: In Ondřejov (V Ondrzhayove)

PERIODICAL: Nauka i zhizn', 1958, ²⁵Nr 8, pp 37-38 (USSR)

ABSTRACT: The author describes the activity of the Observatory of the Institute of Astronomy, Czechoslovakian Academy of Sciences, in Ondřejov near Prague, in connection with the International Geophysical Year. Some information is also furnished about the work of other Czechoslovakian observatories, such as Skalnaté Pleso, Kroměříž, Prešov, Prague, Plzeň and Valašské Meziříčí. There is 1 photo.

ASSOCIATION: Institut astronomii Chekhoslovatskoy Akademii nauk v Ondrzhayove (Institute of Astronomy, Czechoslovakian Academy of Sciences at Ondřejov)

1. Astronomical observatories--Czechoslovakia

Card 1/1

SVETKA, Z.; FRITZOVA.; KOPECKY.

Catalog of the great chromospheric flares and their terrestrial consequences.
In English, p. 97.

PUBLICATIONS. (Cekoslovenska akademie ved. Astronomicky ustav.) Praha,
Czechoslovakia, No. 34/42, 1958.

Monthly List of East European Accessions (EEAI), LC, Vol. 8, no. 11, Nov. 1959
uncl.

SVESTKA, Z.

"New solar spectrograph in the Ondrejov Astronomical Institute"

Pokroky Matematiky, Fysiky a Astronomie. Praha, Czechoslovakia. Vol. 4, no. 1, 1959

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

SVESTKA, Z.; LETFUS, V.; RUZICKOVA, B.

Catalog of chromospheric flares observed at Ondrejov during the first half of the year 1957. In English. p. 136.

BULLETIN OF THE ASTRONOMICAL INSTITUTES OF CZECHOSLOVAKIA. (Ceskoslovenska akademie ved. Astronomicky ustav) Praha, Czechoslovakia, Vol. 10, no. 4, July 1959.

Monthly List of East European Accessions (EEAI), LC, Vol. 8, no. 11, Nov. 1959
Uncl.

PHASE I BOOK EXPLOITATION CZECH/5216

Budil, Ivo, ed.

Do blízkého i vzdáleného vesmíru (Into the Near and Distant Universe) Prague, Orbis, 1960. 10,000 copies printed.

Authors: Milan Blaha, Doctor of Natural Sciences, Candidate of Physics and Mathematics. Ondřej Brychta, Engineer. Jan Bukovský, Professor, D.C.Sc., Václav Eumba, Doctor of Natural Sciences, Candidate of Physics and Mathematics. Zdeněk Čepelcha, Candidate of Physics and Mathematics. Josef Dvořák, Doctor of Medicine. Vladimír Guth, Decent, Doctor of Natural Sciences, Corresponding Member of the Slovak Academy of Sciences, Doctor of Physics and Mathematics. Jozip Kleczek, Doctor of Natural Sciences, Candidate of Physics and Mathematics. Milošlav Kopecký, Doctor of Natural Sciences, Candidate of Physics and Mathematics. Luboš Pereš, Doctor of Natural Sciences, Candidate of Physics and Mathematics. Miroslav Plevác, Doctor of Natural Sciences, Candidate of Physics and Mathematics. Jaroslav Ruprecht, Candidate of Physics and Mathematics. Josef Sadil. Ladislav Sehnal, Candidate of Physics and Mathematics.

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and Mathematics. Zdeněk Svátka, Doctor of Natural Sciences, Candidate of Physics and Mathematics. Bogislav Valníček, Doctor of Natural Sciences and Vladimír Vanysek, Doctor of Natural Sciences, Candidate of Physics and Mathematics. Resp. Ed.: Josef Sadil.

PURPOSE: This book is intended for the general reader interested in astronomy, celestial mechanics, and astrophysics.

COVERAGE: The book presents in popular language and in summary form the most important achievements of science to date in the field of astronomy, celestial mechanics, and astrophysics, and notes the importance for continued progress in these disciplines for space travel to the moon and in our solar system, and ultimately to the stars and galaxies. In the section headed "About the Authors" the degrees and titles, affiliations and scientific contributions of each author are given. The text is accompanied by many diagrams, graphs, and tabular data. There are 37 photographs of various celestial bodies. No personalities

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are mentioned. There are 29 references, all Czech [several translations].

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THE NEAR UNIVERSE

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Size and density of the moon	7
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37054

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A001/A101

3.1540

AUTHOR: Svestka, Z.

TITLE: Spectrum of the chromospheric flare of July 20, 1958.

PERIODICAL: Referativnyy zhurnal, *Astronomiya i Geodeziya*, no. 4, 1962, 54 - 55, abstract 4A435 (*"Byul. astron. in-tov Chekhoslovakii"*, 1961, v. 12, no. 3, 73 - 81, English; Russian summary)

TEXT: Analysis of hydrogen lines of Balmer series H α -H ϵ in the spectrum of the flare of July 20, 1958, has shown that $\ln(I-I_0)$ is not a linear function of $\ln\Delta\lambda$, where I is intensity of the line at a distance $\Delta\lambda$ from the line center in the spectrum, and I_0 is intensity of undisturbed line at the same spot. Deviations from linearity in far wings of the line, where intensity of emission is small, can be partially explained by disturbances in the Earth's atmosphere and tremors of the image due to this fact. For the central parts of the profiles, the above-mentioned deviation could be explained by an increase of the optical thickness τ , because at $\tau > 1$ linearity of the indicated relation is violated. In this case, such values should be found for electron density n_e and the number

Card 1/4

Spectrum of the chromospheric flare of July 20, 1958

S/035/62/000/004/012/056
A001/A101

of hydrogen atoms in the second quantum state n_2 , that $\ln \bar{\tau}$ would be a linear function of $\ln \Delta \lambda$ for all the lines. At the constant value of function of source E throughout the flare region this condition is not fulfilled. If an assumption is made that E grows with altitude, the resulting $\bar{\tau}$ turns out to be too great, but if E decreases with altitude neither the profile shape of Balmer lines nor metal line emission can be explained. The author arrives at a conclusion that the broadening of lines observed during this flare cannot be explained either by Stark effect or by attenuation. If the line broadening is explained by the Doppler effect, the quantity $\ln(I-I_0)$ should be a linear function of $(\Delta \lambda)^n$ where $n = 2$. The author concludes that Balmer line profiles can be explained by Doppler broadening if $n < 2$. Such a deviation of the exponent value could be explained by non-Maxwellian velocity distribution of turbulent motions of macroscopic or microscopic elements in the flare region. However, since Ca and He lines are broadened considerably less than hydrogen lines, this explanation is untenable. The author is of the opinion that observational results can be explained by the existence of an altitude gradient of characteristic velocity of turbulent motion, which leads to decreasing n for Balmer lines and to different Doppler half-width $\Delta \lambda_D$ for Ca and He lines, if they are generated in other

Card 2/4

Card 3/4

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001654120009-3"

Card 4/4

S/269/63/060/001/019/032
A001/A101

AUTHORS: Švestka, Z., Kopecký, M., Blaha, M.

TITLE: Qualitative analysis of 244 spectra of chromospheric flares

PERIODICAL: Referativnyy zhurnal, Astronomiya, no. 1, 1963, 62,
abstract 1.51.415 ("Byul. astron. in-tov Chexhoslovakii",
v. 12, no. 6, 229 - 237, English; Russian summary)

TEXT: The authors present the list of emission lines observed in spectra of 92 flares photographed in Ondrejovka from 1958 to 1960. The Ondrejovka spectrograph can photograph the spectrum in several selected spectral regions $\lambda\lambda 6503 - 6623$, $5829 - 5949$, $4797 - 4925$, $4277 - 4397$, $3870 - 3990$, $3735 - 3817$ and $3640 - 3716$. 244 spectra of these flares are qualitatively analysed, in particular spectral characteristics of hydrogen and calcium lines; the dependence of excitation change of the Balmer series on the central intensity and width of the $H\alpha$ line; the "center - edge" variation in excitation of the Balmer series and line widths of $H\alpha$ and $H + K$; the relation between the widths of lines $H\alpha$ and $H + K$; the central reversal of hydrogen and calcium lines; the change in spectral characteristic in dependence on the position of the flare region in the group of sunspots,
Card 1/2

On a peculiar flare spectrum

S/035/62/000/012/010/064
A001/A101

ters over the Sun's surface and moves downwards at a speed of ~ 18 km/sec. Spectral lines are broadened by microturbulent movements with characteristic velocity of ~ 90 km/sec. ✓

B. Ioshpa

[Abstracter's note: Complete translation]

Card 2/2

SVESTKA, Z.

On the spectral analysis of flares. Biul astr Cz 14 no.3:75-77
'63.

1. Astronomical Institute of the Czechoslovak Academy of
Sciences, Ondrejov.

KOPECKY, M.; LETFUS, V.; BLAHA, M.; SVESTKA, Z.

Qualitative discussion of 244 flare spectra. Pt.4.
Biul astr Cz 14 no.4:146-150 '63.

1. Astronomical Institute of the Czechoslovak Academy
of Sciences, Ondrejov.

SVESTKA, Z.

Spectral analysis of the moustache-like flare of August 7,
1960. Biul astr Cz 14 no.6:234-244 '63.

1. Astronomical Institute of the Czechoslovak Academy of
Sciences, Ondrejov.

SVESTKA, Z.

Electron temperature and b_n values in flares. Biul astr Cz 15
no.2:38-41 '64.

1. Astronomical Institute, Czechoslovak Academy of Sciences,
Ondrejov.

FEITER, L.D. de; SVESTKA, Z.

Time variation of electron density in a large solar flare.
Bul astr Cz 15 no.3:117-118 '64.

1. University Observatory Sonnenborgh, Utrecht (for Feiter).
2. Astronomical Institute, Czechoslovak Academy of Sciences, Ondrejov (for Svestka).

SVESTKA, Z.

Broadening of high Balmer lines in flares and prominences.
Biul astr Cz 15 no. 4:162-163 '64.

1. Astronomical Institute, Czechoslovak Academy of
Sciences, Ondrejov.

400

L 41519-65 ARG/EEO-2/EMG(j)/EWT(d)/FBD/FSS-2/EMG(r)/EWT(l)/FBO/EMP(c)/EWT(e)/
 EWT(m)/FS(v)-3/EPP(c)/EEC(k)-2/EMG(s)-2/EWP(i)/EWP(f)/EMG(v)/EWP(c)/EWP(v)/EWA(l)/
 EPR/EMP(j)/T-2/EMG(a)-2/EWP(h)/EPA(bb)-2/EEC(c)-2/EED-2/EMG(c)/FCS(k)/EWP(b)/
 AN4045110 PL-4/Pn-4/Pk-4/Pn-4/ BOOK EXPLOITATION Pi-4/Ph-4/Pac-2/Ps-4/Pr-4/163
 Po-4/Po-5/Pq-4/Pac-4/Pr-4 IJP(c) AST/TT/EM/DD/EM/GW/BC/WH 141
 Barvir, Miroslav, (Engineer); Benes, Konrad, (Professor, Doctor); Bouska, Jiri, (Candidate of
 (Doctor); Hrdil, Ivo, (Graduate in Philosophy); Cepicka, Zdenek, (Candidate of
 Physical and Mathematical Sciences); Cadr, Milan, (Doctor); Holeczal, Vladimir, (Doctor);
 (Doctor); Dvorak, Antonin, (Candidate of Medical Sciences); Dvorak, Josef, (Doctor);
 Guth, Vladimir, (Candidate of Medical Sciences, Docent, Doctor); Hornik, Zdenek,
 (Doctor of Physical and Mathematical Sciences, Corresponding Member of the
 Czechoslovak Academy of Sciences, Professor, Doctor); Hospodar, Jan, (Doctor of
 Physical and Mathematical Sciences, Doctor); Kleczek, Josip, (Doctor); Klest,
 Emil, (Candidate of Physical and Mathematical Sciences); Kolodovsky, Milan; Kopl,
 Vladimir (Doctor); Kopecky, Miloslav, (Candidate of Legal Sciences); Krivsky,
 Ladislav, (Candidate of Physical and Mathematical Sciences); Kriz, Zdenek, (Can-
 didate of Physical and Mathematical Sciences); Ledvina, Milan, (Engineer); Malcik,
 Vladimir, (Doctor); Moravec, Milan, (Candidate of Medical Sciences); Mrazek,
 Jaroslav, (Candidate of Medical Sciences, Engineer); Mrazek, Jiri, (Candidate of
 Technical Sciences); Hruzil, Ludek, (Doctor); Novotny, Zdenek, (Candidate of
 Physical and Mathematical Sciences); Novotny, Zdenek, (Doctor); Pernegr, Jaroslav,
 (Doctor); Candidate of Physical and Mathematical Sciences; Pesek, Rudolf, Professor,
 Doctor, Engineer); Pipal, Miloslav, (Doctor of Technical Sciences, Corresponding
 member, of the Czechoslovak Academy of Sciences); Plavec, Miroslav, (Doctor);
 Pokorny, Zdenek, (Candidate of Physical and Mathematical Sciences, Docent, Doctor);

Card 1/2
2

L 41519-65
AM4045110

14

Ruml, Vladimir, (Candidate of Medical Sciences, Doctor); Sadil, Josef, (Doctor of Physiological Sciences); Sehnal, Ladislav; Stverak, Jiri, (Doctor); Svestka, Zdenek, (Doctor); Tuma, Jaroslav, (Candidate of Physical and Mathematical Sciences, Doctor); Tyral, Vaclav, (Docent, Engineer); Ulehla, Ivan, (Candidate of Technical Sciences, Professor, Doctor); Valnicsek, Boris, (Candidate of Physical and Mathematical Sciences, Doctor); Vanysek, Vladimir, (Candidate of Physical and Mathematical Sciences, Docent, Doctor); Vlasak, Marian, (Candidate of Physical and Mathematical Sciences; Doctor); Voda, Miloslav, (Engineer)

Principles of astronautics (Zaklady kosmonautiky) Prague, Orbis, 1964. 445 p. illus., biblio. 5000 copies printed.

TOPIC TAGS: cosmonautics, rocket, satellite, space flight, ²missile ¹⁵

PURPOSE AND COVERAGE: This publication is a popular scientific reference book for people working in cosmonautics. The book presents a survey of cosmonautics and space flight up to 1 June 1963.

TABLE OF CONTENTS:

Card 2/8

L 39142-66 EWP(e)/EWP(t)/ETI IJF(c) JD

ACC NR: AP6030370

SOURCE CODE: CZ/0017/66/055/003/0145/0149

AUTHOR: Svestka, Zdenek; Saroun, Bohumil (Engineer)

43
B

ORG: [Svestka] VUK, Panenske Brezany; [Saroun] VU ZVU, Prague

TITLE: Magnetostrictive characteristics of the magnetic soft alloys, PY 36, PY 50, and CV 49, 6

SOURCE: Elektrotechnicky obzor, v. 55, no. 3, 1966, 145-149

TOPIC TAGS: magnetic alloy, magnetostriction/PY 36 magnetic alloy, PY 50 magnetic alloy, CV 49 magnetic alloy

ABSTRACT: The article gives information about the results of long-term measurements to ascertain the magnetostrictive characteristics of the Czechoslovak magnetic soft alloys PY 36, PY 50 and CV 49. By systematic measurement of samples from current production the mean value of saturated magnetostriction was established and their dynamic characteristics were verified on magnetostrictive transducers with 30 cps. This paper was presented by Engineer, Candidate of Sciences J. Kubrycht. Orig. art. has: 6 figures, 8 formulas and 2 tables. [Based on authors' Eng. abst.] [JPRS: 36,811]

SUB CODE: 11, 20 / SUBM DATE: 10Sep64 / ORIG REF: 001 / SOV REF: 001
OTH REF: 001

me
Card 1/1

UDC: 538.242

0918 1093

L 37790-66

ACC NR: AP6028834

SOURCE CODE: UR/0097/66/006/003/0030/0034

AUTHOR: Svatov, A. A. (Candidate of technical sciences)

20
3

ORG: none

TITLE: Effect of prestressing on the load-carrying capacity of flexible compressed bars

SOURCE: Beton i zhelezobeton, no. 3, 1966, 30-34

TOPIC TAGS: reinforced concrete, mechanical property, bending strength

ABSTRACT: The article describes an experimental investigation which was conducted at the former TsNIPS [Tsentral'nyy nauchnoissledovatel'skiy institut promyshlennykh sooruzheniy; Central Scientific Research Institute of Industrial Installations] and subsequently at the NIIZhB [Nauchno-issledovatel'skiy institut zhelezobetonnykh izdeliy, stroitel'nykh i nerudnykh materialov; Scientific Research Institute of Reinforced concrete Products, Construction and Non-Metallic Mineral Materials] of the State Committee for Construction Affairs USSR, into the effect of prestressing of longitudinal reinforcement on the operation of centrally compressed flexible bars. The investigation was carried out on prestressed short (rigid) and long (flexible) columns of equal rectangular section. The testing of the short columns was intended to ascertain the effect of the strengthening of concrete that hardens under compression, and the influence of this strengthening on the load-carrying capacity of flexible prestressed columns. Stability in

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UDC: 624.071.3.046

0917

2350

L 37790-66

ACC NR: AP6028834

axial compression resulting from the prestressing of longitudinal reinforcement was investigated on specimens of flexible columns manufactured under the same conditions as the short columns. Early precompressing of the concrete of short columns with stressed wire reinforcement was found to increase the mechanical properties of the concrete to some extent. However, the absolute value of this increase is not great, and the strengthening of the concrete may not have any significant effect on the operation of flexible elements. There is a loss in the carrying capacity of prestressed and ordinary reinforced-concrete flexible elements with the given flexibility $\frac{l_0}{h} = 40$; this is caused by the loss of stability in the

swollen state rather than by the exhaustion of strength in the concrete and reinforcement. Prestressing of longitudinal reinforcement increases the stability of flexible reinforced-concrete columns subjected to a longitudinal axial force. Orig. art. has: 7 figures, 4 formulas and 3 tables. [JPRS: 36,581]

SUB CODE: 11, 20 / SUBM DATE: none

Card 2/2 *llb*

L 43785-66 GW

ACC NR: AT6020502

SOURCE CODE: CZ/2514/65/000/051/0091/0091

50
B!

AUTHOR: Svestka, Z.

ORG: Astronomical Institute of the Czechoslovak Academy of Sciences, Observatory Ondrejov

TITLE: Determination of electron density in flares ✓

SOURCE: Ceskoslovenska akademie ved. Astronomicky ustav. Publikace, no. 51, 1965. 3rd Consultation on Solar Physics and Hydromagnetics, Tatranska Lomnica, 13-16 October 1964, 91

TOPIC TAGS: solar flare, electron density, solar limb, Balmer series, electron temperature

ABSTRACT: The author states that the line profiles of Balmer emission lines expanded by the Stark effect can be well approximated by a Voigtfunction. The half-widths of these Voigt profiles are a good measure of the free-electron density in the radiating gas. In solar flares, where the electron density is high, electron damping must be taken into account, as has been done for several flares observed in Japan and Czechoslovakia by using the H₁₀-H₁₅ lines of the Balmer series. In the flash state

Card 1/2

L 43785-66

ACC NR: AT6020502

of a 3^+ flare, the electron density has been found to be as high as $4 \cdot 10^{13} \text{ cm}^{-3}$, with the electron temperature assumed to be 10,000 k in all flares. The density decreased by 50% during the 15 min of flare development. Even in small flares the electron density still remains close to 10^{13} . The electron density is lower only in the upper parts of the flares on the solar limb. [GC]

SUB CODE: 03, 20/ SUBM DATE: none/ OTH REF: 003//

LG
Card 2/2

L 46817-66

ACC NR: AT6020504

SOURCE CODE: CZ/2514/65/000/051/0095/0097

AUTHOR: Svestka, Z.

76
B

ORG: Astronomical Institute of the Czechoslovak Academy of Sciences, Observatory
Ondrejov

TITLE: Filamentary structure of flares ✓

SOURCE: Ceskoslovenska akademie ved. Astronomicky ustav. Publikace, no. 51, 1965.
3rd Consultation on Solar Physics and Hydromagnetics, Tatranska Lomnica, 13-16
October 1964, 95-97

TOPIC TAGS: solar flare, electron density, electron temperature, Doppler effect,
Stark effect, Balmer series, hydrogen spectrum, flare filament

ABSTRACT: On the basis of previous works, the author states that some methods hitherto
used to analyze the flare spectra are, from the standpoint of filament structure,
incorrect in principle. There are other methods to obtain information on the real
physical conditions in flares, even if filament structure is taken into account. For
instance, some methods use only relative forms of the line profiles, some methods
compare relative intensities in various lines produced under similar physical conditions.

Card 1/2

L 46817-66

ACC NR: AT6020504

and some methods are restricted to the optically thin flare lines, which only reflect the emission of the flare filaments. The n_e values obtained with the methods of half-widths are very similar to the actual electron density in the flare elements. The N_2 values are the minimum values of the quantity N_2 in flares with a filament structure. Electron temperature is below 10,000 K in the filaments producing a hydrogen spectrum. The electron temperature and electron density in the flare elements emitting neutral helium lines are higher than in the elements emitting a hydrogen spectrum. The Doppler effect and the Stark effect influence the different lines in different ways. The Stark widening of the high terms of the Balmer series was observed clearly. The minimum half-width has been found for H_9-H_{10} ; the half-widths increase for all higher lines. The author believes that present knowledge of the fine structure of flares is not sufficient to permit a detailed discussion of its origin. [GC]

SUB CODE: 03, 20/ SUBM DATE: none/ OTH REF: 001/

Card 2/2 LC

L 00858-67

ACC NR:

AP6030418

SOURCE CODE: CZ/0092/66/017/003/0137/0140

213

AUTHOR: Svestka, Z.

ORG: Astronomical Institute of the Czechoslovak Academy of Sciences, Ondrejov

TITLE: The negative hydrogen ion emission in flares ✓

SOURCE: Ceskoslovenska akademie ved. Byulleten' astronomicheskikh institutov Chekhoslovakii, v. 17, no. 3, 1966, 137-140

TOPIC TAGS: solar flare, flare continua, hydrogen ion emission, radiation temperature

ABSTRACT: In a search for an explanation for the continuous emission of flares in the optical region, it was of interest to show that the emission of negative hydrogen ions simply cannot be rejected as one of the possible causes of the optical flare continua. Using known physical data on three solar flares, it is shown that this process could produce the observed continuous emission in such flares or flare elements in which the Lyman alpha radiation temperature is lower than ~7500K. If such flares or flare elements existed, they would probably be situated very low in the chromosphere. In such a case, heating of the upper photospheric layers beneath the flare or of some grains inside the photosphere might also participate in the formation of the flare continua. The wavelength variation of the relative intensity of the H⁻ continuous emission is in good agreement with that observed for flares situated in limb parts of the solar disc. Orig. art. has: 1 figure, 1 table, and 6 formula. [Author's abstract] [KS]

SUB CODE: 03, 20/ SUBM DATE: 08Dec65/ ORIG REF: 002/ SOV REF: 006/

Card 1/1 hs

OTH REF: 011/

SVESTKOVA, H.

Some comments on Norwegian psychiatry. Cesk. psychiat. 10
no.2:130-134 Ap'64.

1. Psychiatricka lecelna v Praze 8.

*

SVESTKOVA, V.; SVESTKA, B.; FRAJBIS, Z.

Hygienic evaluation of the hazard to generator-station workers through the chronic exposure to carbon monoxide. J. Hyg. Epidem., Praha 3 no.3:339-355 1959

1. Lehrstuhl für Arbeitshygiene und Berufskrankheiten der medizinischen Hygiene-Fakultät der Karlsuniversität, Prag und Abteilung für Arbeitshygiene der Hygiene-Epidemiologie Station des Bezirksnationalausschusses Prag-Land.

(CARBON MONOXIDE, eff inj)

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 1966-65 EWT(d)/EWP(e)/EPA(s)-2/EKT(m)/SPF(s)/EPF(n)-2/EWP(r)/EPR/EPA(w)-2/T/
 Fab-10/Pt-4/Pt-4/Ps-4/Pt-10/Pt-4 IJP(c)
 ACCESSION NR: AP406751 S/0225/01/000/005/0098/0101

76
 74
 6

AUTHORS: Serdyuk, S.M.; Guliyev, G.F.; Kozin, G.N.; Svet, A.L.

TITLE: Temperature control of converter metal by means of zirconium boride cermet tips

SOURCE: Poroshkovaya metallurgiya, no. 5, 1964, 98-101

TOPIC TAGS: thermocouple, zirconium boride, converter process

ABSTRACT: Difficulties in replacing the insulated tips of a thermocouple during the production process were solved by using a clay plug and a supporting disk which close the opening of a converter and prevent the loss of metal regardless of the degree of erosion of the opening. Furthermore, the new device makes the use of oxygen possible to take apart the opening. The device has been successfully applied in the industrial production in a 50-ton converter. A thermocouple with a zirconium boride tip reflects all irregularities that may occur during the melting process such as changes in temperature, the amount of oxygen used, the location of the tuyeres, etc. As a result of continuous temperature control, the necessary information is obtained for the development of an

Card 1/2

SVET, D. Ya. Dr. Tech. Sci.

Dissertation: "Method for Transformation of Electrical Oscillations and the System of Objective Temperature Control in Metallurgical Processes." Inst. of Metallurgy, imeni Academician A. A. Baykov, Acad. Sci. USSR, 20 Jun 47.

SO: Vechernyaya Moskva, Jun, 1947 (Project #17836)

SVET, D. YA.

Problems of Metallurgy. Academy of Sciences of the U.S.S.R., Moscow, 1953. Electrochemical Investigations in the Field of Pyrometallurgy. Q. A. Esm (64-72). [In Russian. Work in a field of metallurgical science.]

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SUET, D. Y.

Demodulation of Amplitude-Limited Oscilla-
tions. D. Y. Svet. (C. R. Acad. Sci. U.R.S.S.,
21st June 1958, No. 3, pp. 441-443, in Russian.)
Simple theoretical considerations show that demodula-
tion can be achieved by using a detector with rectangular
transfer characteristic. The amplitude modulated
signal is converted by this detector into rectangular pulses whose width is determined by the
rate of variation of the input signal voltage. The
amplitude modulation can then be detected by using a
second detector having similar characteristics. See
also 77 above.

Translation ATIC FTS-8464/v

SVET, D. YA.

Some Cases of Detection and Modulation in a System With Discontinuous Characteristic

Peculiar behavior of a special detector, different in operation from ordinary linear and quadratic detectors, is described. In the detection of a harmonic amplitude modulated signal nonlinear distortions appear exceeding those obtained by quadratic detection. But at a re-iterated detection with the same detector, the nonlinear distortions may be attenuated at will. (RZhFiz, No. 8, 1955) Tr. Zaach. Energ. in-ta, No. 3, 1954, 215-225.

SO: Sum. No. 744, 8 Dec 55 - Supplementary Survey of Soviet Scientific Abstracts (17)

SVET, D. Ya.

USSR/Physics - Techn. Physics

Card 1/1

Author : Svet, D. Ya.

Title : About a hyperbolic detector

Periodical : Dokl. ANSSSR, 97, Ed. 2, 247 - 249, July 1954

Abstract : The features of hyperbolic detection of the dependence of the mean current value upon the voltage amplitude at the input are explained. Detection can be realized in an element with \tilde{H} -shaped volt-ampere characteristic. The principal diagram of an element with volt-ampere \tilde{H} -characteristic on the electron tubes is shown. Graphs, drawing.

Institution : ...

Presented by : Academician M. A. Leontovich, March 23, 1954

Svet, D. Ya.

Distr: ~~UICc~~

~~Radiothermographic study of the Besselmer process. D
A. Svet, T. V. Nosh-Tank, G. M. Kozlov (Moscow) 1962~~

... method ...
... from the flame above the throat of the burner ...
... the completion of the decomposition reaction ...
... elements ...
... in the ...
... flame ... particularly the meth ...
... most ...
... radiation during the process ...
... the bath ...
... the ...

SVET, D.Ya.

Recent methods and electronic systems in radiation pyrometry.

Priborostroenie no.8:15-17 Ag '56.

(MLRA 9:10)

(Pyrometry)

SVET, D.Ya., LIPIN, Ye.S.

The TsEP-2 automatic photoelectric color pyrometer. Priborostroe-
nie no.12:13-16 D '56. (MIRA 10:1)

(Pyrometers) (Photoelectric measurements)

SAMARIN, A.M.; SVET, D.Ya.

On modulation reflectometry of molten metals. Dokl.AN SSSR 108
no.1:79-81 My '56. (MLRA 9:8)

1. Chlen-korrespondent AN SSSR (for Samarin); 2. Institut metal-
lurgii imeni A.A. Baykova Akademii nauk SSSR.
(Pyrometry) (Physical metallurgy)

SVET, D.Ya.

"Concerning the Radiation Power of Metals in Liquid and Solid States,"
"The Radioelectronic System of Measuring the True Temperatures of Liquid
Metals,"
lecture given at the fourth Conference on Steelmaking, A.A. Baikov Institute of
Metallurgy, Moscow, July 1-6, 1957

SOV/137-58-7-14171

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 7, p 29 (USSR)

AUTHORS: Svet, D. Ya., Vengerovskiy, L. V.

TITLE: Automatic Photoelectric Colorimetric Pyrometers (Ob avtomaticheskikh tsvetovykh fotoelektronnykh pirometrakh)

PERIODICAL: V sb.: Issled. po zharoprochn. splavam. Vol 2. Moscow, AN SSSR, 1957, pp 290-294

ABSTRACT: A presentation of the principle of operation of an automated photoelectric colorimetric pyrometer employing the "red-blue" ratio method and serving for direct determination of the surface temperatures of bodies in the range of measurement and for the recording of color temperatures in the 1400-2500°C range (with possibilities for significant expansion at both ends of the scale), having a fundamental error of measurement $\leq \pm 2.2^\circ$. A block diagram of a modernized TsEP-2M pyrometer is presented, along with a description of its various design assemblies and of the set as a whole and of the area of application in the metallurgical industry. 1. Photoelectric pyrometers --Operation 2. Colorimetry--Applications

Card 1/1

M. L.

137-58-6-11466

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 6, p 30 (USSR)

AUTHOR: Svet, D.Ya.

TITLE: ~~Electronic Systems for Spectral-ratio Radiation Pyrometry~~
(Elektronnyye sistemy radiatsionnoy pirometrii spektral'nogo
otnosheniya)

PERIODICAL: V sb.: Issled. po zharoprochn. splavam. Vol 2. Moscow,
AN SSSR, 1957, pp 295-310

ABSTRACT: A presentation is made of the fundamentals of radiation pyrometry, with especially detailed examination of color-sensitive photoelectric pyrometry. Schematic diagrams of color pyrometers, both of the single-channel direct-measurement and of the compensated types, are presented. Actual photoelectronic systems for various purposes are examined and the design of certain instruments are described, such as for oscilloscopic recording of rapid temperature processes. This instrument comes in two variants: one with a rotating light filter, and one with a fixed filter for high velocities. Instruments have been developed to measure the color temperatures of luminescent surfaces with high temperature inertia by

Card 1/2

137-58-6-11466

Electronic Systems for Spectral-ratio Radiation Pyrometry

employing a photoelectric cell with a barrier layer. In these designs the function of measuring element may be performed by a direct-reading instrument, or else the reading may be from a scale connected with a reducing device. It is indicated that the method described may be used to permit regulation of high-temperature processes by means of standard compensation devices. A schematic diagram of the pick-up of a thermocolor regulator is presented, and a photograph of a mockup thereof.

M.L.

1. Temperature--Measurement 2. Radiation pyrometers--Applications 3. Photoelectric pyrometers--Applications 4. Control systems--Theory

Card 2/2

137-58-6-11458

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 6, p 30 (USSR)

AUTHOR: Svet, D.Ya.

TITLE: On the Possibilities of Solving the Fundamental Problem of Radiation Pyrometry in Metallurgy (O vozmozhnostyakh resheniya osnovnoy problemy pirometrii izlucheniya v metallurgii)

PERIODICAL: V sb.: Issled. po zharoprochn. splavam. Vol 2. Moscow, AN SSSR, 1957, pp 311-317

ABSTRACT: The author believes that the major problem of radiation pyrometry is the objective measurement of the true temperature to the required degree of accuracy under conditions of radiation corresponding to the conditions of actual practice, and in essence the non-contact measurement employing radiation alone. It is shown that the methods of color pyrometry make measurement possible without the explicit determination of emissivity as such and that measurement with reference to the spectrum may be performed in the infrared (IR) and ultraviolet (UV) bands of the spectrum. For work in the IR band a design is suggested for an optical-acoustical pyrometer,

Card 1/2

137-58-6-11458

On the Possibilities (cont.)

characterized by monochromaticity and high sensitivity. The possibility of measuring temperature by radio-wavelength radiations from a body (millimeter and centimeter waves) is demonstrated. This is of interest for measurements in heat engineering, since media consisting of diatomic and triatomic gases contain areas of transparency, i.e., the distortion due to the intervening atmosphere of the metallurgical furnace is lacking.

M.L.

1. Temperature--Measurement
2. Radiation pyrometers--Applications
3. Infrared spectroscopy--Applications
4. Ultraviolet spectroscopy--Applications

Card 2/2

137-58-5-11025

SVET, D.YA.

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 5, p 305 (USSR)

AUTHOR: Svet, D. Ya.

TITLE: Some Aspects of Radiation Pyrometry of Liquid Metal (Nekotoryye voprosy radiatsionnoy pirometrii zhidkogo metalla)

PERIODICAL: V sb.: Fiz.-khim. osnovy proiz-va stali. Moscow, AN SSSR, 1957, pp 399-407. Diskus. pp 408-409

ABSTRACT: The method and apparatus proposed by the author permit to determine the radiating power of the surface of a liquid metal by the magnitude of the coefficient of reflection (CR) without interference from the flow of reflected radiation. The method of determination of the CR of a radiationally emissive surface is based on preliminary modulation of the flow of radiation incident on that surface. The device consists of a system of mirrors, a shutter, a temperature lamp, a turret with light filters, a photocell, an amplifier, and a recording device. The photocell is alternately subjected to a stream of modulated radiation from the temperature lamp and to the total flow of the independent radiation and the reflected flow of the modulated radiation. The amplifier, which is tuned to the modulation frequency,

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generates an alternating voltage, the amplitude of which is proportional to the intensity of the radiation flow incident on or reflected from the surface of the bath. Knowing the CR of the mirrors and the ratio of two measured voltages, it is possible to determine the value of the CR of the metal surface which is related to the coefficient of radiation. A peculiar requirement of the method of measuring surface characteristics of a liquid metal is the employment of special shock absorbers in order to prevent "rippling" of the liquid free surface. The method of measuring the CR of molten metal in a bath is based on a comparison of CR values of the surface being investigated (cast iron and Ag) measured before and after an experiment. At high temperatures the error is determined by the accuracy of graduation.

G. L.

1. Liquid metal--Radiation
 2. Radiation--Reflective effects
 3. Radiation
- Measurement

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~~SVET, D.Y.~~

Germanium photodiodes used in systems of infrared pyrometry.
Priborostroenie no.6:16-17 Je '57. (MIRA 10:7)
(Pyrometry) (Photoelectric measurements) (Germanium diodes)

SMA, D. Ya., Prof., and co-workers

"High temperature measurement" (Section V)

report submitted for measurement and automation, Scientific Society for (Hungarian)
Intl. Measurements Conference - Budapest, Hungary, 24-30 Nov 58

SVET, D. YA.

18(0) Akademiya nauk SSSR. Institut metallurgii SOV/1728

Sovremennyye Problemy Metallurgii (Modern Problems in Metallurgy)

Moscow, Izd-vo AN SSSR, 1958. 640 p. 3,000 copies printed.

Resp. Ed.: A.M. Samarin, Corresponding Member, USSR Academy of Sciences; Eds. of Publishing House: V.S. Kiselevnikov, and A.N. Derzov; Tech. Ed.: T.V. Polynakova.

PURPOSE: This book is intended for scientific and technical personnel in the field of metallurgy.

COVERAGE: This is a collection of articles on certain aspects of Soviet metallurgy. The book is dedicated to Academician Ivan Pavlovich Bardin on the occasion of his 75th birthday. The book is divided into seven parts. The first part consists of two articles reviewing a trip account of the author to the USSR. Occasional writings of the author are included. It includes an article by John Chivers, Nikolai Gerasimov, and John Elliott (M.I.T., MA) describing their meeting with Bardin in Moscow and also his visit to the United States. The second part consists of three articles and deals with raw materials and fuels for the Soviet metallurgical industry. The third part represents the major portion of the book. It consists of 25 articles dealing with the various aspects of the metallurgy of pig iron and steel. The fourth part consists of two articles treating the metallurgy of nonferrous metals. The fifth part consists of three articles on the forming of metals. The sixth part consists of eight articles discussing certain aspects of physical metallurgy. The last part deals with general problems in the field of metallurgy. References are given after each article. No personalities are mentioned.

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Translation from: Referativnyy zhurnal, Metallurgiya, 1960, No 2, p 14,
2174

AUTHOR: Svet, D.Ya.

TITLE: On Some Systems of Radiation Pyrometry ²¹

PERIODICAL: Tr. Komis. po pirometrii pri Vses. n.-i. in-te metrol., 1958,
No 1, pp 41 - 44

TEXT: Preliminary investigations showed the efficiency of using in infrared pyrometry germanium photodiodes, which are semiconductor devices having much in common with a valve photocell. The integrated sensitivity of germanium photodiodes exceeds that Se-photodiodes by a factor of 100; maximum sensitivity of germanium photodiodes is at the 1.5 μ wavelength. This device consists of a plate of Ge contact surfaces, which was pressed into polystyrene and was covered by a transparent organic glass window. Schott light filters (R-9, RG-7 and BG-18) are used for the monochromatization of infrared radiation perceived by the germanium photodiode. With these

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filters germanium photodiodes were used in pyrometers of partial radiation and spectral-ratio pyrometers. The germanium photodiodes were tested in spectral-ratio pyrometers with direct measurement of photocurrents by a galvanometer and reduction of luminosity with the aid of a diaphragm. The replacement of Se-photodiodes by Ge-photodiodes makes it possible to reduce the range of measured temperatures down to 500 - 550°C and to reduce considerably the pyrometer dimensions. Monochromaticity and high sensitivity in the infrared range of the spectrum are characteristic of the model of an optic-acoustical spectral-ratio pyrometer, which was designed at IMET AS USSR. Its operational principle consists in the use of 2 optic-acoustical chambers as converters of radiant energy into electric one; the chambers are filled with gas and possess the zones of resonance absorption within the required spectrum range. The radiation flux is modulated by a rotating perforated disk. Changes in the gas pressure under the effect of intermittent radiation are converted with the aid of two microphones into a.c. voltages, whose amplitudes are proportional to the corresponding spectral luminosities. It is expedient to employ the microradiowave range for pyrometry. In principle, the radoradiation pyrometer is a very sensitive radio-receiving set. ✓

T.G.

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SVET, D.Ya., doktor tekhn.nauk

Conversion of an exponential and pulse oscillation in a system
with a channel-shaped characteristic. Trudy VZEI no.9:199-203
'58. (MIRA 12:10)

(Oscillations)

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Translation from: Referativnyy zhurnal. Mashinostroyeniye, 1960, No. 9, pp. 241-242, # 44953

AUTHOR: Svet, D.Ya.

TITLE: On Some Systems of Radiation Pyrometry 21

PERIODICAL: Tr. Komis. po pirometrii pri Vses. n.-i. in-te metrol., 1958, Vol. 1, pp. 41-44

TEXT: The author suggests to use a germanium photo-diode as radiation receiver of infrared radiation for temperature measurements of bodies. The integrated sensitivity of germanium photo-diodes exceeds that of ordinary selenium cells nearly by 100 times. The maximum spectral sensitivity falls at the 1.5μ wavelength, while its red boundary is near 2.0μ . The time constant of the diode is $10\mu\text{sec}$. For monochromatization of infrared radiation it is possible to use the R-9, Rg-7+Bg-8 light filter of Messrs. Schott. In combination with these light filters, germanium photo-diodes make it possible to measure temperature in the range of $800-100^{\circ}\text{C}$, at a wavelength of 1.0 and 1.5μ with the aid of

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brightness and color pyrometers. The temperature variations of photo-diodes substantially affect the results of measuring the magnitude of the spectral ratio. Germanium photo-diodes were tested in spectral ratio pyrometers with direct measurement of photocurrent by a galvanometer and variation of the luminous flux with the aid of a diaphragm. Semiconductor devices of the photo-diode system were tested in the $\text{U} \text{ЭП} \text{-(TsEP-)-2M}$ automatic photoelectronic color pyrometers. Great difficulties in the development of infrared pyrometers arise because of the complication of producing simple systems of radiation monochromatization. The IMET AN SSSR has worked out the model of a spectral-ratio optical-acoustical pyrometer for the infrared range of the spectrum. The width of spectral intervals in this model is determined by the bandwidth of the molecular spectrum. The principle of operation of the device consists in the following: Optical-acoustical chambers filled with gases which possess regions of resonance absorption in two different sectors of the infrared range of the spectrum are used as converters of modulated light pulses into electric ones. Gas pressure variations under the effect of modulated radiation are, with the aid of microphones located in the chambers, converted into an a-c voltage, the amplitude of which is proportional to the spectral brightness in the regions of resonance absorption of the gases. The electric pulses are amplified and transmitted to the electronic circuit of ratio measurement. For measurements in the medium infrared spectrum range the

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On Some Systems of Radiation Pyrometry

chambers can be filled with chloroform or some special organic compounds. The author points out the prospects of using radiation pyrometry in the microradio-wave range. There are 8 references. ✓

L.E.A.

Translator's note: This is the full translation of the original Russian abstract.

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Svet, D. Ya.

Sov/3355

PHASE I BOOK EXPLOITATION

18(7) Akademiya nauk SSSR. Institut metallurgii. Nauchnyy sovet po problemam zharnoprochnykh spivovov
 Issledovaniya po zharnoprochnym spivovam, t. IV (Studies on Heat-Resistant Alloys, vol. 4), Moscow, Izd-vo AN SSSR, 1959. 400 p. Errata slip inserted. 2,200 copies printed.
 Ed. of Publishing House: V. A. Klimov; Tech. Ed.: A. P. Gusev; Editorial Board: I. P. Bardin, Academician, D. V. Kurdyumov, Academician; N. V. Agayev; Corresponding Member, USSR Academy of Sciences; I. A. Odintsov; I. M. Pavlov, and I. P. Zudin, Candidate of Technical Sciences.

PURPOSE: This book is intended for metallurgists concerned with the structural metallurgy of alloys.

COVERAGE: This is a collection of specialized studies of various problems in the structural metallurgy of heat-resistant alloys. Some are concerned with the theoretical principles, some with descriptions of new equipment and methods, other with properties of specific materials. Various phenomena occurring under specified conditions are studied and reported on. For details, see Table of Contents. The articles are accompanied by a number of references, both Soviet and non-Soviet.

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Svet, D. Ya.

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PHASE I BOOK EXPLOITATION

SOV/2117

Sovetskaya nauka, Moscow, 1956

Experimentalnyy tekhnika i metody izsledovaniya pri vysokikh temperaturakh: trudy sovetskikh eksperimentalnykh tekhnicheskikh i metodicheskikh konferentsiy po eksperimental'noy tekhnike i metodam vysokotemperaturnykh izsledovaniy, 1956

Reep. Ed.: A.M. Samar'In, Corresponding Member, USSR Academy of Sciences; Ed. of Publishing House: A.L. Bankovskiy.

PURPOSE: This book is intended for metallurgists and metallurgical engineers. CONTENTS: This collection of scientific papers is divided into six parts: 1) thermodynamic activity and kinetics of high-temperature processes 2) constitution diagram studies 3) physical properties of liquid metals and slags 4) new analytical methods and production of pure metals 5) pyrometry, and 6) general questions. For more specific coverage, see Table of Contents.

V. PYROMETRY

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Rudnikskiy, A.A. Thermocouples for Measuring High Temperatures Several types of thermocouples were investigated for their stability for use at high temperatures (mostly in the 1700-2300 C range). The most satisfactory types in the range 1700-2300 C are platinum and platinum-iridium couples in the form of a pair of thin tubes. The thermoelectric characteristics in an oxidizing atmosphere, an inert-gas atmosphere, and in vacuum; a reducing atmosphere, however, is harmful to this type of thermocouple.

Svet, D. Ya., and Ye. S. Lipin. TSP-2M Automatic Photoelectric Optical Pyrometer

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Spektor, Ye. Z. Temperature Measurement in Vacuum Melting

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Samar'In, A.M., and D.Ya. Svet. Photoelectric Pyrometry of Liquid Metal Investigations were made of the spectral radiating power of the surface of metal baths of various chemical compositions using various methods. Results were in agreement. The regularities established concerning the connection between color temperature and actual temperature of clean and oxidized metal-bath surfaces are stated. On the basis of a large number of investigations it was established that the value of the coefficient of transition from color temperature to actual temperature has practically no relationship to the presence of alloying elements and varies in the presence of carbon between the limits of 0.61 and 3.5 percent. A comparison of various methods of radiation pyrometry showed that the optical spectral-ratio method is the most effective for continuous temperature control and thermography of liquid metal.

Svet, D. Ya. A Simplified System of Spectral Ratio Optical Pyrometry

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