

A generalization of a theorem by...

S/020/62/146/006/002/016
B172/B186

accordingly (in a domain G with the boundary Γ). The main result is as follows: λ_n and μ_n be the eigenvalues of (3') and (3) respectively.

If $\sum_{n=1}^{\infty} (\mu_n - \lambda_n)$ converges and if $\mu_1 = \lambda_1$, $V(x)$ in G is identically equal to zero. ✓

ASSOCIATION: Moskovskiy fiziko-tekhnicheskiy institut (Moscow Physico-technical Institute)

PRESENTED: May 7, 1962, by I. G. Petrovskiy, Academician

SUBMITTED: May 5, 1962

Card 2/2

SHOSTAKOVSKIY, M.F.; KUZNETSOV, N.V.; YAN CHZHE-MIN' [Yang Ché-min]

Synthesis of ethers and esters of 1,2-dioxyethylene and their conversions.
Izv.AN SSSR.Otd.khim.nauk no.9:1695-1696 S '62. (MIRA 15:10)
(Ethylene glycol) (Ethers) (Esters)

SHOSTAKOVSKIY, M.F.; KUZNETSOV, N.V.; YAN CHZHE-MIN' [Yang Chê-min]

Some conversions of 1,4-dioxene. Izv. AN SSSR.Otd.khim.nauk no.10:
1859-18600 '62. (MIRA 15:10)

1. Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR.
(Oxirene)

SHOSTAKOVSKIY, M. F.; KUZNETSOV, N. V.; YAN CHZHE-MIN' [Yang Chê-min];
BALEZINA, G. G.

Some conversions of acetals of alkoxy- and bromoacetaldehydes.
Izv. AN SSSR Otd. khim. nauk no.12:2220-2223 D '62.
(MIRA 16:1)

1. Institut organicheskoy khimii im. N. D. Zelinskogo AN SSSR.

(Acetals) (Acetaldehyde)

KUZNETSOV, N.V.; KEYKO, N.A.; BURNASHOVA, T.D.

Some new transformations of ethoxyacetaldehyde. Izv. AN SSSR. Otd.
khim. nauk no. 3:553-554. Mr '63. (MIRA 16:4)

1. Irkutskiy institut organicheskoy khimii Sibirskogo
otdeleniya AN SSSR.

(Acetaldehyde)

KUZNETSOV, N.V.; KOMAROVA, L.I.; SAFRONOVA, L.P.

3,5-Dinitrobenzoyl hydrazide, a new reagent for a carbonyl group.
Izv. AN SSSR. Otd.khim. nauk no.4:750-752 Ap '63. (MIRA 16:3)

1. Irkutskiy institut organizhekskoy khimii Sibirskogo otdeleniya
AN SSSR.

(Carbonyl group)

(Benzoic acid)

SHOSTAKOVSKIY, M.F.; KUZNETSOV, N.V.; ZARETSKAYA, Ya.B.

New method of synthesizing unsymmetrical acetals. Izv.AN SSSR
Otd.khim.nauk no.5:922-923 My '63. (MIRA 16:8)

1. Institut organicheskoy khimii Sibirskogo otdeleniya AN SSSR.
(Acetals)

KUZNETSOV, N. V.; BURNASHOVA, T. D.; NIKIFOROV, A. A.; KEYKO, N. A.

Synthesis of glyoxal and glycolic acid. Izv AN SSSR Ser Khim
no. 4:692-695 Ap '64. (MIRA 17:5)

1. Irkutskiy institut organicheskoy khimii AN SSSR.

KUZNETSOV, N.V.

Seminar for raising qualifications of engineers of the State
Institute for the Design and Planning of Roads, Industrial
Establishments and Structures. Avt.dor. 22 no.2:31 F '59.
(MIRA 12:2)
(Road construction--Study and teaching)

KUZNETSOV, N.V., otv. za vypusk; GALAKTIONOVA, Ye.N., tekhn. red.

[Standard cross-section profiles of earth roadbeds, stabilizing elements, and road dressings for rural roads] Tipovye poperechnye profily zemliannogo polotna, konstruksii ukrepleni i dorozhnykh odeshd dlia sel'skikh dorog. Moskva, Avtotransizdat, 1961. 64 p.
(MIRA 14:7)

1. Moscow. Gosudarstvennyy institut po proyektirovaniyu avtozemntnykh zavodov, garazhey, masterskikh i avtoeksplotatsionnogo khozyaystva.

(Road construction)

KUZNETSOV, N.; SOKOLOV, V.

"Instructions for designing highways." Reviewed by N. Kuznetsov,
V. Sokolov. Avt. dor. 24 no. 1:3 of cover Ja '61.

(MIRA 14:2)

(Road—Design)

KUZNETSOV, N.V., otv. za vypusk; DEBERDEYEV, B.S., red.; BODANOVA,
A.F., tekhn. red.

[Handbook for heads of survey teams] Spravochnoe posobie na-
chal'nikam izyskatel'nykh partii. Moskva, Avtotransizdat,
1962. 310 p. (MIRA 16:1)

1. Moscow. Gosudarstvennyy institut po proyektirovaniyu avto-
remontnykh i avtotransportnykh predpriyatiy.
(Roads--Surveying)

KUZNETSOV, Nikolay Vasil'yevich

[Animals and birds of Yaroslavl Province] Zveri i ptitsy IAroslav-
skoi oblasti. IAroslavl', OGIZ, 1947. 65 p. (MIRA 14:11)
(Yaroslavl Province—Natural history)

KUZNETSOV, N. V.

Turov, S. S. and Kuznetsov, N. V. "Zoological observations during the filling of the Rybinsk reservoir", *Okhrana prirody*, 1948 (on the cover: 1949), No. 6, p. 31-35.

SO: U-3261, 10 April 53, (Letopis 'Zhurnal 'nykh Statey, No. 11, 1949).

KUZNETSON, N. V.

KUZNETSOV, N.V.; PLAVIL'SHCHIKOV, M.N.; GOLUBKOVA, V., redaktor;
BIRSENKO, M., khudozhestvenno-tekhnicheskiy redaktor.

[Preparation of biological groups and dioramas for museum exhibits of natural history] Isgotovlenie biogrupp i dioram dlia muzeinoi ekspozitsii prirody. Moskva, Gos. izd-vo kul'turno-prosvetitel'nei lit-ry, 1953. 171 p. (MLRA 7:7)

1. Nauchno-issledovatel'skiy institut krayevedcheskoy i muzeynoy raboty.

(Zoological specimens--Collection and preservation) (Natural history museums)

Q

USSR / Fram Animals. General Problems

Abs Jour: Ref Zhur-Biol, No 5, 1958, 21417

Author : Merkur'yeva Ye K., Kudryashov N. V., Zvaygzne G. F.,
Kuznetsov N. V.

Inst :
Title : The Breeding of Cattle of the Jersey Breed (Razvedeniye krupnogo rogatogo skota dzherzeyskoy porody)

Orig Pub: Zhivotnovodstvo, 1957, No 6, 60-69

Abstract: In order to increase the fat-milk production of East Friesian crossbred cattle by way of interbreeding with sires of the Jersey breed, Jerseys were brought into the USSR in 1955. 110 heifers and 3 young bulls were sent to the state farm "Nekrasovo" in the Ryazan' Oblast. During a period of one year, 105 heifers produced 107 calves which developed well and possessed early sex maturity, a characteristic trait of

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ively. In

~~KUZNETSOV, Nikolay Vasil'yevich~~; IL'ICHEVA, Nonna Vladimirovna; PLAVIL'SHCHIKOV, N.N., doktor biolog.nauk, red.; BENENSON, A.N., red.; MEDVEDEVA, R.A., tekhn.red.

[Nature in a regional museum] Priroda v kraevedcheskom muzee. Moskva, Izd-vo "Sovetskaya Rossiya," 1958. 76 p. (MIRA 12:2)
(Yaroslavl--Natural history museums)

KUZNETSOV, N.V.; MAKKOVEYEVA, I.I.; YAKOVLEV, K.F., red.; KHODINOVA,
V.P., tekhn.red.

[Animals of Yaroslavl Province] Zhivnyi mir IAroslavskoi
oblasti. IAroslavl', IAroslavskoe knizhnoe izd-vo, 1959.
226 p. (MIRA 13:3)
(Yaroslavl Province--Zoology)

Cond
KUZNETSOV, N. V.: ~~Master~~ Master Tech Sci (diss) -- "Problems in the synthesis of
kinematic schemes of hydromechanical transmissions for thermal locomotives".
Moscow, 1958. 14 pp (Min Transportation USSR, Moscow Order of Lenin and Order
of Labor Red Banner Inst of Railroad Transport Engineers im I. V. Stalin),
150 copies (KL, No 3, 1959, 110)

SHISHKIN, K.A., prof.; [deceased]; DOMBROVSKIY, A.B., dotsent;
TRET'YAKOV, A.P., dotsent; SOLOMENNIKOV, V.A., dotsent;
BOGOYAVLENSKIY, V.N., dotsent; STEPANOV, A.D., doktor tekhn.
nauk; IVAKOV, V.N., prof.; KUZNETSOV, N.V., kand.tekhn.nauk;
SLITIKOV, P.A., prof., doktor tekhn.nauk, retsenzent; GAKKEL',
Ye.Ya., dotsent, doktor tekhn.nauk, retsenzent; PANSKIY, V.M.,
dotsent, kand.tekhn.nauk, retsenzent; LUGININ, N.G., kand.tekhn.
nauk, red.; KHITROV, P.A., tekhn.red.

[Diesel locomotives] Teplovozy. Moskva, Vses.izdatel'sko-poligr.
ob'edinenie M-va putei soobshchenia, 1960. 340 p.

(MIRA 14:1)

1. Leningradskiy ordena Lenina institut inzhenerov zheleznodorozhno-
go transporta im. akademika V.N.Obratsova (for Slitikov, Gakkel',
Panskiy).

(Diesel locomotives)

KUZNETSOV, N.V.; FEDOSOV, B.V.

Asymptotic formula for the eigenvalues of a circular membrane.
Dif. urav. 1 no. 12:1682-1685 D '65. (MIRA 18:12)

1. Moskovskiy fiziko-tekhnicheskii institut. Submitted
October 1964.

"APPROVED FOR RELEASE: 06/19/2000

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CIA-RDP86-00513R000928130002-6"

INDEX OF CLEAVAGES OF L.L.L. LXXVIII

KUZNETSOV, N. Ya.

Kuznetsov, N. Ya. - "Regularities in the postembryonic growth of caterpillars of the *Dimorpha (Endromis) versicolor* Linn type," In symposium: Pamyati Akad. S. A. Zernova, Moscow-Leningrad, 1948, p. 335-45 - Bibliog: 17 items

SO: U-3600, 10 July 53, (Letopis 'Zhurnal 'nykh Statey, No. 6, 1949).

KUZNETSOV, N.Ya.

[Principles of insect physiology] Osnovy fiziologii nasekomykh.
Moskva, Izd-vo Akademii nauk SSSR. Vol. 2. 1953. 402 p.
(MLRA 6:12)
(Insects--Physiology)

KUZNETSOV, N.Ye. (Novokuznetsk)

Calculation of electromagnetic slide clutches with non-ferromagnetic rotors. Avtom. i telem. 25 no.4:585-588 Mr '64.
(MIRA 17:6)

KHRUSTALEV, I.K., dotsent; KUZNETSOV, N.Ye., dotsent; TURNAYEV, P.I., inzh.

Automatic drive of mine hoisting machines with electromagnetic clutches. Izv. vys. uchob. zav.; gor. zhur. 8 no.7:180-184 '65.
(MIRA 18:9)

1. Sibirskiy metallurgicheskiy institut imeni Ordzhonikidze.
Rekomendovana kafedroy obshchey elektrotehniki Sverdlovskogo gornogo instituta.

KUZNETSOV, N. Ye.

Agriculture - Study and Teaching

Organizing the computation of the work of leading farmers, Dost. sel'khoz. No. 2,
1953.

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

KUZNETSOV, N.YE.

36867. Ob urovne krovyanogo davleniya v zharkom klimate i znachenii poslednego dlya techeniya gipert'ionicheskoy bolezin. Trudy Uzbek, gos. nauch.-issled. in-ta kurortologii i fizioterapii im. Semashko, sb. 11, 1949, s. 294-99

SO: Letopis' Zhurnal'Nykh Statey, Vol. 50, Moskva, 1949

KUZNETSOV, N.Ye., inzh.; BURATOV, G.N., inzh.; BOYKO, Yu.P., inzh.;
FEDOROVSKIY, V.V., inzh.

Radio control of switches. Zhel.dor.transp. 43 no.6:73 Je '61.
(Railroads—Switching—Radio control)

KUZNETSOV, N.Ye.

Experience in coordinated operations of the railroad transportation of the "Bokovoantratsit" Trust and the Antratsit Station of the Donets Railroad. Trudy MIIT no.143:120-133 '62. (MIRA 15:7)

1. Glavnyy inzhener Upravleniya promyshlennogo transporta i planirovaniya perevozok Iuganskogo sovnarkhoza.
(Rd loads—Freight) (Donets Basin—Mine railroads)

GOLUBEV, T.M., doktor tekhn.nauk, prof.; CHELYSHEV, N.A., kand.tekhn.nauk,
dots.; KAFTANOV, M.P., inzh.; KUZNETSOV, N.Ye., inzh.;
BOYCHENKO, S.M., inzh.; ZHURAVLEV, M.A., inzh.

Operations of a forge blooming mill with use of automatic
control. Izv.vys.ucheb.sav.; chern.met. 2 no.7:59-74
Jl '59. (MIRA 13:2)

1. Sibirskiy metallurgicheskiy institut. Rekomendovano kafedroy
obrabotki metallov davleniyem Sibirskogo metallurgicheskogo
instituta.

(Rolling mills) (Automatic control)

LEBEDEV, V., kand. med. nauk; KUZNETSOV, O., vrach-psikholog

Silence. Av. i kosm. 47 (ekstr. vyp.):59-64 0 '64.

(MIRA 18:3)

L 07850-67 EWT(1) SCTB DD

ACC NR: AP6028039

SOURCE CODE: UR/0025/66/000/005/0111/0113

AUTHOR: Kuznetsov, O. (Psychiatrist); Lobedov, V. (Candidate of medical sciences)

ORG: none

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TITLE: Isolation ✓

E

SOURCE: Nauka i zhizn', no. 5, 1966, 111-113

TOPIC TAGS: isolation test, nervous system, psychologic stress, psychopathology

ABSTRACT: This popular article based on the literature discusses the phenomenon of hallucinations reported by astronauts and experimental subjects under conditions of prolonged isolation and lack of activity. To determine the nature of this phenomenon, various experiments have been conducted in mockup space capsules and soundproof test chambers with the subject isolated from external stimuli. Some subjects lose their sense of time, some develop anxieties, and others experience delusions, illusions and hallucinations. These states in themselves are not symptomatic of mental disease as they may appear in healthy individuals when some factor e.g. lighting, prevents accurate, visual or auditory perception. Various cases are cited. During prolonged periods of isolation the psychic state of the person is very important, particularly fatigue, anxiety and fear. Another type of hallucination found to appear is characterized by visual and auditory mental images becoming so vivid that they become

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ACC NR: AP6028039

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a reality for the subject. The vividness of the images is caused by the reduced number of stimuli acting on the sensory organs. Under normal conditions the vividness of mental images (recollections, wishes, ideas) is damped by numerous real stimuli making the former appear very pale and indistinct by comparison. The two different theories explaining the origin of hallucinations are not incompatible. With higher nervous system and brain disorders induced by prolonged isolation, vivid mental images may become hallucinations; and, in turn illusions and delusions may become hallucinations. Possibly, hallucinations found in mental illnesses also have two different origins. Further study of the problem is vital for aviation and space travel as well as for persons engaged in monotonous tasks under conditions of prolonged isolation. Orig. art. has none.

SUB CODE: 05/ SUBM DATE: none

Card 2/2 mc

KUZNETSOV, O.A.

Temperature waves in the Atlantic Ocean according to the observations
of the research ship "Sedov" in March-May 1958. Trudy Inst.
Okean. 52:160-165 '61. (MIRA 14:6)
(Atlantic Ocean—Ocean temperature)
(Waves)

ACCESSION NR: AT4040587

S/2566/64/064/000/0154/0157

AUTHOR: Kuznetsov, O. A.

TITLE: Buoy for undistorted meteorological measurements at sea

SOURCE: AN SSSR Institut okeanologii. Trudy*, v. 64, 1964. Issle-
dovaniya Indiyaskogo okeana; 33 reys e/s "Vityaz'" (Investigations
of the Indian Ocean; 33d voyage of the expeditionary vessel "Vityaz"),
154-157

TOPIC TAGS: meteorological buoy, semiautonomous buoy, Soviet research
ship, oceanography, meteorological instrumentation

ABSTRACT: In 1960 the Institut okeanologii AN SSSR (Institute of
Oceanology, Academy of Sciences SSSR) developed a semiautonomous
meteorological buoy for the measurement over the open sea of the
gradients of meteorological elements in the surface atmospheric lay-
er. The buoy, modeled after a German unit built in Kiel in 1957,
consists of a foam plastic (PS-1) cone-shaped float (height, 230 cm;
weight, 350 kg; volume, 1.4 m³; specific weight, 0.13), a shock-absor-
bing device, and an 8.5-m aluminum and steel mast with 5 radiating
arms (130, 110, 90, 70, and 50 cm long) which extend outward 1, 2,
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KUZNETSOV, O.A.; FILIPPOV, I.A.

Gradient apparatus for measuring wind velocity in the lower part
of the surface air layer above the sea. Okeanologia 5 no.1:166-169
'65. (MIRA 18:4)

1. Institut okeanologii AN SSSR.

L 20889-66 EWT(1)/EWT(m)/ETC(f)/EWG(m)/FCC/- DS/GW

ACC NR: AP6002558

(N) SOURCE CODE: UR/0286/65/000/023/0056/0056

AUTHORS: Osipova, N. Ye.; Osmolovskaya, T. N.; Kuznetsov, O. A.; Grafov, A. Ya.; Davydov, Yu. S.

ORG: none

TITLE: Method for fabricating moisture-sensitive elements for electrolytic air humidity detectors. Class 42, No. 176708

SOURCE: Byulleten' izobretaniy i tovarnykh znakov, no. 23, 1965, 56

TOPIC TAGS: atmospheric humidity, electrolytic cell, moisture measurement

ABSTRACT: This Author Certificate presents a method for fabricating moisture-sensitive elements for electrolytic air humidity detectors, based on the utilisation of the change of resistance of moisture sensitive films with humidity. To increase the sensitivity and stability while widening the measurement range, the sensitive element is in the form of an insulated shell with parallel metallic electrodes wound on it. The element is placed in a hot aqueous solution with a temperature of no less than 95C containing 1--4% sodium chloride, 38--68% of

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UDC: 621.3.083.8.002.2

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ACC NR: AP6002558

Rochelle salt, 0.1% propantriol, and 0.1% formic acid amide. The element is removed from the solution, and the electrodes are heated to a temperature of 75--80C by an ac current for 5--6 min. 6

SUB CODE: 04/ SUBM DATE: 22Jun64

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ULR

L 22933-66 EWT(1)/FCC GW

ACC NR: AT6012604

SOURCE CODE: UR/2566/65/078/000/0179/0191

AUTHOR: Kuznetsov, O. A.

ORG: Institute of Oceanography (Institut okeanologii)

TITLE: Formation of the wind profile in the surface boundary layer of the air above the surface of the sea

SOURCE: AN SSSR. Institut okeanologii. Trudy, v. 78, 1965. Issledovaniya atmosfernoj tsirkulyatsii i prizemnogo sloya vozdukh nad Tikhim i Indijskim okeanami (Studies of atmospheric circulation and the boundary layer of air over the Pacific and Indian Oceans), 179-191

TOPIC TAGS: micrometeorology, wind, wind gradient, oceanography, atmospheric boundary layer, near water layer, ocean roughness, buoy anemometer

ABSTRACT: Data obtained on the 35th voyage of the Vityaz' in the Indian Ocean (1962) and a minor Black Sea expedition (1963) were used to study wind profiles over the surface of the sea. Although there is no single optimum method of obtaining these data, the most representative data were obtained from two types of buoys: 1) Froude-type buoys which were used in the Black Sea (measurements could not be taken,

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however, below 1—1.5 m above the surface in "fresh-wind" weather) and 2) mushroom-shaped buoys equipped with induction anemometers which moved up and down with the waves (wind speeds continuously recorded on tape at several levels by a POB-14 oscillograph). These records generally indicated a fundamental period corresponding to the period of the waves. In good weather on the Black Sea, wind speeds could be measured 20 cm above the water surface; the anemometers were installed at levels of 43, 93, 163, and 277 cm. It was found that the reliability of anemometer readings was affected by time-dependent calibration of the anemometers. The results are discussed and presented in a table of characteristics of low-frequency wind fluctuations over the surface. Several time-wise wind profiles were also constructed. The difference in periods and amplitudes of low-frequency fluctuations was clear, being identical at most of the levels. The use of induction anemometers also permitted a limited study of wind profiles above wave crests and troughs, which showed that the wind profiles above wave crests were steeper than the average profile for a given interval of time and were more gently sloping over the troughs. Values of parameters of roughness (of the surface) were obtained by interpolating the profiles to "zero" velocities and were tabulated with wind velocity at the 10-cm level plotted as a function of the roughness parameter. The relationship between changes in the roughness parameter and changes in

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ACC NR: AT6012604

wind speed was investigated. In spite of great scattering of graphed points, an overall pattern was established in which the roughness parameter increased with increasing wind speed and vice versa. Orig. art. has: 6 figures and 4 tables. [20]

SUB CODE: 04/ SUBM DATE: none/ ORIG REF: 905/ OTH REF: 001
ATD PRESS: 4238

Card 3/3 *ll*

ANDRONOV, V.V., kapitan 3-go ranga; KUZNETSOV, O.A., kapitan-leytenant

Our experience in training sailors and petty officers aboard
a ship. Mor. sbor. 47 no.12:50-52 D '63. (MIRA 18:12)

KUZNETSOV, Oleg Andreyevich; GOLUB', Boris Ivanovich;
~~BEKHOV:KIKH~~; Vadim Fedoseyevich; MIKHAIL'DON, A.I., red.

[Automatic temperature control in industry; survey of
foreign engineering] Avtomaticheskii kontrol' temperatury v
promyshlennosti; obzor zarubezhnoi tekhniki. Moskva,
GOSINTI, 1962. 92 p. (MIRA 17:7)

KUZNETSOV, Olog Andreyevich; KOPYTOV, I.P., red.

[Automatic control of the interface level of two media]
Avtomaticheskii kontrol' urovnia razdela dvukh sred.
Moskva, Energiia, 1964. 85 p. (Biblioteka po avtomatike,
no.112) (MIRA 17:12)

KUZNETSOV, O.A.; POPOVA, N.A.

Experience in using the polarographic method in the analysis
of raw minerals. Zav. lab. 28 no.9:1147-1148 '62.

(MIRA 16:6)

1. Zaveduyushchiy metodicheskim kabinetom TSentral'noy labora-
torii Krasnoyarskogo geologicheskogo upravleniya (for Kuznetsov).
2. Starshiy inzh.-khimik TSentral'noy laboratorii Krasnoyar-
skogo geologicheskogo upravleniya (for Popova).
(Krasnoyarsk—Minerals—Analysis)
(Polarography)

KUZNETSOV, O.A.; KHROMOV, L.N.

System of the differentiated distribution of information by
the use of punched card machinery. NTI no.8:25-31 '65.
(MIRA 18:9)

L 15954-66 JXT(BF)

ACC NR: AP6003750

SOURCE CODE: UR/0315/65/000/008/0025/0031

AUTHOR: Kuznetsov, O. A.; Khromov, L. N.

31
B

ORG: none

TITLE: A system of differential information classification using computer punchers

SOURCE: Nauchno-tehnicheskaya informatsiya, no. 8, 1965, 25-31

TOPIC TAGS: information processing, punched card, data processing equipment, cost estimate

ABSTRACT: An experimental mechanized system for differential information classification is described. It is designated for the continuous processing and differential classification, by processors, of the information flow according to requirements. Incoming materials are coded using the UDC classification (up to 20 signs) while the output data of a document and addresses of the processors are given in digital codes. The search is carried out by means of computer puncher equipment processing 80 column punch cards. The system accepts simultaneously the information and processor request flows. The paper describes in detail the ten different steps of information processing, and estimates, on the basis of a six-

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UDC: 002.5:681.141

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ACC NR: AP6003750

month trial run, the cost of punch card preparation and of the overall information service. The system can service 10,000 requests from 300 processors-subscribers and can be used for the processing of documents for information source index publications and new entry bulletins. Orig. art. has: 1 figure and 3 tables.

SUB CODE: 09 / SUBM DATE: 08Mar65 / ORIG REF: 006 / OTH REF: 002

bvk
Card 2/2

KUZNETSOV, O.D.; VOLKOV, A.M.

Apparatus for studying the efforts of filers. Gig. i san. 21 no.9:
71-73 & '56. (MIRA 9:10)

1. Iz Tsentral'noy nauchno-issledovatel'skoy laboratorii gigiyeny i
epidemiologii Ministerstva putey soobshcheniya SSSR.
(MUSCLES, physiol.
determ. of stress in filers with special apparatus)

KUZNETSOV, O.A.

Aerodynamic roughness of the sea surface. Trudy Inst. okean.
72:114-138 '63. (MIRA 17:8)

IVANOV, D.A.; KUZNETSOV, O.I.; ZAKHAROV, A.N., inzh.; KLYUCHEV, V.M.;
KITOV, P.V.

Replies to S.M.IAkushev's article "What we expect from industry."
Vest. svyazi 22 no.10:25-26 0 '62. (MIRA 15:11)

1. Nachal'nik Leningradskoy oblastnoy direksii radiotranslyatsionnoy seti (for Ivanov).
2. Starshiy inzh. vnutrirayonnoy svyazi Tomskoy kontory svyazi (for Kuznetsov).
3. Nachal'nik laboratorii Gor'kovskoy oblastnoy direksii radiotranslyatsionnoy seti (for Klyuchev).
4. Nachal'nik Khar'kovskoy direksii radiotranslyatsionnoy seti (for Kitov).

(Electric equipment industry)
(Radio--Equipment and supplies)
(IAkushev, S.M.)

of alpha-olefins with normal structure was obtained at a content of potassium
ranging from 0.39 to 0.77 wt %, and of lithium hydroxide ranging from 0.24

"APPROVED FOR RELEASE: 06/19/2000

CIA-RDP86-00513R000928130002-6

APPROVED FOR RELEASE: 06/19/2000

CIA-RDP86-00513R000928130002-6"

KUZNETSOV, O.K.; LUZYANINA, T.Ya.

Protective effect of homologous and heterologous immune sera in experiments on tissue cultures. Vop. virus. 10 no.3:333-338 My-Je '65. (MIRA 18:7)

1. Otdel virusologii Instituta eksperimental'noy meditsiny AMN SSSR, Leningrad.

DOLGIN, I.M.; kand.geograf.nauk; NIKOLAYEVA, T.V., mladshiy nauchnyy sotrudnik; BASOVA, L.G., mladshiy nauchnyy sotrudnik; VORONTSOVA, L.I., mladshiy nauchnyy sotrudnik; DANILOVA, V.M., mladshiy nauchnyy sotrudnik; KOVROVA, A.M., mladshiy nauchnyy sotrudnik; SERGEYEVA, G.G., mladshiy nauchnyy sotrudnik; SMIRNOVA, V.N., mladshiy nauchnyy sotrudnik; KHARITONOVA, L.I., mladshiy nauchnyy sotrudnik; ALEKSANDROV, V.F., aerolog; KUZNETSOV, O.M., aerolog; MAYOROVA, L.A., aerolog; POSTNIKOVA, D.G., aerolog; SMIRNOVA, I.P., aerolog; VASIL'YEVA, R.P., tekhnik; MEDNIS, L.V., tekhnik; KHARITONOVA, V.A., tekhnik; KHRUSTALEVA, N.K., red.; DROZHZHINA, L.P., tekhn.red

[Aerological observations of Arctic stations during the period from June 30 through December 31, 1957] Aerologicheskie nabliudeniia poliarnykh stantsii s 30 iyunia po 31 dekabria 1957 g. Leningrad, Izd-vo "Morskoi transport," 1961. 994 p. (Antarkicheskiy i antarkicheskiy nauchno-issledovatel'skii institut Trudy, vol.243)

(MIRA 14:11)

(Arctic regions--Meteorology--Observations)

12300

24775

S/125/61/000/008/001/014
D040/D113

AUTHORS: Yerokhin, A.A., Bykov, A.N., and Kuznetsov, O.M.
TITLE: Oxidation of manganese in basic electrode coatings
PERIODICAL: Avtomaticheskaya svarka, no. 8, 1961, 13-19

TEXT: The oxidation of ferromanganese in mixtures with marble, fluorite, ferrosilicon and graphite was studied in experiments with specimens heated to 1000-1050° in a laboratory tube furnace. The quantity of Mn left non-oxidized was determined by methods proposed by V.S. Nagibin and A.V. Arkhipova, staff members of the chemical analysis laboratory of the Institut metallurgii im. A.A. Baykova (Institute of Metallurgy im. A.A. Baykov). The method consisted in treating specimens with a CuSO₄ solution and passing the metallic Mn into the solution according to the following reaction:



After heating the specimen, the losses in tempering and the quantity of metallic Mn were determined. According to these data, the marble dissociation Card 1/5

24775

S/125/61/000/008/001/014

D040/D113

Oxidation of manganese...

degrees (β) and the Mn oxidation degree (γ) were calculated. Argon shielding decreased Mn oxidation (γ); ferrosilicon had a noticeable effect in the case of fusion in a mixture with fluorite; graphite and ferrosilicon additions had only a slight effect in argon. Marble dissociation practically ended after suspension for 2-3 min at 1000°C, or 3-6 min at 850°C (Fig. 1). The Mn oxidation reached its maximum after 2-3 min and remained unchanged after further heating (Fig. 2). The value ξ indicates the percentage $\frac{\text{CaCO}_3}{(\text{Mn})}$ ratio in the mixture. In all experiments γ and ξ increased proportionally approximately according to the linear function but only to a certain ξ value, after which γ ceased to increase in heating the specimen in argon as well as in air. This effect is explained by the action of CO_2 forming during marble decomposition. Increased carbon content compared to the initial content was observed in metallic Mn nuggets that formed in mixtures with fluorite. The behavior of electrothermic ferromanganese (82% Mn, 1% C) was different from that of blast furnace-melted ferromanganese (71% Mn, 6.5% C), the summary oxidation rate of the former being lower than that of the latter. The peculiar behavior of coarse blast furnace ferromanganese (cessation in the increase in γ when $\xi > 1$ and a secondary increase in

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S/125/61/000/008/001/014

D040/D113

Oxidation of manganese...

γ when $\xi \approx 6$) requires additional experimental investigations. The following conclusions are drawn: (1) On reheating a carbonaceous coating containing ferromanganese, CO_2 oxidizes 20-60% of the manganese during the decomposition of the carbonate; (2) The manganese oxidation degree (γ) in similar conditions depends on the ratio between the carbonate and manganese contents (ξ) in the mixture. The γ and ξ values increase proportionally, but to a definite limit. The lower the ξ value, at which the maximum Mn oxidation degree for the given ferromanganese powder is reached, the higher is the rate of oxidation; (3) In oxidizing the electrothermic ferromanganese, the carbon content in the nonoxidized part of it increases in comparison with the initial carbon content. This may be explained by the thermodynamic stability of manganese carbide in the given conditions. There are 4 figures, 2 tables and 3 Soviet references.

ASSOCIATION: Institut metallurgii im. A.A. Baykova (Institute of Metallurgy im. A.A. Baykov)

SUBMITTED: December 31, 1960

Card 3/5

30229

S/125/61/000/011/008/012
D040/D113

12300

1973

AUTHORS: Yerokhin, A.A., and Kuznetsov, O.M.

TITLE: Lowering the carbon content in weld metal when welding stainless steels

PERIODICAL: Avtomaticheskaya svarka, no. 11, 1961, 53-54

TEXT: Experimental data indicated that the increase in the carbon content in the weld metal produced by low-carbon electrode wires was caused by marble in the wire coating. This was substantiated in experiments with varying marble content and constant quantities of ferroalloys in nonoxidizing coating. It was shown that 0.06% carbon was contained in the weld metal when electrodes without marble in the coating or with 5 to 15% marble were used; 0.7% carbon was present when the coating contained 20% marble. The finally selected coating composition contains 10% marble and 11% deoxidizers (ferrosilicon and ferrotitanium) and is called IMET-8 (IMET-8). It has been tested on two wire grades - $C_{\text{B}}-1\% 18\text{H}9\text{T}$ (Sv-1Kh18N9T) with 0.056% C and $C_{\text{C}}-X18\text{H}11\text{M}$ (Sv-Kh18N11M) with 0.37% C. IMET-8 coating is recommended for

Card 1/2

30229

S/125/61/000/011/008/012
D040/D113

Lowering the carbon ...

the following standard wires: $C_B-02 \times 19H9$ (Sv-02Kh19N9), $C_B-04 \times 19H9$ (Sv-04Kh19N9), $C_B-04 \times 19H9 \text{ } \mathcal{C}^2$ (Sv-04Kh19N9S2), $C_B-04 \times 19H11M3$ (Sv-04Kh19N11M3) and other wires with specifications as per ГOCT2246-60 (GOST 2246-60). The weight coefficient of the coating is 30-35%, which corresponds to a 0.9-1.1 mm coating layer depth on wire, 4 mm in diameter. IMET-8 electrodes are suitable for welding with direct current and reverse polarity. The proper current for electrodes, 4-5 mm in diameter, is 110-140 and 130-180 amp respectively. As short as possible arc length is recommended. There are 6 Soviet references. X

ASSOCIATION: Institut metallurgii im. A.A. Baykova (Institute of Metallurgy im. A.A. Baykov)

SUBMITTED: April 4, 1961.

Card 2/2

S/659/62/009/000/029/030
1003/1203

AUTHORS: Yerokhin, A. A., Kuznetsov, O. M., and Bykov, A. N

TITLE: Arc welding of nickel-base heat-resisting alloys by means of molybdenum-alloyed electrodes

SOURCE: Akademiya nauk SSSR. Institut metallurgii. Issledovaniya po zharoprochnym splavam. v. 9. 1962. Materialy Nauchnoy sessii po zharoprochnym splavam (1961 g.), 238-242

TEXT: The resistance to cracking of welds made by ЭИ-435 (EI-435) and ЭИ-437 (EI-437) electrodes was investigated and as a result new electrodes were developed by alloying the above with 18-20 % of molybdenum. The new electrodes made of the EI-435 alloy are called ИМЕТ-4М (IMET-4M) and ИМЕТ-4П (IMET-4P) and those made of the EI-437A (EI-437A) alloy are called ИМЕТ-7М (IMET-7M). The mechanical properties and the microstructures are given of welds made with these electrodes. There are 3 figures and 2 tables.

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ACCESSION NR: AP3012231

S/0135/63/000/011/0015/0017

AUTHOR: Kuznetsov, O. M. (Engineer); Yerokhin, A. A. (Doctor of technical sciences)

TITLE: Welding of heat-resistant nickel alloys with INET-4P electrodes

SOURCE: Svarachnoye proizvodstvo, no. 11, 1963, 15-17

TOPIC TAGS: nickel base alloy, nickel alloy welding, heat resistant nickel alloy, INET 4P electrode, EI867 alloy, EI435 alloy

ABSTRACT: The Institut metallurgii im. A. A. Baykova (Institute of Metallurgy) has developed the INET-4M and INET-4P electrodes for manual welding of heat-resistant nickel-base alloys. The electrodes yield a weld metal with a molybdenum content of 18—20% (INET-4M) and above 20% (INET-4P). The weld metal (especially that of INET-4P) has a high resistance to hot cracking. The weld metal of a multipass deposit with an INET-4P electrode had a tensile strength of 51.5—68.4 kg/mm² and an elongation of 0.7—6.0%, both of which were lower than

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ACCESSION NR: AP3012231

the figures for weld metal deposited into a copper mold (66.1—72.5 kg/mm² and 3.2—9.2%) because of the more rapid solidification of the latter. The metal of INET-4P multipass deposit has lower strength and elongation at room temperature than the Ni-base alloys EI437B [Nimonic 80A] and EI445P [0.08% C, 17—20% Cr, 2.2—2.8% Ti, 0.7—1.7% Al, 4—5% Mo, 4—5% W, 0.02% Ce, 0.01% B]. However, with increasing temperature the difference becomes less pronounced (see Fig. 1 of the Enclosure). The metal of the INET-4P multipass weld in heat resistant alloys contains less molybdenum than metal deposited into the mold, but it has a higher content of tungsten, niobium and other alloying elements, which come over from the base metal. As a result, this metal has a higher heat resistance. The effect of the base metal on the weld metal is more pronounced in welding thin sheets, in which case the properties of the base and weld metals are almost identical. The 100-hr rupture strength at 850C of the INET-4P multipass deposit was 8 kg/mm², compared with 3, 10, and 30 kg/mm² for the EI435 [Nimonic 75], EI437B, and EI867 [composition not given] alloys, and with 10.8 kg/mm² for the weld metal in the EI867 plate (15 mm thick). Postwelding austenitizing (at 1050C for 2 hr with air cooling) or austenitizing with subsequent

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ACCESSION NR: AP3012231

single aging (at 850C for 5 hr) or double aging (at 660C for 16 hr, and at 790C for 16—12 hr) had no beneficial effect on the properties of the weld metal either at room or elevated temperatures. Orig. art. has: 2 figures and 6 tables.

ASSOCIATION: Institut metallurgii im. Baykova (Institute of Metallurgy)

SUBMITTED: 00

DATE ACQ: 22Nov63

ENCL: 01

SUB CODE: MM

NO REF SOV: 005

OTHER: 001

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"APPROVED FOR RELEASE: 06/19/2000

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CIA-RDP86-00513R000928130002-6

APPROVED FOR RELEASE: 06/19/2000

CIA-RDP86-00513R000928130002-6"

KUZNETSOV, O.M., inzh.; YEROKHIN, A.A., doktor tekhn. nauk

Welding heat-resistant nickel alloys with IMET-4P
electrodes. Svar. proizvod. no.11:15-17 N'63. (MIRA 17:5)

1. Institut metallurgii im. Baykova.

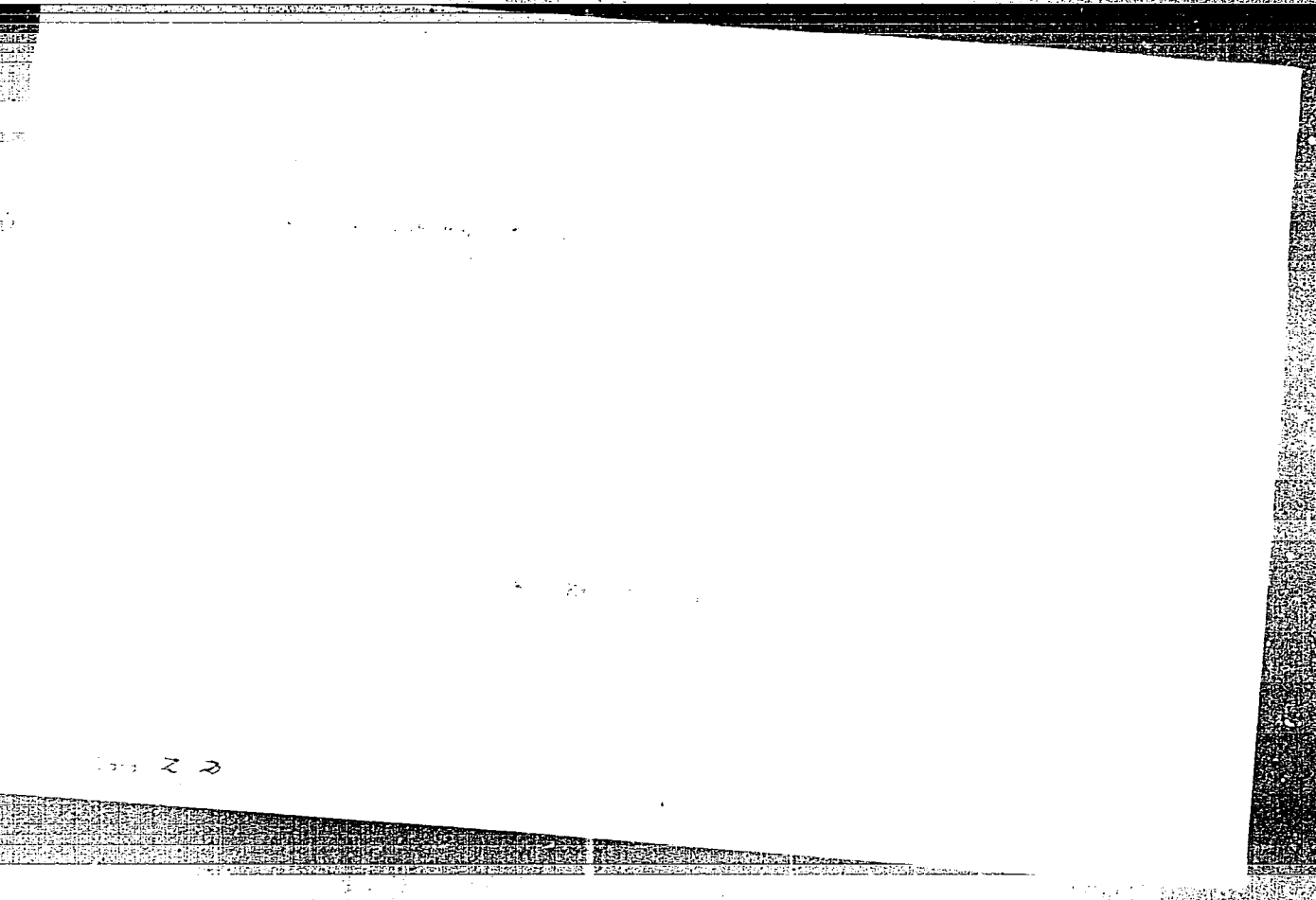
Yonatan, A. A. (1958) ... (Engineer)

Increasing the strength of metal welds with a view to preventing hot cracks

... design ...

... ..

...



YEROKHIN, A.A.; KUZNETSOV, O.M.; BYKOV, A.N.

Effect of certain elements on the properties of the seam
metal in welding heat resistant alloys. Avtom. svar. 17
no.9:11-14 S '64.

(MIRA 17:10)

1. Institut metallurgii im. A.A. Baykova.

KUZNETSOV, O.N.

Use of etaperazine in treatment of periodic schizophrenia. Trudy
Gos.nauch.-issl.inst.psikh. 35:165-174 '62. (MIRA 16:2)

1. Otdeleniye psikhozov pozdnego vozrasta (zav. otdeleniye -
prof. S.G. Zhislin) i otdeleniye psikhofarmakologii (zav. otdeleni-
yem kand.med.nauk G.Ya. Avrutskiy) Gosudarstvennogo nauchno-
issledovatel'skogo instituta psikhiiatrii.
(SCHIZOPHRENIA) (PIPERAZINEETHANOL)

KUZNETSOV, O.N.

Unusual side effects of ethaperazine treatment similar to psychic disorders in epidemic encephalitis. Vop.klin., patog. i lech. shiz. no.1:78-80 '64. (MIRA 18:5)

1. Otdel shizofrenii (zav. - prof. S.G.Zhislin) i otdel psikhofarmakologii (zav. - kand.med.nauk G.Ya.Avrutskiy) Gosudarstvennogo nauchno-issledovatel'skogo instituta psikhiiatrii Ministerstva zdravookhraneniya RSFSR.

...aprazin in schizophrenic patients ...

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APPROVED FOR RELEASE: 06/19/2000

CIA-RDP86-00513R000928130002-6"

L 08268-67 FSS-2/EWT(1)/EEC(k)-2 SCTB TT/DD/GD/GW-

ACC NR: AT6036481

SOURCE CODE: UR/0000/66/000/000/0036/0637

AUTHOR: Arzhanov, I. M.; Bryanov, I. I.; Baturanko, V. A.; Beresgovkin, A. V.;
Buyanov, P. V.; Kovalev, V. V.; Kondrakov, V. M.; Krasovskiy, A. S.; Kuznetsov, O. N.;
Kuznetsov, S. V.; Nikitin, A. V.; Nistratov, V. V.; Teret'yev, V. G.; Fedorov, Ye. A.;
Khlebnikov, G. V.

ORG: none

TITLE: Some results of the postflight examination of P. I. Belyayev and A. A. Leonov following their flight on the Voskhod-2 spacecraft [Paper presented at the Conference on Problems of Space Medicine held in Moscow from 24 to 27 May 1966]

SOURCE: Konferentsiya po problemam kosmicheskoy meditsiny, 1966. Problemy kosmicheskoy meditsiny. (Problems of space medicine); materialy konferentsii, Moscow, 1966, 36-37

TOPIC TAGS: space medicine, postflight medical examination, bodily fatigue, body weight, cardiovascular system, oculocardiac reflex, unconditioned reflex, space psychology, oxygen consumption, respiration, pulmonary ventilation/Voskhod-2

ABSTRACT: Postflight examinations of the Voskhod-2 crew members, Leonov and Belyayev, were performed on the third and fourth days after the flight and again a month later. The cosmonauts complained of light fatigue. They were found to have hyperemia of the mucosa of the nose and throat and conjunctivitis of the eyelids and eyeballs. They had lost weight

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ACC NR: AT6036481

Their pulse showed a certain lability. Pulse frequency rose significantly during mild physical exertions and changes in the position of the body. There was an increase in intraventricular conductivity, an increase in the systolic index (7—11%), and a delay in restoration of hemodynamic indices after physical exercise.

Belyayev's oxygen consumption increased by 23% and Leonov's by 14% as compared with preflight levels. Vital capacity of the lungs diminished by 8—12%, while pulmonary ventilation increased by 51—18%.

Neurological examinations revealed a light tremor of the fingers, a high orthostatic reflex with an absence of pulse reaction to the oculo-cardiac reflex, and an increase in the slow bioelectrical activity of the brain cortex. Psychological tests revealed an increase in distribution and in the middle magnitudes of the duration of the period of sensory motor reaction. Since this was not accompanied by errors, it is possible to assume that the fatigue observed in cosmonauts was a compensatory reaction. Blood and urine examination on the third day after flight did not differ substantially from preflight levels. Biochemical examination uncovered an increase of chlorides, adrenalin, noradrenalin, and 17-oxycorticosteroids in the urine.

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ACC NR: AT6036481

The observed shifts in physiological indices were short-term and reversible. They indicated the development of moderately marked fatigue in the subjects. Thus, despite the complexity of the flight, the postflight examinations revealed only moderate functional changes in the two cosmonauts. There was no difference in the nature of these changes in the cosmonauts. This indicates a high degree of training and a good neuropsychological and physical preparation for spaceflight. [W.A. No. 22; ATD Report 66-116]

SUB CODE: 06, 22 / SUBM DATE: 00May66

Card 3/3 *egk*

ACC NR: AT6036603

SOURCE CODE: UR/0000/66/000/000/0241/0242

AUTHOR: Kuznetsov, O. N.

ORG: none

TITLE: Quietroom tests as a method of studying individual psychological characteristics of personnel ^[Paper presented at the Conference on Problems of Space Medicine held in Moscow from 24-27 May 1966]

SOURCE: Konferentsiya po problemam kosmicheskoy meditsiny, 1966. Problemy kosmicheskoy meditsiny. (Problems of space medicine); materialy konferentsii, . Moscow, 1966, 241-242

TOPIC TAGS: isolation test, space psychology, psychologic stress, cosmonaut training, bioastronautics, soundproof chamber test

ABSTRACT:

The concept of operator activity presently consists of averaged and abstracted (from individual psychological features) personality. In addition, research on operator reliability has closely paralleled research on the influence of the personality factor on reliability.

An experimental psychological study of human personality is an urgent, if complicated and difficult problem. Most psychological and experimental approaches do not reveal the psychological structure of

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ACC NR: AT6036603

personality to an adequate degree. The sociometric and projective methods of the bourgeois psychology of personality are not designed to solve the problems confronting Soviet science. The experimental approach of D. N. Uznadze and the modeling of complex operations by F. D. Gorbov reveals the individual psychological features of personality far more comprehensively.

Soundproof chamber tests involving the prolonged stay of human subjects in a closed space under regimented activity conditions is an approach which most effectively permits detection of the individual psychological features of personality which are immediately germane to operator activity in a number of specialized professions. The advantages of this approach are: The matching of determined and undetermined activity; the blending of positive aspects of natural and artificial experiments into one approach; the capacity to simultaneously study psychological and physiological parameters; the chronic observation of shifts in various states; and the observations of the experimenter taken to be the "publicity of isolation." The task of the experimenter is to monitor that individual, well-defined psychological factor, coupled with other factors such as sensory deprivation, hypodynamia, altered daily routine, and the necessity of adapting these enumerated relationships to new conditions.

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Operator activity from the standpoint of the psychological significance and suitability of an operator during a chronic experiment can be studied by using polyeffector recording methods (V. I. Myasnikov, 1963) which permit the detection of the intimate aspects of operator dynamics. An interesting capability of chronic soundproof chamber tests is the comparison of objective and subjective (diaries and personal accounts) data.

The necessary conditions for the correct evaluation of individual psychological features of personality from soundproof chamber tests are a comprehensive scope, dialectic approach, comprehensive of the goals and motives of activity, and the clinical and psychological views of A. F. Lazurskiy. The suitability of a subject, characterized by subordination of participation in the experiment to motives associated with his basic personal interests, lends a vitally imitative aspect to the experiment conforming to the concepts of V. N. Myasishchev. The suitability of a subject is considered from the position of I. P. Pavlov's goal reflex and from the analogy of overrehearsal and the transparent (method) acting of K. S. Stanislavskiy (who created method acting).

Experiments involving chronic isolation in a closed space coupled with relative sensory deprivation and methods of group psychology (F. D. Gorbov, M. A. Novikov) which expose subjects to special, predetermined, Card 3/4

ACC NR: AT6036603

sharply delineated social conditions, can reveal those individual psychological features of personality which other approaches mentioned in the literature cannot.

In the author's opinion, the use of soundproof chamber studies for studying the personality factor of operator activity has prospects and can help to solve some timely problems of engineering psychology as they relate to problems of cosmonautics.

[W.A No. 22; ATD Report 66-116]

SUB CODE: 06,05,22 / SUEM DATE: 00May66

Card 4/4

ACC NR: AT6036605

SOURCE CODE: UR/0000/66/000/000/0244/0245

AUTHOR: Kuznetsov, O. N.; Lebedev, V. I.; Litsov, A. N.

ORG: none

TITLE: Problem of the "application" method of strict sensory deprivation during prolonged quiet-room tests [Paper presented at the Conference on Problems of Space Medicine held in Moscow from 24-27 May 1966]

SOURCE: Konferentsiya po problemam kosmicheskoy meditsiny, 1966. Problemy kosmicheskoy meditsiny. (Problems of space medicine); materialy konferentsii, Moscow, 1966, 244-245

TOPIC TAGS: isolation test, sensory deprivation, space psychology, psychologic stress, cosmonaut training, psychophysiology

ABSTRACT:

Methods were sought to naturally enforce strict sensory deprivation in the absence of subjective psychological complications. In the process of soundproof chamber tests of neuropsychic stability during normal daily activity and an increase of up to 9 hours of regulated sleep, it was established (based on subjective evaluations by the subjects, EEG's during sleep, autography, nocturnal pulse and respiration dynamics) that the majority of subjects slept no longer than 7 hours. The remaining time

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allotted for sleep was spend in a horizontal position in darkness with strictly limited movements. These hours were tolerated with great difficulty but were not considered as artificial by the subjects.

From here, experiments using a shifting daily activity regimen (sleep from 14:00—23:00) were conducted. Tests began at 13:00. During the first regulated sleep period (experimental night) subjective and objective data showed that subjects did not sleep more than 4 hr. The remainder of sleepless time was spent lying in a rigid position in the darkened soundproof chamber. This permitted the calculation of sleepless hours while conducting prolonged chamber tests applying strict sensory deprivation on a background of relative deprivation. Despite the fact that these states were tolerated with great difficulty, no psychopathological manifestations were noted. The degree of human adaptation to sensory deprivation was judged to be a direct result of functional adaptation to altered daily routines.

The method of enforcing strict sensory deprivation on a background of relative sensory deprivation while increasing the number of hours of regulated sleep during a normal and altered daily routine can be used for evaluating spacecraft-operator tolerance to sensory deprivation.

[W. A. No. 22; ATD Report 66-116]

Card 2/2 SUB CODE: 06,05 / SUBM DATE: 00May66

ACC NR: AT6036612

SOURCE CODE: UR/0000/66/000/000/0254/0255

AUTHOR: Logon'kov, B. V.; Surinov, Yu. A.; Kuznetsov, O. N.; Lebedov, V. I.

ORG: none

TITLE: Question of the psychological bases of individual physical training
/Paper presented at the Conference on Problems of Space Medicine held in Moscow from
24-27 May 1966/
SOURCE: Konferentsiya po problemam kosmicheskoy meditsiny, 1966. Problemy
kosmicheskoy meditsiny. (Problems of space medicine); materialy konferentsii,
Moscow, 1966, 254-255

TOPIC TAGS: cosmonaut training, space psychology, physical exercise, space
physiology, psychophysiology

ABSTRACT:

Individualization of the physical preparation program is one of the best methods for developing the individual psychological qualities necessary for good performance in spaceflight. Of course such individual tailoring of physical training is impossible without analysis of the personality of each cosmonaut. On one hand, data obtained from psychological studies is used by physical-education instructors to select the most effective teaching methods. On the other hand, observation of cosmonaut behavior in the process of physical training is a valuable

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addition to the complete psychological picture. During physical training emotional and volitional characteristics, demonstrated in the ability to overcome difficulties, thoroughness of movements, psychomotor activity, formation of motor coordination habits, and initiative, are identified. With the use of exercises selected according to the degree of individual physical preparedness, (jump turns from unusual positions, complicated jumps on the trampoline, and a variety of other exercises) it was possible to identify other psychic characteristics: stamina, the capacity for analytical thought, attention, and memory.

The method of studying individual personality characteristics and the method of developing psychologically valuable qualities by means of physical preparation was developed by the authors on the basis of experimental work by the leading athletic psychologists P. I. Rudik, O. A. Chernikova, and T. I. Gagayeva. Personality manifestations in work were considered on the basis of theories of B. M. Teplov and V. S. Merlin.

Complex study of personality (using the methods of teaching psychology) during physical training permits substantiation of data obtained during observation by means of laboratory experiments. Data

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ACC NR: AT6036612

can also be compared with those from sources of personality information associated with the method of clinical psychology. Inclusion of physical training in personality study permits use of the teaching-psychology experiment, which expands the possibilities of personality analysis.

Athletic games with carefully selected teams are used to determine the group characteristics of a given group of cosmonauts. Various team rearrangements help clarify group typology of individual cosmonauts (according to the methods of F. M. Gorbov and M. A. Novikov).

Individualized physical training consists of two steps; 1) interviews and observation, and 2) individual preparation and experiments in teaching psychology. There are many kinds of possible interactions between psychological study and physical training: information can be exchanged between instructors and psychologists using the same personality theory and study methods, joint consultations on training methods can be held, individual courses of study for each cosmonaut can be developed and modified jointly.

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ACC NR: AT6036612

Scientific and psychological grounding of individualized programs for the physical training of spacecraft operators will enable researchers to uncover and reinforce valuable psychological qualities in cosmonauts without fear of overtraining or breakdown.

[W. A. No. 22; ATD Report 66-116]

SUB CODE: 06,05 / SUBM DATE: 00May66

Card 4/4

L 11781-66 FSS-2/EWT(1)/FS(v)-3 DD

ACC NR: AP6003276

SOURCE CODE: UR/0246/66/066/001/0081/0088

AUTHOR: ⁵⁵Gorbov, F. D. (Moscow); ⁵⁵Kuznetsov, O. N. (Moscow); ⁵⁵Lebedev, V. I. (Moscow)

ORG: none

TITLE: The modeling of psychosensory disorders under conditions of short-term weightlessness ^{2,5} 37
B

SOURCE: Zhurnal nevropatologii i psikiatrii, v. 66, no. 1, 1966, 81-88

TOPIC TAGS: human physiology, parabolic flight, weightlessness, space psychology, spatial disorientation, ~~depersonalization~~

ABSTRACT: The authors reviewed 10 Western and 28 Soviet sources to demonstrate that the reaction of healthy subjects to short-term weightlessness (20-60-sec parabolic flights) can be used as a model of some clinical psychosensory disorders such as depersonalization, derealization, the "end-of-the-world" syndrome, etc. The reaction characteristics of subjects exposed to weightlessness fall into three categories. In the first, weightlessness is tolerated without difficulty or unpleasant sensation, and working ability is not impaired. It is stated that all Soviet cosmonauts fall into this category. The second category consists of subjects who experience acute sinking, tumbling, soaring, counterrotational, and upside-down sensations, accompanied by sensations of discomfort, fear, and loss of spatial orientation during the first 4-5 sec of weightlessness. These sensa-

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tions are interchangeable with those of happiness, playfulness, and euphoria. Subjects in the second category ultimately adapt to subsequent flights. The third category consists of individuals whose illusory reactions to weightlessness are more severe and persist throughout the entire weightless period, often resulting in seasickness. Some individuals of a subgroup of the third category experience acute sinking sensations which lead to hysteria, involuntary screaming, and increased motor activity, persisting throughout the entire weightless period. Such a complete loss of spatial orientation is compared to depersonalization or the "end-of-the-world" syndrome. In general, there are many significant features common to both psychosensory disorders and those perceptual sensations observed during parabolic flights. An analysis of psychophysiological reactions to short-term weightlessness can serve to confirm theories of the origins of disintegrative psychosensory disorders. Weightlessness data indicates that psychosensory reactions have three phases: In the first phase, there is a dissociation of analyzer activity which can be accompanied by unpleasant sensations and unstable spatial illusions; in the second phase, depersonalization reactions occur although the subject interprets the illusions rationally; in the third phase, depersonalization and derealization occur with delirious illusory interpretations by the subject. It is concluded that the analysis of psychosensory reactions to short-term weightlessness can lead to an understanding of the pathogenic mechanisms of clinical psychosensory disorders, just as studies of specific reactions to isolation and sensory deprivation can serve to elucidate some heretofore unclear questions concerning various psychiatric syndromes.

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KUZNETSOV, O.O.

Use of latex paste for the knotless yarn joining. Tekst. prom.
24 no.2:34-35 F '64. (MIRA 17:3)

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AUTHOR: Kuznetsov, O.P.

TITLE: The application of predicate calculations to the synthesis of one class of multiple switching circuits

PERIODICAL: Referativnyy zhurnal. Avtomatika i radioelektronika, no. 2, 1961, 34, abstract 2 V257 (V sb. Avtomat. upraleveniye, M., AN SSSR, 1960, 339-344)

TEXT: The operating conditions of a circuit may be written as a system of equations for all outputs (Y's) at a certain instant $t + 1$, in the RHS of which are the predicates $A_i(t_i)$ corresponding to the inputs and $Y_j(t_j)$ corresponding to the outputs, with the conditions $t_i \leq t$, $t_j \leq t$, satisfied for all t_i and t_j . The synthesis thus reduces to changing Y's into the predicates of intermediate elements $X(t)$ after which it is possible to construct Boolean-junctions for intermediate elements and the outputs. It is

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shown that the full algorithm of synthesis of multiple switching systems as yet does not exist since it is not clear how X's should be introduced into the formulae. An example of circuit synthesis with four inputs and outputs is given. In this circuit, after consecutive excitation of two inputs, two outputs are excited in the same sequence and with the third excitation of the input the outputs are disconnected and the circuit starts from scratch.
1 reference.

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