CITLE: Study of the processing capacity of the human visual system SOURCE: AN SSSR. Otdeleniye biologicheskikh nauk. Froblemy cosmicheskoy biologii, v. 4, 1965, 87-101 COPIC TAGS: information processing, information theory, medical experiment, vision ABSTRACT: The speed with which 2, 3, 4, 5, or 10 sketched forms of straight lines shown in various positions were correctly recognized was ested in 9 individuals, to 38 years of age, who had been trained for this purpose. The relationship between perceptual capacity and the properties of the forms, prior training, background noise and lighting ras studied. The functioning of this system was compared to an ideal hown varied from 10 to 600 milliseconds and 60-170 were needed for correct recognition. The rate of recognition was expressed in double	ACC NR: AT6003844	SOURCE CODE:	UR/2865/65/004/000	/0087/0101
		<u>A.</u>		41
SOURCE: AN SSSR. Otdeleniye biologicheskikh nauk. Problemy cosmicheskoy biologii, v. 4, 1965, 87-101 COPIC TAGS: information processing, information theory, medical experiment, vision ABSTRACT: The speed with which 2, 3, 4, 5, or 10 sketched forms of straight lines shown in various positions were correctly recognized was cested in 9 individuals, to 38 years of age, who had been trained for this purpose. The relationship between perceptual capacity and the properties of the forms, prior training, background noise and lighting tas studied. The functioning of this system was compared to an ideal model of information processing. The periods for which the forms were shown varied from 10 to 600 milliseconds and 60-170 were needed for correct recognition. The rate of recognition was expressed in double		Sector and the		Btl
OPIC TAGS: information processing, information theory, medical experiment, vision BSTRACT: The speed with which 2, 3, 4, 5, or 10 sketched forms of traight lines shown in various positions were correctly recognized was ested in 9 individuals, to 38 years of age, who had been trained for his purpose. The relationship between perceptual capacity and the roperties of the forms, prior training, background noise and lighting as studied. The functioning of this system was compared to an ideal odel of information processing. The periods for which the forms were hown varied from 10 to 600 milliseconds and 60-170 were needed for orrect recognition. The rate of recognition was expressed in double	ITLE: Study of the p	rocessing capacit;	y of the human visual	l system
ABSTRACT: The speed with which 2, 3, 4, 5, or 10 sketched forms of straight lines shown in various positions were correctly recognized was cested in 9 individuals, to 38 years of age, who had been trained for this purpose. The relationship between perceptual capacity and the properties of the forms, prior training, background noise and lighting was studied. The functioning of this system was compared to an ideal model of information processing. The periods for which the forms were shown varied from 10 to 600 milliseconds and 60-170 were needed for correct recognition. The rate of recognition was expressed in double	OURCE: AN SSSR. Otdo osmicheskoy biologii,	eleniye biologich v. 4, 1965, 87-1	eskikh nauk. Froblem 01	my
tested in 9 individuals, to 38 years of age, who had been trained for this purpose. The relationship between perceptual capacity and the properties of the forms, prior training, background noise and lighting has studied. The functioning of this system was compared to an ideal model of information processing. The periods for which the forms were shown varied from 10 to 600 milliseconds and 60-170 were needed for correct recognition. The rate of recognition was expressed in double	OPIC TAGS: informatic xperiment, vision	on processing, in	formation theory, me	dical
	traight lines shown in estad in 9 individuals his purpose. The rela roperties of the forma as studied. The funct odel of information pu- hown varied from 10 to orrect recognition.	n various position s, to 38 years of ationship between s, prior training tioning ofthis sys rocessing. The pe o 600 milliseconds The rate of recom	as were correctly red age, who had been th perceptual capacity , background noise an stem was compared to ariods for which the s and 60-170 were need hition was expressed	cognized was rained for and the nd lighting an ideal forms were aded for in double

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ACC NR: AT60038444

is assumed that recognition of briefly shown objects is based both on actual information and the visual images present in the observer's alphabet. Tests for information processing as related to time showed a carrying capacity of 35-110 double units/sec. Values decreased if complete absence of errors was required, but for the straight lines values remained constant, pointing towards automation of this information, since no time for selection of the highest probabs'ity was required. Tests for the time required for recognition depending on size and outline of the picture showed that within certain limits speed depended on a sharp outline rather than size of the drawing. Above a certain threshold of illumination, processing was the same, no matter how bright the light. Masking by distributing dots over the drawing had no effect on recognition below a certain threshold (100-200 dots per cm<sup>2</sup>). The capacity for retaining recognition during change of the ratio signal/ noise and the presence of sharp threshold effects are characteristic for ideal linked systems. Orig. art. has: 8 figures, 1 table and 1 formula. SUB CODE: 06, 04/ SUBM DATE: none/ ORIG REF: 005/ OTH REF: 002

	ochemistry. Geochemistry. Hydrochemistry. D
Abs Jour	: Ref Zhur - Khimiya, No. 8, 1957, 26589.
Author Inst Title	<ul> <li>Nevskaya, A.I.</li> <li>Academy of Sciences of Kazakh SSR.</li> <li>Hydrochemical Characteristic of Surface Drainage of Arid Regions of Kazakhstan.</li> </ul>
Orig Pub	: Vestn. AN Kaz. SSR, 1956, No. 9, 90 - 97.
Abstract	: Consequently to the study of 18 rivers, the following approximate results concerning the contents of biogenous elements were ob- tained (in mg per lit): P - 0.0 to 0.062, Si - 1.0 to 10.0, NO <sub>3</sub> - 0.0 to 10.0. During the spring flood (SF) the rivers carry off from 7.5 to 1218 thousand tons of suspended substances, the waters are moderately mineral- ized (M), soft and moderately hard (with the exception of the Zhaman-Sary-Su and the
Card 1/2	

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"APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R001136810 39459 - --27 1220 S/241/62/007/001/001/006 1015 1215 Domshlak, M. P., Grigor'yev, Yu, G., Darenskaya, N. G., Koznova, L. B., Nevskaya, G.F. AUTHOR: Nesterova, V. I. and Tereshchenko, N. Ya. TITLE: Remote observations on persons subjected to radiotherapy FERIODICAL: Meditsinskaya radiologiya, v. 7, no. 1, 1962, 10-16 TEXT: A previous report (Domshlak et. al., 1957) dealt with observations on 160 persons who had been subjected to X-ray and gamma-ray therapy 2 to 7 years prior to the study period. The present article is based on observations on 218 persons, aged thirty to sixty, at various intervals (up to 10 years) after having been subjected to radiation. In 41.9% of the cases, the general condition of persons irradiated in the past became worse. On the other hand, no abnormal pressure was noticed, despite the fact that hypertension was a common finding during the irradiation period. Ophthalmological examination did not reveal any changes except those due to aging. Various functional disorders were noticed in the nervous system, including both cortical and sub-cortical disturbances. In some cases, microsymptoms of organic damage of the CNS were present. There is I table. SUBMITTED: July 3, 1961 Card 1/!

APPROVED FOR RELEASE: Monday, July 31, 2000

APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R001136810
L (13781-67 EVIT (m) (D) ACI: NR. AT6029629 SOURCE CODE: UR/0000/66/000/000/0150/0157
AUTHOR: Volokhova, N. A.; Gubin, V. A.; Darenskaya, N. G.; Koznova, AUTHOR: Volokhova, N. A.; Gubin, V. A.; Darenskaya, N. G.; Koznova, L. B.; Korchemkin, V. I.; Nevekaya, G. F.; Sedov, V. V. B.; Korchemkin, V. I.; Nevekaya, G. F.; Sedov, V. V. B.; Korchemkin, V. J.; Nevekaya, G. F.; Sedov, V. V.
ORG: none
TITLE: Peculiarities of clinical month in rhesus monkeys during gamma-ray irradiation SOURCE: Voprosy obshchey radiobiologii (Problems of general radio- Noncest Atomizdat, 1966, 150-157
SOURCE: Voprosy obshchey radiobiologic biology). Hoscow, Atomizdat, 1966, 150-157 TOPIC TAGS: <u>tentzing</u> , radiation biologic effect, monkey, dog, radiation, topic the structure for the state of the structure for the state of t
TOPIC TAGS: - tentation radiation biologic criters, - henerologite affect hematology
ABSTRACT: A comprehensive clinical examination of gamma-irradiated ABSTRACT: A comprehensive clinical examination of gamma-irradiated monkeys was conducted, and the data were compared with results of similar monkeys was conducted, and the data were compared with results of similar examinations of dogs. Seventeen monkeys (Hacaca rhesus) of both sexes examinations of dogs. Seventeen monkeys (Hacaca rhesus) of both sexes examinations of dogs. Seventeen monkeys (Hacaca rhesus) of both sexes examinations of dogs. Seventeen monkeys (Hacaca rhesus) of both sexes examinations of dogs. Seventeen monkeys (Hacaca rhesus) of both sexes examinations of dogs. Seventeen monkeys (Hacaca rhesus) of both sexes examinations of dogs. Seventeen monkeys (Hacaca rhesus) of both sexes tighing 2.0 to 4.0 kg, were subjected to gamma irradiation from an EGO-2 apparatus with a dose rate of 357-313 r/min. Prior to irradia- EGO-2 apparatus with a dose rate of 357-313 r/min. Prior to irradia- tion, all monkeys had been under clinical observation for 2-3 weeks. tion, all monkeys had been under clinical observation for 2-3 weeks. Eleven of the 14 monkeys irradiated with 300 r died (average duration Eleven of the 14 monkeys irradiated with 300 r died (average duration of life 16.5 days), while two of the 3 monkeys irradiated with 350 r of life 16.5 days), while two of the 3 monkeys irradiated with 350 r of life (29.5 and 36.2 days after irradiation). Both groups of gamma-

L 03781-67 ACC INRI A16029629  $\mathcal{O}$ irradiated monkeys were considered together, since the clinical masifestations of radiation sickness were similar in both groups. Experimental data were compared with data from analogous dog experiments, using a 300-r dose of gamma rays, and no essential differences in the radiation affact were noted between the two species. However, the spread of life durations in monkeys (6.5—36.2 days) was wider than for dogs (11.5--18.5 days). The primary reaction to radiation was more pronounced and developed more rapidly in monkeys than in dogs. The primary radiation reaction was absent in 2 out of 17 monkeys, as compared with 18 out of 28 dogs. Furthermore, seven monkeys experienced severa primary radiation reactions, while none of the dogs did. In the first 10-11 days after irradiation, no essential differences were noted between the temperature reactions of monkeys and dogs. However, by the time of death dogs had elevated body temperatures (average 1.5C above normal), whereas monkeys' temperatures had fallen considerably below normal. Symptoms of radiation sickness appeared later (15-18 days after irradiation) and developed more gradually in monkeys than in dogs (7-12 days). Autonomic dysfunction is considered responsible for the lability of symptoms in monkeys in the early postradistion period. This hypothesis is substantiated by the considerable variations in blood pressure, the unstable heart rhythm, etc. Hematopoietic changes in monkeys in response to redistion had a phase character demonstrating the different course of the radiation reaction in different Card 2/3 .

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"APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R001136810 L 03781-67 ACC NRI AT6029629 0 types of cells. Since blood regeneration occurred even in monkeys dying after 30-36 days, it was concluded that blood changes were not the primary factor in animal deaths. The lower lethal dose values encountered in these experiments are partially explained by differing experimental conditions, but require further study. Orig. art. has: [JS]2 figures and 1 table. SUB CODE: 06/ SUBM DATE: 23Apr66/ ORIG REF: 008/ 006 OTH REFI ATD PRESSI 5064 . . Card 3/3

	I. 10959-67 EWT(1)/EWT(m) SCTB DD/GD ACC NR: AT6036577 SOURCE CODE: UR/0000/66/000/000/0197/0197	
	AUTHOR: Karpov, O. N.; Kovalev, Ye. Ye.; Nevskaya, G. F.; Smirennyy, L. N.	
1	ORG: none	
	TITLE: Problems of designing local <u>radioprotective shielding for cosmonauts</u> [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, 197	
	TOPIC TAGS: radiation shielding, cosmonaut radiation shielding, radiation protection, solar flare, spacecraft shielding	
	ABSTRACT: Economy of weight in spacecraft shielding is best achieved by placing the shielding as close as possible to the cosmonaut. Local shielding is designed taking into account the varying radiosensitivity of different body organs and the considerable unevenness of the radiation field inside the spacecraft cabin. Calculation of local shielding is based on determination	
	of the effectiveness of shielding of an organ by parts of the ship and by other parts of the body. A model of a so-called standard man (with typical	
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<u>06108-67 ENT(m)/ENP(j) IJP(c) RM</u> ACC NR: AP6023616	SOURCE CODE: UR/0105/66/000/007/0082/083
AUTHOR: Yernilova, G. A. (Candidate of tec	chnical sciences); Neyman, M. B. (Professor)
ORG: <u>Moscow Institute of Fine Chemical Eng</u> institut tonkoy chimicheskoy tekhnologii)	· 16 B
TITLE: Effect of stabilizers on dielectric	properties of propylene film
SOURCE: Elektrichestvo, no. 7, 1966, 82-83	5
TOPIC TAGS: electric insulator, electric i	insulation, propylene
into propylene insulation; however, these mechanical and dielectric properties of pr effect of stabilizers $(AN-6)^{5}$ Santonox) <sup>15</sup> on and electric strength of aged $(at 100-1500)^{15}$ determined. It was found that: (1) Propyle practically independent of humidity, elect (2) Stabilized propylene films have much h (3) Stabilized films have constant mechani	ropylene film <u>insulation</u> Hence, the volume resistivity, mechanical strength, 2) propylene films was experimentally ene films have high dielectric properties



## ACC NR: AT6036600

sidering the limited stay of the irradiated animal in a fixed position. Experimental calculations of the passage of protons through tissue have shown that high-energy protons scatter very little. For example, the average angle of multiple scattering for 660-Mev protons passing through a lead filter with a thickness of 100 g/cm<sup>2</sup> is approximately  $2^{\circ}$ .

Selection of proton energies was made using data on the distribution of absorbed coses created by monoenergetic protons with energies from 103-600 Mev in a water phantom. Since these distributions have a dose ulterential greater than 10% with shielding thicknesses up to 20 g/cm<sup>2</sup>, it was decided to irradiate the animals from two sides. Maximum equalization of distribution with this method was obtained with 250-Mev protons. The local shield used was made of paraffin. A radiation field was produced at the irradiated object with a difference of  $\pm 20\%$ . To obtain more uniform radiation, animals were placed asymmetrically to the axis of the proton beam and each side received half of the dose.

This method was perfected with a heterogeneous bone-paraffin phantom. Measurements made with this phantom showed a radiation field varying only 11% on the animals' surface. Furthermore, the differential of absorbed coses did not exceed 5%. When individual body parts were shielded, the

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ose decreased 10-15 times tehind the 11 the requirements listed above, a ffectiveness of local shielding.	nd can be used in ruuiv	UTOTORICHT DOGGI OF THE	
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CIA-RDP86-00513R001136810

## NEVSKAYA, G.I

BOLDYREV, G.P.; VOCMAN, D.A.; NOVCKHATSKIY, I.P.; VERK, D.L.; DYUGAYEV,
I.V.; KAVUH, V.M.; KURENKO, A.A.; UZBEKOV, M.R.; ARSEN'YEV,
S.Ia.; YEGOHKIN, A.N.; KORSAKOV, P.F.; KUZ'KIN, V.E.; STREFE TS,
B.A.; PATKOVSKIY, A.B.; BOLESLAVSKAYA, B.M.; INDENBOM, D.B.;
FINKEL'SHYEYN, A.S.; SHAPIRO, I.S.; LAPIN, L.Yu., Prinimali
uchastiye: NEVSKAYA, G.I.; FEDOSEYEV, V.A.; KASPILOVSKIY, Ya.B.,
ZHENOVA, K.V., BARDIN, I.P., akademik, nauchnyy red.;
ANTIPOV, M.I., nauchnyy red.; STRUMILIN, akademik, nauchnyy red.;
YIEROFEYEV, B.N., nauchnyy red.; SIKDZYUK, P.Ye., nauchnyy red.;
SAMARIN, A.M., nauchnyy red.; STREYS, N.A., nauchnyy red.;
BANKVITSER, A.L., red.izd-va; POLYAKOVA, T.V., tekhn.red.

1.14

[Iron ore deposits in central Kazakhstan and Ways for their utilization] Zhelezorudnye mestorozhdeniia TSentral'nogo Kazakhstana i puti ikh ispol'zovaniia. Otvetstvennyi red. I.P.Bardin. Moskva, 1960. 556 p. (MIRA 13:4)

1. Akademiya nauk SSSR. Mezhduvedomstvennaya postoyannaya komissiya po zhelezu. 2. Gosudarstvennyy institut po proyektirovaniyu gornykh predpriyatiy zhelezorudnoy 1 margantsevoy promyshlennosti i promyshlennosti nemetallicheskikh iskopayemykh (Giproruda) (for Foldyrev, Vogman, Arsen'yev, Yegorkin, Korsakov, Kuz'nin, Strelets, (Continued on next card)

APPROVED FOR RELEASE: Monday, July 31, 2000



ACCESSION NR: AP40 15307	8/0048/64/028/009/1491/1496	
AUTHOR: Dyubus, B.(h.; Mi	trofanova, L.A.; Nevskaya, L.V.	
MITLE: Dispenser jungste Blectronics held in Kiev,	m-barium cathodes /Report, Tenth Conference on Cathode 11-18 Nov 19637	
HOURCE: AN SSSR. Investig	ya. Seriya fizicheskaya, v.28, no.9, 1964, 1491-1498	
TOPIC TAGS: thermicaic en	aission, porous metal, tungsten, barium, <u>calcium, aluminatio</u>	H <b>!</b>
ABSTRACT. The emission	chiracteristics and lifetimes of porous tungsten cathodes	

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NEVSKAYA, NI

3(1)

PHASE I BOOK EXPLOITATION SOV/1379

Istoriko-astronomicheskiye issledovaniya, vyp. 3 (Studies in the History of Astronomy, Nr 3) Moscow, Gostekhizdat, 1957. 706 p. 2,000 copies printed.

- Resp. Ed.: Kulikovskiy, P.G., Docent; Eds.: Rakhlin, I.Ye. and Reznikovskiy, P.T.; Tech. Ed.: Akhlamov, S.N.; Editorial Board of Series: Vorontsov-Vel'yaminov, B.A., Professor, Kukarkin, B.V., Professor, Kulikovskiy, P.G., Docent (Chairman, Committee of the History of Astronomy, Astronomical Council, USSR Academy of Sciences) and Perel', Yu.G. (Scientific Secretary, Committee on the History of Astronomy, Astronomical Council, USSR Academy of Sciences)
- PURPOSE: This book is intended for both the specialist and the general reader interested in the development of astronomy in Russia.
- COVERAGE: This volume, a collection of articles by different authors, is the third in a series on the history of the development of astronomy in Russia. Volume 3 deals with the development of the astronomical sciences in the USSR from earliest times to the present day. The articles describe such early observatories as the first astronomical observatory of the St. Petersburg Academy of Sciences Card 1/4

Studies in the History (Cont.) SOV/1379 and those founded in Central Asia in the XIII century; they further describe the life and contributions of such outstanding Russian astronomers as A.D. Krasil'nikov, S.K. Kostinskiy, G.A. Shayn, N.A. Tachalov, S.P. Glazenap, and I.M. Rabinovich. One of the more important articles, by Prof. O.A. Mel'nikov, Soviet astrophysicist, treats the development of astrospectroscopy in pre-revolutionary and modern Russia. The editorial staff expresses its thanks to G.A. Tikhov, Corresponding Member of the AN SSSR, Pro-fessors P.M. Gorshkov, N.N. Neuymina, Ye.S. Berezanskaya and N.M. Shtaude for their suggestions and assistance in reviewing the material. The articles are accompanied by numerous photographs, diagrams, and extensive bibliographies. TABLE OF CONTENTS: From the editors 5 Mel'nikov, O.A. On the History of the Development of Astro-9 spectroscopy in Russia and the USSR Card 2/4

APPROVED FOR RELEASE: Monday, July 31, 2000

"APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R001136810 sov/1379 Studies in the History (Cont.) ARTICLES AND REPORTS Chenakal, V.L. Observatories of the Petersburg Academy of 261 Sciences in the 18th Century Chenakal, V.L. Design, Construction and Installation of Instruments in the First Astronomical Observatory of the 429 Petersburg Academy of Sciences Nevskaya, N.I. A.D. Krasil'nikov - The First Russian Astro-453 nomer Novokshanova, Z.K. Pulkovo Technicians - Creators of Astro-485 nomical and Geodetic Instruments Mamedbeyli, G.D. The Maraga and Peking Observatories in the 517 XIII Century Astrono-Korytnikov, S.N. S.K. Kostinskiy and Engel'gardt 531 mical Observatory Card 3/4

"APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R001136810 - 1 SOV/1379 Studies in the History (Cont.) Ferel', Yu.G. Voltaire's Cosmological Ideas 541 551 Pikel'ner, S.E. G.A. Shayn (1892-1956) MATERIALS AND DOCUMENTS Biography of S.K. Kostinskiy (based on archive Deych, A.N. material) 611 625 Ostashchenko-Kudryavtsev, B.P. My Teachers Ostashchenko-Kudryavtsev, B.P. Storm of 1898 in Pulkovo 641 645 Rabinovicn, I.M. Solomo Gubertus' Sundial Suslov, A.G. Student Astronomy Groups in St. Petersburg in 649 1902-1914 From I.M. Simonov's Scientific Correspondence 659 Selected Bibliography on the History of Astronomy Published 691 in USSE and Other Countries in 1955 and 1956. 700 Author Index AVAILABLE: Library of Congress MM/sfm Card 4/4

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	66 ENT(1) AR601135			UR/0299/65,			
THOR:	Belikov.	P. S.; Moto	orina, M, V.;	Nevskaya, n.	Lo.	Ē	
TLE:	Nature of	short duret	tion activatio	on of <u>photosyr</u>	<u>ithesis</u> V	B	
URCE:	Ref. zb.	Biologiya,	Abs. 20G2				
F SOUR	RCE: Izv.	Timiryazev	sk. skh. ski	ad., no. 6, 19	964, 28-36		
PIC TA	AGS: phot	osynthesis,	light biolog:	ic effect, gas	s snalyzer,		
	F: An inf	rared gas a	nalyzer was u	sed to study	the photosy	nthesis	
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natagm	n lasted ]	onger and d	isplayed a bi	gber value.	Short dura	tion	
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ACC NRI AR6011859		
Activation was also observed in the linear section of the light curve. A hypothesis is suggested stating that the photosynthesis activation process starts with the light stage. The photosynthesis rate does not coincide in time with stomate movements as increased photosynthesis prevents widening of stomate openings; the general appearance of the strands considered as proof of an excited state of the leaf appear in th assumed that any stimulus acting on the roots can induce propagation of or the other physiological function. Eibliography of 32 titles.	9	
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"APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R001136810 68-58-3-4/22 Klassen, V.I. Doctor of Technical Sciences and AU'THORS: Nevskaya. V.A. Flutation of Coals with a High Proportion of Clay Slurries TITLE: (Flotatsiya ugley pri bol'shom kolichestve glinistykh shlamov) Koka i Khimiya, 1958, Nr 3, pp 15 - 18 (USSR). PERIODICAL: The presence of fine clay slurries presents one of ABSTRACT: the most sericus difficulties in flotation of coal fines. In order to improve flotation under such conditions, additions of reagents causing peptisation of clays is necessary. The authors investigated the applicability for this purpose of alcohols with aliphatic radicals consisting of 6-8 hydrocarbon groups so called "distillation residues" and reagent IM-6-8. "Distillation residues" - high boiling fraction left on the distillation of raw sulphate-turpentine (which is a waste product of the Segezhskiy bumazhro-tsellyuloznyy kombinat (Segezha Paper-cellulose Combine) ) containing 47% of alcohols (calculated on C10H170H). The reagent IM-6-8 consists of alcohols with 6-8 hydrocarbon groups in the adical. The experimental results are given in Tables 1-3 and Migs. 1-5. The flotation scheme is shown in Fig. 6. Conclusions: Reagents Card1/2 of the above type were found to be suitable for the flotation

"APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R001136810 68-58-3-4/22 Flotation of Coals with a High Propertion of Clay Slurries of clay containing coals. These reagents act not only as frothing and collecting agents but also preferentially peptise clay slurraes. Simple conditions for the flotation of clay containing Kavaganda scal were developed which yield good beneficiation results while previously this coal could not be beneficiated by flotation. It was confirmed that the best results are obtained with a combination of alcohols with nonpolar reagents. In the role of the latter, the best results were obtained with a "polymer" proposed by VUKhIN; similar results were obtained with sulphated kerosene. An industrial check confirmed the laboratory results; the use of the proposed meagents on the Karagands washeries sharply improved flotation results. It was also confirmed that spraying of froth with water considerably improves the efficiency of flo-tation of scale. There are 3 tables, 6 figures and 7 Soviet ASSOCIATION: Institut gernege dela AN SSSR (Mining Institute of the Ac.Sc. USSR) Card 2/2





CIA-RDP86-00513R001136810(















NEVSKAYA,	Je.
	Quantitative analysis
Card 1/1 :	Pub. 22 - 29/49
Authors :	Usanovich, M.; Sumarokova, T.; and Nevskaya, Yu.
Title :	Cryoscopic titration
Periodical :	Dok. AN SSSR 98/4, 617-618, Oct. 1, 1954
Abstract :	The application of cryoscopy for quantitative analysis and for study- ing reactions of formation of complex compounds, soluble and insolubi- in any given cryoscopic solvent, was investigated. The results ob- tained through cryoscopic titration of complex compounds appear to satisfy all requirements of analytical accuracy. In addition, cryo- scopic titration reveals new very-broad possibilities for quantitative analysis of organic substances. Two USSR references (1941 & 1949). Graphs.
Institution :	
Presented by:	Academician A. P. Vinogradov, Nay 6, 1954

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UTHORS:	Sumarokova, T., Nevskaya, Yu. $79-12-41/43$
I TLE :	Sumarokove, 1., Normal $1$ , Sn Br and TiCl $4$ ith Complex Compounds of SnCl <sub>4</sub> , Sn Br and TiCl $4$ in Sn Br $4$ i Cincole (Kompleksnyye solvedinenily Sn Cl <sub>4</sub> , Sn Br $4$ i TiCl <sub>4</sub> 3 Taineolom).
PORIODICAL:	Zhurnal Obshchey Khimii, 1957, Vol. 27, Nr 12, pp. 3375-3379 (USSR)
ABSTRACT:	The complex compounds $\operatorname{SnCl}_4$ , $\operatorname{Sn Br}_4$ and $\operatorname{FiCl}_4$ with or all oxides have been little investigated. Compounds of $\operatorname{SnCl}_4$ and $\operatorname{SnBr}_4$ with dioxane; as well as of $\operatorname{SnCl}_4$ with lactones $(\operatorname{SnX}^2 2 \operatorname{A})$ are described in publications. The authors wer- interested in the systematical investigation of the complex compounds $\operatorname{Sn+4}$ and $\operatorname{T+4}$ with such organic compounds, which possess in their molecule the group -COC They choose cineole which is a constituent part of many etheric sils. The complex compounds of the tin- and titanium haliden with cineole were of an extended interest; in as much they are connected with the research to find a method for the quantitative determination of cineole. Mixtures of $\operatorname{SnCl}_4$ , SnBr and TiCl <sub>4</sub> in an exact molecular ratio with
Card $1/3$	<b>5</b>

	cincole were prepared for the synthesis of these compounds. In the course of the reactions a considerable amount of heat was liberated. The components were mixed in indifferent solvents. The composition of the complex compounds was determined analytically and according to the crysoopic method
	of titration. The amount of the and titudities and ing to Vollhard
	and the Cryoscopic measurements were conducted actor ing to Beckmann. The authors put up diagrams on the basis of the results, from which the dependence of the depression (or of the molecular weight) on the composition, expressed in molecular percent, may be read. The following complex compounds were synthesized; $SnCl_A \cdot 2C_{10}H_{18}C$ , $SnB_A \cdot 2C_{10}H_{16}C$
	and TiCl <sub>4</sub> · $2C_{10}H_{18}$ O. The compound SnBr <sub>4</sub> · $2C_{10}H_{18}O$ possesses quite extraordinary properties: It shows a molecular weight of 746'8 and destillates already at 35°C. There are 3 figures: and 7 references, 5 of which are Slavic.
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an a	20715
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quinone, furfu the resulting on the compos formed whose system was al melting point composition of	Sumarokova, T., Nevskaya, Yu., Yarmukhamedova, E. <u>Complex Compounds</u> of Halides of <u>Tinland Titanium</u> With Organic <u>Compounds Containing C=O and -COC- Groups</u> Zhurnal obshchey khimii, 1960, Vol. 30, No. 5, pp. 1705-1714 thors examined the reactions of SnCl <sub>4</sub> , SnBr <sub>4</sub> , and TiCl with tiration curves (dependence of the melting point depression titration of the system). In the SnBr <sub>4</sub> -quinone system compounds composition could not be determined. The SnCl <sub>4</sub> -diethyl oxalate so examined cryoscopically. A diagram shows the relation between depression and composition and between molecular weight and f this system. The investigations yielded the following results: 14 form complex compounds with quinone and dioxane in the
molecular rat	14 form complex compounds with quantum values and $SnBr_4$ with in 1:1, as does $SnCl_4$ with diethyl oxalate and $SnBr_4$ with
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1. 1



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Electric conductivity, viscosity, and density of the systems  $SnC1_{l_2}-C_2H_2OH=C_2H_2$  and  $SnC1_{l_2}-C_2H_2OH=C_2H_2$ . Zhur. ob. khim. 30 no.11:3526-3531 N<sup>4</sup>60. (MIRA 13:11)

1. Institut khimii Akademii nauk Kazakhskoy SSR. (Systems(Chemistry))















 "APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R001136810
 EXYSKIY, A.A., insh.; EHOROSHEKEVICH, M.F., insh.
 Problems requiring immediate solution. Bezop.trude v prom. 4 no.8:14-15 Ag '60. (MIBA 13:8)
 1. Upravleniye Saratovskogo okruga Gosgortskhnadsora BSFSE. (Saratov Province-Oil fields-Safety measures)







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s/145/60/000/005/002/010 D221/D301

AUTHOR: A.D. Nevskiy, Candidate of Technical Sciences, Docent , TITLE: Determination of the limit backlash in gears PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Mashinostryeniye, no. 5, 1960, 31 - 40 TEXT: The proposed assessment of the limit side clearance is based on the magnitude of additional loads due to moments of inertia. The wear of gears produces side clearances between the flanks of adjacent mating gears which result in angular accelerations and additional loads on teeth due to inertia moments. With time, the stress may reach a value of  $\sigma_{\omega/k\sigma}$ , where  $\sigma_{\omega}$  is the endurance limit for teeth working on one side; k 🛇 is the coefficient of stress concentration at the roots of teeth  $(k \in -1.5 - 2)$ . The blacklash  $\Delta$  which corresponds to this instance is designated as a limit value, and indicates the impossibility of further operation. Its determination will define the gear life. A gear pair driven by a motor is considered. The driving wheel rotates at a constant Card 1/4

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Determination of the limit ...

speed  $\omega$ , whereas the driven gear revolves irregularly, and its motion is characterized by  $I_2 \mathfrak{S}_2 = (\eta - 1)M_2$ . In the above,  $I_2$  is the inertia of the masses on the driven shaft;  $\mathfrak{E}_2$  is the angular acceleration which is a function of blacklash; is the safety factor;  $M_2$  is the resistive torque at the driven shaft. Gear life is determined by  $T = \Delta_1/aU(n_1 - n_2)$ , where  $\Delta_1$  is the blacklash; a is the coefficient of wear in <u>mm</u> hours RFM- kg/cm; U is the normal specific pressure on the tooth, where only one pair is in engagement, in kg/cm<sup>2</sup>;  $n_1$  and  $n_2$  are the revolutions of the gears per minute; T is the service in hours. A diagram is used for determining the angular speed  $\omega_2$ , of gear 2, rotating clockwise around  $\mathfrak{S}_2$ . The worn profile, xx, is skirted by profile yy. Their pitch does not coincide with that of new gears. The author deduces an equation for the family of yy in the polar coordinates (moving), and current coordinates of the profile, xx,  $\mathfrak{S}_2$  and  $L_2$ . After some transformations

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CIA-RDP86-00513R001136810 "APPROVED FOR RELEASE: Monday, July 31, 2000 s/145/60/000/005/002/010 D221/D301 Determination of the limit  $\frac{\omega_1}{\omega_2} = -\frac{L_2}{A-L_2} - \frac{AL_2}{2R_1^2} \sin 2\omega_1 \sin (\Theta_2 - \omega_0).$ (10)is obtained which permits the speed  $\omega_2$  to be calculated. In the new involutes,  $L_2 = r_2$ , and, therefore, the ratio of speed becomes  $R_2/R_1$ . Differentiation of Eq. (10) with respect to time gives the angular ac-celeration. It is assumed that  $\sin(\Theta_2 - \alpha_0) = 0$ , and  $\cos(\Theta_2 - \alpha_0) = 1$ which is quite accurate at the pitch point. If point  $q_1$  is at the unworn part of the involute, and designating the wear along the normal by  $\lambda_2$ , and on radius-vectors  $\overline{L}_2$  or  $\overline{r}_2$  by  $s_2$ , then  $\frac{\omega_1}{\omega_2} \mathbf{E}_2 - \frac{\mathbf{A}}{(\mathbf{A} - \mathbf{r}_2)^2} \frac{\mathrm{d}\mathbf{s}_2}{\mathrm{d}\mathbf{x}_2} \frac{\mathrm{d}\mathbf{x}_2}{\mathrm{d}\mathbf{q}_2}$ (12)is deduced. In the above,  $\omega_1/\omega_2 = -i$ , The consecutive engagement yields Card 3/4

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Determination of the limit ...

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a curve of angular accelerations for different values of  $X_2$ . Finally an equation is deduced for the angular acceleration as a function of the running blacklash  $\mathcal{E}_2$ , and when  $OX_2 = 20^\circ$ . For gears with a large factor of overlapping there is little likelihood of stress increase due to wear. This is followed by a numerical example, and an analysis of a two-stage reducer as far as limit blacklash is concerned. The final equation

$$\Delta_{1} = 0,565 \frac{(\eta - 1) M_{2} z_{1} m}{\left(\frac{17}{1} + 9\right) \omega_{2}^{2} z_{2}}$$
(21)

allows the limit blacklash to be determined. This avoids gear failurs due to wear, it defines the force of inertia for certain initial conditions which does not produce a risk regardless of tooth wear. There are 3 figures and 2 Soviet-bloc references

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<ul> <li>USSE/Nuclear Physics</li> <li>Abs Jour : Referat Zhur - Fizika, No 5, 1957, 11263</li> <li>Author : Timofeyev, V.N., Nevskiy, A.S.</li> <li>Inst : Not given</li> <li>Title : Remarks on the Article by M.A. Bak, K.A. Petrzhak, and Yu.F. Romanov "Irradiation from a Spherical Source in the Presence of Self-Absorption."</li> <li>Orig Pub : Zh. tekhn. fiziki, 1956, 26, No 11, 2600-2601</li> </ul>	-6
<ul> <li>Author : Timofeyev, V.N., Nevskiy, A.S.</li> <li>Inst : Not given</li> <li>Title : Remarks on the Article by M.A. Bak, K.A. Petrzhak, and Yu.F. Romanov "Irradiation from a Spherical Source in the Presence of Self-Absorption."</li> </ul>	
Inst : Not given Title : Remarks on the Article by M.A. Bak, K.A. Petrzhak, and Yu.F. Romanov "Irradiation from a Spherical Source in the Presence of Self-Absorption."	
Yu.F. Romanov "Irradiation from a Spherical Source in the Presence of Self-Absorption."	
Abstract : In connection with the above article (Referat Zhur Fizika, 1956, 25052) concerning the determination of radiation from a sphere with uniformly distributed sources of radi- ation in the presence of absorption of a portion of the energy radiated by the sources in the medium filling the sphere, it is noted that a similar problem was solved by Nusselt (Nusselt, W., Forsch. Ing. Was 1002 m with the	
Nusselt (Nusselt, W., Forsch. Ing. Wes., 1923, No 264).	

## PHASE I BOOK EXPLOITATION 1205

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Nevskiy, Aleksandr Sergeyevich

Teploobmen izlucheniyen v metallurgicheskikh pechakh i topkakh kotlov (Heat Transmission by Radiation in Metallurgical and Boiler Furnaces) Sverdlovsk, Metallurgizdat, 1958. 368 p. 4,000 copies printed.

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- Ed.: Timofeyev, V.N.; Ed. of Fublishing House: Kel'nik, V.P.; Tech. Ed.: Zef. Ye.M.
- FURFOSE: This book is intended for scientific and industrial personnel working in the field of metallurgical heat and power engineering. It may also be used by students taking advanced courses at vtuzes.
- COVERAGE: The book, which incorporates the latest information available in the literature, as well as the results of theoretical work done by the author, deals with the theory and calculation of radiation in metallurgical and boiler furnaces. Certain chapters of the book are based on the work of other writers in this field, viz., G. L. Polyak (Ch. II), A.A. Gershun (Ch. III), Nu.A. Surinov (Ch. IV and part of Ch.V), and V.N. Timofeyev and A.V. Kavaderov (Ch. XII). The author expresses his thanks to V.N. Timofeyev, Candidate of Technical Sciences, editor of the book, and to A.V. Kavaderov, Doctor of Tech-

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