

REYMERS, Nikolay Fedorovich; VORONOV, A.G., prof., otv. red.

[Birds and mammals of the southern taiga of Central  
Siberia] Ptitsy i mlekopitaishchie iuzhnoi taigi  
Srednei Sibiri. Moskva, Nauka, 1966. 419 p.  
(MIRA 19:1)

POKROVSKAYA, V.M.; VORONOV, A.G., prof., red.

[Handbook for practical work on the systematics of  
angiosperms; for students majoring in geography] Ruko-  
vodstvo dlia prakticheskikh zaniatii po sistematike po-  
krytosemennykh rastenii; dlia studentov-geografov. Moskva,  
Mosk. univ., 1964. 197 p. (MIRA 18:9)

VORONOV, A.G.

Conference on medicogeographical research. Vest.Mosk.un.Ser.5:  
Geog. 20 no.4:95 J1-Ag '65.

(MIRA 18:12)

VORONOV, A.G.; ZADVORNOVA, L.V.

Effect of the relief on the distribution of subtropical forests  
in Yunnan (the Chinese People's Republic). Biol. MOIP. Otd. bicol.  
70 no.2:55-66 Mr-Apr '65. (MIRA 18:5)

VORONOV, A.G.

Position of biogeography in the system of sciences. Vest. Mosk. un.  
Ser.5: Geog. 19 no.5:3-8 S-0 '64. (MIRA 18:1)

1. Kafedra biogeografii Moskovskogo universiteta.

VORONOV, A.G., prof., red.

[Biogeographical studies of Kustanay Province] Biogeograficheskie ocherki Kustanaiskoi oblasti. Moskva, Izd-vo Mosk. univ., 1964. 228 p. (MIRA 18:4)

1. Kompleksnaya tselinnaya ekspeditsiya, 1962.

VORONOV, A.G.

Role of the biocenological characteristics of a territory in  
biogeographical research. Vest. Mosk. un. Ser. 5: Geog. 19  
no.1:25-30 Ja-F '64. (MIRA 17:4)

1. Kafedra biogeografii Moskovskogo universiteta.

VORONOV, A.G.

Third All-Union Conference on Land Zoogeography. Vest., Mosk.  
un. Ser. 5: Geog. 19 no.1:83 Ja-<sup>r</sup> '64. (MIRA 17:4)



VORONOV, A. G.; TUPIKOVA, N. V.; CHELTSOV-BEBUTOV, A. M.; VYBRIVKIN, D. D.

"Some trends in modern biogeographic mapping of the land."

report scheduled to be presented at the 20th Intl Geographical Cong, London,  
6 Jul-11 Aug 64.

Univ. of Moscow.

VORONOV, A.G.

Zoogeographical and ecological observations on the lesser mammals  
in Yunnan (China). Biul. MOIP. Otd. biol. 68 no.2:18-28 Mr-Ap  
'63. (MIRA 17:2)

VORONOV, A.G.

Conference on the problems of zoological mapping. Vest. Mosk.  
un. Ser 5:Geog. 18 no.6:94-95 N-D'63. (MIRA 16:11)

VORONOV, Anatoliy Georgiyevich, prof.; PROSKURYAKOVA, G.M., red.;  
GRIGORCHUK, L.A., tekhn. red.

[Geobotany] Geobotanika. Moskva, Vysshaya shkola, 1963.  
372 p. (MIRA 17:2)

AFANAS'YEVA, Ye.A.; BAZILEVICH, N.I.; NOSOVA, I. M.; GOLUBEV, V.N.; DOKHMAN,  
G.I.; ARNOL'DI, K.V.; OBRAZTSOV, B.V.; NIKIFOROV, L.P.; GIET, L.A.;  
YORONOV, A.G.; SKOKOVA, N.N.

Brief news. Biul. MOIP. Otd. biol. 69 no.4:150-160 J1-Ag '64.  
(MIRA 17:11)

MOROZOV, Konstantin Yevgen'yevich, kand. fil. nauk; VORONOV, A.I.,  
red.; PRIGORODOV, G.I., red.; GUDRYAVTSEVA, O.V., tekhn.  
red.

[Philosophic aspects of mathematics] Filosofskie voprosy  
matematiki. Moskva, Izd-vo "Znanie," 1963. 47 p. (Novoe  
v zhizni, nauke, tekhnike. II Seriya: Filosofiya, no. 24)  
(MIRA 17:1)

(Mathematics--Philosophy)

FROLOV, Ivan Timofeyevich; VORONOV, A.I., red.; NAZAROVA, A.S., tekhn.  
red.

[Philosophical problems in modern biology] Filosofskie problemy  
sovremennoi biologii. Moskva, Izd-vo "Znanie," 1961. 31 p.  
(Vsesoiuznoe obshchestvo po rasprostraneniю politicheskikh i  
nauchnykh znani. Ser.2, Filosofii, no.16) (MIRA 14:9)  
(Biology—Philosophy)

POZNER, Andrey Romanovich; VORONOV, A.I., red.; RAKITIN, I.T., tekhn.  
red.

[The revolution in physics and the problems of scientific  
methodology] Revoliutsiia v fizike i problemy nauchnoi meto-  
dologii. Moskva, Izd-vo "Znanie," 1962. 31 p. (Novoe v zhizni,  
nauke, tekhnike. II Seriia: Filosofii, no.9) (MIRA 15:5)  
(Physics---Philosophy)



VORONOV, A.I. inzhener.

Studying the performance of the universal eccentric four-dat  
reel. Sel'khoz mashina no.9:23-25 S '56. (MLRA 9:11)

1. Sibirskaya mashinoispytatel'naya stantsiya.  
(Combines (Agricultural machinery))

VORONOV, A.I., inzh.

GH-330 self-propelled combine. Sel'khoz mashina no.12:23-25 D '57.  
(MIRA 11:2)

1. Sibirskaya mashinospytatel'naya stantsiya,  
(Czechoslovakia--Combines (Agricultural machinery))

GROMAKOV, Vasiliy Vasil'yevich; ORLOV, Aleksandr Vasil'yevich; VORONOV,  
A.I., red.; RAKITIN, I.T., tekhn. red.

[Role of the subjective factor in the building of communism] Rol'  
sub"ektivnogo faktora v stroitel'stve kommunizma. Moskva, Izd-vo  
"Znanie," 1961. 31 p. (Vsesoiuznoe obshchestvo po rasprostraneniui  
politicheskikh i nauchnykh znani. Ser.2, Filosofiia, no.17)

(MIRA 14:11)

(Communism) (Efficiency, Industrial)

KURYLEV, Anatoliy Konstantinovich, kand. filosofskikh nauk; VORONOV,  
A.I., red.; NAZAROVA, A.S., tekhn. red.

[Eliminating social, economic, cultural and mode of life dif-  
ferences between city and village] O likvidatsii potsial'no-  
ekonomicheskikh i kul'turno-bytovykh razlichii mezhdu gorodom  
i derevnei. Moskva, Izd-vo "Znanie," 1961. 31 p. (Vsesoiuznoe  
obshchestvo po rasprostraneniю politicheskikh i nauchnykh  
znaniy. Ser.2, Filozofia, no.22) (MIRA 15:1)  
(Agriculture--Economic aspects)



GUDOZHNIK, Grigoriy Sergeevich, kand. fil. nauk; VORONOV, A.I.,  
red.; ATROSHCHENKO, L.Ye., tekhn. red.

[Communism and production automation] Kommunizm i avtomatiza-  
tsiia proizvodstva. Moskva, Izd-vo "Znanie," 1963. 31 p.  
(Novoe v zhizni, nauke, tekhnike. II Seriya: Filosofii, no.8)  
(MIRA 16:5)

(Automation--Economic aspects) (Communism)

TSAREGORODTSEV, Gennadiy Ivanovich, kand. filos. nauk; CHESHOKOVA,  
Sof'ya Aleksandrovna, kand. med. nauk; VORONOV, A.I., red.;  
ATROSHCHENKO, L.Ye., tekhn. red.

[Philosophical problems of medicine] Filosofskie problemy me-  
ditsiny. Moskva, Izd-vo "Znanie," 1962. 46 p. (Novoe v zhizni,  
nauke, tekhnike. II Seriya: Filosofiya, no.14) (MIRA 15:7)  
(MEDICINE--PHILOSOPHY)





PROCESSING AND SUBJECTS INDEX

22

*ca*

Asphalts from Ural (Perm) crude oil. A. I. VORONOV AND N. I. LOGUNOV. *Nefteprom Khozysstvo* 18, 201-7(1930).—This crude oil contains 8% of asphaltene and 15% of resins. The asphalt obtained by vacuum distn. of the fuel oil followed by a moderate blowing with air had the following properties: sp. gr. 1.106, softening point, (Kraemer-Sarnow) 51°, penetration at 25° 12, ductility at 25° above 100 cms, asphaltenes 16.2%, with a sp. gr. of 1.109, neutral resins 30.5%, having a sp. gr. of 1.193, oil 58.8% with a sp. gr. of 1.079, paraffin 1.3%. This asphalt has an exceptional penetration value and ductility. It is very close to natural asphalt mixed with sulfur (Rusula). Various exptl. data are tabulated. A. A. BOYNTON

ASS-SLA METALLURGICAL LITERATURE CLASSIFICATION

FROM DIVISION

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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CA

22

Properties of Grosny commercial kerosenes. A.I. Voronov and E.I. Logvinov. Neftyanoe Khozaystvo 18,971-4(1930).-Kerosene fractions of various origins were mixed and treated in the usual manner. Because of a sharper sepn. of gasoline, the kerosene was short in light fractions in comparison with the usual kerosene. Tests carried out with various burners showed that the illuminating power and other properties were satisfactory when using the "Kosmos" burner with a modification that permitted heating the kerosene.

A.A. Boehlingk

ASB.SLA METALURGICAL LITERATURE CLASSIFICATION

FROM: STREIBER

FROM: HONOLULU

TOPIC

SEARCHED

ABSTRACTED

INDEXED

22

*ca*

PROCESSES AND PROPERTIES INDEX

Properties of Grozny commercial kerosenes. A. I. YURISSEV AND H. I. LOBINOVA. *Nefyanos Kazanskogo 18*, 071-4(1980). Kerosene fractions of various origins were mixed and treated in the usual manner. Because of a sharper sep of gasoline, the kerosene was short in light fractions in comparison with the usual kerosene. Tests carried out with various burners showed that the illuminating power and other properties were satisfactory when using the "Kosmos" burner with a modification that permitted heating the kerosene. A. A. ROBINOVSK

ASS-3LA METALLURGICAL LITERATURE CLASSIFICATION

GROUP	CLASS	SECTION	SUBSECTION	TERMINOLOGY	SYMBOLS	NUMERICAL DATA	FORMULAE	REACTIONS	PROPERTIES	TESTS	MEASUREMENTS	ANALYSIS	PREPARATION	APPLICATIONS	REFERENCES

RESEARCH AND DEVELOPMENT INDEX

22

Regeneration of spent lubricating oils on refinery scale. A. I. VORONOV AND  
 M. D. SUKREKOV. *Nefyanos Khimichesko* 21, 156-61(1931).--The spent oil had the  
 following average characteristics: sp. gr. 0.892-0.894,  $E_{50}$  viscosity 2.73-3.00, Flash 90-  
 99°, mechanical admixtures and water traces--1.5% and exsicc resins 10-13%. The  
 best results were obtained by mixing 65% of lubricating oil bottoms with 35% of gas oil  
 and adding the same amount of the spent oil to this mixt. An unrefined oil with an  $E_{50}$   
 viscosity 9.92, Brecken flash 183° and 20% exsicc resins was produced which was then  
 treated with acid and distd. The distn. yielded 61-63% of an automobile oil distillate  
 of 0.9152-0.916 sp. gr., 3.00-3.18  $E_{50}$  viscosity, 252-254° Brecken flash, 0.014-0.02%  
 acidity (in percentage  $SO_4$ ), 0.001-0.006% ash, 0.00-1.7% Conradson carbon, --8° to  
 --10° congealing point. Prepa. of various other oils from the mixt. is also described.  
 A. A. BORTNINIK

METALLURGICAL LITERATURE CLASSIFICATION

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TEST AND THE CRITERIA PROCESSES AND PROPERTIES INDEX

22

**CA**

**Improving crude-oil asphalts.** A. A. VORONOV AND N. I. LOGVINOV. *Polysess. Khimichesk. 18, 449-50(1930).*—Road asphalts meeting the various standard specifications were prepd. from paraffin-base, mixed-base and asphalt-base fuel oils by distg. the oils under high vacuum or with steam or refinery gas, followed by blowing with air. The oil resid. in distn. was suitable for prepng. lubricating oils and cylinder stocks or it could be used for cracking. Careful distn. was required to avoid the conversion of tars into asphaltene, which increase the brittleness of asphalt. An extensive bibliography on asphalts is appended.

A. A. BUNNELCROM

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

OPEN MATERIALS INDEX

CLASSIFICATION ELEMENTS

PERIODIC TABLE

ALPHABETIC INDEX

PROCESSES AND PROPERTIES

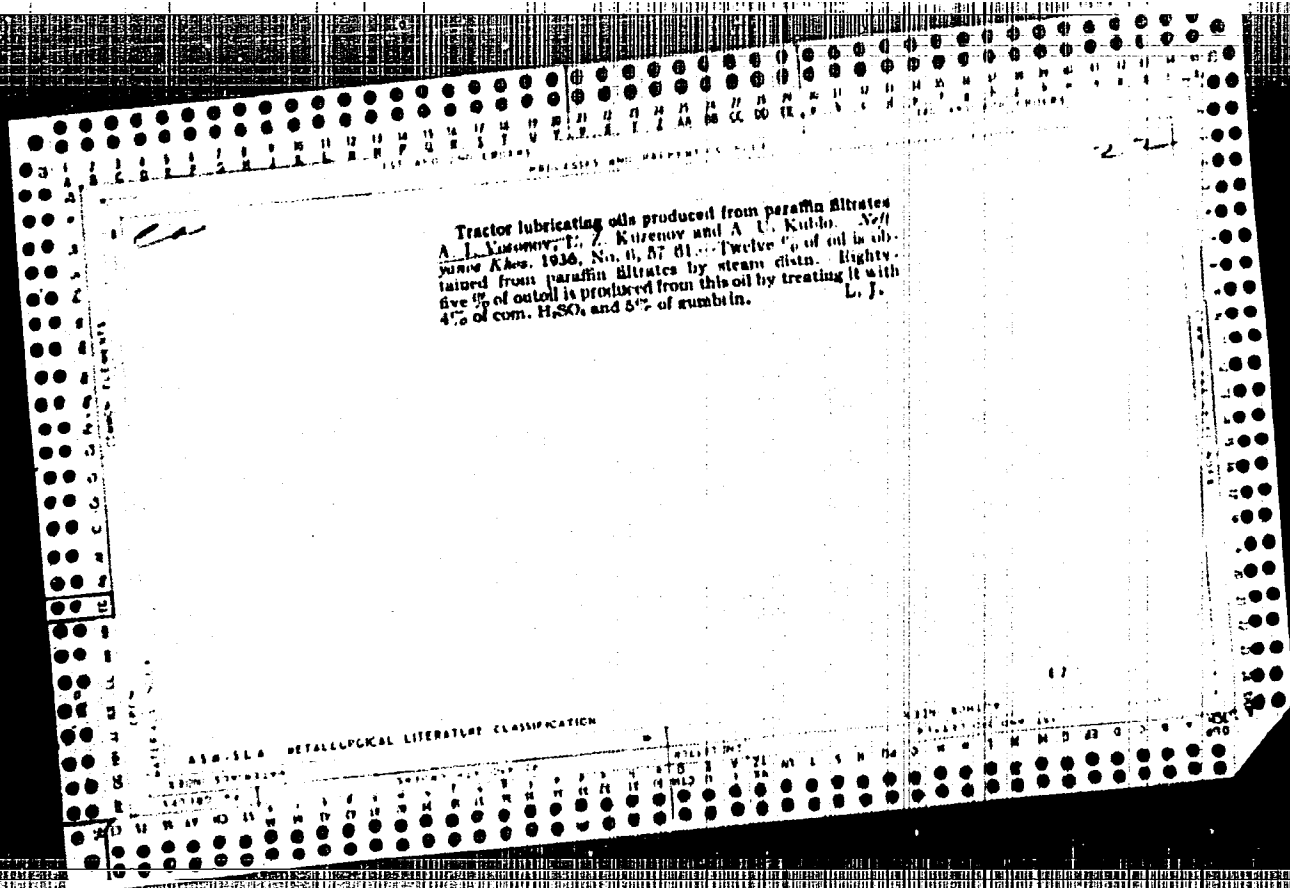
*ca*

Improving petroleum asphalts. A. I. YEROMOV AND N. I. LOGVINOVA. *J. Petroleum Ind.* 1930, 439 (in Russian); *Asphalt u. Tar* 33, 870-8(1930) (in German).—Still residues of low-resin and high-paraffin content may be converted into satisfactory asphalts by vacuum distn., followed by the customary air blowing. Asphalts of the naphthene-aromatic type, rich in desirable resins but deficient in asphaltene, should not be blown. Blending these asphalts with asphalts of the Me-naphthene-aromatic type is more economical, and yields a technically superior product. K. H. RIMM.

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ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

GROUP	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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1ST AND 2ND ORDERS

PROCESSING AND PROPERTY NOTES

22

The gasoline and kerosene fractions of Kamba crude oils. A. A. BOCHTING. *Neft* 3, No. 3-4, 24 D (1962). According to lab. investigations, Kamba crude oil has an av. of 0.04% gasoline (b. up to 225°) and 20.22% kerosene. Because of poor fractionating equipment, 40% of the gasoline fractions are contained in the kerosene cut, and a large proportion of the kerosene is found in the gas cut.

A. A. Bochting

ASS-31A METALLURGICAL LITERATURE CLASSIFICATION

62-107-10017

62-107-10017

62-107-10017



PROCESSES AND PROPERTIES INDEX

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CO

Special transformer oil "Wemco B" from Emba gas oil. A. A. Bochtank, *Neft* 3, No. 6, 13 (1952). A paraffinic distillate from Dussor-Makut (83:85) crude oil having a Saybolt viscosity at 37.8° of 63 sec. and a Brenken flash point of 127° was treated at 80° four times in succession with SO<sub>2</sub> which was obtained by blowing air through 20% oleum heated to 110-115°. The consumption of oleum amounted to 1.5%, and sulfonic acids which were removed after each treatment and which constituted 8% of the distillate were obtained in addition as a valuable by-product. The acid-treated oil was washed with water and treated 3 times with spent H<sub>2</sub>SO<sub>4</sub> (18%) which still contained 5% of free SO<sub>2</sub>. After the repn. of 33% of acid sludge, the oil was treated with 4% H<sub>2</sub>O, NaOH, washed 5-7 times with water and treated with 5% of Zilkeev clay at 80°, yielding after settling and filtration 68% of an oil of flash point 138°, fire point 154°, pour point -50°, d. 0.875, Saybolt viscosity at 37.8°, 66 sec., acidity 0.01, inorg. acids none and dielec. strength 37.3 kw. Lab. expts. indicate that a gas-oil fraction from Emba crude oil is 300-60° and used at present as cracking stock is suited better for transformer oil. The lighter fractions amount to 45% can be used as kerosene distillate.

A. A. Bochtank

ASS-514 METALLURGICAL LITERATURE CLASSIFICATION

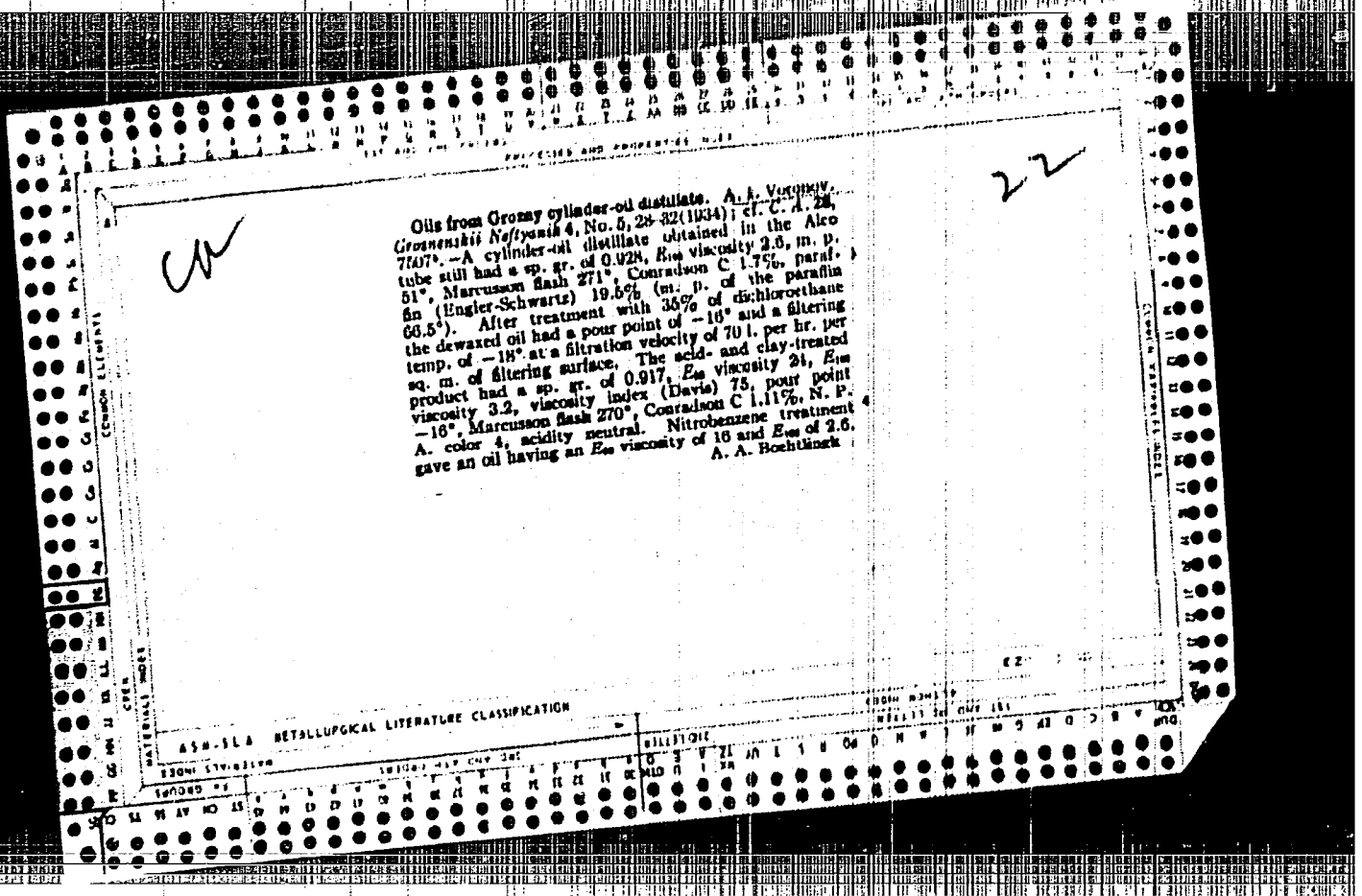
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APR 1953

Continuous acid treatment of lubricating oils. A. I. Vivonov. *Neft 4*, No. 18, 14-15(1933).--The disadvantages of a batch treatment of oils with  $H_2SO_4$  and the advantages derived from the continuous treatment with the use of centrifuges (du Laval SN) are discussed, and a few illustrations are given. A. A. Buehtmark

ASM-55A METALLURGICAL LITERATURE CLASSIFICATION

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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1ST AND 2ND GROUPS      PROCESSES AND PROPERTIES INDEX      3RD AND 4TH GROUPS

Common ELEMENTS

OPEN

WATER-ALL INDEX

Common ELEMENTS

5 Increasing the output of the Winkler Koch cracking unit in the Konstantinovskii refinery. A. I. Yozonov. *Neft* 5, No. 11, 12-13(1934).—Because of the high content of kerosene fraction, the gas oil used in the Winkler Koch cracking coil was found to be unsuitable for cracking. The pressure distillate contained up to 24.4% of benzene fractions, which, because of their high content of aromatic compds., could not be used for illumination. The gas oil should therefore be stripped of the light fractions before cracking. A. A. Bozhlingk.

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ASB-51A METALLURGICAL LITERATURE CLASSIFICATION

33000 3170000

LETTERS      AND      LETTERS

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PROCESSES AND PROPERTIES INDEX

Refining the dewaxed cylinder distillate from the Alca unit by means of selective solvents. A. I. Voronov and N. I. Logvinova. *Neftebase Khovynskoe* 20, No. 4, 56-7 (1934).—In the treatment of a dewaxed cylinder oil distillate with 123% of phenol, a better oil is obtained than on treatment with H<sub>2</sub>SO<sub>4</sub>. The viscosity index of this oil is not improved by raising the amt. of H<sub>2</sub>SO<sub>4</sub> from 10 to 16%. The highest viscosity index was obtained on refining the oil with 400% of "Chbrev." A good index is obtained when H<sub>2</sub>SO<sub>4</sub> and phenol are used. A. A. Rohtlinok

FROM SCHLIMM  
RELEAST CHEM ONY JST

ASB-31A METALLURGICAL LITERATURE CLASSIFICATION

GROUPS

SECTION

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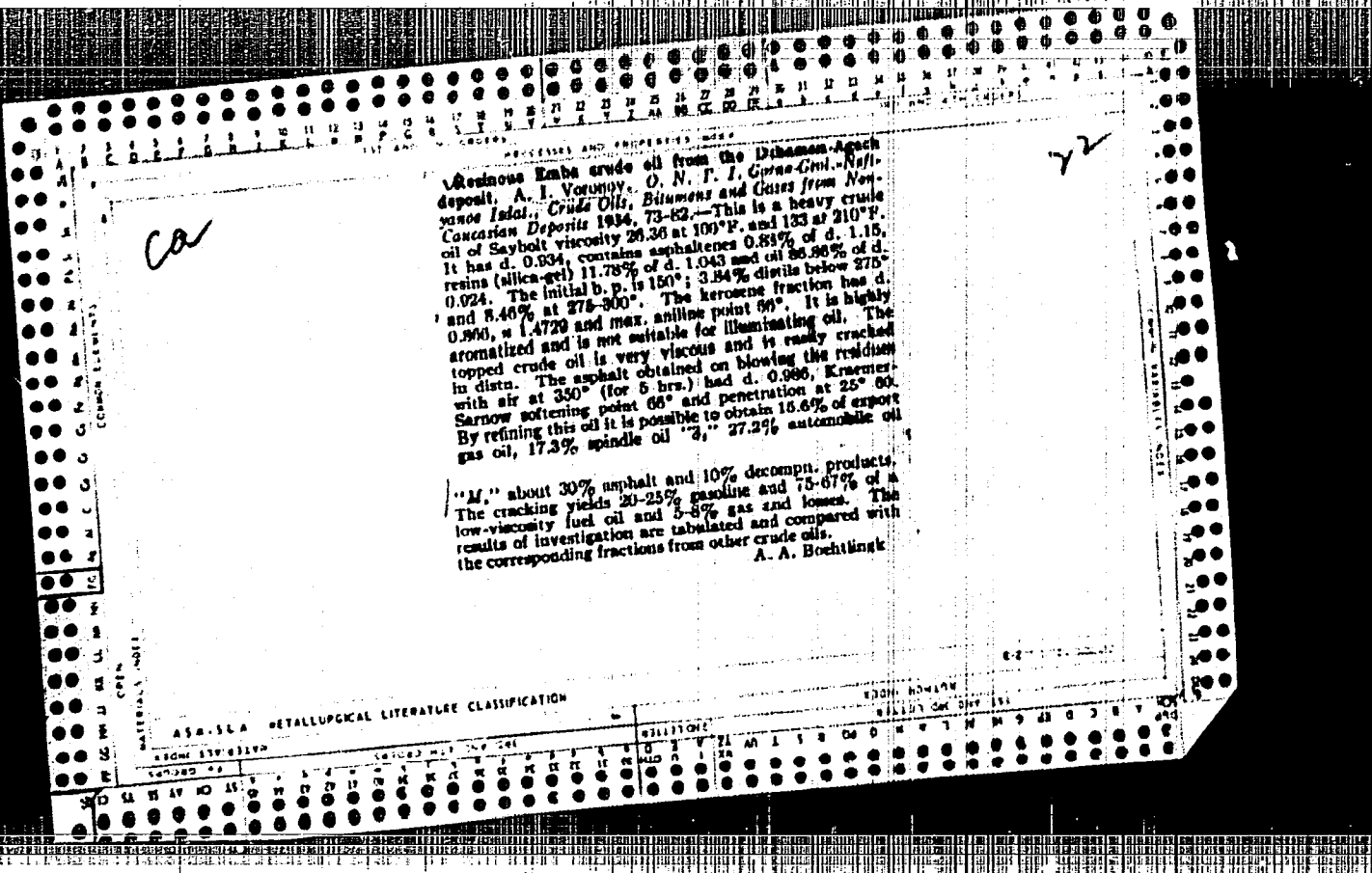
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MATERIAL INDEX

OPEN

CHEMICAL ELEMENTS

COLUMBIAN TABLET UNIT





PROCESSES AND PROPERTIES INDEX

1ST AND 2ND COPIES

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*CA*

Determining the potential content of gasoline and kerosene fractions in Desso-Makat crude oils. A. I. Voronov. *Neft* 4, No. 20, 10-12 (1963). — Gasoline and kerosene can be detd. in crude oil by distg. with a Golashin tower; a Glinakil tower can be used in detg. the kerosene content in oils free from gasoline. The gas oil content can be detd. by vacuumu distn. with a Glinakil tower. A. A. B.

ASB-51A METALLURGICAL LITERATURE CLASSIFICATION

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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127 AND 128 COLUMNS

PROCESSED AND REPRODUCED

*ca*

Breaking up alkaline water-oil emulsions under pressure. *А. А. ЯКИМОВ. Методы*  
*Корытцево 21, 102-4(1931).*—About 30% better yield of oil can be obtained  
 when treating alk. water oil emulsions at a pressure of 1-2 atms and a temp. of 120-  
 130°. The exptl. procedure is described in detail and various recommendations are  
 made. *А. А. ЯКИМОВ.*

*72*

ASME METALLURGICAL LITERATURE CLASSIFICATION

SIGNATURE

GROUP

127 AND 128 COLUMNS

RECEIPTS AND PROPERTIES INDEX

22

*ca*

Aviation oil from the cylinder-stock distillate of the Gruzny mixed-base crude oil. A. A. Yermakov and N. I. Logvinova. *Nefteyane Khimiches* 26, No. 4, 57-60 (1934).—In the dewaxing of cylinder distillate there were used: cylinder distillate 100 and dichloroethane 300 parts. This yielded: (1) aviation oil AAC 40; (2) dry petrolatum 37.7, dichloroethane 201.4, losses of cylinder oil distillate 22.3 and losses in dichloroethane 26.6 parts. The dichloroethane was of a good quality (analysis is given). The concn. of cylinder-oil distillate in the dichloroethane should not exceed 33%, the filtration should be carried out at  $-20^{\circ}$ , and the amt. of solution used in washing the cake should not exceed 100%. The dewaxing should be carried out at  $-18^{\circ}$ , and the filtration should proceed at the rate of 70 l. per sq. m. of the filtering surface. A plan of the operations and the various products obtained is given. A. A. Brehlinsk

METALLURGICAL LITERATURE CLASSIFICATION

GROUP	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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PROCESSING AND REPRODUCTION

1ST AND 2ND EDITIONS

71

Preparing commercial paraffin and special oils from the filtrate obtained in the paraffin process. A. M. Ravikovich, A. I. Vozgonyev and Yu. A. Kublo. *Gosneftkhim* No. 9-10, 28-31 (1964). Grown paraffin filtrate has a pour point of about 8° and an  $\eta_{sp}$  viscosity of 1.25. It may be filtered at -15° without a solvent, yielding a slack wax suitable for sweating at temps. lower than usual. The slack wax yields 7.2% of valuable low-melting paraffins, based on the original distillate. The first filtrate yields: was 10%, m. 32-65°; the filtrate amounts to 88% of the distillate; the former contains 10.2% paraffin. The corresponding figures for the second filtrate are 7.2, 41-43, 75 and 1.8. A. A. Bochtinskii.

A.S.A. S.L.A. METALLURGICAL LITERATURE CLASSIFICATION

GROUP		SUBGROUP										CLASSIFICATION																	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30



PROCESSES AND PROPERTIES 4274

1957 AND 1960 EDITIONS

22

CR

Crude oils from the Kaya-Kent deposit. A. I. Voskov, P. S. Lisitzin and L. Kutzonok. *Neft* 6, No. 19, 15-17 (1935).--The crude oils produced in Kaya-Kent (Caspian Sea) are characterized by the presence of 30% of fractions b. below 200° and 25% of kerosene (b. 300-315°). They contain 1.5% of asphaltene and are classified as naphthene-aromatic crude oils. The fraction b. below 160° contains 5.8% aromatic hydrocarbons, 49.5% naphthenes and 20.7% satd. hydrocarbons, the higher-boiling fraction having an increased content of aromatic hydrocarbons and a lower content in satd. compds. The cylinder-oil fractions are free from paraffin and have a pour point below -17°. They may yield in a vacuum distn. 36% of lubricating oil fractions and 15% of grade-II asphalt.

A. A. Roetlinak

METALLURGICAL LITERATURE CLASSIFICATION

62-411

1st, 2nd, 3rd, 4th, 5th, 6th, 7th, 8th, 9th, 10th, 11th, 12th, 13th, 14th, 15th, 16th, 17th, 18th, 19th, 20th, 21st, 22nd, 23rd, 24th, 25th, 26th, 27th, 28th, 29th, 30th, 31st, 32nd, 33rd, 34th, 35th, 36th, 37th, 38th, 39th, 40th, 41st, 42nd, 43rd, 44th, 45th, 46th, 47th, 48th, 49th, 50th, 51st, 52nd, 53rd, 54th, 55th, 56th, 57th, 58th, 59th, 60th, 61st, 62nd, 63rd, 64th, 65th, 66th, 67th, 68th, 69th, 70th, 71st, 72nd, 73rd, 74th, 75th, 76th, 77th, 78th, 79th, 80th, 81st, 82nd, 83rd, 84th, 85th, 86th, 87th, 88th, 89th, 90th, 91st, 92nd, 93rd, 94th, 95th, 96th, 97th, 98th, 99th, 100th

PROCESSES AND PROPERTIES INDEX

13C

B-I-2

Topped Malibu grade oil. A. K. YONGHOV and N. I. LOVINOVA (Mosk, 1955, G. No. 7, 18-21)—A. review of methods of treatment. Cr. Ann. (4)

ABB. 514 METALLURGICAL LITERATURE CLASSIFICATION

RESEARCH

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APR 1956

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PROCESSING AND PROPERTIES UNIT

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*B-1-2*

OILS FROM GROZNI CYLINDER-OIL DISTILLATE. A. I.  
Vergunov (Gos. Neft., 1954, 4, No. 5, 88--92).--Tests on  
the oil after treatment with  $C_2H_4Cl_2$  and with  $PhNO_2$   
are described. Ch. Abs. (v)

ABB-51A METALLURGICAL LITERATURE CLASSIFICATION

GROUP	SECTION	SUBSECTION	CLASSIFICATION	GROUP	SECTION	SUBSECTION	CLASSIFICATION









PROCEDURE AND PROPERTIES INDEX

B-1-3

Crude oil from the Kaya-Kent deposit. A. I. Voronov, P. S. Lisitsain, and L. Kutzenok (Nef't, 1935, 6, No. 19, 15-17). ~~ANALYTICAL~~ data are recorded. The oil contains 20% of fractions of b.p. < 200° and 25% of kerosene (b.p. 200--315°).  
Ch. Abs. (r)

METALLURGICAL LITERATURE CLASSIFICATION

SEARCHED	INDEXED	SERIALIZED	FILED



VORONOV, A.Kh.; GOLOVIN, G.A.

Planned automotive transportation. Stroi. prom. 35 no.5:42 My '57.  
(Transportation, Automotive) (MIRA 10:6)

VORONOV, A.L., kand. tekhn. nauk; GREBENKIN, I.A., inzh.; IGnat'YEV,  
N.V., kand. tekhn. nauk, retsenzent

[Gearboxes of machine tools; kinematic design of gear-  
boxes with a compound structure and connected gear wheels]  
Korobki peredach metallovezhushchikh stankov; kinematiches-  
skii raschet korobok peredach so slozhennoi strukturoi i  
sviazannymi zubchatymi kolesami. Moskva, Izd-vo "Mashino-  
strenie," 1964. 132 p. (MIRA 17:7)

VORONOV, A.L., inzhener.

Improving a belt brake used in examining the forces of cutting. Vest.mash.  
33 no.5:63-64 My '53.

(MLRA 6:5)  
(Brakes)



VORONOV, A. L.

Dissertation: "High-Frequency Vibrations of Cutting on a Lathe." Cand Tech Sci,  
Moscow Order of Lenin Aviation Inst imeni Sergo Ordzhonikidze, 17 May 54.  
Vechernyaya Moskva, Moscow, 7 May 54.

SO: SUM 284, 26 Nov 1954

VORONOV, A. L.

USSR/ Engineering - Metal cutting

Card 1/1 Pub. 128 - 10/26

Authors : Voronov, A. L.

Title : ~~XXXXXXXXXXXXXXXXXXXX~~  
An experiment on the utilization of power cutting methods

Periodical : Vest. mash. 2, 50-52, Feb 1954

Abstract : A narrative report is presented dealing with the utilization of the power cutting of metals in accordance with methods devised by V. A. Kolesov. Three USSR references (1950-1952). Diagrams.

Institution : .....

Submitted : .....

VORONOV, ARON LAZAREVICH

KRIVOUKHOV, Vasily Aleksandrovich, doktor tekhnicheskikh nauk; VORONOV, Aron Lazarevich, kandidat tekhnicheskikh nauk; BRUSHTEYN, B. Ye., kandidat tekhnicheskikh nauk, redaktor; BKLITSKAYA, A.M., redaktor; LEBEDEVA, L.A., tekhnicheskij redaktor.

[High-frequency vibrations of the cutting tool during metal cutting]  
Vysokochastotnye vibratsii reztsa pri tochenii. Moskva, Gos.izd-vo obor.pronyahl., 1956. 75 p. (Moscow. Aviatsonnyi institut. Trudy, no. 67) (MIRA 9:10)

(Cutting tools--Vibration) (Metal cutting)

**VOBOMOV, A.L.**, kandidat tekhnicheskikh nauk.

Quality of surfaces machined by cutting tools with vibration-  
damping faces. Vest. mash. 36 no.6:30-33 Je '56. (MLRA 9:10)

(Metal cutting)

VORONOV, A.L., kand. tekhn. nauk; GREBENKIN, I.A., inzh.; IGNAT'YEV,  
N.V., kand. tekhn. nauk, retsenzent

[Gearboxes of machine tools; kinematic calculation of gear-  
boxes with combined structure and multi connected gear wheels]  
Korobki peredach metallovezhushchikh stankov; kinematicheskii  
raschet korobok peredach so slozhennoi strukturoi i svyazan-  
nymi zubchatymi kolesami. Moskva, Izd-vo "Mashinostroenie,"  
1964. 132 p. (MIRA 17:6)

VORONOV, A.L.

Effect of high-frequency vibrations of cutting tools during  
turning on the quality of surfaces. Trudy Sem.po kach.poverkh.  
no.4:225-230 '59. (MIRA 13:6)  
(Metal-cutting tools--Vibration)  
(Turning)

VORONOV A. I.

TABLE I BOOK EXPLOITATION 30V/3658

Akademiya nauk SSSR. Institut mashinovedeniya. Komissiya po tekhnologiyam mashinostroyeniya. Seminar po kachestvu povrezhdenosti i kachestvu obrabotki detalей mashin, sbornik 4. Tekhnologicheskiye fakty obrabotki. Metallogiya i prirody. Eksploatacionnyye svoystva povrezhdenogo sloya (Surface Quality of Machine Parts, Corrosion and Fatigue, No. 4. Operating Factors in Machine Parts). Moscow: Izdatel'stvo Mashinostroyeniya, 1959. 20 p. (Series: Itai Strany) Kratkae slovo inzhenera. 3,800 copies printed.

Sponsoring Agency: Akademiya nauk SSSR. Institut mashinovedeniya. Resp. Ed.: P.Ye. D'yachenko, Professor; Ed. of Publishing House: G.B. Gerasimov; Tech. Ed.: T.P. Polonova.

PURPOSE: This collection of articles is intended for technical personnel concerned with the quality of surface finishes of machine parts.

COVERNOTE: This collection of articles deals with problems of surface roughness and the effect of surface roughness on the wear and strength of machine parts. Among the topics discussed are the effect of cutting conditions on surface roughness, the roughness of machine parts, the effect of lubrication on the wear of plane friction surfaces, methods and instruments for measuring surface roughness, and the processing of profilograms of finished surfaces. No personal titles are mentioned. References follow several of the articles.

Karev, I.A., and A.A. Mikhaylov. Investigation of the Failure of Parts Due to Cracks Formed in Turning Chrome-Plated Surfaces 204

Shapovalov, I.S. Work Hardening by Hammering to Increase the Fatigue Strength of Machine Parts 211

Kurosov, A.K. Effect of High-Frequency Cutting-Tool Vibrations on Surface Roughness in Turning 225

Boff, L.A. Experience Gained from the Introduction of a Pneumatic Instrument for Checking Surface Roughness 231

Rivol'skiy, A.V. Principles of Controlling the Process of Finish Turning with Floating Abrasive Sticks 236

Yevrein, B.F. Experience Gained at the Gorkovskiy avtomobil'nyy (Gorkiy Automotive Plant) from the Introduction of GOST (All-Union State Standards) for Surface Roughness 244

Yevrein, B.F. Improving the Surface Smoothness and the Quality of Cutting Tools 247

Barkin, V.I. Surface Roughness of Mach Parts 251

Derevits, G.A. Investigation of the Effect of Finishing Tools on the Endurance of High-Strength Steels 259

Leita, N.Ye. Effect of the Microgeometry and Microstructure of Sliding Surfaces on Their Wear Resistance 265

Tumanov, M.M., and V.M. Guterman. On the Criteria for Classification of the Type of Wear of Cast-Machinery Parts 274

Chaynyan, L.A. Lubricating Properties of Molybdenum Disulfide 278

Rejzeld, Y.I. The Problem of Processing Profilograms of Finished Surfaces 282

AVAILABLE: Library of Congress

Card 7/7

VK/PL/b  
7-11-60

(1)

SOV/123-59-12-46412

Translation from: Referativnyy zhurnal. Mashinostroyeniye, 1959, Nr 12, p 76 (USSR)

AUTHOR: Voronov, A.L.

TITLE: Experimental Investigations of the Steel Cutting Process<sup>18</sup> With Chamfered Cutters of the D.I. Ryzhkov System

PERIODICAL: Tr. Ufinsk. aviats. in-ta, 1957, Nr 3, pp 169-180

ABSTRACT: The results of investigating the effects of providing cutters with vibration absorbing chamfers (Ch) on the cutting temperature and the contraction of chip are given. The cutting temperature was determined by the method of natural thermocouples and from the temper color of the chip. Cutting tools<sup>14</sup> of the R9<sup>6</sup> and T15K6<sup>8</sup> grade were investigated. It was found that the cutting temperature increased with a widening of the chamfer. The character of the dependence of the chip contraction on the width of CH was determined for hard-alloy cutters at various cutting speeds. It was found that, if the change in cutting speed or width of Ch leads to temperatures, corresponding to an increase in the coefficient of friction, the chip contraction will increase, and vice versa. Data are given on growth when carrying out machin-

Card 1/2



SCV/123-59-12-46412

Experimental Investigations of the Steel Cutting Process With Chamfered Cutters of the D.I. Ryzhkov System

ing work with cutters with and without Ch. Without Ch the growth is generally removed by the chip. If there is a Ch, growth appears also on the Ch and is not completely taken off by the chip. 7 figures, 2 tables, 8 references.

B.I.L. ✓

Card 2/2

VORONOV, A.L.

10(0); 18(0); 25(0) PART I BOOK EXPLOITATION

507/2035

Ufa. Aviatstanozy Institute

Trudy, VPr. 2. (Transactions of the Ordzhonikidze Aviation Institute, Ufa). No. 2. Ufa. Bashkirskoye Mashinoye Stroy. 1950. 219 p. Extra also inserted. 1,000 copies printed.

Material Board: I.P. Yemelin (Resp. Ed.), A.M. Nakhmanovich, I.A. Polotovskiy, S.I. Kulikov, M.A. Bepetov, V.A. Vinogradov, and P.D. Klyuz' Nepz. Ed. for numbers: I.A. Polotovskiy, Ed. of Publishing House: M.A. Ouyvich; Tech. Ed.: P.O. Deytulin.

REMARKS: The book is intended for engineers of scientific and industrial institutions.

COPIES: This collection is composed of a number of unrelated articles in mechanical, aeronautical (fluid dynamics), metallurgical and other branches of engineering. For further coverage see Table of Contents.

Author: A.L. Investigation of the Process of Machining with Ultrasonic Tools

The article gives basic results of an investigation of the influence of second order vibration in metal turning on the quality and accuracy of the machined surface. There are 15 references: 1) Soviet, and 1 English.

Author: V.I. Technology for Elaborating Technological Processes of Aircraft Engine Assembly

According to the author, the first attempt to elaborate the technological process of assembling aircraft engines prior to mass production. Basic principles for development of technological and some organizational requirements of operations, and some organizational requirements are given. There are 6 Soviet references.

Author: I.A. Simple Method for the Determination of Volatile

and Heavy Organic Properties of Brown Coal

The article describes a correlational analysis of the interdependence of the incandescent mass and the exit of volatile products of brown coal. A method for the construction of individual curves, their practical significance, and a method for the composition of tables are given. There are 8 Soviet references.

Author: I.A. Qualitative Paper-Chromatographic and Luminescent Method of Marking Substances Brown Coals

The article describes methods of investigations of a large number of coals. Results are given in the form of a table. There are 8 Soviet references.

Author: I.A. Small Dimension Engine with Emulsion Fuel Injection

Article article investigated the possibility of using emulsion injection of fuel in small-dimension engines. Design of a mixing pump and of a slide-valve pump is described. There are 6 Soviet references.

AVAILABILITY: Library of Congress

13/60  
8-17-59  
5

Veronov, A.L.

18(0); 25(0); 10(6)

PHASE I BOOK EXPLORATION NOV/1995

Ufa. Aviatstony Institut

Trudy Vyp. 3 (Transactions of the Grishonikida Aviation Institute, Ufa) Nr 3. Ufa, Bashkiretskoye knizhnoye izd-vo, 1957. 222 p. Errata slip inserted. 1,000 copies printed.

Resp. Ed. for this no.: I.A. Bolotovskiy; Editorial Board: I.P. Yemel'in (Pres. Ed.), A.M. Rakhmanovich, I.A. Bolotovskiy, S.I. Malibov, V.A. Vinogradov, and P.D. Mirko; Ed.: M.A. Gurrich; Tech. Ed.: P.G. Geyfalin.

PURPOSE: The book is intended for engineers and scientific workers in the fields of metallurgy, technological processes, and fluid mechanics.

COVERAGE: This volume contains 14 articles dealing with metallurgy and mechanical, aeronautical, and electrical engineering problems. Individual abstracts are given in the Table of Contents.

✓ Nekharov, A.D. Finishing Quench-hardened Steels With Coarse Feeds and the Microgeometry of Finished Surfaces	139
The effect of hardness of the steel, cutting speed, feed, and degree of overlapping on the height of the microirregularities is considered. A rational shape for the cutting part of a single-point cutter is proposed which provides a highly perfected finish with high-dimensional stability and effectiveness of finish. The effect of elastic deformations and change in contour of the cutting edge of the cutter in relation to abrasive action on the height of the residual microirregularities is described. References: 13 Soviet.	
✓ Veronov, A.L. Experimental Investigation of the Process of Cutting Steel BY MEANS OF SINGLE-POINT CUTTING TOOLS WITH A B.I. RYKHLOV EDGE	169
The effect of the vibration-damping edge on cutting temperature, the deformation of the cut layer, and chip shrinkage are considered. The effectiveness of the vibration-damping action of the lead is illustrated. References: 8 Soviet.	

Card 5/7

2-

SOV/115-59-7-30/33

25(5)

**AUTHORS:**

Poritskiy, G.S., Voronov, A.M.

**TITLE:**

The Forgotten Ceramic Weights

**PERIODICAL:**

Izmeritel'naya tekhnika, 1959, Nr 7, p 62 (USSR)

**ABSTRACT:**

Prior to WWII, the Soviet industry produced ceramic weights up to 500 g of categories II and III. The production of ceramic weights was discontinued for a reason unknown to the authors. Ceramic weights have a number of positive properties, for example, their wear is much lower than that of steel weights. Ceramic weights, produced 20 years ago are still serviceable today. Ceramic weights are irreplaceable especially in certain laboratories and whenever high standards of hygiene and sanitation must be met. Weights made of steel require a considerable amount of metal and wear rapidly. In the future, ceramic weights should be produced by the Soviet industry, using the latest achievements of science and engineering. An editorial note says that the statement of the authors is of great importance for the USSR economy. It should be included in the production plans of the ESTER and the UkrSSR, since these republics have the necessary facilities for producing ceramic weights.

Card 1/1

VORONOV, A.M.

Apparatus for spraying sea water on beaches used for therapeutic purposes by sanatoriums. Vop. kur. fizioter. i lech. fiz. kul't. (MIRA 14:4)  
25 no. 3:259-260 My-Je '60.

1. Iz sanatoriya "Rabochiy ugolok" v Alushte (glavnyy vrach Z.Ye. Gorbunov).

(HYDROTHERAPY--EQUIPMENT AND SUPPLIES)

VORONOV, A.M. (Alushta)

Regulating the length of water and air procedures. Vop.kur.fizioter.  
i lech.fiz.kul't. 21 no.3:74-75 J1-S '56. (MIRA 9:10)  
(OPEN-AIR TREATMENT) (SUN BATHS)

VORONOV, A.M.

VORONOV, A.M.

Equipping the microclimatic zones of the bathing beach of Rabochiy  
ugolok" sanatorium. Vop.kur., fizoter. i lech.fiz.kul't. 22 no.3:  
63-67 My-Je '57. (MIRA 11:1)

1. Iz sanatoriya "Rabochiy ugolok" v Alushte (glavnyy vrach Z.Ye.  
Gorbunov, nauchnyy rukovoditel' - prof. A.B.Shakhnazarov)  
(HEALTH RESORTS, WATERING PLACES, ETC.)  
(ALUSHTA (CRIMEA)--BATHING BEACHES)

V. BONDAR, A.M., GALPERIN, A.L., MIRLOVICH, M.A., MAKSIMOV, P.M., BROJSKII, A.L.,  
R. VISH-SHCHELO, V.A., BONDAR, N.I. and VERKHOVYKH, F.P.

"Blood Transfusion in Treatment of Tuberculosis."

[Probl. Tuberk.] No. 1,3-14, Jan.,-Feb., 1950. 2 refs., 3 refs.

Much work has been done in the Soviet Union to prove that tuberculous patients are not allergic to human blood. It has also been proved that blood transfusions in these cases need not produce any general or local reactions whatsoever. The very severe reactions which were produced by transfusion at the beginning of the experiments have now been eliminated. It has been established that they were due to impurities and to lack of asepsis in the technique of administration. Transfusion cannot be regarded as a basic method of treatment but serves a subsidiary purpose: (a) as a haemostatic; (b) as a stimulator of the connective tissues; (c) as substitution therapy after great blood loss. Blood transfusion is also important as a preliminary to surgical intervention and in post-operative treatment. More work should be done on the desensitizing effect of blood transfusion in the presence of pleural reactions to treatment with artificial pneumothorax. The use of dry serum is advisable as a haemostatic agent. Blood transfusions are contraindicated in hopeless cases such as those of acute caseous pneumonia, acute haematogenous spread, and terminal exacerbations.

H.W. Swann

SO: Abstracts of World Medicine, Vol. 8, 1950.



VORONOV, A. M.

Tuberculosis - Hospitals and Sanatoriums

Therapeutic diet in tuberculosis sanatorium; Probl. tub. no. 1, 1952.

Monthly List of Russian Accessions, Library of Congress, May 1952. UNCLASSIFIED.

VORONOV, A. M.

Diet in Disease

Therapeutic diet in tuberculosis sanatorium. Probl. tub. no. 1, 1952.

Monthly List of Russian Accessions, Library of Congress, May 1952. UNCLASSIFIED.

VORONOV, A.M.

VORONOV, A.M.

Therapeutic diets in tuberculous sanatorium. Probl. tuberk., Moskva  
no. 1:58-63 Jan-Feb 52. (CIML 21:5)

1. Yalta.

Морозов, А. И. Тестирование системы автоматического  
управления движением самолета в полете. Часть  
1. М.: ВВС, 1967. 112 с.

70115  
6-7-55

VORONOV, A. M.

"Theoretical Bases of Heat Engineering", 1952.

Part Two of this book contains four chapters on heat transfer. Aviation gas turbines and compressors are discussed p. 142-145.

VORONOV, A. M.

"Theoretical Bases of Heat Engineering" 1952

Part Two of this book contains four chapters on heat transfer. Aviation gas turbines and compressors are discussed p. 142-145.

10

CONDENSATION OF DINITROCHLOROBENZENE WITH p-AMINO-  
 PHENOL-3,5-DISULFONIC ACID. I. M. KOGAN, A. S. VORONOV  
 and A. Z. LYUBITELEVA. *Amdinokrasochaya Pripis*: 3,  
 153 4 (1933).—A yield of 80% 2,4-(O<sub>2</sub>N)<sub>2</sub>C<sub>6</sub>H<sub>3</sub>NHC-  
 H<sub>2</sub>(SO<sub>3</sub>Na)<sub>2</sub>OH (3,5,4) (I) was obtained by refluxing 12  
 g. in a salt bath a mixt. of 10 g. 1,4,5,6-C<sub>6</sub>H<sub>2</sub>(NH<sub>2</sub>)-  
 (OH)<sub>2</sub>(SO<sub>3</sub>H)SO<sub>3</sub>Na, 6 g. CaH<sub>2</sub>(NO<sub>2</sub>)<sub>2</sub>Cl, 2.4 g. AcONa  
 and 60 cc. H<sub>2</sub>O, and then salting out with NaCl. By  
 working with alc. 49% of I results. I gives fugitive  
 yellow dyes on wool from an acid bath. C. B.

ASB-51A METALLURGICAL LITERATURE CLASSIFICATION

SHTEYNBERG, M.M.; VORONOV, A.S., starshiy elektromekhanik

What should a signaling and communications district be like?  
Avt., telem. i svyaz' 5 no.1:17 Ja '61. (MIRA 14:3)

1. Nachal'nik otдела signalizatsii i svyazi Akmolinskogo  
otdeleniya Kazakhskoy dorogi (for Shteynberg). 2. Fologskaya  
distantsiya signalizatsii i svyazi Stalinskoy dorogi (for Voronov).  
(Railroads--Signaling)



VORONOV, Abram Solomonovich, prof.; KAMENETSKIY, S.I., red.; SHNEYDER,  
M.S., red.; MAILYAN, S.L., red.; CHUCHUPAK, V.D., tekhn. red.

[Hospital therapy]Gospital'naia terapiia. Kiev, Gosmedizdat,  
USSR, 1962. 522 p. (MIRA 16:2)

1. Zaveduyushchiy kafedroy gospital'noy terapii Donetskogo  
meditsinskogo instituta (for Voronov).  
(HOSPITAL THERAPY)

VORONOV, Abram Solomonovich; KAMENETSKIY, S.I., red.; SERVEYDER, M.S.,  
red.; MAILYAN, S.L., red.; CHUCHUPAK, V.D., tekhn. red.

[Hospital therapy] Gospital'naya terapiya. Kiev, Gosmedizdat,  
USSR, 1962. 522 p. (MIRA 15:4)

1. Zaveduyushchiy kafedroy gospital'noy terapii Donetskogo me-  
ditsinskogo instituta (for Voronov).  
(MEDICINE, CLINICAL)



1. VORONOV, A.S., PROF.; OGANEZOV, A.V.
2. USSR (600)
4. Volga-Don Canal Region - Public Health
7. Organization of medical aid at the construction of the V.I. Lenin Volga-Don Navigation Canal. Klin.med. 30 no.8, 1952.

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

ZAVADSKAYA, T.I. (Rostov-na-Donu); VORONOV, A.S., professor, zavednyushchiy.

Clinical aspects of thrombosis of the splenic vein. Klin.med. 31 no.7:52-  
56 JI '53. (MLRA 6:9)

1. Kafedra gospital'noy terapii Rostovskogo meditsinskogo instituta.  
(Thrombosis) (Veins--Diseases)

VORONOV, A.T.

Effect of trace elements on the yield of forage beans.  
Bot.; issl.Bel.otd.VBO no.7:30-36 '65.

(MIRA 18:12)

CA VORONOV, A.Y.

2

Particularities of the displacement of the chemical equilibrium as a source of anomalies of the temperature dependence of physical properties. S. S. Uramvskii and A. Y. Voronov (Kharkov Polytech. Inst.). *Doklady Akad. Nauk S.S.S.R.* 77, 851-4(1961).—On the basis of the obvious, but not hitherto stressed or demonstrated fact that the equil. constn. of a reversibly reacting homogeneous system varies nonuniformly with the temp., it is shown that anomalies of phys. properties referred to as transitions of the 2nd kind, and previously (C.A. 48, 7763, 7769; 64, 1746) broadly interpreted by a change of mutual orientation of the mol., may stem not only from polymorphic transitions, but also from chem. changes. In reactions of the isomerization and of the dissov. type, the mole fraction  $\alpha$  of substance reacted at equil. has an inflection point at a temp.  $T = T_m$  where  $\alpha' = (d\alpha/dT)_e$  passes through a max. For the temp. dependence of the heat content  $H$ , one finds that in the temp. range including  $T_m$ , there is a point where  $H(T)$  has an inflection and the heat capacity  $C_p$  passes through a max. Analogous conclusions can be drawn with regard to the vol.  $v$  of the system. As an illustration, curves of  $\alpha(T)$ ,  $\alpha'(T)$ , and  $C_p(T)$  for the anomalous part of the heat capacity are given for  $\text{N}_2\text{O}$ , on the basis of the data of Hoffmann; the anomalous part  $\Delta H_m'$  passes through a max. at  $56^\circ$ . N. Thim

VORONOV, A. V.

USSR/Chemistry : Physical chemistry

Card : 1/1

Authors : Voronov, A. V.

Title : Discussion on the problem regarding the source of anomalies in the thermal dependence of physical properties of ideal inversely-reacting simple chemical-systems

Periodical : Zhur. fiz. khim. 28, Ed. 6, 1158 - 1162, June 1952

Abstract : A critical review is presented of the M. P. Mikhlin and S. S. Urazovskiy reports regarding the source of anomalies in the physical properties of ideal inversely-reacting simple chemical-systems. The errors in the criticized report, are pointed out. Eight USSR references.

Institution : The V. I. Lenin Polytechnicum, Kharkov

Submitted : October 31, 1952



VORONOV, A.V.  
USSR/Chemistry - Physical chemistry

Card 1/2 Pub. 147 - 4/21

Authors : Voronov, A. V.

Title : Effect of reversible conversion on the relation between the properties of a system and the generalized forces. Part 1. Basic equations for extensive properties of a converting system

Periodical : Zhur. Fiz. khim. 29/10, 1771-1775, Oct 1955

Abstract : Generalized equations were introduced for extensive properties of a system experiencing reversible conversion under the effect of changes in the generalized forces. The equations introduced serve as a basis for the determination of the character of the anomalies occurring in the property changes of systems as result of reversible physical or chemical conversion.

Institution : Kharkov Polytechnic Institute in. V. I. Lenin

Submitted : July 17, 1954

Card 2/2

Pub. 11:7 - 4/21

Periodical : Zhur. fiz. khim. 29/10, 1771-1776, Oct 1955

Abstract : The extensive properties of a system are explained as: the properties at constant values of the generalized forces, such as temperature, pressure, electric field intensity, etc., which are the uniform functions of the first degree relative to the composition variables of a system. Twenty-seven references: 20 USSR, 4 USA, 2 Germ., and 1 Dutch (1908-1953).

VORONOV, A.V.

USSR/ Physical Chemistry - Thermodynamics. Thermochemistry. B-8  
Equilibrium. Physicochemical Analysis. Phase transitions.

Abs Jour : Referat Zhur - Khimiya, No 3, 1957, 7427

Author : Voronov, A.V.

Title : On the Effect of the Reversible Transformation on the  
Character of the Dependence of the Properties of a  
System on Generalized Forces. II. Anomalies in the  
Variation of Extensive Properties Caused by Reversible  
Transformations.

Orig Pub : Zh. fiz. khimii, 1955, Vol 29, No 12, 2120-2128

Abstract : Analysis of the equations presented in the previous pa-  
per (Communication I RZhKhim, 1956, 61018) shows that  
one must select as the extensive properties X of the sys-  
tem properties of the integral type, which are state  
functions, although formerly  $\partial X / \partial y_i$ ,  $\partial^2 X / \partial y_i^2$ ,  
 $\partial^2 X / \partial y_i \partial y_j$ ,  $\partial^3 X / \partial y_i^3$ , etc. also appear to be exten-  
sive properties. The additional term  $\Delta X(\partial X / \partial y_i)$

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USSR/ Physical Chemistry - Thermodynamics. Thermochemistry. B-8  
Equilibrium. Physicochemical Analysis. Phase transitions.

Abs Jour : Referat Zhur - Khimiya, No 3, 1957, 7427

in the equations reflects the influence of the transformation on the magnitude of the differential property of the system  $\delta X / \delta y_i$  and is responsible for the anomalies observed during the transformation. It is shown that the presence of transformation in the system leads to an increase in  $|\Delta X_i / \delta y_i|$ , when  $X_i$  is the variable connected with the force  $y_i$ ; if the latter is not the case, an increase is observed only for individual  $X_i$  (in particular, for the enthalpy  $H$ , since  $C = \delta H / \delta T$  increases when transformation occurs). The existence of points of maximum displacement of the equilibrium (maxima in  $\delta X / \delta y_i$ ) in many cases leads to the appearance of extrema and discontinuities in both the variation of  $\delta X / \delta y_i$  as well as in the variation of  $\delta X / \delta y_i$ ; the position of these three extrema does not coincide for a finite maximum in  $\delta X / \delta y_i$  (in particular, in gas

Card 2/3

- 75 -

VORONOV, A.V.

USSR/Atomic and Molecular Physics - Statistical Physics, Thermodynamics, D-3

Abst Journal: Referat Zhur - Fizika, No 12, 1956, 34323

Author: Voronov, A. V.

Institution: None

Title: On the Effect of the Reversible Transformation on the Character of the Dependence of the Properties System on the Generalized Forces. II. Anomalies in Changes of Extensive Properties, Caused by a Reversible Transformation

Original Periodical: Zh. fiz. khimii, 1955, 29, 12, 2120-2128

Abstract: Analysis of equations derived in earlier work (Referat Zhur - Khim, 1956, 61018) shows that the extensive properties X that should enter into these equations are of the integral type, which are functions of state, even though formally  $\partial X/\partial y_1$ ,  $\partial^2 X/\partial y_1^2$ ,  $\partial^2 X/\partial y_1 \partial y_2$ ,  $\partial^3 X/\partial y_1^3$ , etc, are also extensive properties. The supplementary term  $\Delta X (\partial \alpha/\partial y_1)$  in the equations reflect the effect of the transformation on the value of the differential properties of the  $\partial X/\partial y_1$  system, and is responsible for the anomalies observed in the transformation. It is shown that the presence of the transformation in the system leads to an increase in  $[\partial X_1/\partial y_1]$  if  $X_1$  is the variable that is associated with the force  $y_1$ . The

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1 of 2

USSR/Atomic and Molecular Physics - Statistical Physics, Thermodynamics, D-3

Abst Journal: Referat Zhur - Fizika, No 12, 1956, 34323

Author: Voronov, A. V.

Institution: None

Title: On the Effect of the Reversible Transformation on the Character of the Dependence of the Properties System on the Generalized Forces. II. Anomalies in Changes of Extensive Properties, Caused by a Reversible Transformation

Original Periodical: Zh. fiz. khimii, 1955, 29, 12, 2120-2128

Abstract: existence of maximum-displacement points in the equilibrium (maximums of  $\partial\alpha/\partial y_1$ ) leads in many cases to the appearance of extrema and discontinuities both in the changes in  $\Delta X$  ( $\partial\alpha/\partial y_1$ ), as well in changes of  $\partial X/\partial y_1$ , whereby the positions of these 3 extrema at a finite maximum of  $\partial\alpha/\partial y_1$  do not agree (in particular, in the case of gas reactions with a change of the total volume of the system); the most characteristic is not the extremum point  $\partial X/\partial y_1$  (critical point of transformation according to V. K. Semenchenko), but the maximum point of  $\partial\alpha/\partial y_1$ .

SOV/76-33-4-23/32

5(4)

**AUTHOR:**

Voronov, A. V.

**TITLE:**

On the Approximate Solution of Some Higher Order Equations Arising in the Calculation of Chemical Equilibria (O priblizhennom reshenii nekotorykh uravneniy vysshikh stepeny, voznikayushchikh pri raschete khimicheskikh ravnovesiy)

**PERIODICAL:**

Zhurnal fizicheskoy khimii, 1959, Vol 33, Nr 4, pp 903-912 (USSR)

**ABSTRACT:**

It was shown in a previous paper (Ref 1) that in the case of a reversible reaction occurring between equivalent quantities of the reacting substances, the computation of the degree of the chemical transformation  $\alpha$  may be made by solving the three member equation:  $ax^y + x - 1 = 0$  (2). The simplest analytical solution method for (2) was sought by examining more than 20 different methods and in the present case the method found to be the most suitable is described. The first stage of the analytical solution is a rough approximate determination of the root from the equation, in which connection however,  $y$  must not differ much from 1. For this reason, an exact definition is first carried out by way of a simple approximation over a hyperbolic function, which takes place

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SOV/76-35-4-23/32

## On the Approximate Solution of Some Higher Order Equations Arising in the Calculation of Chemical Equilibriums

with values of  $a \leq 1$ . The further approximation of the root takes place according to the method (Ref 7 or 8). It may be seen from the values specified (Tables 1, 2) that the error in determining the root increases with rising  $a$  and the difference of the value  $\nu$  from 1. In the case of values  $a \leq 0.1$  and  $2/3 \leq \nu \leq 3/2$  only a relative error of 0.01% may be observed, and no further approximation will be necessary. After an evaluation of the accuracy in the approximation root, examples are brought for a practical calculation of the chemical transformation degree. The conversion degree of methane is determined in an equivalent mixture with steam at 800°C and 1 atmosphere absolute pressure, as well as the hydrogenation degree of toluene in an equivalent mixture with hydrogen at 300°C and 6 atmospheres absolute pressure. There are 2 tables and 9 references, 7 of which are Soviet.

ASSOCIATION: Khar'kovskiy politekhnicheskii institut im. V. I. Lenina  
(Khar'kov Polytechnic Institute imeni V. I. Lenin)

SUBMITTED: October 1, 1957

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84632

S/076/6C/034/010/013/022  
B015/B064

5.4220

AUTHOR:

Voronov, A. V.

TITLE:

Thermodynamic Singular Points of Reversible Chemical Reactions. I. General Characteristics of the Singular Points and the Significance of Their Existence

PERIODICAL:

Zhurnal fizicheskoy khimii, 1960, Vol. 34, No. 10,  
pp. 2275-2283

TEXT: Curves representing a function of a chemical degree of conversion  $\alpha$  of a generalized force  $y_i$  (of the temperature T, the pressure P, etc.) in reversible reactions, where  $y_i$  effects a shift of the chemical equilibrium, are described with  $\alpha = F(y_i)$ . These curves frequently show several singular points whose character may differ. For reversible heterogeneous reactions it is known that the dissociation of solids begins with the change of a  $y_i$  value, and that the reaction is practically finished when a certain  $y_i$  value (dissociation temperature, dissociation pressure, etc.)

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Thermodynamic Singular Points of Reversible  
Chemical Reactions. I. General Characteristics  
of the Singular Points and the Significance  
of Their Existence

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has been reached. At this point of dissociation (from the mathematical viewpoint) the function  $\alpha = F(y_1)$  has a finite discontinuity and its derivative  $\alpha'_{y_1} = \partial\alpha/\partial y_1 = f(y_1)$  an infinite discontinuity, so that dissociation proceeds like a phase transformation of the first order. In many heterogeneous and all homogeneous reactions the change of a  $y_1$  value effects only a shift of equilibrium. The authors assume that also in these cases a point  $y_{1,e}$  occurs in which the absolute quantity  $|\alpha'_{y_1}| = |f(y_1)|$  passes through a maximum, i.e., a maximum shift of equilibrium takes place. The value  $\alpha'_{y_1}$  passes through a maximum or minimum, and the curve  $\alpha = F(y_1)$  shows an inflection. The singular points at which the second derivative  $\alpha''_{y_1} = \partial^2\alpha/\partial y_1^2 = \psi(y_1)$  passes through an extremum are also of importance. By the example of ammonia dissociation (Fig. 1) and methanol synthesis (Fig. 2), the author proves the existence of singular points,

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Thermodynamic Singular Points of Reversible  
Chemical Reactions. I. General Characteristics  
of the Singular Points and the Significance  
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as well as the importance of determining their coordinates for various predictions of the course of analysis. He discusses the latter in a special section under the title "Singular Points and Determination of the Most Favorable Thermodynamic Conditions for the Course of Reversible Reaction", giving some details of ammonia synthesis. In connection with a previous paper (Ref. 1) he discusses singular points and the concept of "chemo-critical phenomena" coined by V. K. Semchenko (Refs. 11, 12), and writes down the equation  $\bar{X}'_{y_i} = (1 - \alpha) \bar{X}'_{1,y_i} + \alpha \bar{X}'_{2,y_i} + (\bar{X}_2 - \bar{X}_1) \alpha'_{y_i}$  (1). ( $\bar{X}_1$

and  $\bar{X}_2$  = partial values of the integral property X, referred to the unit mass corresponding to the initial substances and conversion products;  $\bar{X}'_{1,y_i} = (\partial \bar{X}_1 / \partial y_i) \alpha, y_j$  and  $\bar{X}'_{2,y_i} = (\partial \bar{X}_2 / \partial y_i) \alpha, y_j$ ;  $\alpha'_{y_i} = (\partial \alpha / \partial y_i) y_j$ , where  $y_j$  means that all generalized forces (apart from  $y_i$ ) do not vary) and finds that the differential properties, especially of ideal, reversibly reacting chemical systems, can be exactly calculated from equation (1). Also the

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Thermodynamic Singular Points of Reversible  
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existence of "chemocritical phenomena" results from equation (1).  
Ya. I. Frenkel' is mentioned. There are 2 figures and 22 references:  
14 Soviet, 3 US, 3 German, 1 British and 1 Rumanian. ✓

ASSOCIATION: Khar'kovskiy politekhnicheskii institut (Khar'kov  
Polytechnic Institute)

SUBMITTED: January 27, 1959

Card 4/6