

ANTONOVA, S.F.; VASILENKO, S.S.; KAGANSKIY, M.G.; KAMINSKIY, D.L.

Investigating the gamma spectrum of Ce^{140} . Zhur.eksp.i
teor.fiz. 38 no.3:765-767 Mr '60. (MIRA 13:7)

1. Leningradskiy fiziko-tehnicheskii institut Akademii
nauk SSSR.

(Gamma rays) (Cerium--Isotopes)

ANTONOVA, S.N., aspirant (Phar'kov)

Compound treatment of neuralgias of the trigeminal nerve by
conservative methods. Probl. chol.-lits. khir. no.1:176-180
165.

(MIRA 18:10)

GOLOREOV, Ye.M., inzh.; SMIRNOV, N.S., kand.tekhn.nauk; ANTONOVA, S.N., inzh.

Applying slag enamel coatings on chemical apparatus. Khim. i
Mashinostr. no.8:27-29 Ag '65.

(MIF 18:12)

"APPROVED FOR RELEASE: 06/19/2000

CIA-RDP86-00513R000101810010-9

APPROVED FOR RELEASE: 06/19/2000

CIA-RDP86-00513R000101810010-9"

L 25979-66 FBD/ENT(1) CA/NS-2

ACC NR: AP6015081

SOURCE CODE: UR/0020/66/168/001/0055/0058

AUTHOR: Vitkevich, V. V.; Antonova, T. D.; Vlasov, V. I.

ORG: Institute of Physics im. P. N. Lebedev, Academy of Sciences SSSR (Fizicheskiy institut AN SSSR)

TITLE: Observations of intensity fluctuations in radio emission from the quasi-stellar source 3C-48 caused by heterogeneities of the interplanetary plasma

SOURCE: AN SSSR. Doklady, v. 168, no. 1, 1966, 55-58

TOPIC TAGS: supercorona, quasistellar source, angular distance, fluctuation period, astronomical unit

ABSTRACT: Heterogeneities in the solar supercorona with velocities reaching several thousand km per second were observed at distances of up to 100 solar radii. Using the east-west line of the Radioastronomical Station of the Institute of Physics of the Academy of Sciences SSSR, systematic investigations of the quasi-stellar 3C-48 source were made on the 3.5-m wavelength. In February, the source approached the sun. In March, fluctuations in the brightness of the source began. Fluctuations increased with the decrease in angular distance between the source and the sun, attaining the maximum in April and May when the minimum angular distance occurred. A table in the original article and a histogram show the rate of fluctuations of the source. The mean period of fluctuations was 3 and 4 seconds. A weak second period

Cord 1/2

UDC: 523.164.4+523.152.3

L 25979-66

ACC NR: AP6015081

of 6 and 7 seconds may be identified. This is related to the 3.5- μ wavelength. An attempt to continue the investigation on the 7.9- μ wavelength was unsuccessful. The area of scattered light at a distance of one astronomical unit with a diameter of 500--1000 km is seen at an angle of 0.7"--1.4". The effective angular diameter of the source was accepted as equal to 0.1". Orig. art. has: 2 figures, 1 table, and 1 formula. [EG]

SUB CODE: 03/ SUBM DATE: 21Jul65/ ORIG REF: 006/ OTH REF: 005/ ATD PRESS:

4256

Card 2/2 FW

ANTONOVA, T.F.; GUROVA, T.I.

Mineralogical composition of clays in Mesozoic sediments of
the West Siberian Plain. Trudy SNIIGGIMS no.17:157-165
'61.

(West Siberian Plain—Clay)

(MIRA 15:9)

PROKOROVICH, G.E.; ANTONOVA, T.F.

Terrigenous soapstones, products of ruptures in the crust of
weathering of traps. Dokl. AN SSSR 150 no.6:1336-1339 Je '63.
(MIRA 16:8)

1. Sibirskiy nauchno-issledovatel'skiy institut geologii, geofiziki
i mineral'nogo syr'ya. Predstavleno akademikom N.M.Strakhovym.
(West Siberian Plain--Soapstone)

ANTONOVA, T.G.

Comparative evaluation of analyzer activity in newborn animals.
Mat. po evol. fiziol. 4:77-82 '60. (MIRA 13:10)
(ANIMALS, INFANCY OF) (SENSES AND SENSATION)

DASHEVSKIY, L.I.; ANTONOVA, T.N.
~~SECRET~~

Methods for determining free P_2O_5 in carbonaceous soils. Trudy Otd.
pochv.AN Kir.SSR no.5:73-76 '55. (MLRA 9:11)
(Soils--Analysis) (Phosphorus)

DASHEVSKIY, L.I.; ~~ANTONOVA, T.N.~~; NICHIPORENKO, O.M.

Methods of determining free K_2O in soil. Trudy Otd.pochv.AN Kir.
SSR no.5:77-80 '55. (MLBA 9:11)
(Soils--Analysis) (Potassium)

Antonova, T. N.
Category: USSR/Analytical Chemistry - Analysis of inorganic substances.

G-2

Abs Jour: Referat Zhur-Khimiya, No 9, 1957, 31041

Author : Dashevskiy L. I., Antonova T. N., Nichiporenko O.M.
Inst : Kirgiz Sugar Beets Selection Experiment Station
Title : Contribution to the Procedure for Determination of Migratory Soil Nutrients

Orig Pub: Tr. Kirg. opyt.-selektiv. st. po sakharney svedle, 1956, No 1, 80-88

Abstract: It was found that inadequate reproducibility of results obtained on determination of migratory P_2O_5 in carbonate soils is due to variable chemical composition of the $(NH_4)_2CO_3$ reagent and temperature variations during the treatment of the soil. It is recommended to check the concentration of the approximately 1% solution of $(NH_4)_2CO_3$ by titration with 0.1 N H_2SO_4 to methyl orange, and to adjust the concentration by dilution with water or addition of 10% solution of $(NH_4)_2CO_3$. Concentration of the $(NH_4)_2CO_3$

Card : 1/2

-61-

ZVENIGORODSKIY, G.Z., inzh.; ANTONOVA, T.N., inzh.

Use of Baltic region shales for the briquetting of coal fines.
Sbor. inform. po obog. i brik. ugl. no.3:23-28 '57.

(MIRA 12:9)

(Baltic Sea region--Shale) (Briquets (Fuel))

ANTONOVA, T. N.; RAKOVSKIY, V. Ye.; KUNIN, D.

"Chemical and heat processing of peat."

Report submitted for the 2nd International Peat Congress, Leningrad,
15-22 Aug 63.

EYGELES, M.A.; ANTONOVA, T.N.; KUZNETSOV, V.P.; VOLOVA, M.L.;
SAKHAROVA, Ye.P.; KOSYGIN, V.V.; KISLOV, A.V.; BALASHOVA,
G.G.

Simultaneous production of high-quality fluorite concentrates
from multicarbonate ores low in fluorite. TSvet. mot. 37 no.11:
32-35 N '64. (MIRA 18:4)

ANTONOVA, T.N., aspirant

Deep form of lupus erythematosus on the red margin of the lips.
Teor. i prak.stom. no.6:141-144 '63. (MIRA 18:3)

1. Iz kafedry kozhnykh i venerich skikh bolezney (nav. - prof.
B.M.Pashkov) Moskovskogo meditsinskogo stomatologicheskogo instituta.

TURANOVA, Ye.N.; ANTONOVA, T.N.; BORODOVSKAYA, M.A.; LEVINA, F.A.;
SHAMINA, M.S.

Trichomyoin in the treatment of trichomoniasis in women. Vest.
derm.i ven. 34 no.9:72-73 '60. (MIRA 13:11)

1. Iz Tsentral'nogo nauchno-issledovatel'skogo kozhno-venerologicheskogo instituta (dir. - kand.med.nauk N.M. Turanov) Ministerstva zdavookhraneniya RSFSR, bol'nitsy imeni Korolenko (glavnyy vrach A.I. Pustovaya), 33-y gorodskoy bol'nitsy (glavnyy vrach P.V. Abashkina), I venerologicheskogo dispansera (glavnyy vrach V.P. Volkov).

(TRICHOMONIASIS) (ANTIBIOTICS) (VAGINA—DISEASES)

ANTONOVA, T.N.

Cytological study of lupus erythematosus in the oral cavity
and on the red margin of the lips. Vest. dermat. i ven. no.2:
22-24 '64. (MIRA 17:11)

1. Kafedra kozhnykh i venericheskikh bolezney (zav. - prof.
V.M. Pashkov) Moskovskogo meditsinskogo stomatologicheskogo
instituta.

ANTONOVA, T. S.

Antonova, T. S. "Sympathetic disorders during traumas of peripheral nerves of the hand,"
Sbornik nauch. rabot, posvyashch. 70-letiyu prof. Seppa, Moscow, 1948, p. 109-15

SO: U-3264, 10 April 1953, (Letopis 'nykh Stateli, No.3, 1949

MAKSUDOV, O.A.; ANTONOVA, T.S.; SMIRNOVA, O.O.

Acute hypertonic encephalopathy. Zhur.nevr.i psikh. 53 no.12:963-966 D '53.
(MIRA 6:12)

1. Nevrologicheskaya klinika Moskovskogo oblastnogo nauchno-issledovatel'-
skogo klinicheskogo instituta im. M.F.Vladimirovskogo.
(Hypertension) (Brain--Tumors)

ANTONOVA, T.S., kand.med.nauk (Moskva)

Involvement of the nervous system in acute myocardial infarct. Klin.
med. 37 no.9:114-121 8 '59. (MIRA 12:12)

1. Iz kliniki nervnykh bolezney (sav. - prof. N.A. Popova) Moskov-
skogo oblastnogo nauchno-issledovatel'skogo klinicheskogo instituta
imeni M.F. Vladimirovskogo (dir. - kand.med.nauk P.M. Leonenko).
(MYOCARDIAL INFARCT, pathology)
(NERVOUS SYSTEM, pathology)

ANTONOVA, Tat'yana Sergeyevna; ZOTOVA, A.P., red.; LEVONEVSKAYA, L.G.,
tekhn. red.

[High cabbage yields] Vysokie urozhai kapusty. Leningrad, Lenizdat,
1960. 18 p. (MIRA 14:8)
(Cabbage)

ANTONOVA, T. S.; SMIRNOVA, G. G. (Moskva)

Clinical and histopathological aspects of Hippel-Lindau disease.
Klin. med. no.9:38-44 '61. (MIRA 15:6)

1. Iz kliniki nervnykh bolezney Moskovskogo oblastnogo nauchno-
issledovatel'skogo klinicheskogo instituta imeni M. F. Vladimira-
skogo (dir. - kandidat meditsinskikh nauk P. M. Leonenko)

(ANGIOMATOSIS)

ANTONOVA, T.V.; RYVKIN, A.M.

Measurement of firing and quenching angles in a d.c. power transmission system. Inv. NIIFT no.9:63-76 '62. (MIRA 15:12)
(Electric power distribution—Direct current)
(Electric current converters)

ANTONOVA, V.

Bulgaria

Academic Degree not given

Chair for Children Diseases at the Higher Medical
Institute in Sofia (Katedra po detski bolesti pri
VMI -- Sofia); director: Prof. L. RACHEV.

Chair for Pathological Anatomy at the Higher Medical
Institute in Sofia (Katedra po patologichna anatomiya
pri VMI -- Sofia); director: Prof. B. KURDENIEV.

Sofia, Pediatrica, supplement of Suvremenna Meditsina,
No 3, 1962, pp 51-54.

"Inborn Stenosis of the Duodenum and Pneumato-Cystoids
in the Stomach"

Co-author: VELIZAROV, A. The same affiliation as
above.

ANTONOVA, V.A.; UTEVSKIY, L.M.

The structure of steel following low-temperature thermomechanical treatment. Dokl. AN SSSR 148 no.2:325-327 Ja '63.

(MIRA 1612)

1. Institut metallovedeniya i fiziki metallov Tsentral'nogo nauchno-issledovatel'skogo institut chernoy metallurgii. Predstavleno akademikom G.V. Kurdyumovym.

(Steel—Testing) (Metals at low temperatures)

4 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 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274 275 276 277 278 279 280 281 282 283 284 285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300 301 302 303 304 305 306 307 308 309 310 311 312 313 314 315 316 317 318 319 320 321 322 323 324 325 326 327 328 329 330 331 332 333 334 335 336 337 338 339 340 341 342 343 344 345 346 347 348 349 350 351 352 353 354 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 391 392 393 394 395 396 397 398 399 400 401 402 403 404 405 406 407 408 409 410 411 412 413 414 415 416 417 418 419 420 421 422 423 424 425 426 427 428 429 430 431 432 433 434 435 436 437 438 439 440 441 442 443 444 445 446 447 448 449 450 451 452 453 454 455 456 457 458 459 460 461 462 463 464 465 466 467 468 469 470 471 472 473 474 475 476 477 478 479 480 481 482 483 484 485 486 487 488 489 490 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553 554 555 556 557 558 559 560 561 562 563 564 565 566 567 568 569 570 571 572 573 574 575 576 577 578 579 580 581 582 583 584 585 586 587 588 589 590 591 592 593 594 595 596 597 598 599 600 601 602 603 604 605 606 607 608 609 610 611 612 613 614 615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 639 640 641 642 643 644 645 646 647 648 649 650 651 652 653 654 655 656 657 658 659 660 661 662 663 664 665 666 667 668 669 670 671 672 673 674 675 676 677 678 679 680 681 682 683 684 685 686 687 688 689 690 691 692 693 694 695 696 697 698 699 700 701 702 703 704 705 706 707 708 709 710 711 712 713 714 715 716 717 718 719 720 721 722 723 724 725 726 727 728 729 730 731 732 733 734 735 736 737 738 739 740 741 742 743 744 745 746 747 748 749 750 751 752 753 754 755 756 757 758 759 760 761 762 763 764 765 766 767 768 769 770 771 772 773 774 775 776 777 778 779 780 781 782 783 784 785 786 787 788 789 790 791 792 793 794 795 796 797 798 799 800 801 802 803 804 805 806 807 808 809 810 811 812 813 814 815 816 817 818 819 820 821 822 823 824 825 826 827 828 829 830 831 832 833 834 835 836 837 838 839 840 841 842 843 844 845 846 847 848 849 850 851 852 853 854 855 856 857 858 859 860 861 862 863 864 865 866 867 868 869 870 871 872 873 874 875 876 877 878 879 880 881 882 883 884 885 886 887 888 889 890 891 892 893 894 895 896 897 898 899 900 901 902 903 904 905 906 907 908 909 910 911 912 913 914 915 916 917 918 919 920 921 922 923 924 925 926 927 928 929 930 931 932 933 934 935 936 937 938 939 940 941 942 943 944 945 946 947 948 949 950 951 952 953 954 955 956 957 958 959 960 961 962 963 964 965 966 967 968 969 970 971 972 973 974 975 976 977 978 979 980 981 982 983 984 985 986 987 988 989 990 991 992 993 994 995 996 997 998 999 1000 1001 1002 1003 1004 1005 1006 1007 1008 1009 1010 1011 1012 1013 1014 1015 1016 1017 1018 1019 1020 1021 1022 1023 1024 1025 1026 1027 1028 1029 1030 1031 1032 1033 1034 1035 1036 1037 1038 1039 1040 1041 1042 1043 10

Cord 2/4

Corr 3/4

ATTENTION: AP4048394

ENCLOSURE 01

a

ADDITIONAL INFORMATION

AUTHOR Antonova, V. A., Kisevich, V. M., Kalashnik, V. M.

TITLE The transformation of hexagonal cobalt into cubic cobalt in carbonized films

SOURCE Zhurnal metallov i metallovedeniya, Vol. 3, No. 1, 1978, pp. 1-4.

TOPIC AREA crystal structure, polymorphic transformation, films, hexagonal structure, cubic structure, carbonization

ABSTRACT The authors investigate the transformation of hexagonal cobalt into cubic cobalt in carbonized films.

Card 1/2

ACCESSION NR AP604,154

of ... is expected. Inner stresses have ... of ...

...
Polytechnic Institute

SUBMITTED 10/10/63

ENCL 1

SUB CODE: MM

NO REF SOV: 005

OTHER: 006

Card 2/2

ACC NR: AP3027786

(N)

SOURCE COUDE: UR/0126/66/022/001/0058/0065

37

AUTHOR: Palatnik, L. S.; Kosovich, V. M.; Antonova, V. A.; Arkhipov, P. P.

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

TITLE: Phase composition of cobalt condensates during the initial stage of their formation

SOURCE: Fizika metallov i metallovedeniye, v. 22, no. 1, 1966, 58-65

TOPIC TAGS: phase composition, cobalt, metal vapor deposition, crystal structure

ABSTRACT: The published data on the phase composition of Co films obtained by vacuum condensation are highly contradictory; this is apparently associated with the non-uniformity of experimental conditions. Accordingly, the authors performed a systematic investigation of the phase composition of these films as a function of the chief parameters determining the manner of growth of the condensates: 1) substrate temperature T_g ; 2) condensation rate w ; 3) degree of vacuum; 4) effective film thickness h . 99.98% pure Co was condensed on carbon substrates in a vacuum of 10^{-4} - 10^{-5} mm Hg at $w = 1$ -500 Å/min and $T_g = 20$ - 450°C. The resulting Co thin films ($h = 1$ -70 Å) were subjected to electron-diffraction analysis. Findings: the following phase transitions are observed with increase in h at $T_g = 20$ -300°C: quasimorphic

Cord 1/2

UDC: 539.23:539.27:669.26

L 09009-67

ACC NR: AP6027786

0

phase $\rightarrow$ CoO $\rightarrow$ CoO $\rightarrow$ Co^h [hexagonal variety of Co]. The vacuum heating of oxide-containing condensed Co films, at $\sim 300^\circ\text{C}$, leads to the reduction of CoO with transition to Co^c [cubic variety of Co]; this reduction is accompanied by recrystallization. The phase composition of specimens 30-100 Å thick, obtained for the T_g gradient and $\omega = 180 \text{ Å/min}$ undergoes an abrupt change when the substrate temperature is $\sim 350^\circ\text{C}$. Below this temperature Co^h is the predominant phase, while above this temperature Co^c predominates. When $\omega = 180 \text{ Å}$ no oxide formation could be detected by electron-diffraction analysis, regardless of T_g . Thus it may be concluded that the processes of the formation and reduction of oxides are an essential factor only when $\omega < 150 \text{ Å/min}$ at $T_g < 300^\circ\text{C}$. Orig. art. has: 6 figures, 2 tables.

SUB CODE: 11, 20/ SUBM DATE: 19Jul65/ ORIG REF: 007/ OTH REF: 013

Card 2/2 nat

ACCESSION NR: AT4040562

S/2564/64/004/000/0151/0156

AUTHOR: Kuz'mina, I. P. (Antonova, V. F. (deceased))

TITLE: Crystallization of zincite under hydrothermal conditions

SOURCE: AN SSSR. Institut kristallografi. Rost kristallov, v. 4, 1964, 151-156

TOPIC TAGS: zincite, zinc oxide, zincoxide crystallization, high temperature crystallization, high pressure crystallization, crystallization additive, oxidizing agent, zincite electrical resistance

ABSTRACT: The process of dissolution and crystallization of zincite (ZnO) under high temperature and pressure was studied in alkaline (5-20% NaOH, KOH and LiOH) and acid (4-10% NH_4Cl with additions of HCl) solutions at 200-500C, using Cu- or Ti-lined, 200 cm^3 , stainless steel autoclaves. Crystallization was carried out by the well-known method of temperature gradients and the temperature was measured by a chromel-alumel thermocouple on the outer autoclave wall. A graph of the amount of ZnO formed versus alkali concentration at different temperatures shows that the crystallization rate increases with alkali concentration and the magnitude of the temperature gradient despite the amphoteric nature of ZnO. The presence of Na_2CO_3 , NaF, NaCl, NaBr and NaI additions was also found to have a significant

Cord 1/2

ACCESSION NR: AT4040562

effect on the crystal forms obtained. A solvent containing 15% NaOH, 5% Na₂CO₃ and 5% NaCl was found to be most suitable. Further addition of an oxidizing agent such as H₂O₂, KClO₃ or KMnO₄ to alkaline solutions resulted in ZnO monocrystals with an electrical resistance which was 2-3 orders of magnitude greater than that of ZnO prepared without the addition of an oxidizing agent. The morphology and goniometric characteristics of the crystals obtained are given in detail. "The morphology and goniometric characteristics of the crystals obtained are given in detail. "The authors thank L. M. Belyayev for suggesting the theme and assistance in the work, and N. Yu. Ikornikova for discussion of the results." Orig. art. has: 7 figures.

ASSOCIATION: Institut kristallografi AN SSSR (Institute of Crystallography, AN SSSR)

SUBMITTED: 00

DATE ACQ: 02Jul64

ENCL: 00

SUB CODE: SS

NO REF SOV: 002

OTHER: 004

Card 2/2

ANTONOVA, V. F.

USSR/Miscellaneous - Temperature Measurement

Card : 1/1

Authors : Eltsin, Yu. V. and Antonova, V. F. _____

Title : About temperature correction of ardometer readings.

Periodical : Stan i instr, 3, 36 - 37, Mar 1954

Abstract : A new method of temperature correction of ardometer readings, which permits evaluation of temperature corrections within 5°C. is described. This method consists of the visual observation of noticeably changing granularity in cross sections of steel rods of small diameter and comparing their appearance with that of a machined article. A table of characteristics of the cross sections of the steel rods of "R18 steel" is given.

Institution :

Submitted :

Antonova, V. P.

135-2-6/12

SUBJECT: USSR/Welding

AUTHORS: Antonova, V. P., Engineer, Zaks, I.S., Engineer, and
Zvegintsev, S.K., Engineer.

TITLE: Properties of metal coating made with electrodes UH-2 and
UH-3. (Issledovaniya svoystv metalla, naplavlennogo elek-
trodami UH-2 i UH-3).

PERIODICAL: "Svarochnoye Proizvodstvo", 1957, No 2, pp 18-21 (USSR)

ABSTRACT: The experiments described in the article had the purpose of
finding a replacement for the scarce and costly cobalt used to
coat sealing surfaces of valves and other steam turbine and
boiler parts, where the service conditions require extremely
high resistance to corrosion and erosion, and hardness in
temperatures over 500°C.

The UHQUWTMAH(TsNIITMASH), and specifically V.A. Lapidus,
Candidate of Technical Sciences, developed a new electrode -
the UH-3 - and recommended it as fully replacing the UH-2
(containing cobalt). Up to now, sealing surface coating
which most closely corresponds to technical conditions is
obtained with cobalt-containing "stellite B-3K." The recom-

Card 1/4

TITLE:

Properties of metal coating made with electrodes УН-2 and УН-3. (Issledovaniya svoystv metalla, naplavlennogo elektrodami УН-2 i УН-3). 135-2-6/12

recommended electrode composition (in %) is: for УН-2 (with rod ВЗК-43): 1.7-2.1 C, 2.0-2.5 Si, 28-32 Cr, 59-65 Co, 4-5 W, remainder Fe; for УН-2 (with rod ВЗК): 1.0-1.5 C, < 2.75 Si, 28-32 Cr, < 2.0 Ni, 58-62 Co, 4-5 W, 2.0 Fe; for УН-3 (with rod ОХ18Н9): < 0.06 C, 0.5-1.0 Si, 1.0-2.0 Mn, 18-20 Cr, 8-10 Ni, remainder Fe. The recommended electrode coatings are as follows:

Components	ГОСТ No.	content, in %, in		
		УН-2 (ВЗК-43)	УН-2 (ВЗК)	УН-3 (ОХ18Н9)
Marble	4416-48	54.0	46.0	15.0
Feldspar	4421-48	32.0	30.0	9.0
Aluminum ПАН-1	4135-48	12.0	12.0	-
Graphite	5279-50	2.0	12.0	5.0
Ferromanganese	4755-49	-	-	2.0
MH-1				
Ferrochrome -2	4757-49	-	-	69.0
Water glass, in % weight of dry Compound.....	4419-48	30.0	30.0	20-30

Card 2/4

TITLE:

Properties of metal coating made with electrodes $\text{U}_4\text{H}-2$ and $\text{U}_4\text{H}-3$. (Issledovaniya svoystv metalla, naplavlennogo elektrodami $\text{U}_4\text{H}-2$ i $\text{U}_4\text{H}-3$). 135-2-6/12

Relation of coating weight to rod	ГОСТ №	$\text{U}_4\text{H}-2$ (ОЗН-43)	$\text{U}_4\text{H}-2$ (ОЗН)	$\text{U}_4\text{H}-3$ (ОХ18Н9)
weight.....	-	25-30	25-30	115-120

The recommended new electrode grade has been tested at the authors' plant (testing technology is given in detail). The criticism of the first consignment was: the actual chemical composition of the coating made with the new electrodes not in one single case corresponded to the TsNIITMASH'ES specifications (for instance: carbon 3.4 % instead of 1.7-2 %; the bottom content limit of chrome in one-layer deposit - 23% instead of 28 %, etc); the electrode coating which had been applied by pressure - cracked or slid off from some rods even at slight heat.

It was concluded that electrode $\text{U}_4\text{H}-3$ is no substitute for $\text{U}_4\text{H}-2$. The metal deposited by this electrode is an alloy of the sorbite type; satisfactory micro-structure and density of weld metal is only possible in one-layer deposit and only at a definite speed of crystallization; the multi-layer deposits form very coarse, brittle carbides of chrome which break out

Card 3/4

BEZUGLIY, S.F.; AKIMOV, B.A.; ANTONOVA, V.G.; DRANNIKOVA, F.A.

DDT wetting powders prepared by vibration grinders. [Trudy]
NIUIF no.165:15-20 '59. (MIRA 13:8)

1. Nauchnyy institut po udobreniyam i insektofungitsidam
im.Ya.V. Samoylova (for all except Drannikova). 2. Vsesoyuznyy
nauchno-issledovatel'skiy institut novykh problem stroitel'nykh
materialov na baze tonkogo ismel'cheniya (for Drannikova).
(DDT (Insecticide))

BEETOLYY, S.F.; KINOV, B.A.; ANTONOVA, V.G.

Wetting powders of sulfonate esters for use in water suspensions.
[Trudy] NIUIF no.165:21-31 '59. (MIRA 13:8)
(Sulfonic acids)

BEZUGLYY, S.F., kand.khim.nauk; AKIMOV, B.A.; ANTONOVA, V.G.

Continuation of concentrated pesticide wetting powders in an air-
jet mill. Khim.prom. no.9:695-697 S '62. (MIRA 15:11)

1. Nauchno-issledovatel'skiy institut po udobreniyam i
insektofungitsidam imeni Samoylova.
(Pesticides)

ANTONOVA, V.I.

Morphology of the sensory nerve endings of the diaphragmatic and the subdiaphragmatic portions of the esophagus and the cardial portion of the stomach in man and animals. Trudy SMI 15:50-57 '62 (MIRA 17:7)

1. Iz kafedry normal'noy anatomii (zav. kafedroy prof. I.A. Shangina) Smolenskogo gosudarstvennogo meditsinskogo instituta.

BEKTUROV, A.B.; KADUSHKINA, L.A.; ANTONOVA, V.I.

Water soluble form of P O from thermophosphates. Inv. AN Kazakh. SSR
Ser.khim.no.2:3-13 '48. (MIRA 9:7)
(Phosphoric acid) (Phosphates)

Chemical Abst.
Vol. 48 No. 6
Mar. 25, 1954
Acids, Alkalies, Salts, and
Other Heavy Chemicals

Influence of various factors in which acid decomposition of phosphates. Y. I. ABRAMOV, V. V. TITOV, and A. R. KOSOLAPOV. *Izv. Akad. Nauk SSSR, No. 181, Ser. Khim. No. 4, 70-8 (1951).*—Decompn. of typical phosphates on specimens with pure HNO_3 was studied. At all concns. of HNO_3 , except the very low ones, the extn. of P_2O_5 and CaO is const. Increase of acid concn. slowly increases the extent of soln. of R_2O_3 . While these substances are extd. completely even below room temp., R_2O_3 extn. is affected by temp.: 5% extn. at 10° , 17% at 60° . The extn. of P_2O_5 and CaO is rapid, but the quant. extn. of R_2O_3 apparently does not depend on the time of contact. Extn. of P_2O_5 - CaO is most effective with particle size 0.14-0.19 mm.
G. M. Kosolapov

③ Chem

6/8/54
BW

ANTONOVA, U.

5(1) PHASE I BOOK EXPLOITATION 807/2646

Alimetiya sash Kazakhbay SSK. Institut khimicheskikh nauk

Trety, tom 1: Fiziko-khimiicheskiye i tekhnologicheskkiye issledovaniya khimicheskogo syr'ya Kazakhstana (Transactions of the Institute of Chemical Sciences, Kazakh SSR Academy of Sciences, Vol. 1: Physical and Technological Studies of Chemical Raw Materials of Kazakhstan), Alma-Ata, Izd-vo AN Kazakhbay SSK, 1977. 94 p. Kr. rate 214. 300 copies printed.

Ed. (Title page): A.B. Bekturev, Academician, Kazakh SSR Academy of Sciences; Ed. (Inside book): V.V. Alimetiya; Tech. Ed.: P.P. Alferov.

FOREWORD: This book is intended for chemical specialists, engineers, and researchers in the field of chemical production.

CONTENTS: The book is a collection of articles dealing with the following: chemical composition and physicochemical nature of water-soluble phosphates; solubility of calcium phosphate; problems in the alkali method of processing borate ores; and physicochemical studies in the solubility of systems which contain borax, sodium carbonate, and sodium bicarbonate. One article discusses the production of superphosphates (phosphate fertilizers prepared with the use of sulfuric acid). The collection includes work on the investigation of a method of separating phosphorus from vanadium in cation exchange resins. Personalities are mentioned. References are given at the end of each article.

Bekturov, A.B., and S.I. Kalyuzhny. Production of Pure Phosphates From Karsatau Phosphorite and Apatite 12

Bekturov, A.B., and V.I. Antonov. The Decomposition of Hydroborate and Hydroborate Ores by Sodium Sulfide Solutions 13

Antonov, V.I., and A.B. Bekturov. The Decomposition of Aluminite and Aluminite Ores by Sodium Sulfide Solutions 60

Antonov, V.I., and S.I. Kalyuzhny. Solubility Isotherms of the Quaternary System $\text{Na}_2\text{B}_4\text{O}_7\text{-H}_2\text{SO}_4\text{-H}_2\text{O}$ at 25 and 50°C 71

Kobashkina, L.A., and Ye.A. Trukhina. Separation of Vanadium From Phosphorus in Cation Exchange Resins 86

AVAILABILITY: Library of Congress

Card 1/3

TM/38
12-4-58

BEKTUROV, A.G.; ANTONOVA, V.I.

Decomposition of hydroboracite and hydroboracite ore by sodium sulfide
solutions. Trudy inst.khim.nauk AN Kazakh.SSR 1:52-59 ' 57.
(Hydroboracite) (Sodium sulfide) (MIRA 11:11)

ANTONOVA, V.I.; BEKTUROV, A.B.

Decomposition of ascharite and its ore by sodium sulfide solutions.
Trudy inst.khim.nauk AN Kazakh.SSR 1:60-70 ' 57. (MIRA 11:11)
(Szaibelyite) (Sodium sulfide)

ANTONOVA, V.I.; POLYNTSEVA, N.K.

Solubility isotherms for the $\text{Na}_2\text{B}_4\text{O}_7$ - NaHCO_3 - Na_2CO_3 - H_2O system
at 25° and 50°C. Trudy inst.khim.nauk AN Kazakh.SSR 1:71-85

1 57.

(MIRA 11:11)

(Sodium borates) (Sodium carbonates) (Solubility)

GAYDOVSKIY, Vladimir [Hajdovský, Vladimir], RNDr; SHTEYNBERG, A.N.,
[translator]; ANTONOVA, V.I. [translator]; OSHCHEPKOV, P.K.,
doktor tekhn.nauk, red.; GOLYATKINA, A.G., red.isd-va;
ATTOPOVICH, M.K., tekhn.red.

[Using X rays and γ rays in materials testing] Issledovanie
materialov rentgenovymi i γ -luchami. Pod red. P.K.Oshchepkova.
Moskva, Gos.nauchno-tekhn.isd-vo lit-ry po chernoi i svetloi
metallurgii, 1959. 314 p. [Translated from the Czech](MIRA 12:5)
(Gamma rays--Industrial applications)
(X rays--Industrial applications)

GIL'MAN, A.M.; ANTONOVA, V.M.; PREOBRAZHENSKAYA, A.M.

Calculating optimum multicut setting-up by means of electronic computers. Avt.prom. 28 no.11:1-4 N '62. (MIRA 16:1)

1. Gor'kovskiy gosudarstvennyy universitet i Proyektno-tekhnologicheskiy i nauchno-issledovatel'skiy institut Gor'kovskogo soveta narodnogo khozyaystva.
(Lathes--Maintenance and repair) (Electronic digital computers)

L 8251-66

ACC NR: AR5014369

SOURCE CODE: UR/0271/65/000/005/B073/B073

SOURCE: Ref. zh. Avtomatika, telemekhanika i vychislitel'naya tekhnika. Svodnyy tom, Abs. 5B517

29
23

AUTHOR: Antonova, V. M., Batalova, Z. S., Ketkov, Yu. L.

TITLE: Some peculiarities in the programing of process flowsheets on a TEVM industrial computer

CITED SOURCE: Tr. po vopr. primeneniya "elektron. vychisl. machin v nar. kh-vo. Gor'kiy, 1964, 102-104

TOPIC TAGS: digital computer, industrial computer, TEVM computer

TRANSLATION: The principal peculiarities in the flowsheet programing are: large volume of information about the product and its billet and the necessity to print, on an alpha-numerical device, tabulated output data similar in its shape and contents to processing documents. The special TEVM industrial computer permits simplifying both the programs proper and the preparation of information. Programs prepared on "Ural-4" and TEVM digital computers are compared, as are the required operations on the machines BESM, "Strela", "Ural", and TEVM. Grand totals of the programs set up from the same algorithm are: 20000 cells for "Ural-4" and 4000 cells for TEVM, Bib 2.

Card 1/1

SUB CODE: 09

UDC: 681.142.35

LEVIN, Yu.I., inzh.; ANTONOVA, V.M., inzh.

Assembly of the technical equipment of large-capacity blast
furnaces. Mont. i spets. rab. v stroi. 24 no.6:3-6 Je '62.
(MIRA 15:6)

1. Proyektno-konstruktorskaya kontora Mekhanomontazhproyekt.
(Elast furnaces)

BOGDANOV, K.A.; ANTONOVA, V.N.

Production of benzaldehyde from dibenzyl ether. Masl.-zhir.
prom. 27 no.2:32-33 '61. (MIRA 14:2)

1. Kaluzhskiy kombinat sinteticheskikh dushistykh veshchestv.
(Benzaldehyde) (Ether)

BOGDANOV, K.A.; ANTONOVA, V.N.

Production of acetates from the fraction of synthetic aliphatic
alcohols C₇-C₉. Masl.-zhir. prom. 27 no. 4:41-42 Ap '61.

(MIRA 14:4)

1. Kaluzhskiy kombinat sinteticheskikh dushistykh veshchestv.
(Acetates) (Alcohols)

ANTONOVA, V.P.

Role of wild grasses in the formation of a specialized pest fauna
on cultivated gramineous plants in limans of the trans-Volga region.
Ent. oboz. 38 no.4:734-737 '59 (MIRA 13:3)

1. Kafedra zashchity rasteniy Sel'skokhozyaystvennogo instituta
im. M.V. Frunse, Kishinev.

(Stalingrad Province--Insects, Injurious and beneficial)
(Grasses--Diseases and pests)

ANTONOVA, V. P., Cand Biol Sci -- (diss) "Principles of the formation of harmful fauna in the estuaries of the Trans-Volga upon planting them over with agricultural crops." Kishinev, 1960. 20 pp; (Academy of Sciences USSR, Zoological Inst); 150 copies; price not given; (KL, 51-60, 116)

ANTONOVA, V.P.

Formation of injurious fauna in the limans of the trans-Volga region after their use in the cultivation of grain crops. Vop. ekol. 7: 6-7 '62. (MIRA 16:5)

1. Vsesoyunsky institut zashchity rasteniy, Leningrad.
(Volga Valley--Insects, Injurious and beneficial)

MAMUTOV, Valentin Karlovich ; STUDENIKINA, M.S., red.; ANTONOVA,
V.P., red.

[Powers of governmental organs to decide economic issues
in industry] Kompetentsia gosudarstvennykh organov v re-
shenii khoziaistvennykh voprosov promyshlennosti. Mo-
skva, "Iuridicheskaja literatura," 1964. 265 p.
(MIRA 17:4)

TULASHVILI, N.D.; SAMUNDZHEVA, E.M.; RACHVELISHVILI, E.V.; ANTONOVA, V.P.,
dotsent; MALEZHIK, G.M.; SMIRNOV, B.M., doktor sel'skokhoz.nauk;
MATVEYENKO, G.A., aspirantka; BALANTAYEVA, M.R.; GARNAGA, G.K.

From the practices of the use of poisonous chemicals. Zashch.rast.
ot vred. i bol. 8 no.12:28-29 D '63. (MIRA 17:3)

1. Gruzinskiy institut zashchity rasteniy (for Tulashvili, Samundzheva, Rachvelishvili). 2. Kishinevskiy sel'skokhozyaystvennyy institut (for Antonova). 3. Zaveduyushchiy otdelom zashchity rasteniy Sumskoy opytnoy stantsii (for Malezhik). 4. Nauchno-issledovatel'skiy institut sel'skogo khozyaystva Yugo-Vontoka (for Smirnov, Matveyenko). 5. Nauchno-issledovatel'skiy institut bogarnogo zemledeliya, Gallya-Aral (for Balantayeva, Garnaga).

ANTONOVA, V.P.

Nature of the harmful fauna formation in grain fields of the
lhamans of the trans-Volga region. Trudy Vses. ent. ob-va 50:
240-271 '65. (MIRA 1815)

ANTONOVA, V.V., ispolnyayushchiy obyazannosti dotsenta, kand.tekhn.nauk

Possibilities of cutting fuel expenditure in textile manufacture.
Tekst.prom. 22 no.9:82-83 S '62. (MIRA 15:9)

1. Kafedra teplotekhniki Leningradskogo tekstil'nogo instituta
imeni S.M.Kirova.

(Textile industry) (Waste heat)

ANTONOVA, Y. Ya., inzhener.

Diffusion chromium plating of falerums and cushions of scales.
Preisv. tekhn. inform. no. 7:11-19 '52. (MLRA 10:3)

1. Nauchno-issledovatel'skiy insitutu vesov i priboroy.
(Scales (Weighing instrumets) (Chromium plating)

SOV/ 78-59-2-4/24

AUTHORS: Antonova, Ye. A. and Timofeyeva, M. V.

TITLE: The Effect of the Quality of Natural Rubber on the Properties of Rubber Products (K voprosu o vliyani kachestva natural'nogo kauchuka na rabotosposobnost' izdeliy)

PERIODICAL: Kauchuk i rezina, 1959, Nr 2, pp 13-15 (USSR)

ABSTRACT: The properties of articles which are subjected to external high temperatures or complex dynamic deformations are influenced by the quality of natural rubber in the mix. A standard mixture comprising 100 parts of rubber, 5 parts of zinc oxide, 3 parts of sulphur, 0.7 parts of captax and 0.5 parts of stearic acid was tested and the physico-mechanical properties of 273 batches defined at normal temperature and at 100°C. It was observed that the tensile strength at 100°C varied between 50 and 280 kg/cm² for the various batches. The batches could be divided into those with high and those with low thermal stability. Under normal experimental conditions rubber from all batches showed high tensile strength; at 100°C it varied for samples from different

Card 1/3

SOV/138-59-2-4/24

The Effect of the Quality of Natural Rubber on the Properties of Rubber Products

batches (Table 1). The difference in tensile strength at normal conditions and at 100°C was comparatively small for samples with high thermal stability, but an appreciable difference was observed in samples with low thermal stability. The tensile strength of many samples was considerably lower when they were vulcanised for 30 minutes instead of 20 minutes. The effect of rubber with different values of thermal stability on the properties of rubbers was defined by testing two batches of natural rubber samples which had different properties than the standard mixture (Table 2). Table 3 indicates that the static and dynamic modulus, the tensile strength, the relative and residual elongation, the tear resistance, hardness and elasticity are identical for rubbers of various thermal stability. The physical and mechanical characteristics of carbon black-filled rubbers are also very similar after heat ageing and at increased temperatures. Values of the dynamic strength of the bonds in rubbers made from rubbers with varying thermal stability, with Kapron cord

Card 2/3

SOV/138-59-2-4, '24
The Effect of the Quality of Natural Rubber on the Properties of Rubber Products

which is impregnated with a carbon-black-latex dispersion, are given in Table 4. Practical tests were carried out on tyres made from rubber with varying thermal stability (Table 5); these showed that the endurance of tyres made of rubber with a low thermal stability is only 30% of the endurance of tyres made of rubber with a high thermal stability. There are 5 tables.

ASSOCIATION: Nauchno-issledovatel'skiy institut shinnoy promyshlennosti (Scientific-Research Institute of the Tyre Industry)

Card 3/3

011292

159300 2109, 2209, 11174

S/138/60/000/005/001/011
A051/A029

AUTHORS: Antonova, Ye.A., Timofeyeva, M.V.

TITLE: The Aging of Rubber in an Oxygen-Free Medium

PERIODICAL: Kauchuk i Rezina, 1960, No. 5, pp. 12 - 16.

TEXT: The changes which take place in the physico-mechanical properties of rubber and compact rubber products in air and inert media were investigated. Rubbers based on natural rubber of various compositions and rubber combinations of CKC-30 (SKS-30) and natural rubber in the ratio of 70:30 were tested. The experimental method is outlined in detail. It was found that the physico-mechanical indices change much more slowly in the bulk of compact rubber articles when aged in an air medium, than in thin-walled laboratory samples of these rubbers, when aged by the standard method. This circumstance can probably be explained by the inhibited diffusion of oxygen in the bulk of compact rubber and by the formation of an oxidized protective film on its surface. The physico-mechanical indices of standard rubber plates, when aged in an inert medium, change noticeably

Card 1/2

84292

The Aging of Rubber in an Oxygen-Free Medium

S/138/60/000/005/004/012
A051/A029

in the first hours of exposure, the drop in the properties takes place more slowly after that. This is explained by the fact that in the first hours of exposure oxygen contained in the rubber interacts with the latter. After consumption of the oxygen its effect on the change in the mechanico-physical indices is almost completely excluded. The authors recommend the determination of the change in the physico-mechanical indices of rubber during aging as a method for characterizing the working properties of compact rubber products, the storage and working of which is conducted in an unstrained or weakly strained state without sign-changing loads, when aged in air, and also for products which are expected to give performance after being heated at high temperatures without access or with a limited access of air. The use of an inert medium is a powerful factor for the elevation of the performance ability of rubber products, especially at high temperatures. It is suggested, therefore that inert gas be used as the working medium. The inert gases used for these experiments were nitrogen and argon. There are 3 sets of figures, 4 tables and 10 Soviet references.

ASSOCIATION: Nauchno-issledovatel'skiy institut shinnoy promyshlennosti
(Scientific Research Institute of the Tire Industry)

Card 2/2

ANTONOVA, Ya.A.; IVANOVA, S.A.; REZNIKOVSKIY, M.M.; TIMOFEYeva,
M.V.

Testing rubber for aging under inert gas conditions. Trudy
Nauch.-issl. inst. shin. prom. no.7:131-134 '60. (MIRA 14:8)
(Rubber--Testing)

S/081/61/000/023/057/061
B106/B101

AUTHORS: Antonova, Ye. A., Ivanova, S. A., Reznikovskiy, M. M.,
Timofeyeva, M. V.

TITLE: Rubber aging test in an inert gas atmosphere

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 23, 1961, 561, abstract
23P353 (Tr. N.-i. in-ta shin. prom-sti, sb. 7, 1960, 131-134)

TEXT: A device and technique for aging rubbers under exclusion of air are described. The samples are aged in a hermetically sealed thin-walled cylindrical steel vessel filled with an inert gas and installed in an ultrathermostat. The tests may be carried out at temperatures up to 200°C and pressures between normal and 7 at. Rubbers prepared from HK(NK) retain their properties satisfactorily after aging 96 hr at 130°C in N_2 and Ar, whereas they practically become completely useless after 12 hr in air. [Abstractor's note: Complete translation]

Card 1/1

L-11977-65

ACCESSION NR: AP5007628

viscosity of the melt and the coating comes off. The formation of the cement
on the powder mixtures involves a set of complex physico-chemical processes
interaction between the components themselves and between the latter and the

ASSOCIATION: Institut khimii silikatov, Akademiya nauk SSSR (Institute of Silicate Chemistry, Academy of Sciences, SSSR)

SUBMITTED: 26Sep64

ENCL: 00

SUB CODE: M1

NO REF SOV: 010

OTHER: 002

Card 2/2

ANTONOVA, Ye. I.; POZINOV, N. N.

Heat-resistant coating made of chromium carbide with silicone binders. Zashch. met. 2 no. 6: 687-691 N-D 165.

(MIRA 1977)

1. Institut khimii silykatov AN SSSR.

L 15750-66 EWP(e)/EWT(m)/EWA(d)/T/EWP(t)/EWP(z)/EWP(b) IJP(c) JD/WW/JG/WH

ACC NR: AT5047952

SOURCE CODE: UR/0000/65/000/000/0162/0169

AUTHOR: Antonova, Ye. A.; Kuznetsova, L. A.; Ivanova, L. A.

ORG: none

TITLE: Chromium-carbide oxidation resistant coatings

SOURCE: Seminar po zharestoykim pokrytiyam. Leningrad, 1964. Zharestoykiye pokrytiya (Heat-resistant coatings); trudy seminar, Leningrad, Izd-vo Nauka, 1965, 162-169

TOPIC TAGS: chromium carbide, metal coating, cermet product, heat resistance, oxidation inhibition, corrosion resistance, protective coating, steel, carbide

ABSTRACT: Chromium carbide Cr_3C_2 has a high resistance to the action of acids, does not react with Cl_2 at temperatures $\leq 900-1000^\circ C$ and with air at $\leq 1400^\circ C$, and has a thermal expansion coefficient nearly the same as that of steel. This work was aimed at studying the conditions for forming cermet-type coatings on steel. The composition of the coating was Cr_3C_2 binder. Samples of St. 3 steel (10x15x 2 mm) were sandblasted before coating. The water suspensions (slips) were

1/3

L 15750-66

ACC NR: AT3027952

3 K
prepared from mixtures of powdered compounds with an addition of 2% bentonite. They were applied to the samples by immersion and fixed by baking at the formation temperature T in an inert atmosphere, mostly Ar, but some samples were also baked in N. NH₃, and in a vacuum of 10⁻²-10⁻³ mm. Hg. Several types of powdered mixtures were used: (1) 85%, 70%, 50%, or 30% Cr₃O₂ + 15%, 30%, 50%, or 70% Ni at temperatures of 1150-1250C; (2) 85%, 70%, 50%, or 30% Cr₃O₂ + 15%, 30%, 50% or 70% Nichrom (20% or and 80% Ni alloy) at temperatures of 1170-1250C; and (3) 90%, 70%, 50%, or 30% - Cr₃O₂ + 10%, 30%, 50%, or 70% mixture of powders (20%Cr, 70%Ni, 5%B, and 5%Si) at temperatures of 1140-1240C. All coatings were formed at temperatures lower than the melting points of their components. The formation of a uniform nonporous coating occurred within a narrow range of temperatures. Slight over-heating (20-30C) resulted in the formation of beads, and heating below T produced a porous coating. An increase in the amount of binder widened the temperature range of the formation of a uniform nonporous coating. The best results were obtained with coatings having a binder made from a mixture of Cr, Ni, Si, and B powders, the concentration of the binder being 30-50 parts by weight. The coatings with two carbides (Cr₃O₂ 65%, TiC 20%, and the balance of the mixture made from Cr, Ni, Si, and B taken in the same amounts as in mixture (3) were baked on St. 3 steel in a vacuum at 1220-1250C, in N at 1230-1260C, and in NH₃ at 1230-1260C and

2/3

L 15750-66

ACQ NR: AT0027952

2
compared with coatings containing one carbide (60% Cr_2O_3 and a mixture of 40% Cr, Ni, Si, and B). The coating with two carbides (containing less binder than the coating with one carbide) formed approximately equally in vacuum or in N, Ar, or H_2 , and did not form in air. Carbide coatings effectively protected an ordinary steel against oxidation at temperatures $\leq 1000^\circ\text{C}$ for a prolonged time (> 100 hr). The high stability of carbide coatings with respect to oxidation at high temperatures was attributed to the formation of a stable film of the spinel type (Cr_2O_3 , NiO) that was strongly adherent to coating. Carbide coatings were 15 to 20 times more resistant to (abrasive) wear than the quartz glass and hence the silicate enamels. Metallographic studies revealed the presence of a transition layer between the metal and the coating which was formed by diffusion. The transition layer did not etch in a 5% alcohol solution of HNO_3 . Orig. art. has: 2 figures and 4 tables.

SUB CODE: 11/ SUBM DATE: 20Jul65/ ORIG REF: 010/ OTH REF: 003

3/3 sm

L 23891-66 EWP(e)/EWI(m)/EWA(d)/EWP(t)/ETC(m)-6 IJP(c) JD/WW/JG/WH

ACC NR: A 0008625

JOURNAL CODE: UR/0365/65/001/005/0687/0691

AUTHORS: Antonova, Yo. A.; Popov, N. N.

ORG: Institute of Silicate Chemistry, Academy of Science, SSSR (Institut khimii silikatoz Akademiyi nauk SSSR)

TITLE: Heat-resistant coatings of chromium carbide with a silicate binder

SOURCE: Zashchita metallov, v. 1, no. 6, 1965, 687-691

TOPIC TAGS: protective coating, heat resistant steel, steel, chromium carbide, metal oxidation

ABSTRACT: Conditions for preparation and application of chromium carbide coatings with silicate binders by glazing have been investigated. It was expected that employment of silicates instead of metallic binders would improve the heat resistance of the coating. Finely dispersed powders of borosilicate glass and chromium carbide were used as starting material for the coating. Application by glazing was described in an earlier publication by Yo. A. Antonova and A. A. Appen (Zh. prikl. khimii, 1959, 32, 2468). Annealing was performed in an argon atmosphere. Samples of steel, 40 x 20 x 4 mm served as a substrate. It was established that when the content of the binder is high (40--50%) a solid film of glass is formed on the surface of the coating. It adheres poorly to the carbide phase and peels off readily during cooling. Optimal amount of the binder is 10%. Increase of stability

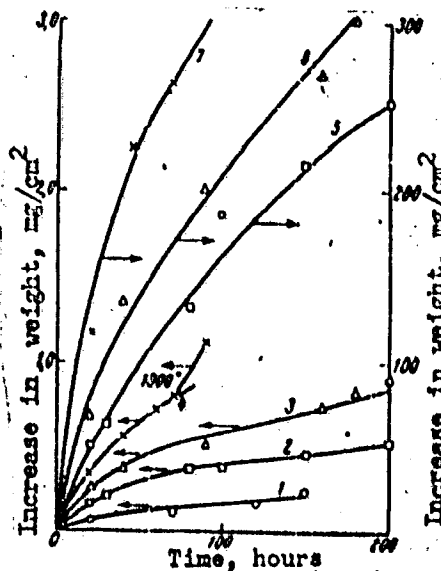
Card 1/2

UDC: 620.197.7

L 23891-66

ACC NR: AF6008625

of coated steel St. 3 is illustrated in Fig. 1.
Fig. 1. Oxidation curves for St. 3 without
(1-4) and with (5-7) coatings in air
and at various temperatures.
1 - 800C; 2 and 5 - 910C; 3 and
6 - 950C; 4 and 7 - 1000C.



The coating protects the steel St. 3 from air oxidation during testing for 200 hours at temperatures up to 1000C, possesses satisfactory resistance to thermal shock, and shows a good adhesion to the substrate. Orig. art. has: 4 tables and 4 figures.

SUB CODE: 07, 11/ SUMM DATE: 12May65/ ORIG REF: 010/ OTH REF: 001
Card 2/21a

ACC NR: AP7002997 (A,N) SOURCE CODE: UR/0413/66/000/024/0103/0103

INVENTOR: Antonova, Ye.A.; Kuznetsova, L.A.

ORG: none

TITLE: Solder for joining metal to metal, ceramics or cermets. Class 49, No. 189668

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 24, 1966, 103

TOPIC TAGS: solder, metal ~~joining~~ soldering, METAL JOINING, CERAMIC TO METAL SEAL, CERMET

ABSTRACT: This Author Certificate introduces a solder for joining metal to metal, ceramics or cermets. The solder consists of a filler and a binder, such as a noncaustic glass. To improve the air-tightness and oxidation resistance of the joint, the filler contains 20% chromium, 70% nickel, 5% boron, and 5% silicon. [TD]

SUB CODE: 13,11/SUBM DATE: 168ep63/ ATD PRESS: 5114

Cord 1/1

UDC: 621.791.36

ANTONOVA, Ye. A.

"Investigation of the Electrical Properties of Glass Containing Titanium Dioxide." Cand Tech Sci, Chair of Glass Technology, Leningrad Order of Labor Red Banner Technological Inst imeni Lensovet, Min Higher Education USSR, Leningrad, 1954. (KL, No 1, Jan 55)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (12)
SO: Sum. No. 556, 24 Jun 55

ANTONOVA, YE. A.

USSR /Chemical Technology. Chemical Products
and Their Application

I-12

Silicates. Glass. Ceramics. Binders.

Abs Jour: Referat Zhur - Khimiya, No 9, 1957, 31496

Author : Vargin V.V., Antonova Ye. A.

Title : Electric Conductivity of Crystallized Silicate
Glasses

Orig Pub: Zh. prikl. khimii, 1956, 29, No 11, 1749-1753

Abstract: A determination was made of the electric resistance of sodium-silicate glass (G), titanium - containing silicate glasses and fluoride G, before and after their crystallization. In most cases the electric conductivity of crystallized G is determined by the composition of residual vitreous phase. Under specific conditions melts

Card 1/2

USSR /Chemical Technology. Chemical Products
and Their Application

I-12

Silicates. Glass. Ceramics. Binders.

Abs Jour: Referat Zhur - Khimiya, No 9, 1957, 31496

were obtained which contained large crystals of TiO_2 and partially reduced TiO_2 . In the case of these melts the electric conductivity is higher than that of the assumed vitreous phase, which can be utilized to prepare G, having a low resistance.

Card 2/2

15(2)

PHASE I BOOK EXPLOITATION

SOV/2071

Vargin, V. V., Ye. A. Antonova, L. L. Gutorova, Ye. I. Litvinova, V. V. Luchinskiy, Yu. V. Mazurek, V. Ya. Senderovich, and M. V. Serebryakova

Tekhnologiya emali i emalirovaniya metallov (Technology of Enamel and Enameling of Metals) Moscow, Gosstroyizdat, 1958. 397 p. Errata slip inserted. 5,000 copies printed.

Reviewers: G. I. Balyayev, Chief (Dnepropetrovsk Chemical and Tekhnological Institute, Division of Silicate Technology), Candidate of Technical Sciences, Docent, and V. P. Vaulin, Candidate of Technical Sciences; Ed.: V. V. Vargin, Doctor of Technical Sciences;

Ed. of Publishing House: N. A. Gomozova; Tech. Eds: E. M. El'kina, and L. Ya. Medvedev.

PURPOSE: This book is intended for students of technological institutes and may also be useful to engineers and technicians.

Card 1/9

Technology of Enamel and Enameling of Metals

SOV/2071

COVERAGE: In this book the physicochemical, mechanical, thermal, optical, chemical, and electrical properties of enamels and enamel coating are described. General information on raw materials, classification and calculation of enamel compositions and processing methods is given. This book is for the most part a collective effort of faculty members of the Glass Department, Leningradskiy tekhnologicheskoy institute imeni Lensovet (Leningrad Technological Institute imeni Lensovet). Chapters I, X and XV, and the section Adherence of Enamel to Metal in Chapter III were written by M. V. Serebryakova; Chapters II and III by Ye.A. Antonova, Candidate of Technical Sciences; Chapter IV by V. Ya. Senderovich, Candidate of Technical Sciences; Chapter V and the section Chemical Stability in Chapter III by Professor V. V. Vargin; Chapter VI by Yu. V. Mzurek, Candidate of Technical Sciences; Chapters VII and XVI by Ye. I. Litvinova; Chapters VIII and IX and the section Stress in an Enamel Layer in Chapter III by Engineer V. V. Luchinskiy; and Chapters XVII, XVIII, XIX, and the section Baseless Enamel Coating in Chapter XII by Senior Scientific Worker L. L. Gutorova. Ye. V. Kuklin, V. Ya. Lokshin, N. N. Kholodilin, K. P. Azanov, K. K. Tikhomirov, and V. P. Vaulin are mentioned as having contributed to the development of the Soviet enamel industry. The uses of enamel coatings for protection against corrosion, electric insulation,

Card 2/9

Technology of Enamel and Enameling of Metals

SOV/2071

Ch. I. Vitreous State of a Substance. Structure of Enamel	8
Ch. II. Properties of Enamel Smelt	
1. Crystallization ability	17
2. Viscosity	17
3. Surface tension	20
Ch. III. Properties of Enamels and Enamel Coatings	27
1. Density	34
2. Mechanical properties	36
3. Thermal properties	
4. Adherence of enamel to metal	48
5. Stresses in the enamel layer	62
6. Optical properties	73
7. Chemical stability	80
8. Electrical properties	95
PART II. FABRICATING ENAMELS	107

Card 4/ 9

Technology of Enamel and Enameling of Metals

80V/2071

8. Preparation of slip for application on articles

234

PART III. ENAMELING OF STEEL

Ch. VII. Steel for Enameling

1. Concept of the structure and transformation of steel
2. Making steel for enameling
3. Requirements of steel for enameling
4. Manufacture of sheet steel articles

240

240

249

255

258

Ch. VIII. Cleaning Steel Articles for Enameling

1. Flame cleaning
2. Chemical and electrochemical degreasing
3. Pickling and neutralizing
4. Treatment with nickel sulfate solution
5. Drying after neutralizing
6. Layout of pickling shops
7. Sandblasting
8. Firing in a reducing atmosphere

263

263

264

267

274

275

276

279

281

Card 6/9

Technology of Enamel and Enameling of Metals

80V/2071

3. Signs	324
4. Special steels	324
5. Enameling without a ground coat	325
Ch. XIII. Defects of Enamel Coating	326
1. Chipping	327
2. Cracks in enamel	335
3. Blisters and pores in enamel	336
4. Poor appearance of enameled articles	339
Ch. XIV. Quality Inspection of Enameled Articles	340
Ch. XV. Re-enameling of Articles	343
PART IV. ENAMELING CAST IRON	
Ch. XVI. Cast Iron for Enameling	345
1. Concept of cast iron structural formation	345
2. Effect of the chemical composition on the structure and castability of cast iron	351
Card 8/9	

ANTENOVA, Ye. A.

SOV/61-59-15-54177

Organization: Referativnyy Zhurnal, Moskva, 1958, Nr 15, p 323 (USSR)

Author: Vargin, V.V., Antenova, Ye.A

Topic: Electrical Properties of Glasses Containing Titanium Dioxide

Publication: Zh. Leningr. tekhnol. in-ta im. Lensovetu, 1958, Nr 49, pp 55 - 58

Summary: The specific volume electric resistance (R_v) has been investigated in the interval of 10^{-1} - 10^4 °C, as well as the dielectric losses (D_f) and the dielectric permeability (ϵ) at room temperature and 100 cycles per approximately 50 glasses. The glasses belonged to the $\text{Na}_2\text{O}-\text{TiO}_2-\text{SiO}_2$ system with a Na_2O content of 10 - 30 weight %, TiO_2 1-31% and SiO_2 89-88%. The glasses were melted in platinum crucibles at a temperature of 1400 ± 15 °C in an oxidizing medium (1) Na_2O was introduced in the form of NaNO_3 and was carefully burnt. The temperature dependence of R_v obeys the exponential law. An increase in the Na_2O content reduces the temperature coefficient of R_v . The substitution of SiO_2 by TiO_2 at a content of up to 31% increases somewhat R_v and reduces D_f , which at a high Na_2O content, does not practically manifest itself in the composition of the glasses. At a substitution of SiO_2 by Na_2O the R_v of

Electrical Properties of Glasses Containing Titanium Dioxide (BY/4-9'-19-511)

titanium dioxide glasses, however, but it rises appreciably in the same degree as in other glasses. The substitution of Na_2O by TiO_2 considerably increases ϵ' and $\tan \delta$ of the glasses. ϵ' grows with an increase in the Na_2O and TiO_2 content of the glasses with an increase in the frequency. The obtained results at the introduction of TiO_2 into the compositions of electrotechnical glasses

Yu. Shidt

✓

VARGIN, V.V.; ANTONOVA, Ye.A.

Electric properties of crystallized silicate glasses. Trudy
LTI no.49:64-73 '58. (MIRA 15:5)
(Glass--Electric properties)

18.7400

82674

S/072/60/000/009/004/007
B021/B058

AUTHORS:

Appen, A. A., Antonova, Ye. A., Kuznetsova, L. A.

TITLE:

Heat-resistant Coatings on Cast-iron Products

PERIODICAL:

Steklo i keramika, 1960, No. 9, pp. 22-26

TEXT: As a consequence of heating, cast-iron products are destroyed owing to gas corrosion. An increase of their volume takes place in this connection, as can be seen from the paper by N. A. Aleksandrov. G. T. Bakhvalov and A. Z. Turkovskaya ascertained that an increase in volume sets in and the strength of the metal is reduced with alternative heating and cooling. In the study under review, the authors tried to reduce gas corrosion of cast iron at high temperatures by providing its surface with a heat-resistant glass-metal coating according to the enameling process. The coatings were produced from mixtures of finely disperse metal powders with silicate binding agent. Glass of the following composition was used as binding agent: 28.6% SiO_2 ; 4.9% B_2O_3 ; 0.8% Al_2O_3 ; 23.0% Cr_2O_3 ; 1.9% MnO_2 ; 33.7% BaO ; 3.8% ZnO ; 2.7% CaO ; 1.0% CoO . The

Card 1/2

Heat-resistant Coatings on Cast-iron Products

82674

S/072/60/000/009/004/007
B021/B058

following mixture of powders was used as metal component: 20% Cr; 70% Ni; 5% B; 5% Si. The degree of dispersion of the metal powders determined by means of sedimentation is given in Table 1. The protective coatings were fired in a special electric furnace in argon atmosphere at a temperature of from 1000 to 1100°C. The results of experiments with cast-iron samples as to heat resistance at 900°C in air are given in Table 2. Oxidation curves of cast-iron samples in air at 900°C are given in Fig. 1. The difference between the coefficients of thermal expansion for the coating and the cast iron decreases with the increase of the amount of the metal component in the protective coating (Table 3). The thermal-expansion curves of the glass-metal coatings investigated are shown in Fig. 2. The cross section of the cast-iron samples with coating can be seen from the polished sections (Figs. 3 and 4). In conclusion, it is stated that a glass-metal coating is to be considered as an effective protection for cast iron in air at a temperature of up to 900°C. The coatings are molten on in neutral atmosphere (argon, nitrogen) at a temperature of from 1000 to 1100°C. There are 4 figures, 3 tables, and 8 references: 3 Soviet and 3 US. ✓

Card 2/2

PHASE I BOOK EXPLOITATION

BOV/5583

7

Podkletnov, Ye. N., Stalin Prize Winner, ed.

Enal' i protsessy enamirovaniya (Enamels and Enameling Processes) Moscow, Mashgiz, 1961. 113 p. 4,000 copies printed.

Sponsoring Agency: Gosudarstvennyy nauchno-tekhnicheskiy komitet Soveta Ministrov UkrSSR. Institut tekhnicheskoy informatsii.

Ed.: N. P. Onishchenko; Tech. Ed.: M. S. Gornostaypol'skaya; Chief Ed.: Mashgiz (Southern Dept.): V.K. Serdyuk, Engineer.

PURPOSE: This book is intended for engineering and technical personnel concerned with the research, production, and uses of enamel.

COVERAGE: This collection of articles on enamels and enameling processes is based on material presented at the first Ukraine-wide conference on the production of enamel and enameled equipment, organized by the State Scientific Technical Committee of the Ukrainian SSR, the Kiev Sovnarkhoz, Chemical

Card 1/4

Enamels and Enameling Processes

60V/5583

17

Society imeni Mendeleev, Scientific Technical Society of the Machine-Building Industry, and other sovmarkhozes, scientific research institutes, and planning organizations. [The name, place, and date of the conference are not given.] The following are discussed: old and new types of enamels, their composition, properties, uses, and methods of production; the production of enameled equipment (chemical apparatus, pipes, cisterns, etc.), and their use in the coal, chemical, food, and other industries; latest advances in the mechanization of enameling processes and techniques; the effect of underlying surfaces on the quality of enamel coatings; and methods of modifying the properties of enamel coatings, e.g., increasing their chemical stability. American and Chinese practices and production are also briefly discussed. No personalities are mentioned. There are 32 references: 22 Soviet, 7 English, and 3 German.

TABLE OF CONTENTS:

Tamol', V. M. Development of the Enamel Industry in the Ukrainian SSR	3
Smirnov, N. S. Prospects for Developing and Methods of Improving the Enamel Industry in the Urals, Siberia, and the [Soviet] Far East	11

Card 2/4

Enamels and Enameling Processes

804/5583

9

Ignatovich, I. I. Use of Enamel Coatings in Various Industries 80

Azarov, K. P., S. B. Grechanova, N. A. Kir'yanova, and
Ye. M. Chistova. Studies in the Field of Aluminum Enameling 88

Azarov, K. P., and S. I. Goncharov. Mechanization of Enameling Processes 97

Savchenko, V. I. (Deceased). Centralized Production of Vitreous Enamels 103

Antonova, Ye. A. Production of Enamelled Articles in the Chinese People's
Republic 106

Bibliography 113

AVAILABLE: Library of Congress

Card 4/4

JA /dfk/mas
10-6-61

ANTONOVA, YE. A.

PHASE I BOOK EXPLOITATION

SOV/6060

Vargin, V. V., Professor, ed.

Emalirovaniye metallicheskiikh izdeliy (Enameling of Metal Articles). Moscow, Mashgiz, 1982. 546 p. Errata slip inserted. 7500 copies printed.

Reviewer: A. S. Ragozin, Engineer; Ed.: M. V. Serebryakova, Engineer; Eds. of Publishing House: I. A. Borodulina, A. I. Varkovetskaya, and T. L. Leykina; Tech. Ed.: L. V. Shchetinina; Managing Ed. for Literature on Machinery Manufacture (Leningrad Division, Mashgiz): Ye. P. Naumov, Engineer.

PURPOSE: This book is intended for specialists in enameling, technical personnel of plants, and personnel of scientific research laboratories and institutes. It can also be used by teachers and students of schools of higher education.

COVERAGE: The book provides a brief discussion on raw materials and processes for melting enamels, describes in detail furnaces for melting enamels.

Card 1/4

20
SOV/6060

Enameling of Metal Articles

and offers some recommendations for selection and calculation of furnaces. A special section [Ch. IV, sect. 8] on heat-resistant coatings is included. A flowsheet is given for centralized production of enamels. The properties and preparation of slips are also comprehensively described. The production of new enameled products such as pipelines, architectural and building materials, and aluminum articles is described. Individual chapters were written both by plant personnel and by technical personnel of scientific research institutes and schools of higher education. [See: Table of Contents.] No personalities are mentioned. There are 638 references, mainly Soviet, with many English and some German.

TABLE OF CONTENTS [Abridged]:

Foreword

Card 2/4

Enameling of Metal Articles

SOV/6080

PART I. ENAMELING TECHNOLOGY

- Ch. I. Raw Materials and Batch Preparation (V. Ya. Senderovich) 5
- Ch. II. Melting of Enamels (V. A. Kuzyak, V. V. Vargin, and V. P. Vaulin) 23
- Ch. III. Grinding of Enamels and Slip Preparation (L. D. Svirskiy and B. Z. Pevzner) 93

PART II. THE TECHNOLOGY OF ENAMELING METAL ARTICLES

- Ch. IV. Enameling of Steel Articles (N. S. Smirnov, N. N. Zelenskiy, Ye. M. Oshurkov, B. Z. Pevzner, Ye. A. Antonova, V. V. Luchinskii, V. P. Vaulin, L. V. Purlin, V. V. Vargin, M. M. Karabachinskaya, A. A. Appen, and V. Ya. Lokshin) 102

Card 3/4