

NIKOLAYEV, V.I.; FEDOROV, S.A.

Introducing a machine for impregnating paper with synthetic
resins. Biul. tekhn.-ekon. inform. Gos. Nauch.-issl. inst.
nauch. i tekhn. inform. 18 no. 12:47-48 D '65 (MIRA 19:1)

S/056/63/044/002/064/065
B185/3102

AUTHORS: Nikolayev, V. I., Sncherbina, Yu. I., Karchevskiy, A. I.

TITLE: The Mössbauer effect in the compound FeSn_2

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 44,
no. 2, 1963, 775-777

TEXT: The antiferromagnetic compound FeSn_2 is one of the most interesting objects to be investigated by the Mössbauer method, since both the isotopes Fe^{57} and Sn^{119} are well suited for studying nuclear γ -ray absorption. The authors measured the absorption of 14.4-keV γ -quanta (source Co^{57} , 270 days half-life) and 23.8-keV γ -quanta (source Sn^{119m} , 250 days half-life) by a 28 mg/cm^2 thick layer of FeSn_2 deposited on a Be disc. The intensity of the radiation passed through the absorber was measured with a NaI(Tl) crystal connected with a single-channel pulse-height analyzer. The Fe^{57} absorption spectrum of the 14.4-keV quanta contained six well resolved peaks, the distance of the outermost ones

Card 1/2

I. 04402-67 EWT(1)/EWT(m)/EWP(t)/ETI IJP(g) JD

ACC NO: AF603425

SOURCE CODE: UR/0386/66/004/008/0315/0320

AUTHOR: Anfiyev, A. B. (Deceased); Nikolayev, V. Ia.

50
44
B

ORG: none

TITLE: Mossbauer effect on Fe⁵⁷ impurity nuclei in MnAu₂

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki. Pis'ma v redaktsiyu. Prilozheniye, v. 4, no. 8, 1966, 315-320

TOPIC TAGS: Mossbauer effect, manganese compound, antiferromagnetism, ferromagnetism, Neel temperature

ABSTRACT: Since MnAu₂ affords the rare opportunity of investigating the properties of a substance both in the antiferromagnetic and in the ferromagnetic state at the same temperature, the authors investigated the Mossbauer effect on Fe⁵⁷ impurity nuclei in the crystal lattice of MnAu₂. The purpose was, in particular, to ascertain how the transition of a substance to the ferromagnetic state affects the magnitude of the magnetic field acting on the nucleus of the impurity atom. Particular attention was paid to the behavior of the Mossbauer-effect probability in magnetic transformations. The Mossbauer-effect experiments were made on a sample previously used to investigate the temperature dependence of the magnetic properties (ZhETF v. 45, 480, 1965). The MnAu₂ sample was the radiation source. The atoms of the isotope Co⁵⁷ were introduced into the MnAu₂ lattice by diffusion. The absorber in the Mossbauer-effect experiments was a stainless-steel foil (70% Fe). The measurements were made with apparatus of the

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L 04402-67

ACC NR: AP609425

interest to investigate the probability of the Mossbauer effect as a function of the field and of the temperature in substances in which the striction is large. The authors thank Academician I. K. Kikoin for continuous interest in the work, Yu. M. Egan and A. M. Afanas'yev for useful discussions, and N. N. Kuznetsov and V. I. Bogachev for help in adjusting the electronic apparatus. Orig. art. has: 3 figures.

SUB CODE: 2D/ SUBM DATE: 05Jul66/ ORIG REF: 006/ OTH REF: 005

Card 3/3 vrb

L APPROVED FOR RELEASE: 08/23/2000 (c) CIA-RDP86-00513R001137120001-5

ACC NR: AP6089106

SOURCE CODE: UR/0048/66/030/006/0649/0958

AUTHOR: Nibelskyev, V. I.; Dubovtsov, I. A.; Ugodnikov, G. G.; Yakimov, S. S.;

ORG: none

TITLE: Investigation of the Mossbauer effect on Fe^{57} nuclei in nickel ferrite-chromite with a compensation point / Report, All-Union Conference on the Physics of Ferro- and Antiferromagnetism held 2-7 July 1965 in Sverdlovsk/

SOURCE: AN SSSR, Investiya. Seriya fizicheskaya, v. 30, no. 6, 1966, 949-956

TOPIC TAGS: ferrite, Mossbauer effect, Mossbauer spectrum, spontaneous magnetisation, magnetic effect, iron

ABSTRACT: In view of the paucity of studies of the Mossbauer effect in ferrites, the present investigation was undertaken with a view to determining the temperature dependence of the Mossbauer spectra characterizing the absorption of 14.4 keV gamma rays by Fe^{57} nuclei in a ferrite with a compensation point. The investigated material was nickel ferrite-chromite: $NiFe_{2-x}Cr_xO_4$ with x equal to 1.0 and 0.9; both substances have the inverse spinel structure. Both the Curie point and the compensation point of the two compositions lie above room temperature. The two specimens were synthesized by the so-called "dry" procedure of the corresponding oxides (high purity grade). All the measurements were carried out with a stationary absorber. A series of curves

Card 1/2

NIKOLAYEV, V.I.

**Therapeutic effect of *Carlina vulgaris* in functional disorders of the cerebral cortex in dogs. *Farm.i tek.* 19 supplement:6-7 '56.
(MLA 10:7)**

1. Kafedra farmakologii (sov. - docent A.A.Syarina) Kazhego meditsinskogo instituta.

(CEREBRAL CORTEX, diseases,

exper., off. of *Carlina vulgaris* extracts (Rus))

(PLANTS,

***Carlina vulgaris*, off. on exper. cerebral cortex dis.
(Rus))**

GATSEVA, V.V.; NIKOLAYEV, V.I.

Combined effect of caffeine and strophanthia. *Stul. eksp. biol. i med.*
42 no. 11:38-42 N 1956. (MIRA 10:1)

1. Is kafedry farmakologii Voronezhskogo meditsinskogo instituta
(sov. kafedroy detem t V.I. Zavrashnev) Predstavlena deystvitel'nyu
chlenom ANU SSSR V.I. Skvortsovym.

(STROPHANTHIN, effects,
on ECG, with caffeine (Rus))

(CAFFEINE, effects,
on ECG, with strophanthia (Rus))

807/973

Семинский Р. Ученые в СССР, 1979
Семинский Р. Ученые в СССР, 1979
Семинский Р. Ученые в СССР, 1979

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Семинский Р. Ученые в СССР, 1979

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ZAV'YALOV, A.V.; NIKOLAYEV, V.I.

Effect of cytiton and Thermopsis tincture on the emetic effect of apomorphine under clinical and experimental conditions. Zhur.nevr.i psikh. 61 no.3:439-445 '61. (MIRA 14:7)

1. Kafedra farmakologii (zav. - kand.med.nauk V.I.Nikolayev)
Chitinskogo meditsinskogo instituta.
(ANALEPTICS) (APOMORPHINE) (BUSH PEA)
(VOMITING)

VASILOV, S.I.; NIKOLAYEV, V.I.; KHAMIN, N.S.

Quantitative determination of cardiac glycosides in solutions by
the method of objective luminescence analysis. Apt. delo 11 no.1:
34-39 Ja-F '62. (MIRA 15:4)

1. Chitinskiy meditsinskiy institut.
(CARDIAC GLYCOSIDES) (LUMINESCENCE)

L 11889-66 EWT(1)/EWT(m)/EWT(t)/EWP(b) IJP(c) JD
ACC NR: AF5028017 SOURCE CODE: UR/0386/65/002/008/0373/0377

AUTHOR: ⁴⁴ ⁵⁵ ⁴⁴ ⁵⁵ ⁴⁴ ⁵⁵ ⁴⁴ ⁵⁵ ⁴⁴ ⁵⁵
Nikolayev, V. I.; Yudinov, G. S.; Dubrovskiy, I. A.; Gavrilova, Z. G.

ORG: none

TITLE: Magnetic structure of the compound FeGe

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki. Pis'ma v redaktsiyu (Prilozheniya), v. 2, no. 8, 1965, 373-377

TOPIC TAGS: iron alloy, germanium alloy, antiferromagnetic material, ordered alloy, Neel temperature

ABSTRACT: To check on the existence of magnetic order in the compound FeGe the authors investigated the Mossbauer spectra of Fe⁵⁷ nuclei in this compound at temperature 77--500K. The sample was prepared by a procedure described by Ohtoyama et al. (J. Phys. Soc. Japan v. 18, 589, 1963). The initial components were Armco iron and germanium. X-ray structure analysis has established that the sample produced contains a phase with hexagonal structure, having parameters a = 5.005 Å and c = 4.054 Å. Investigations of the magnetization of the sample in the interval 300--500K have shown that there are no ferromagnetic impurities with Curie points above room temperature. In the experiments on the Mossbauer effect, the FeGe sample was used as an absorber. The source of radiation was Co⁵⁷ introduced in stainless steel. The Mossbauer spectrum of the Fe⁵⁷ contained all six resolved components of the hyperfine structure, thus evidencing the magnetic splitting of the ground and excited levels of Fe⁵⁷ and demonstrating directly that FeGe has an ordered magnetic structure at room

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ACC NR: AP5028017

temperature. The magnitude of the local magnetic field acting on the iron nuclei is in this case 123 ± 3 koe. Analogous spectra were obtained also for other temperatures. It is also concluded that FeGe is antiferromagnetic. Extrapolation of the temperature dependence of the nuclear magnetic field to zero yields a value $T_n = 411 \pm 2$ K for the Neel point of FeGe. Authors thank I. K. Kikoin for interest in the work, Yu. M. Kagan for discussions, N. N. Kuznetsov and V. I. Bogachev for help in adjusting the experimental setup, and P. N. Petrov and V. A. Somenkov for the x-ray structure analysis of the sample. Orig. art. has: 2 figures.

SUB CODE: 20/ SUBM DATE: 25Aug65/ ORIG REF: 002/ OTH REF: 002

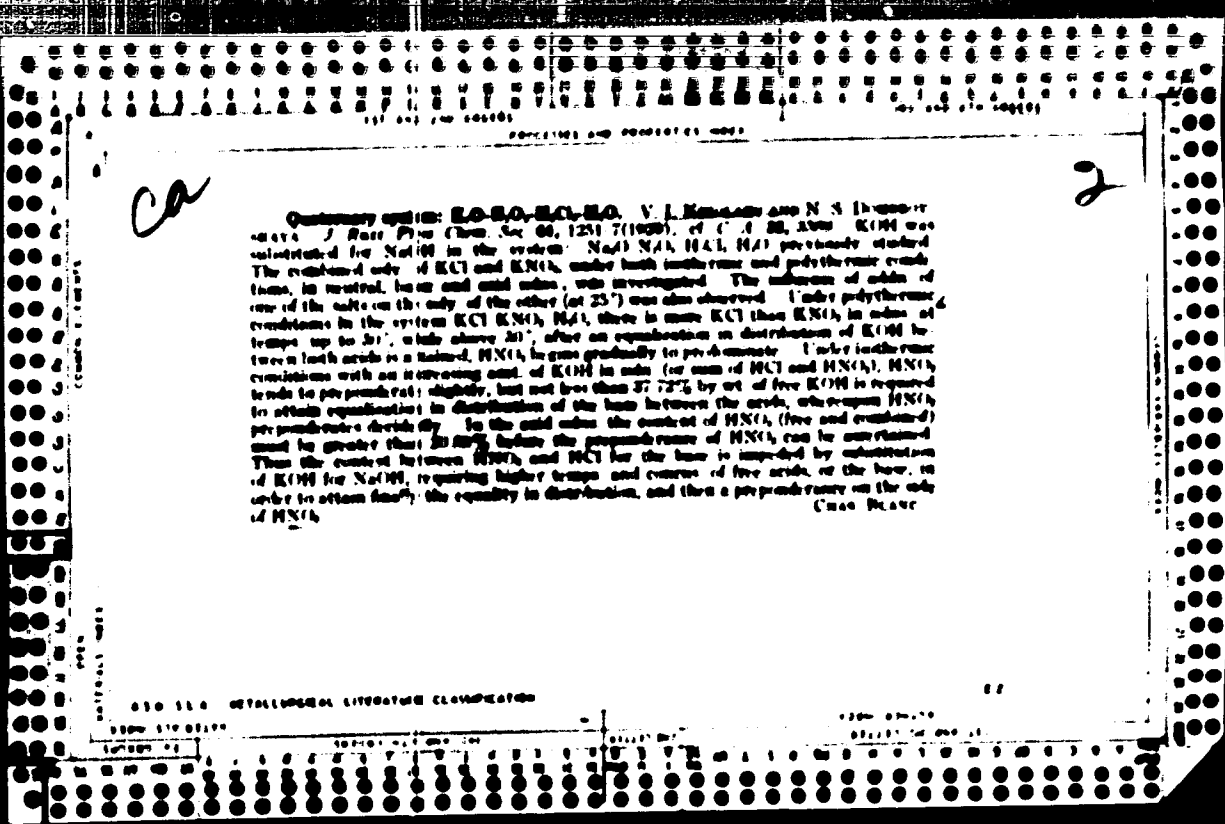
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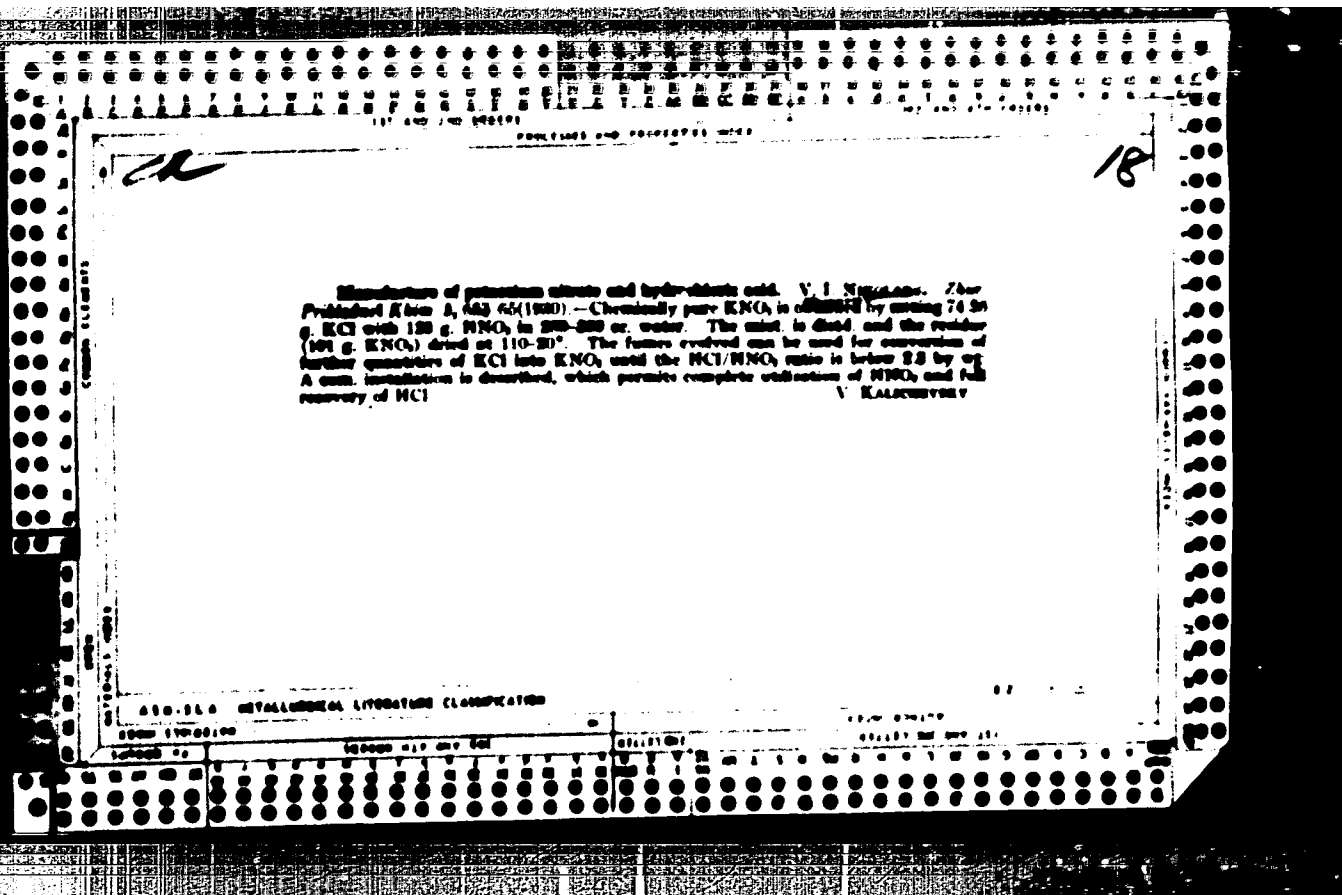
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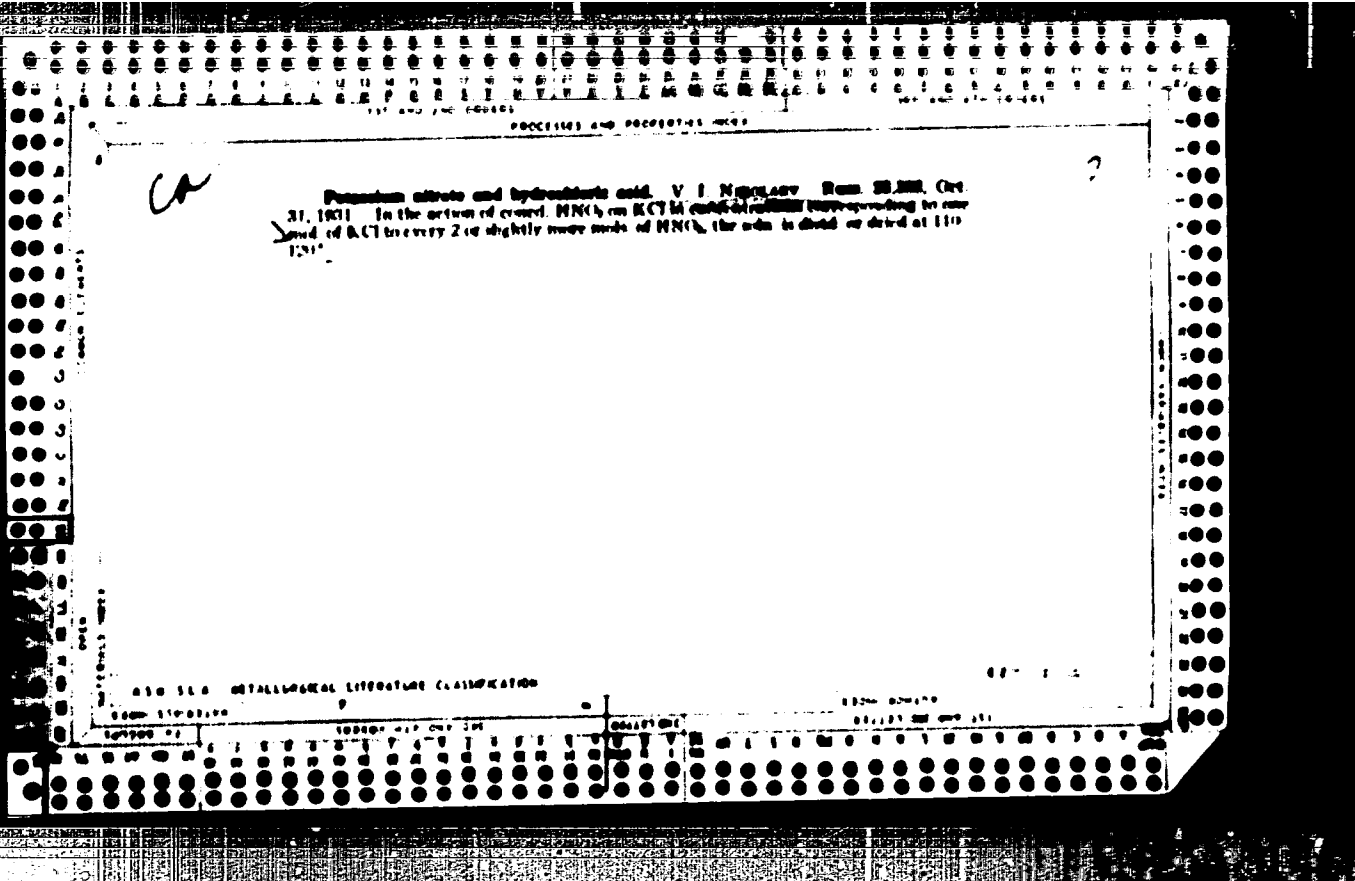
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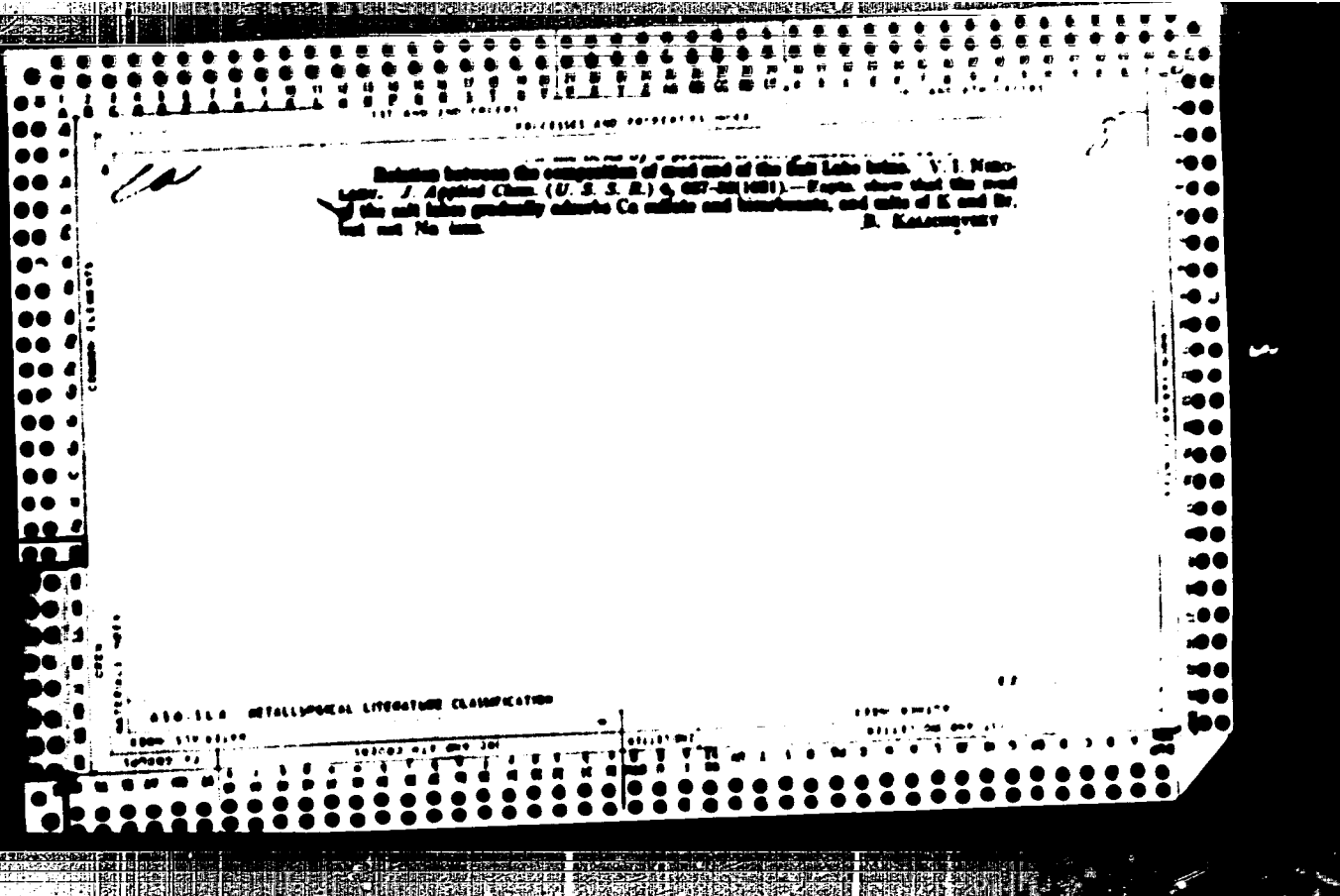
Synthesis of Lithium Chloride. *N. L. Krasovskaya, J. Russ Phys. Chem. Soc.*
 66, 225-26 (1932).—LiClO₄ is first prepared by double decomposition of equal quantities of
 LiClO₃ and LiCl. In order to get the anhydrous salt, it is necessary either to introduce a crystal
 of this hydrate or to treat the salt with acid CO₂. The acid salt contains 17%
 of H₂O, this corresponds to the anhydrous LiClO₄ & 4 H₂O. Anhydrous LiClO₄ is very
 hygroscopic and it can hardly be obtained. The dihydrate is an hygroscopic that it
 cannot be weighed and its m. p. can only be fixed in sealed tubes. The vapor pressure of
 the salt almost with various quantities of water were fixed by the Van Raoult method.
 This operation required about a year, as the equilibrium was slow in becoming established.
 The dihydrate crystals are long prismatic needles exhibiting a color play in polarized
 light, whereas LiClO₄·2H₂O shows double refraction and does not exhibit a double refraction
 of rays in polarized light. The dihydrate at 24° C. = 1.275, the monohydrate at
 27.5° C. LiClO₄·H₂O does not exist as a definite compound. The specific heat of
 Lithium Chloride crystals and diagrams are appended.

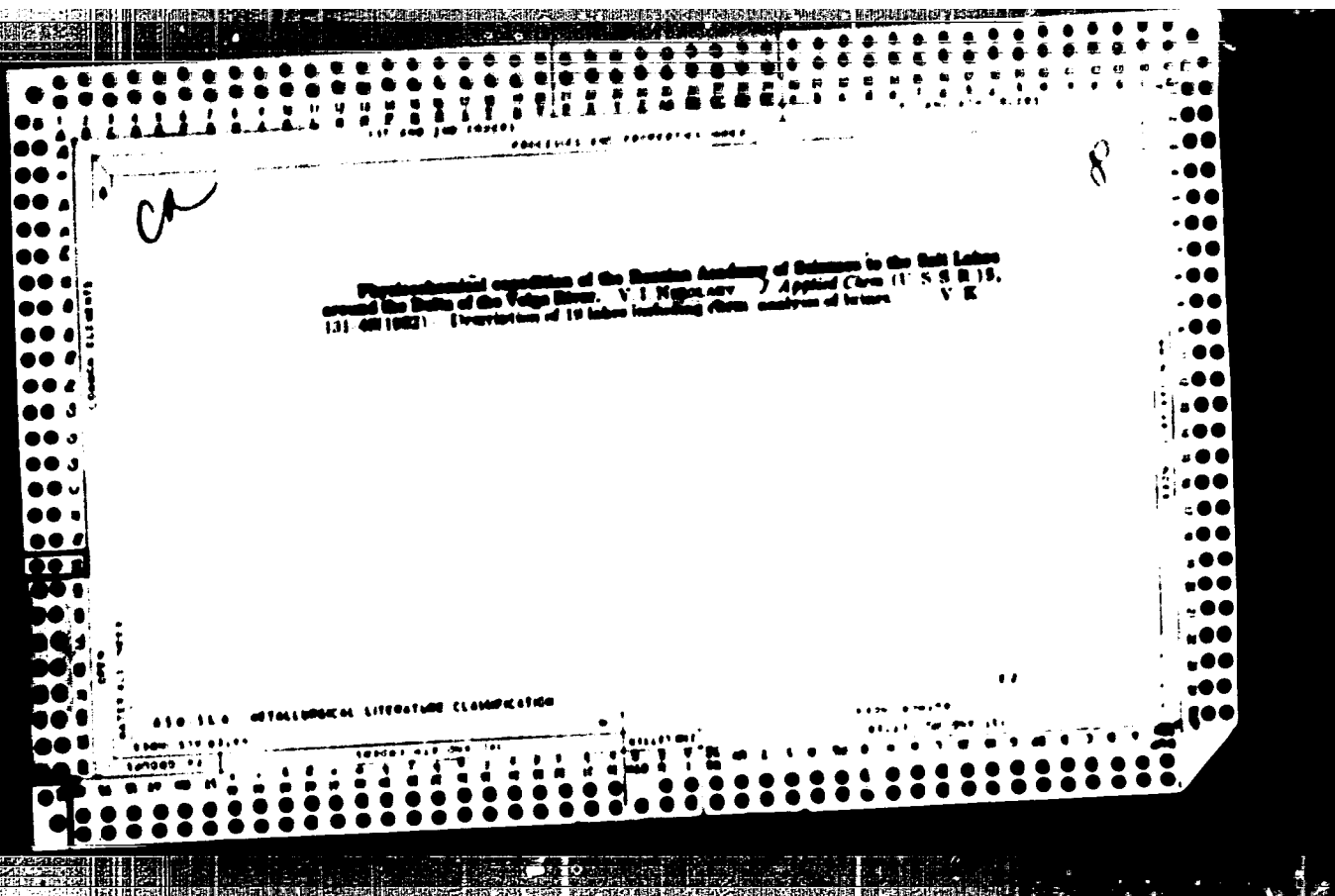
ALSO SEE METALLURGICAL LITERATURE CLASSIFICATION

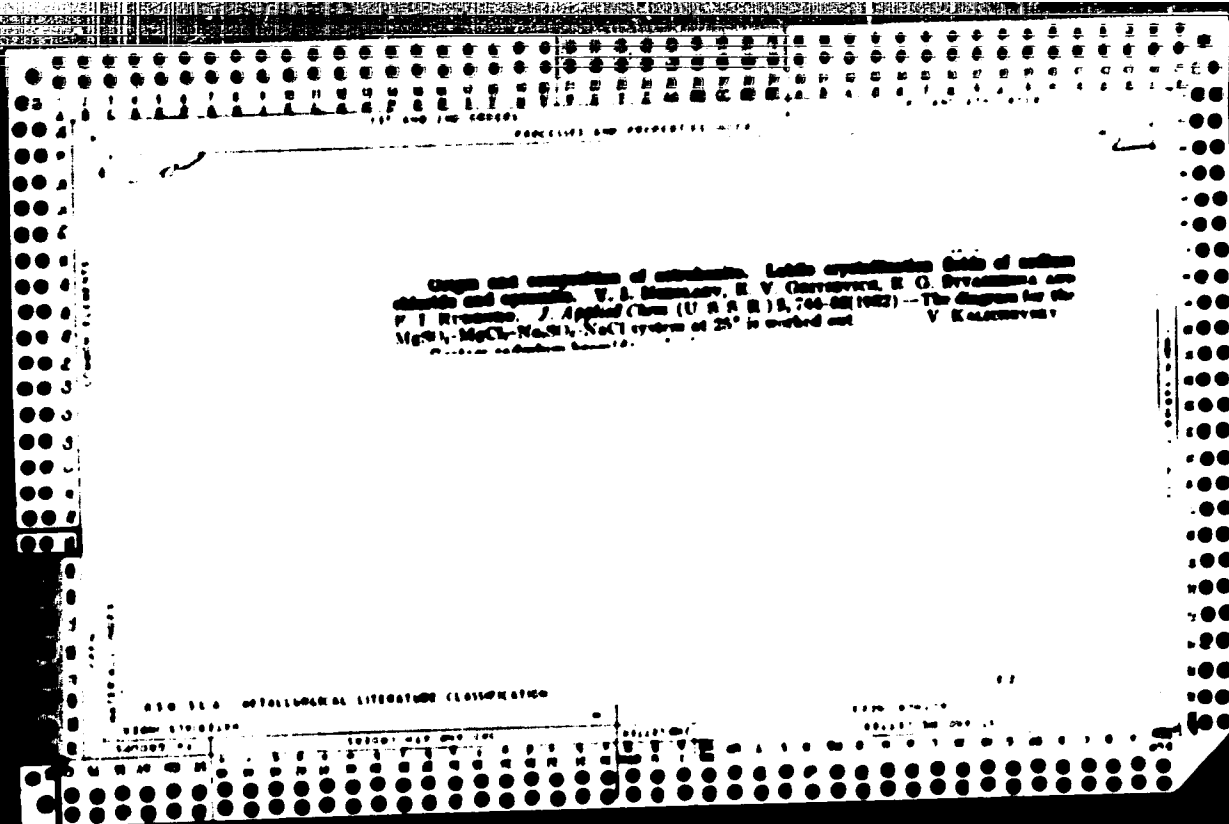


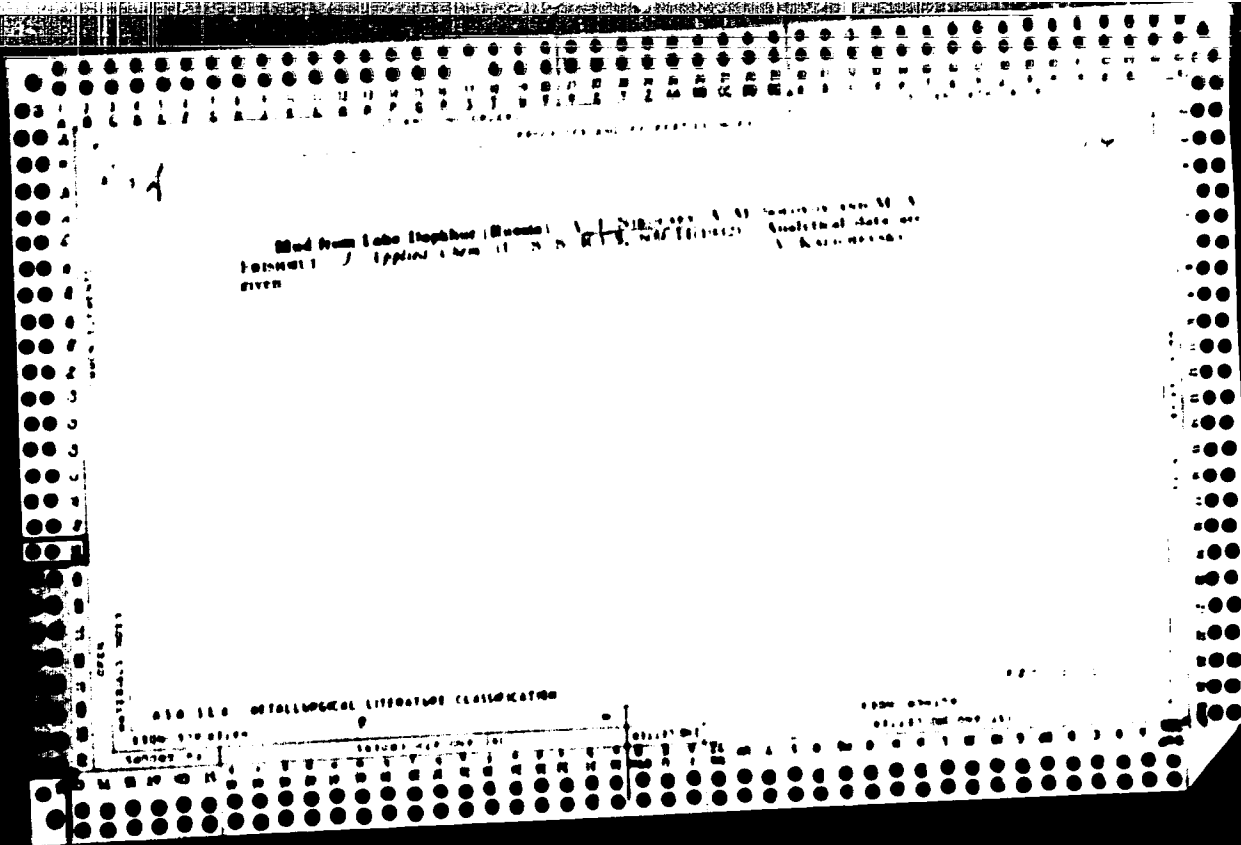


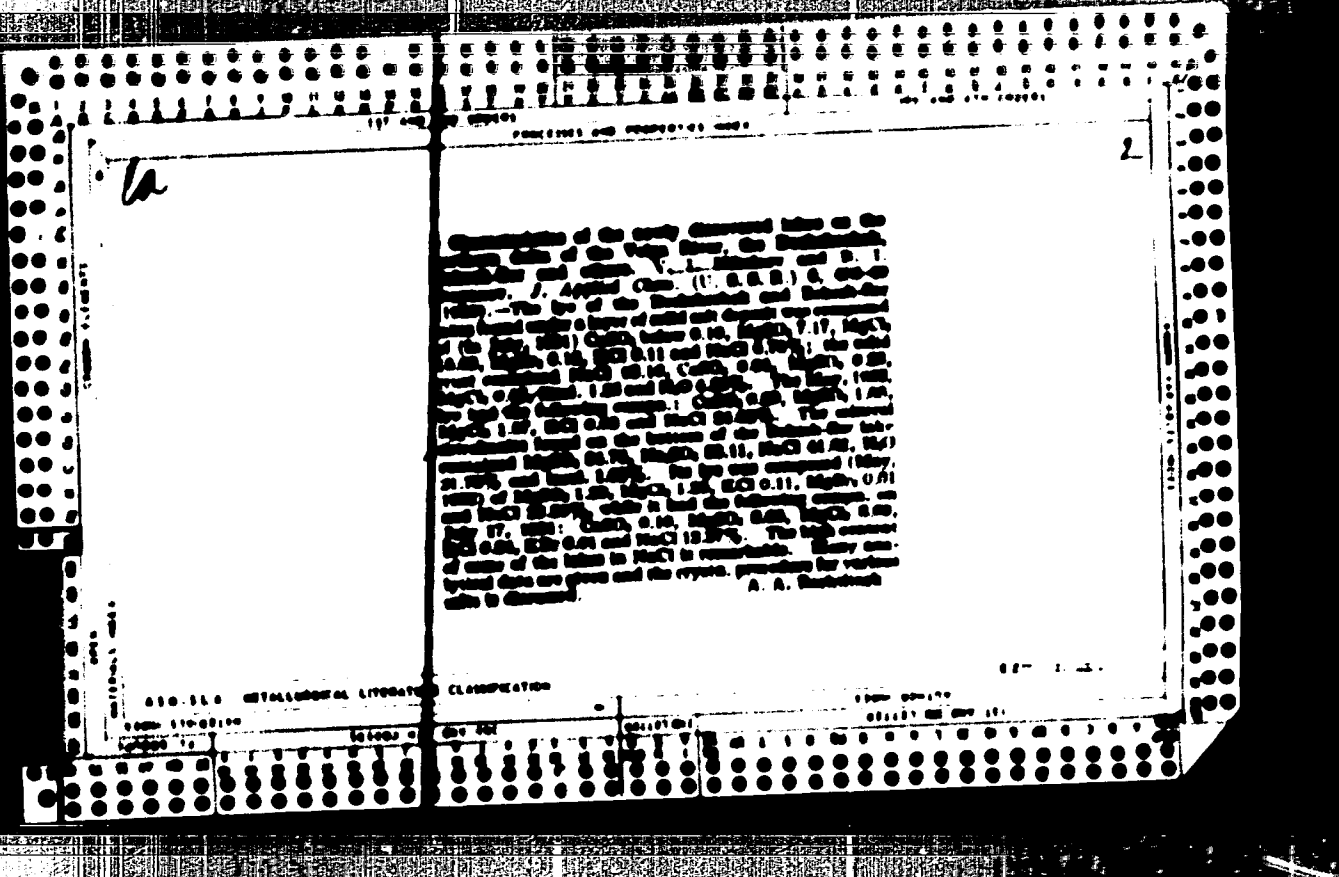


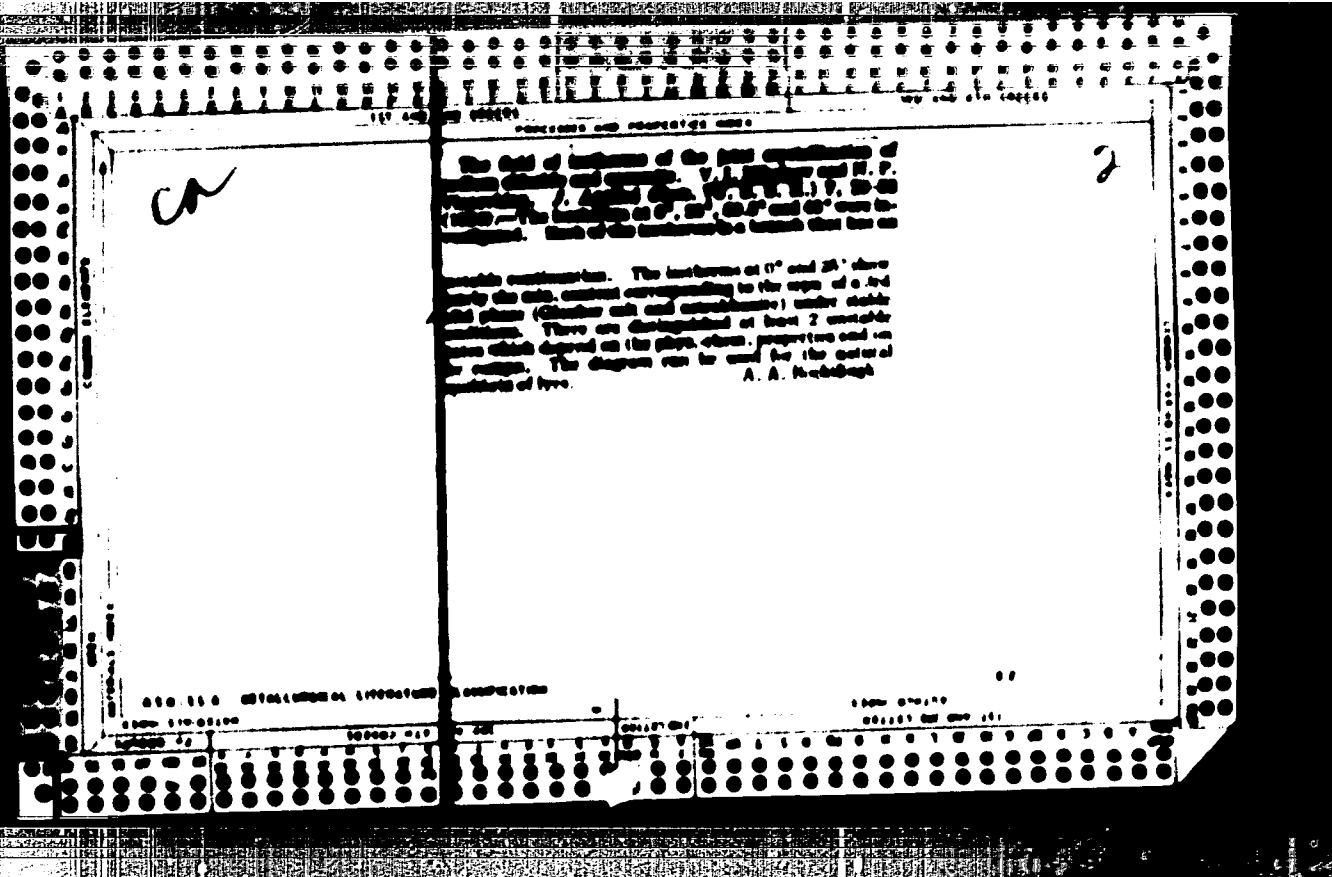


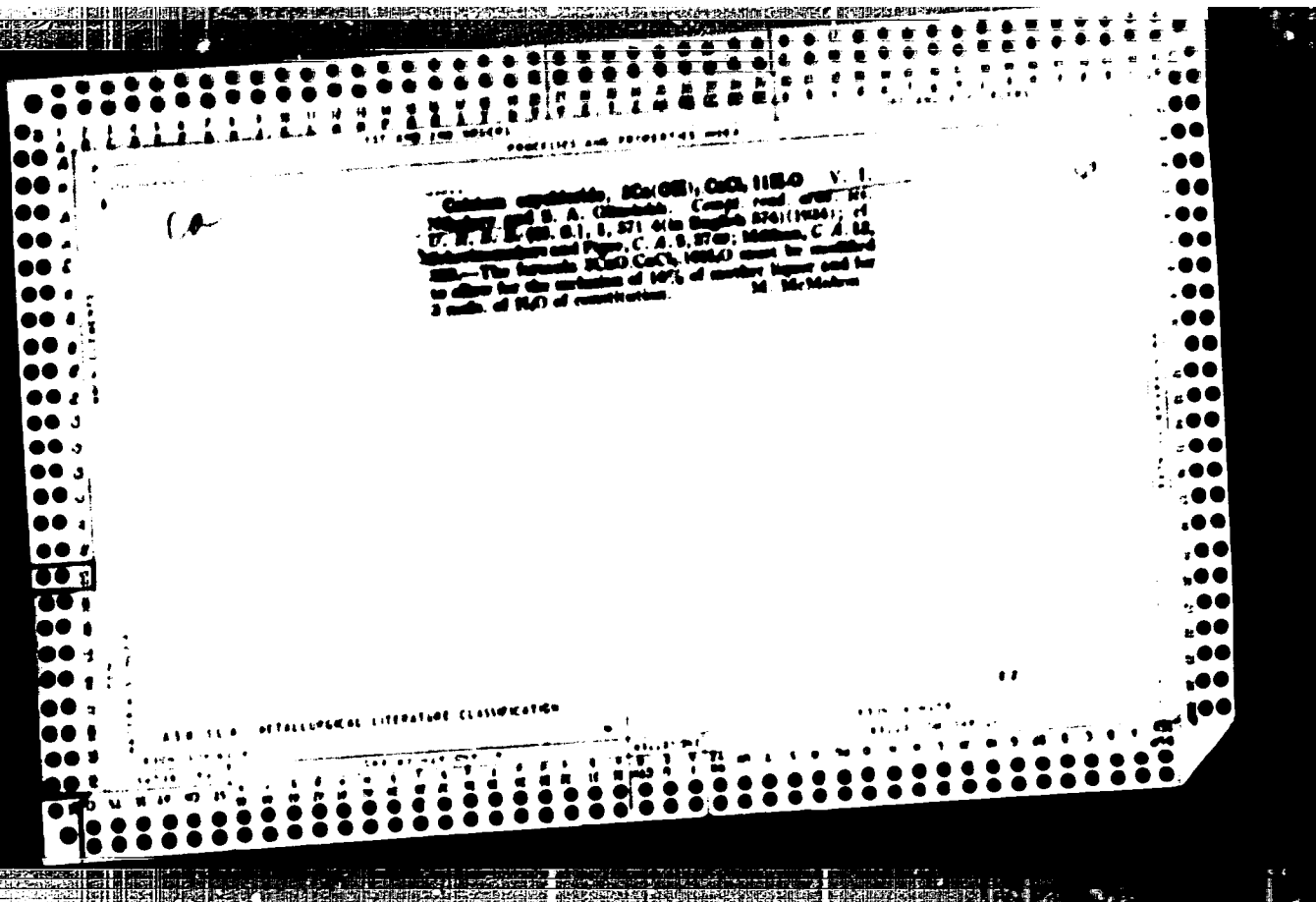


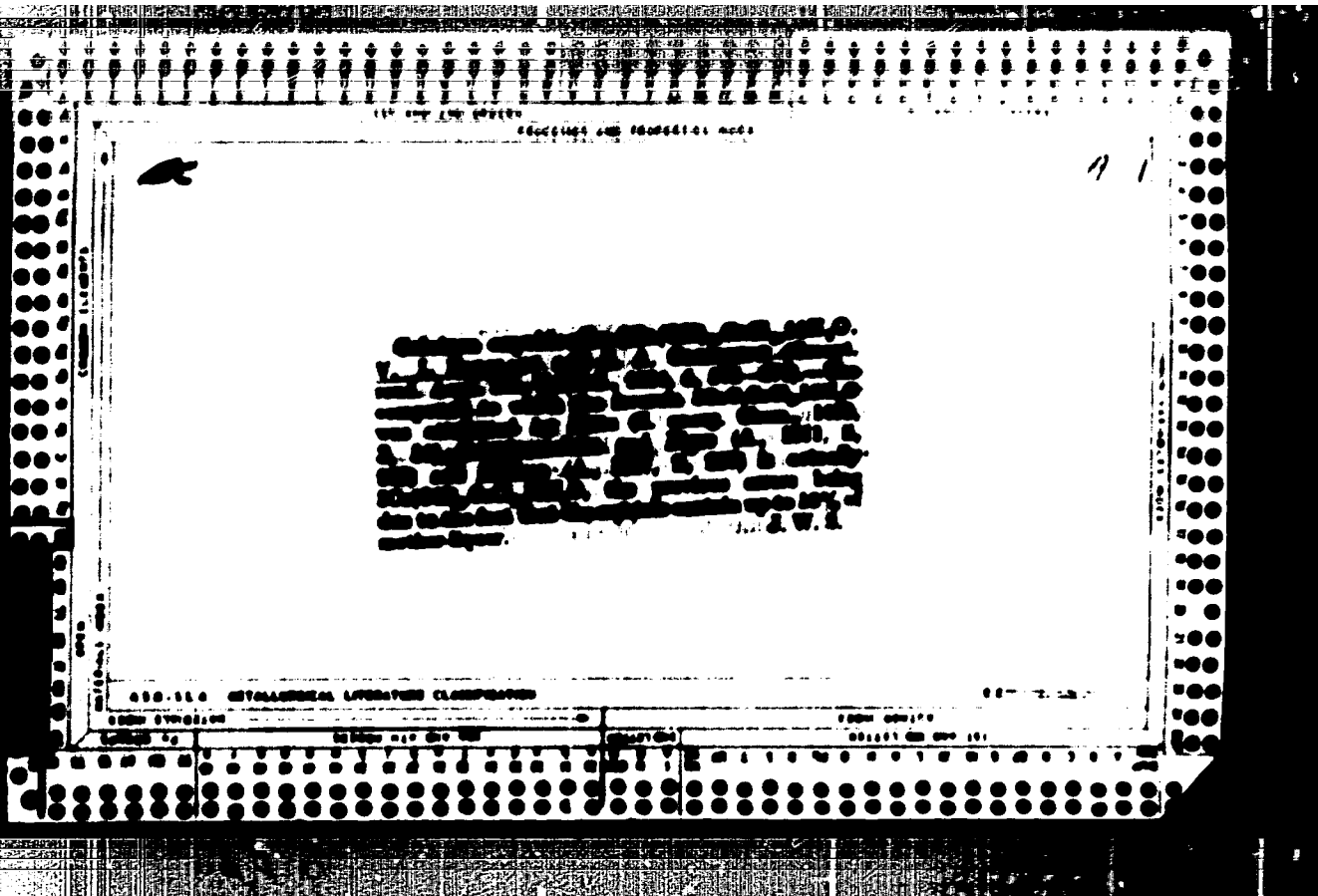










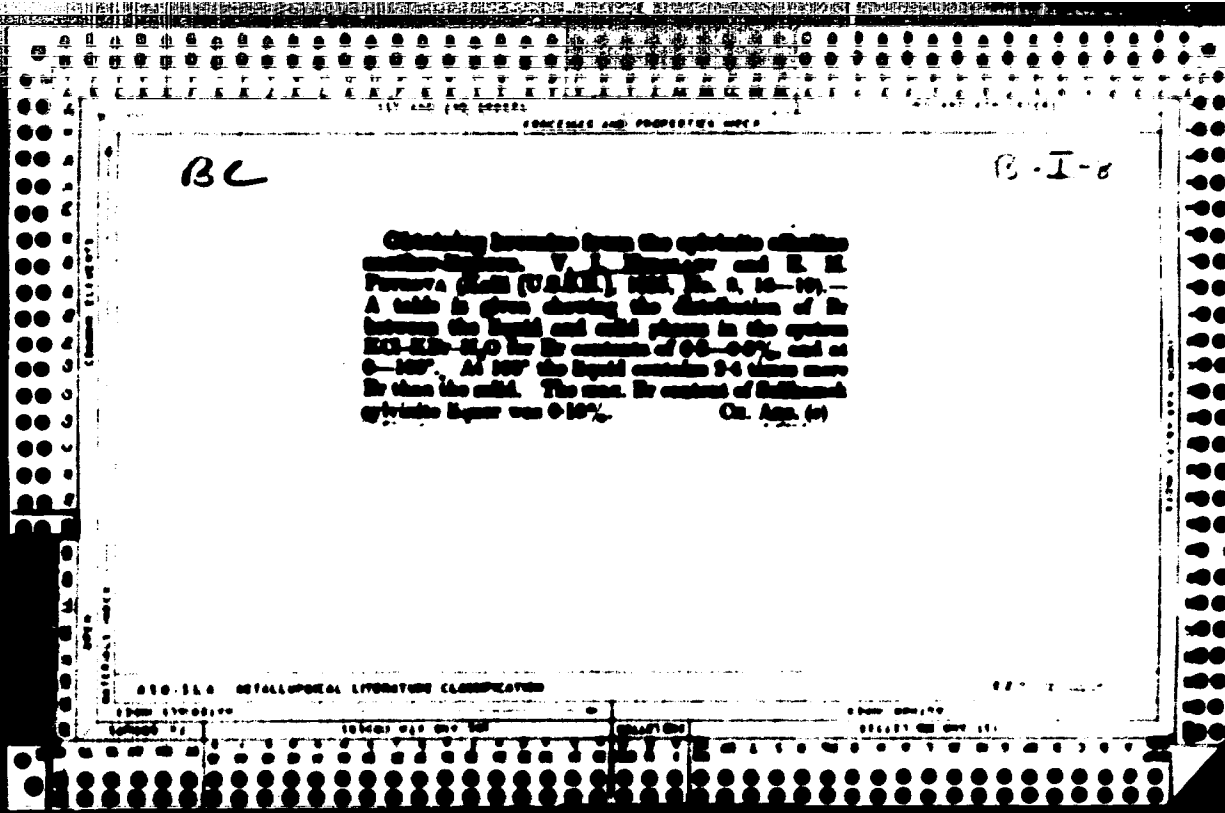


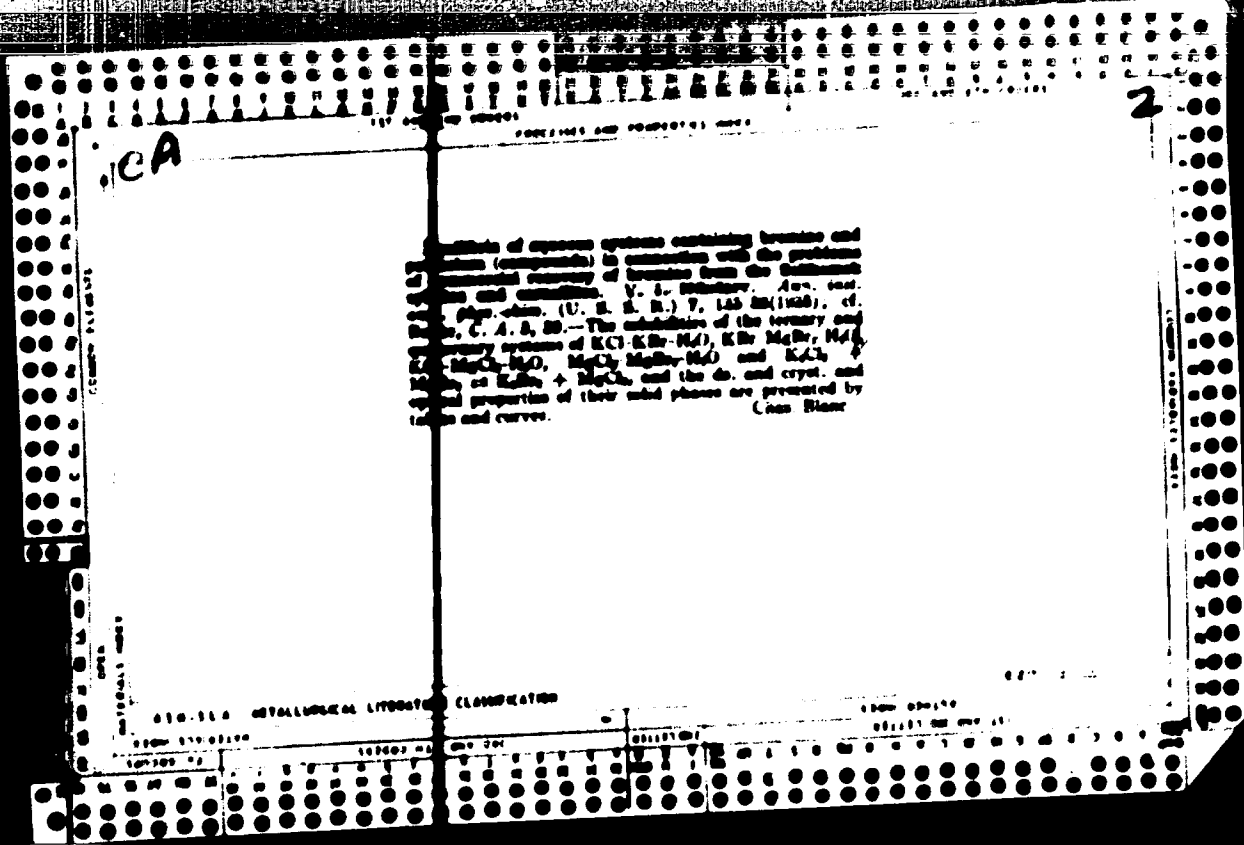
Soligalyska Odesk D-1174 Army V. 1st Fl. 1944-1945 (to Soligalyska Odesk D-1174 Army)
(S. It. Lakes of the Volga River Delta; P. 1944-1945) Soligalyska Odesk D-1174 Army (1)
V. I. Kiselev (1st) D. I. Kiselev. P. 1944-1945 (to Soligalyska Odesk D-1174 Army)

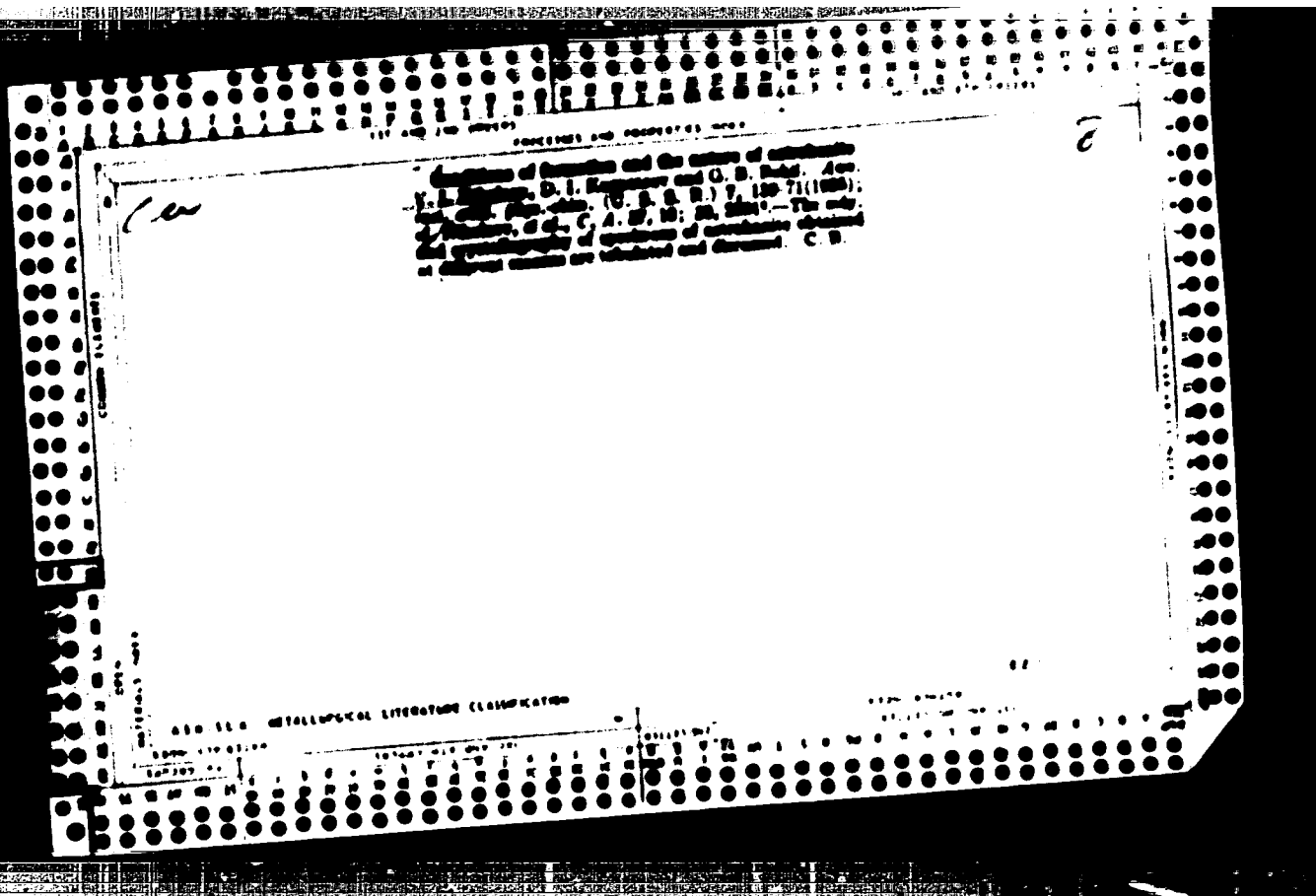
1944-1945, map. 1944-1945.

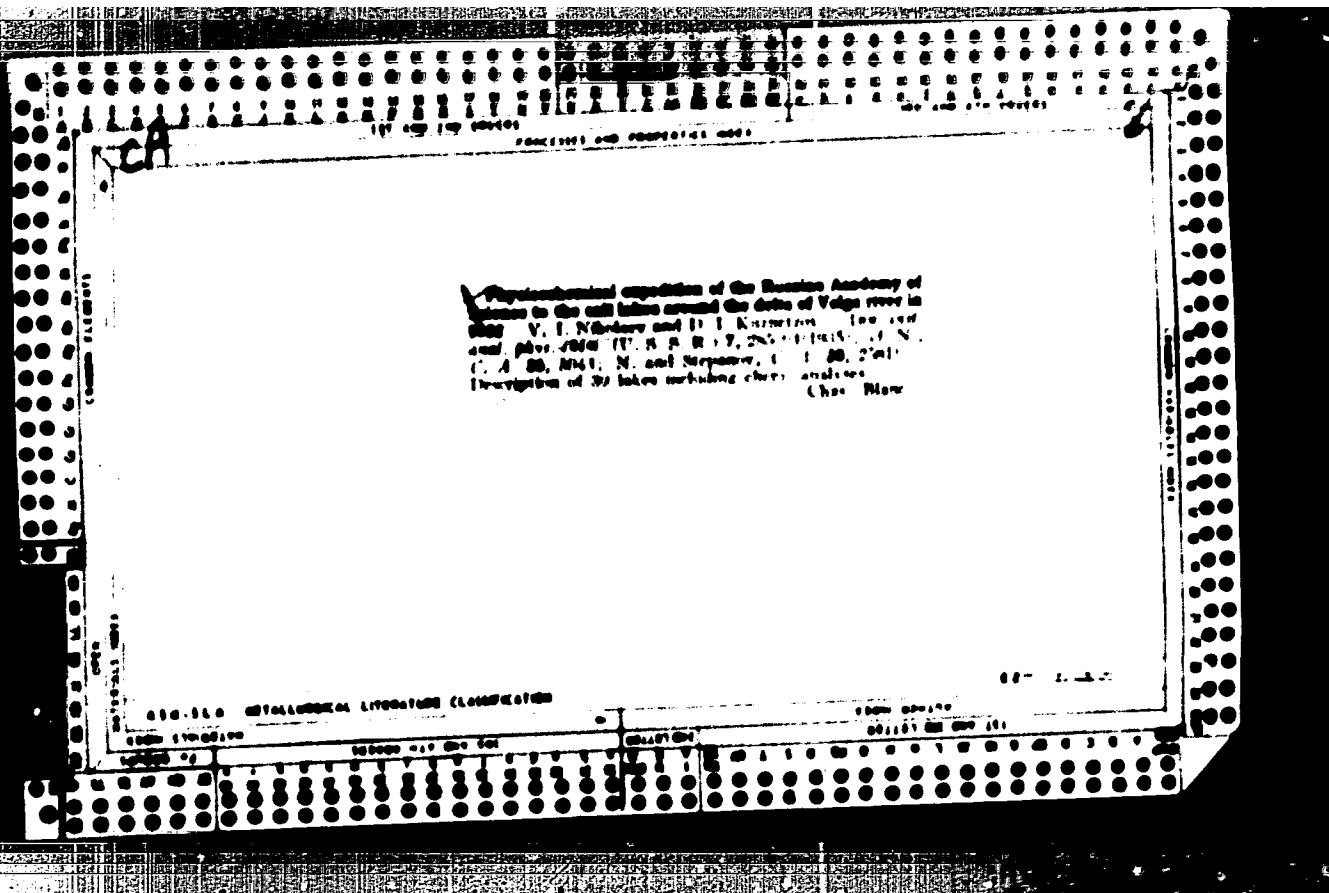
Attn: of title: A. I. Kiselev, SSSR, Soviet Po (Soligalyska Odesk D-1174 Army) (S. It. Lakes of the Volga River Delta; P. 1944-1945) Soligalyska Odesk D-1174 Army (1)
I Institut Obachey Neopredelennoy Krim').

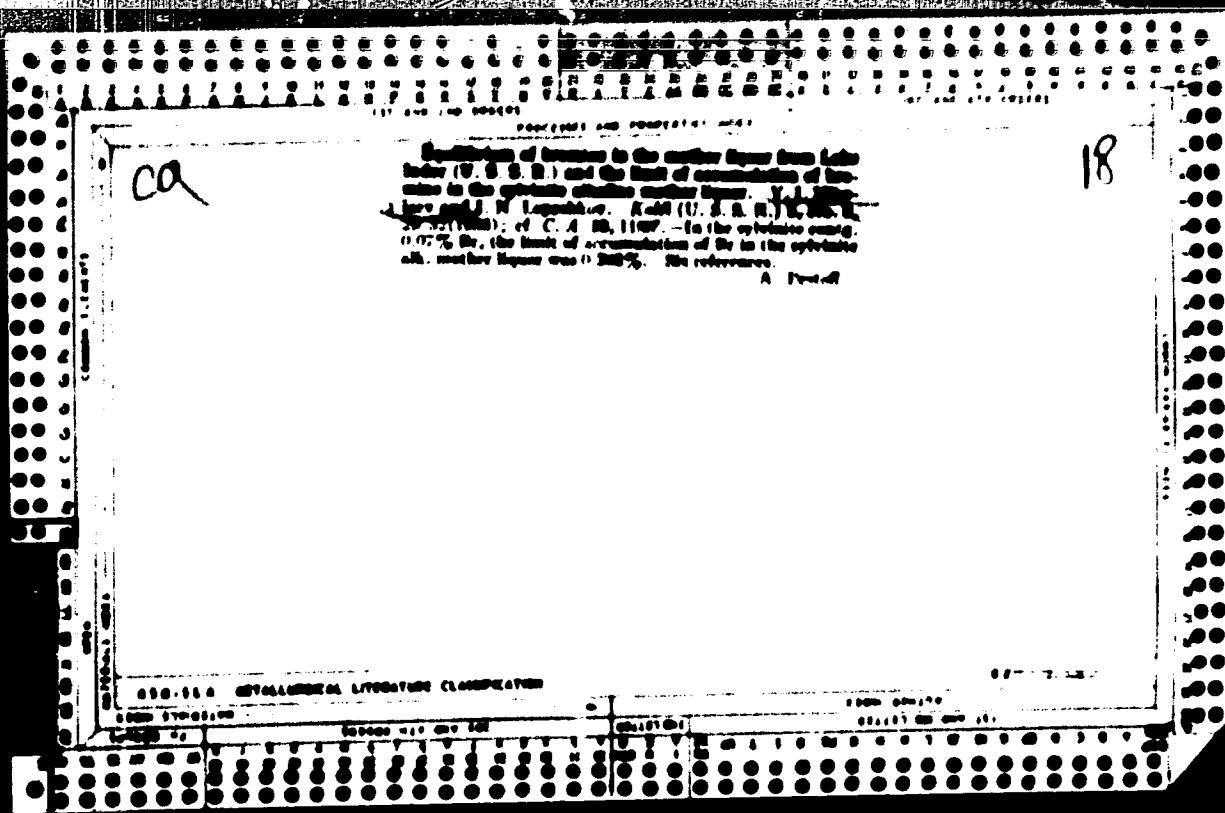
Tertiary system potassium nitrate soda ash and water
 V. I. Melnikov, G. K. Chirkov and A. G. Kagan. Khol.
 (U. S. S. R.) 1968, No. 7, 227. The field of crystals of
 system $KNO_3-NH_4NO_3$ is given. The field of crystals of
 system $KNO_3-NH_4NO_3$ (potassium nitrate (II), NH_4NO_3
 and hydrates of NH_4NO_3) were studied. The ternary diagram
 and hydration of NH_4NO_3 in the presence of excess NH_4NO_3
 is given. It is very stable in the presence of excess NH_4NO_3 .
 In the downward action of NH_4NO_3 it can be transported
 long distances in sealed containers at a temp. nearing 11°
 and can be used to obtain pure KNO_3 and highly concentrated
 NH_4NO_3 (by heating to 100-120°). NH_4NO_3 of 99.9% was
 obtained. A. Postell

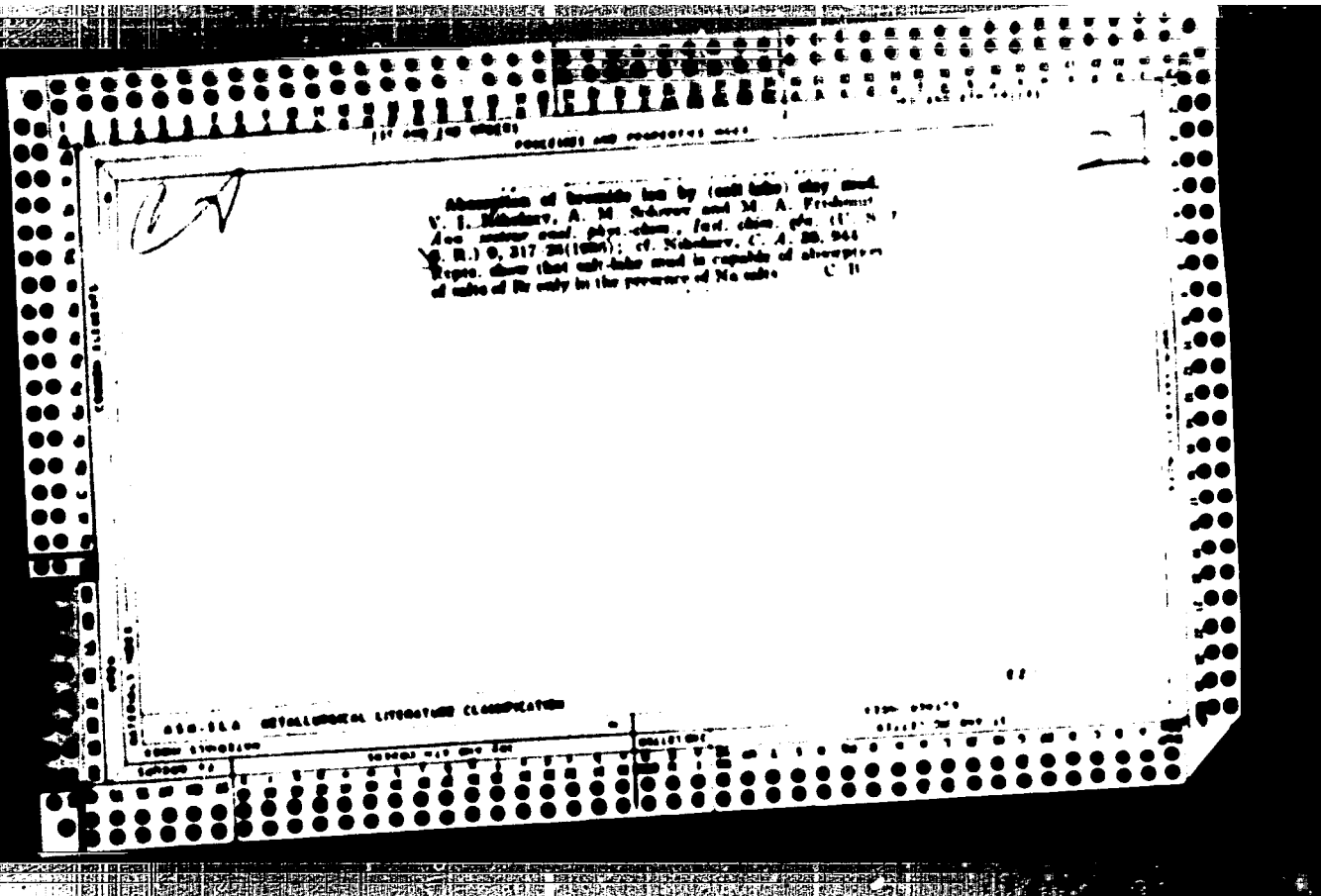


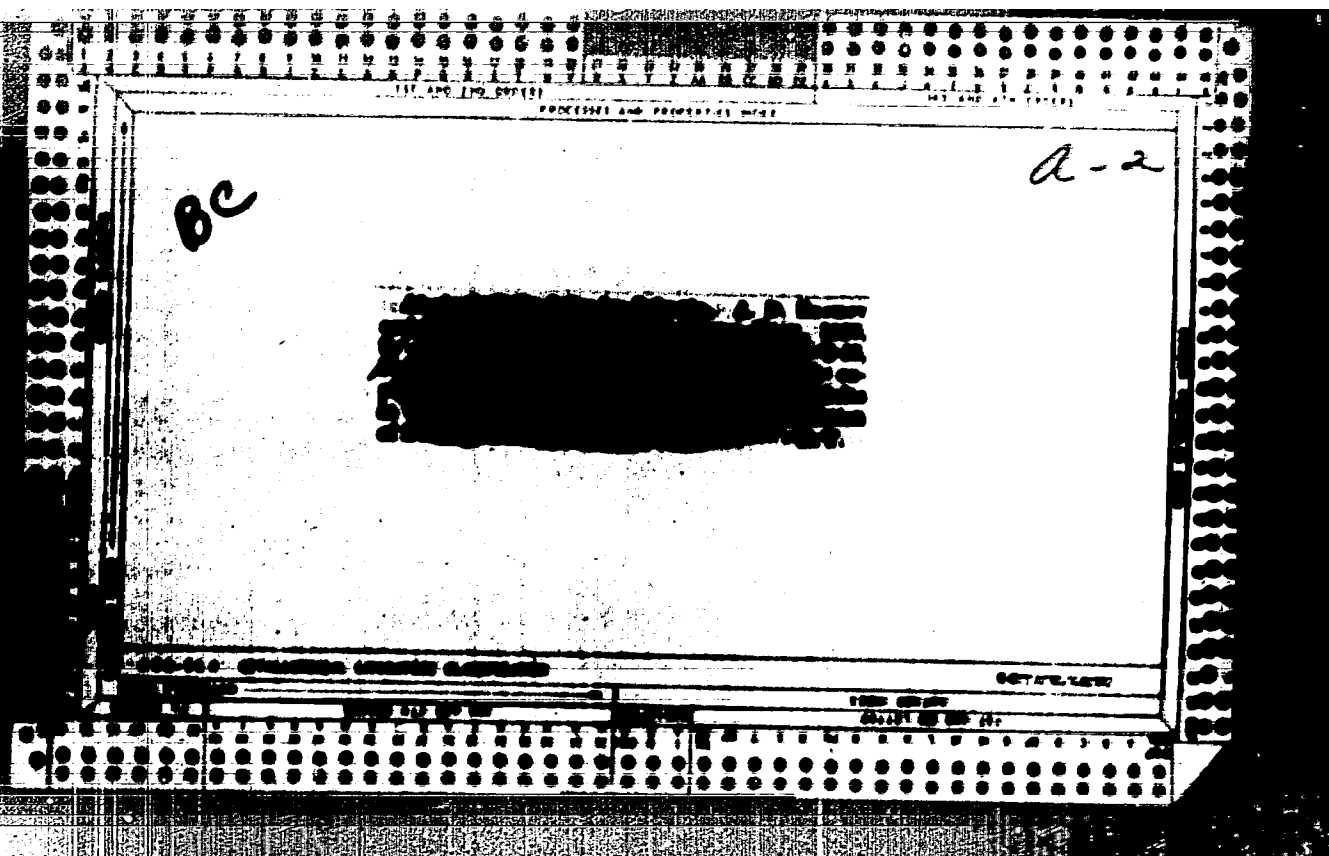


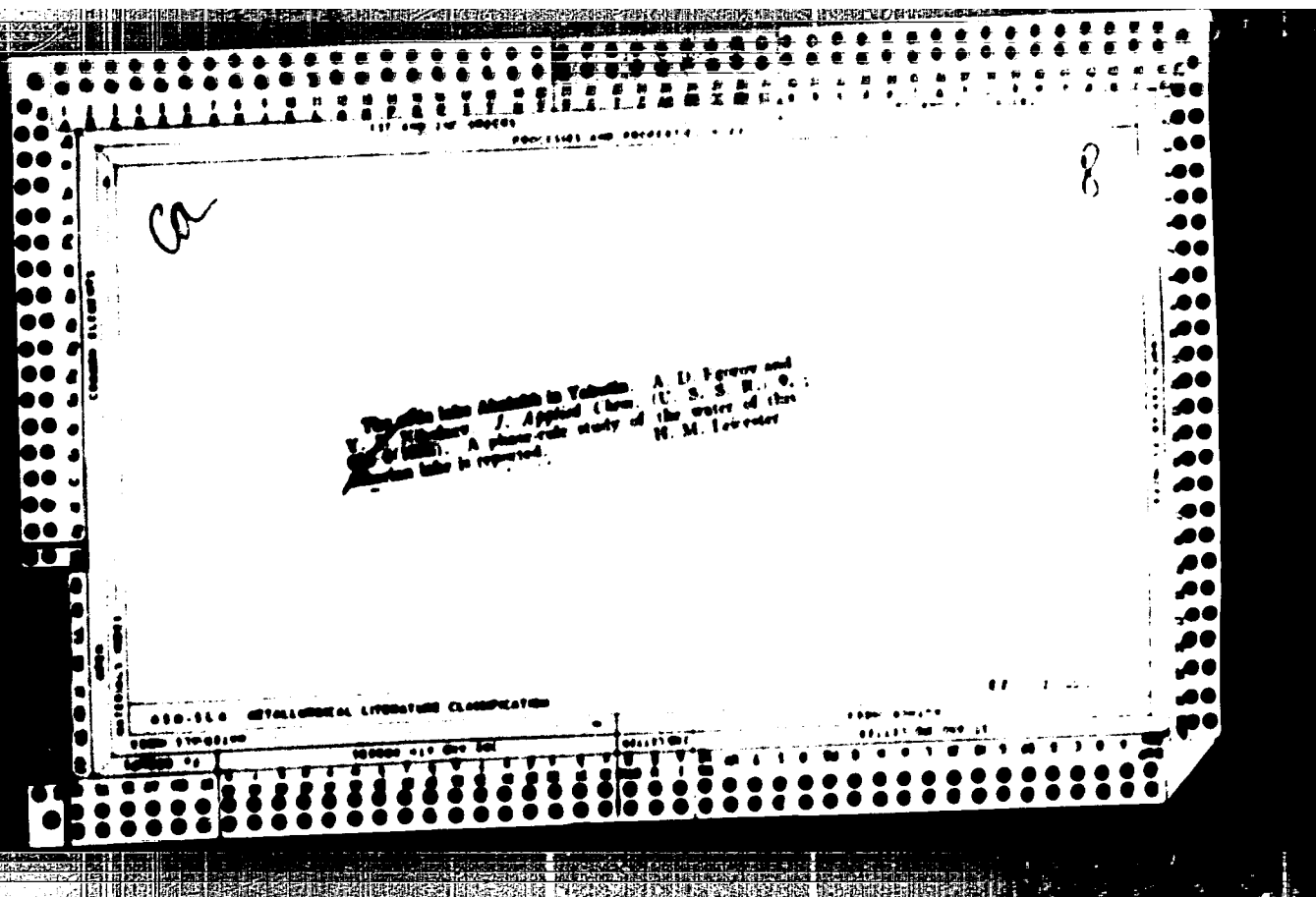








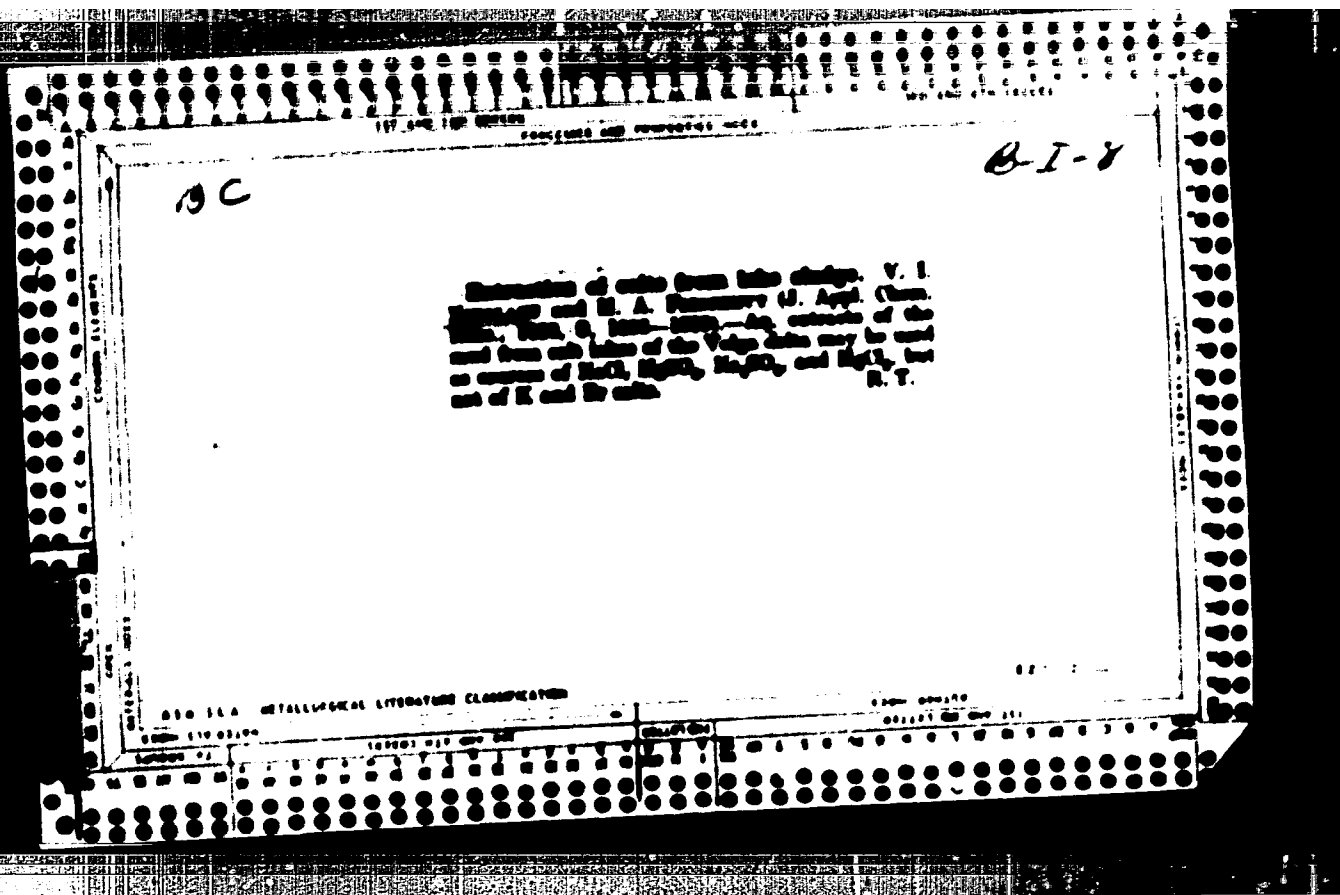


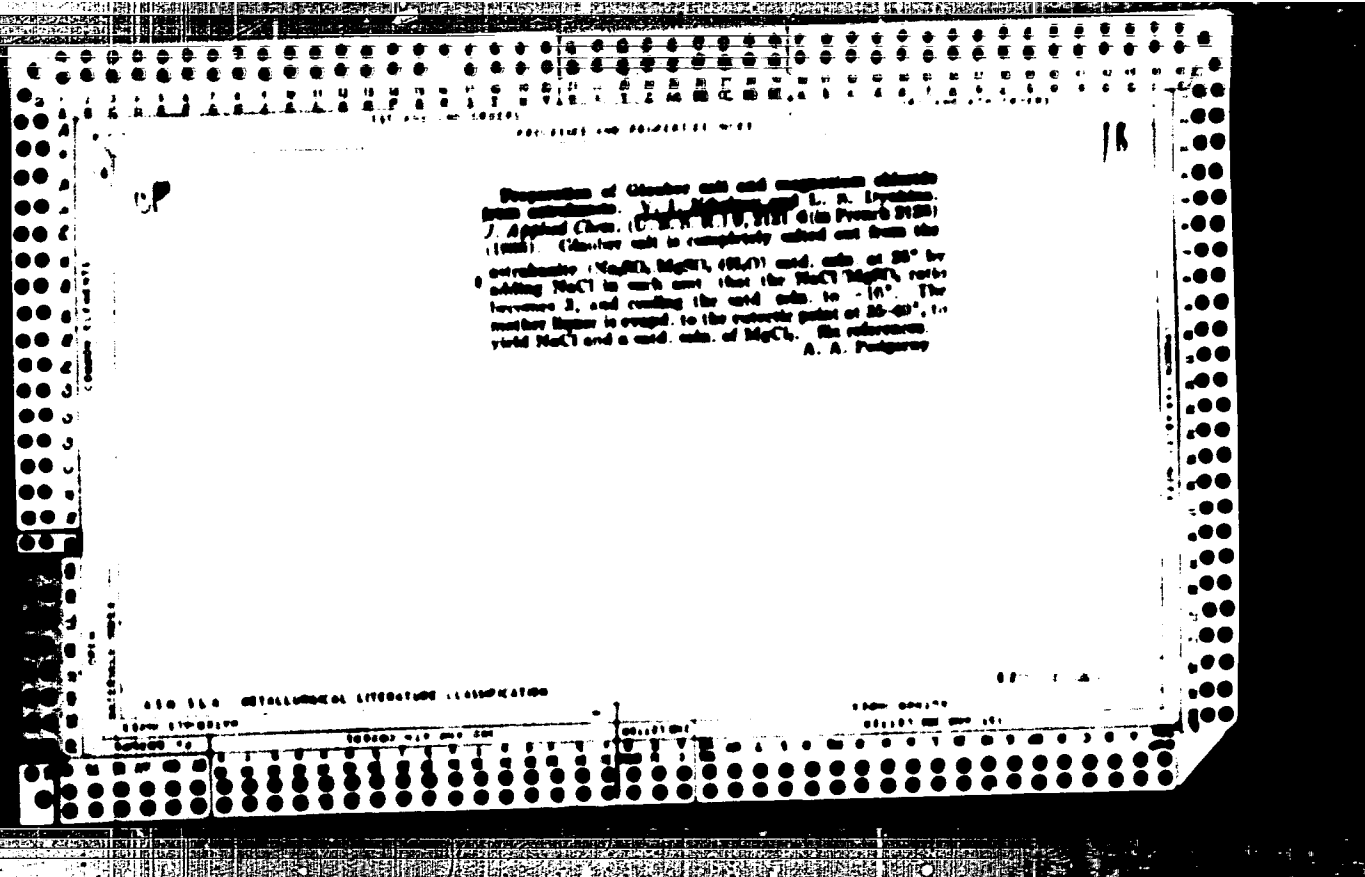


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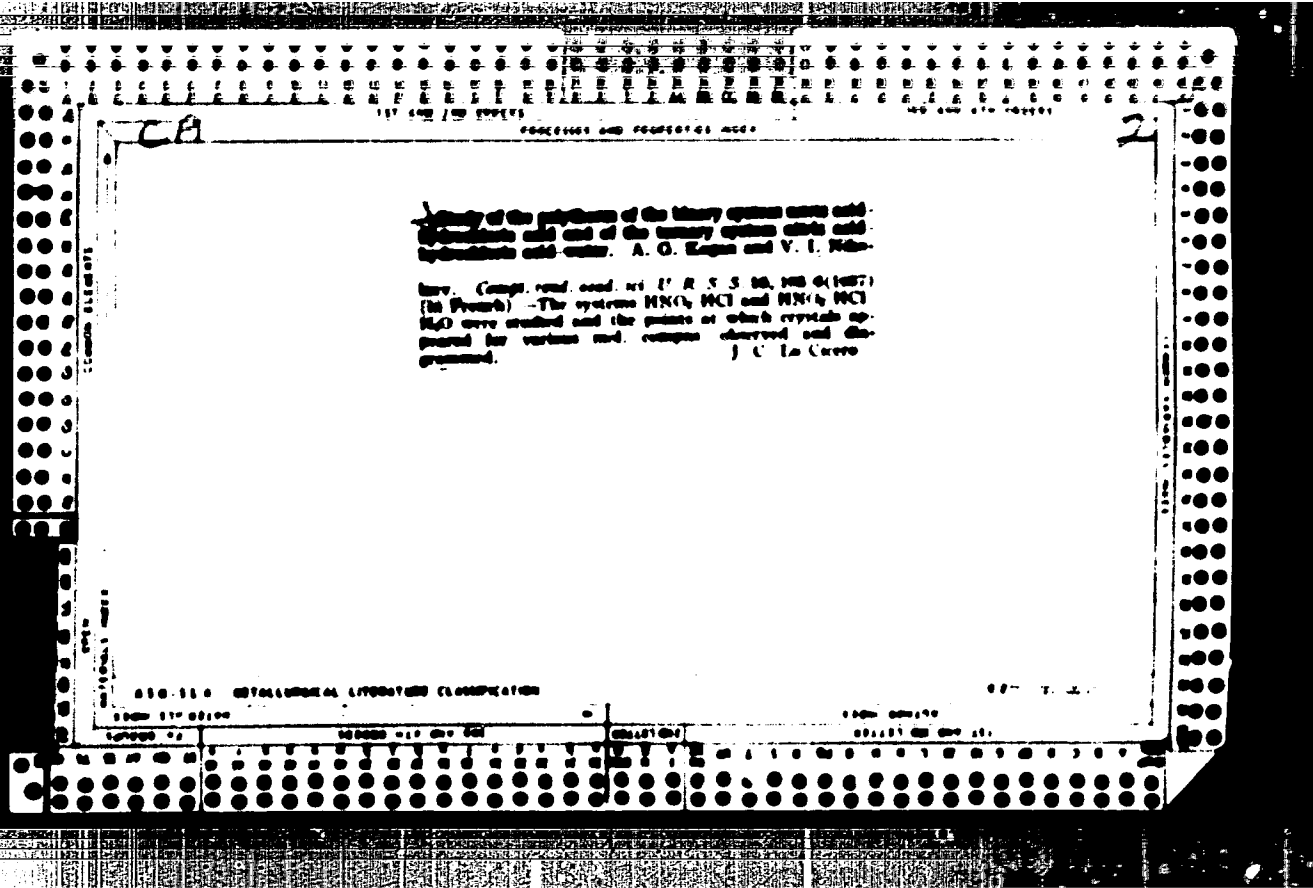
Adsorption properties of colloidal iron oxide. I. I. Nurbakh and V. I. Nakhodov. *Russ. Chem. Rev.* 31, 105 (1962). (Transl. with add. by Chem. 1963, 1965) in *Colloid Interface Sci.* 10, 21 (1962). As a contribution to the study of the adsorption properties of iron and iron oxides, with respect to the ions of natural ferrous the behavior of colloidal Fe(OH)₂ has been studied. With the exception of Ca and Mg ions, all other ions present in natural ferrous are adsorbed by Fe, but no exact relation between the adsorbed cations and anions could be determined. After adsorption, Fe was stabilized against the action of H₂S except for the formation of FeS at the surface of the colloidal granules. The formation of FeS in solution is due to evolution of H₂S and elimination of the liberated H⁺ in favor of the more fully adsorbed ions. C. B. Adelman





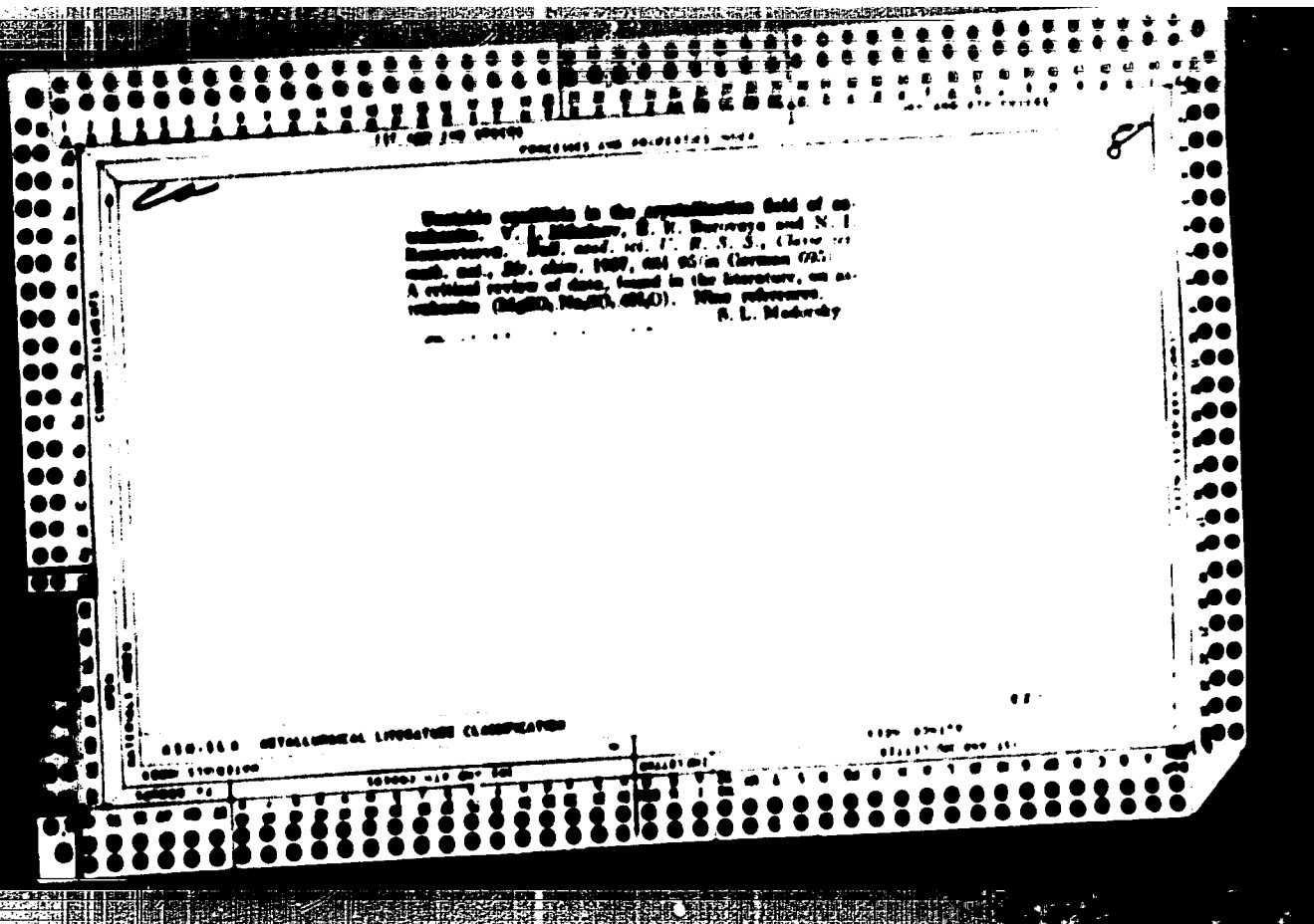
Mineral barite deposits of India, central Asia
Kobayashi and Y. A. Babitsky. *Mineralogy*, No. 1
17-20 (1977). The barites identified were barite, celestine,
strontianite, hydroxycarcelite, celestine and celestine. The barite
samples, etc. crystallography and phys. properties of the
natural and synthetically prepared barites agreed closely
with the data in the literature. (Chem. Abstr.)

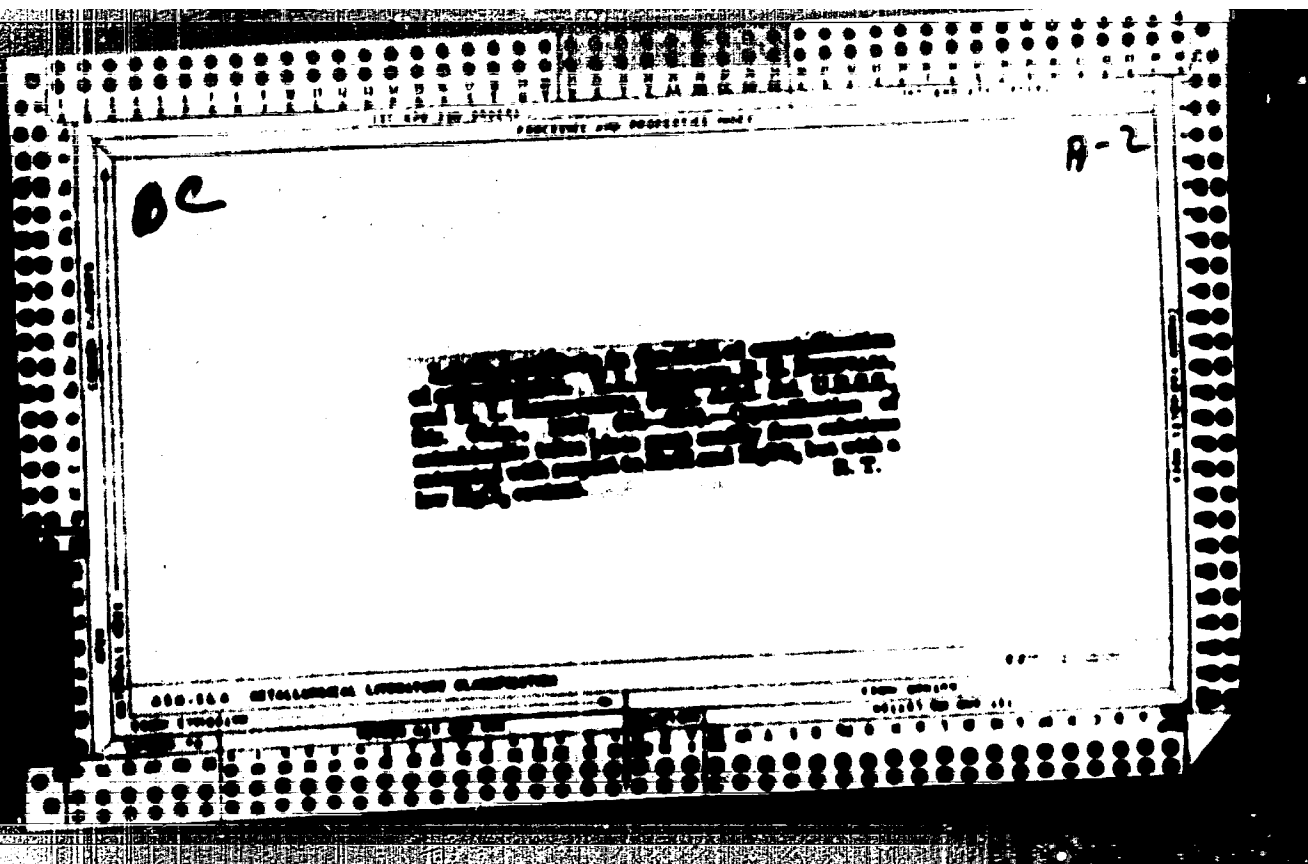
MINERALOGICAL LITERATURE CLASSIFICATION

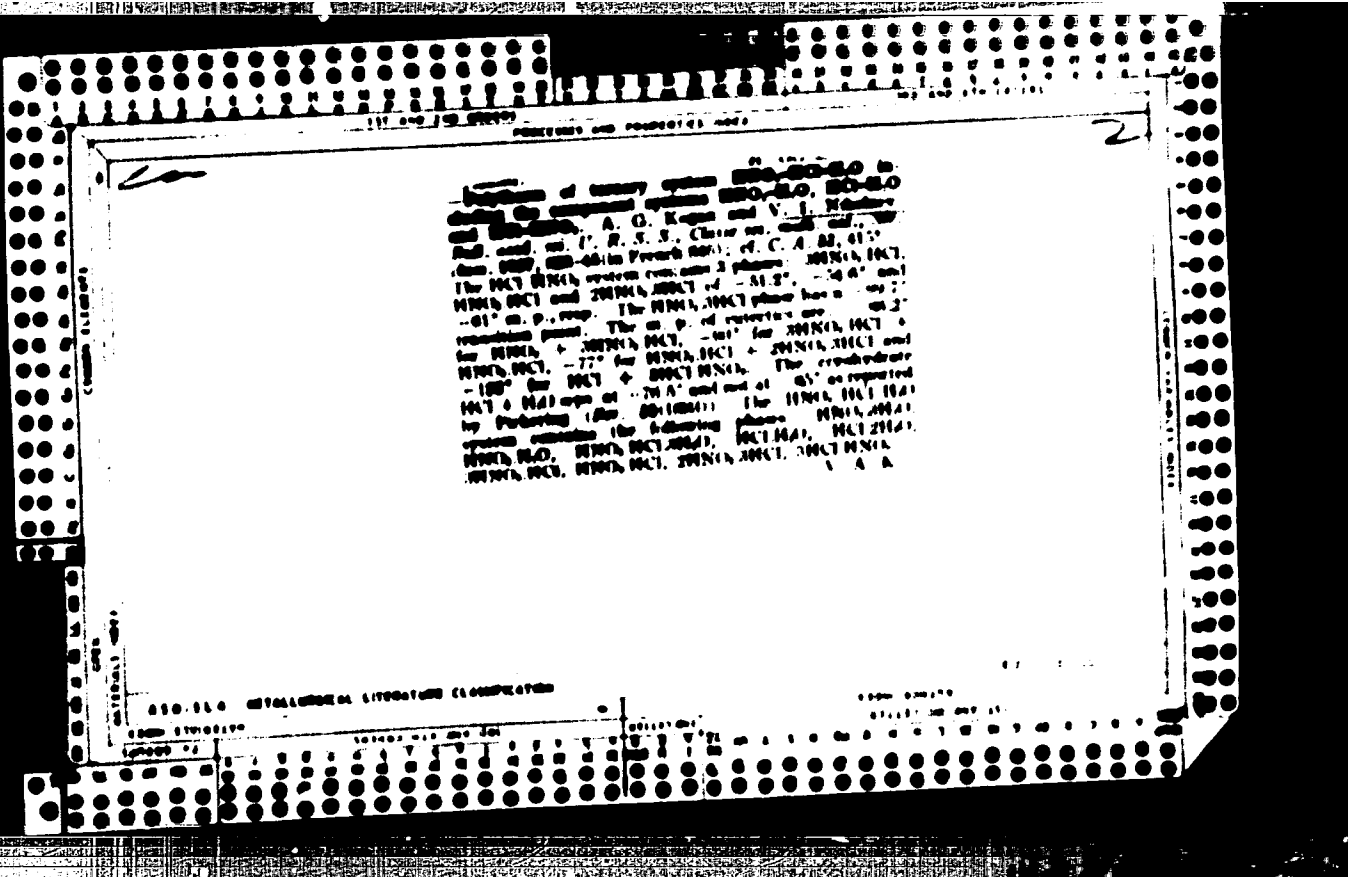


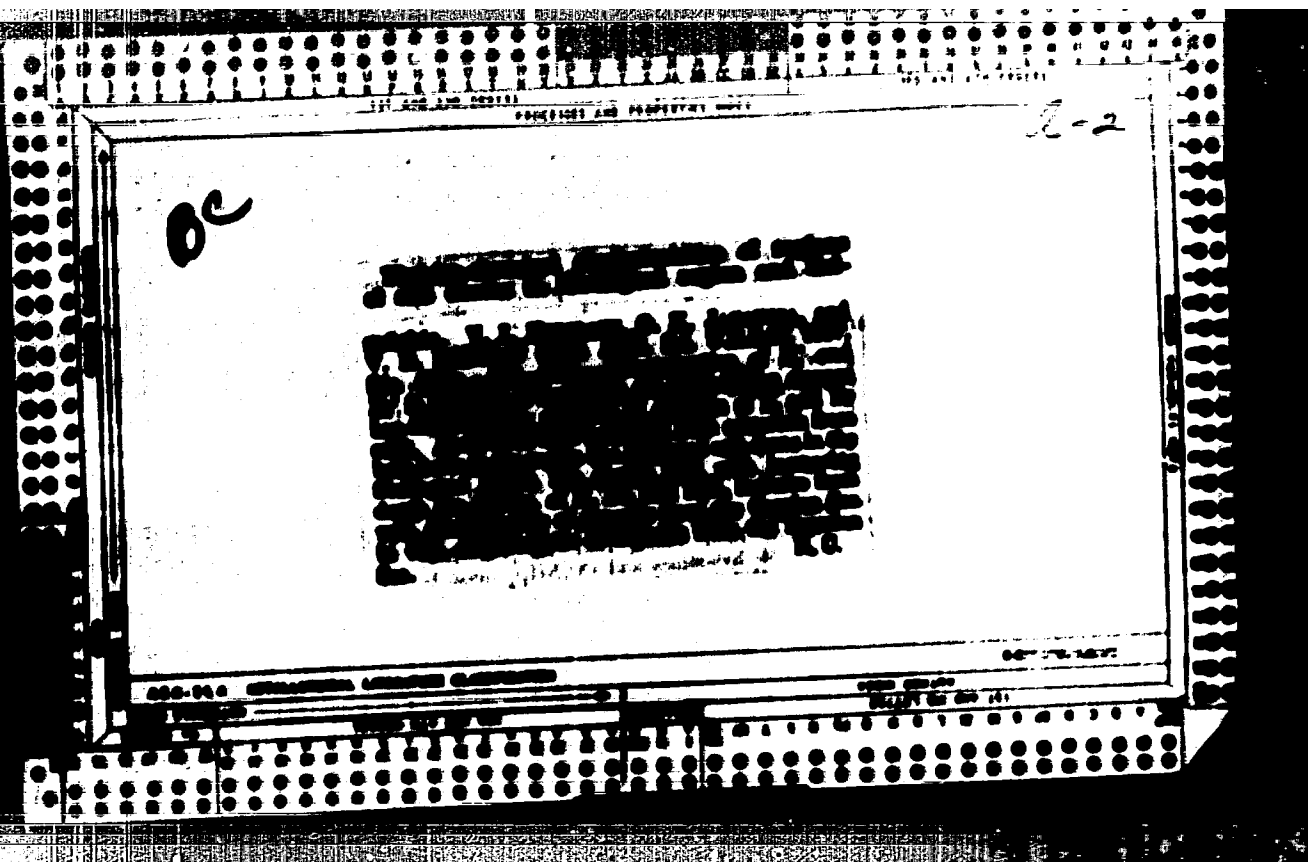
Problems of genesis of Permian salt deposits V. I. Nishchay, N. I. Boyakov and I. M. Lapshin. *Dokl. Akad. Nauk S.S.S.R.*, Class. Sci. Sect., Ser. Chem., 1969, no. 411 (in English 411-12). - An examination of the relative contents of KCl, KCl.MgCl₂ and KBr in the salts remaining formed on the evaporation of Lake Labe brines, shows that these residues are similar to the natural salt deposits of the ancient Permian Sea, namely, the Subbaltic and Kazakhstan deposits. An investigation was made of the conditions of deposition of salt from the Lake Labe brines during evaporation in order to throw light on the genesis of the Permian deposits. S. L. Makhovskiy

010-510 METALLURGICAL LITERATURE CLASSIFICATION









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18

Producing pure common salt via NaCl H_2O . V. I. Nishchay and B. I. Nishchay. *Chem. Ind. and Eng. Technol. N. S.* 21, 203 (1958) (in English). Expts. were conducted to obtain very pure NaCl from impure common salt from Russian salt lakes contg. $\text{Ca}(\text{HCO}_3)_2$ 0.2%, CaSO_4 0.05, MgSO_4 0.16, NaCl 99.53, undissolved residue 1.05%. (I) 400 g. H_2O was added to 200 g. of impure salt, the mass stirred and cooled to -7° to -8° , the mother liquor poured off and about 250 g. of cryst. NaCl contg. $\text{Ca}(\text{HCO}_3)_2$ 0.16, CaSO_4 0.24, MgSO_4 0.10, MgCl_2 0.1, NaCl 97.7, H_2O 1.21%, resp., obtained. (II) The mother liquor was poured off with the filtrate and the capt. re-precipitated with 500 g. of this brine (26.08% NaCl), to which was added 400 g. of impure salt. After freezing to -7° to -8° and pouring the mother liquor from the NaCl dihydrate crystals, the latter yielded 65% of the initial quantity of common salt and contained CaSO_4 0.21, MgSO_4 0.10, NaCl 98.92, H_2O 0.26, undissolved residue 0.21%, resp.

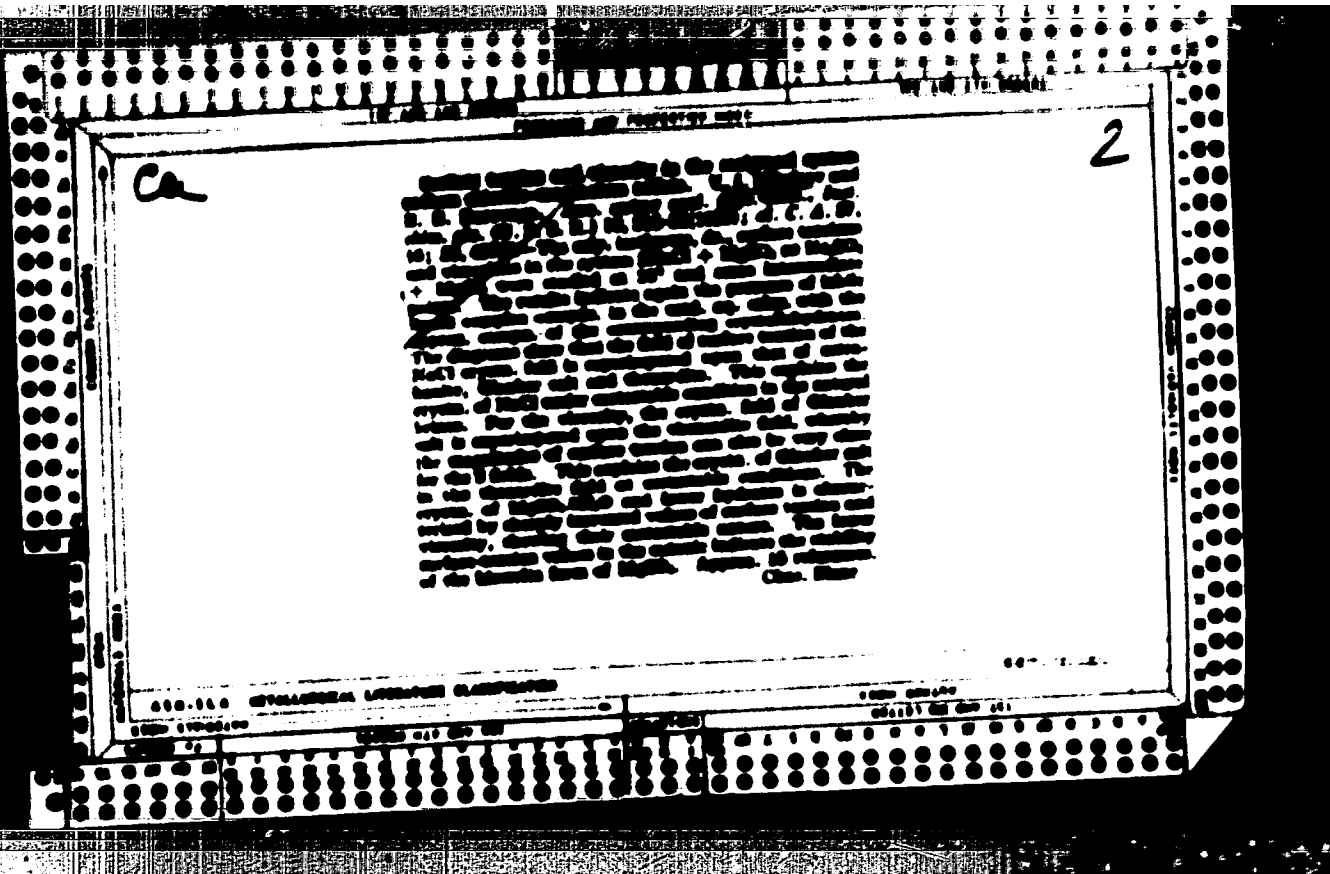
A. M. Kruppa

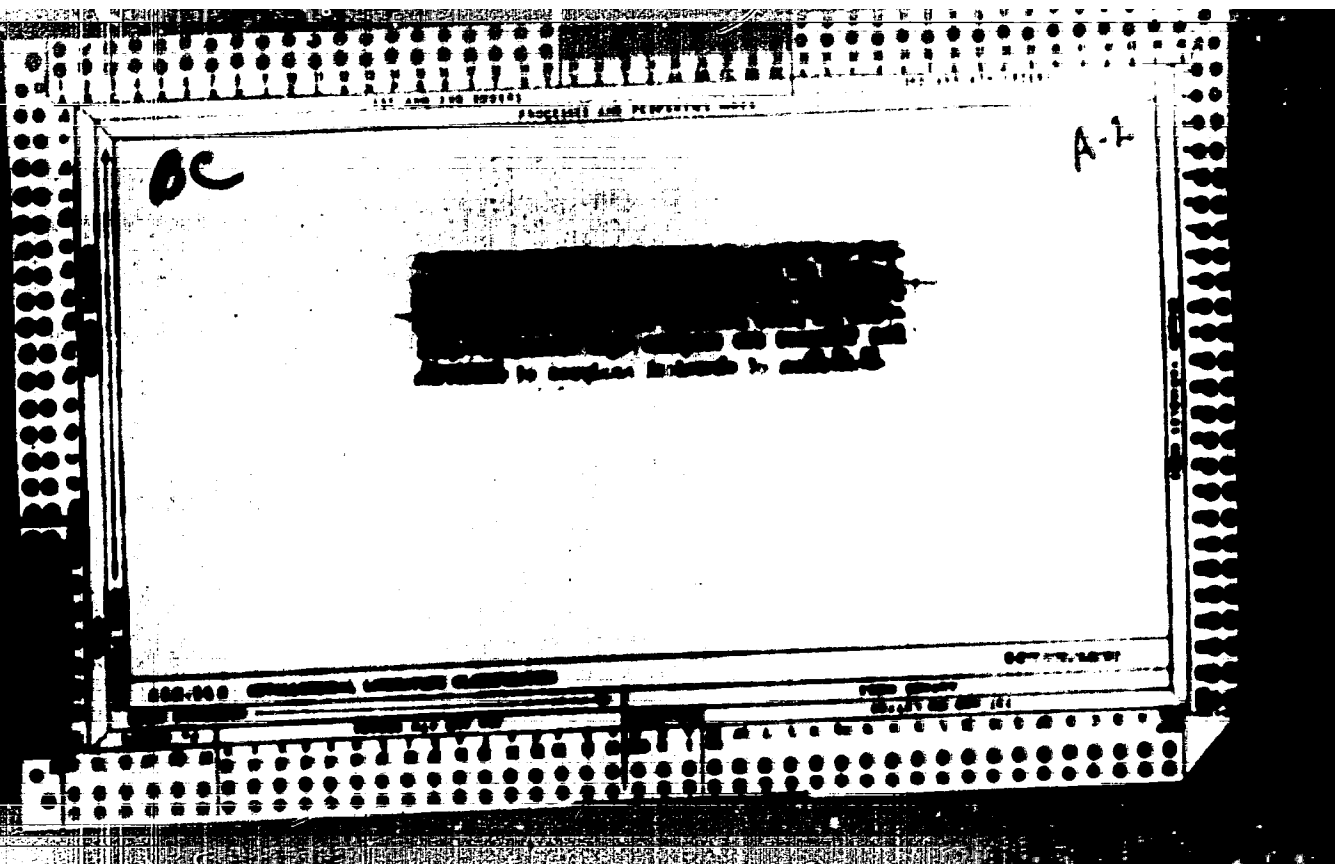
450.55.4 METALLURGICAL LITERATURE CLASSIFICATION

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

R

Robinson, V. L., and Robinson, E. L. Adsorption
 properties of clay (Benton) (comp. read and in
 J. R. S. S. 21, 237-39 (1968) (in English). The adsorp-
 tive properties of a Benton sample containing 99.9% pure
 clay were studied after first removing a slight admixture of
 soluble salts by washing with hot H₂O. Ten gm. of clay,
 dried at about 100° and finely ground, was shaken for 2
 hr. with 100 gm. of a synthetic solution of definite composi-
 tion. Then the composition of the solution after shaking
 was compared with the composition before shaking. Clay
 adsorbed bromine ions but not Ca⁺⁺, Mg⁺⁺ and SO₄⁼⁼ ions.
 To compare the adsorption values of separate ions by clay
 and by the entire mud complex, mud was washed with H₂O
 until it gave no Cl ion reaction, extracted and weighed and
 the dry substance analyzed. The adsorption values of the
 separate bromine ions by the mud complex are somewhat
 greater than those of the same ions by pure clay. The
 clay in the mud adsorbs 94.2% of the Cl ion, 68.8% of the
 Br ion, 75% of the K ion and 65.7% of the Na ion.

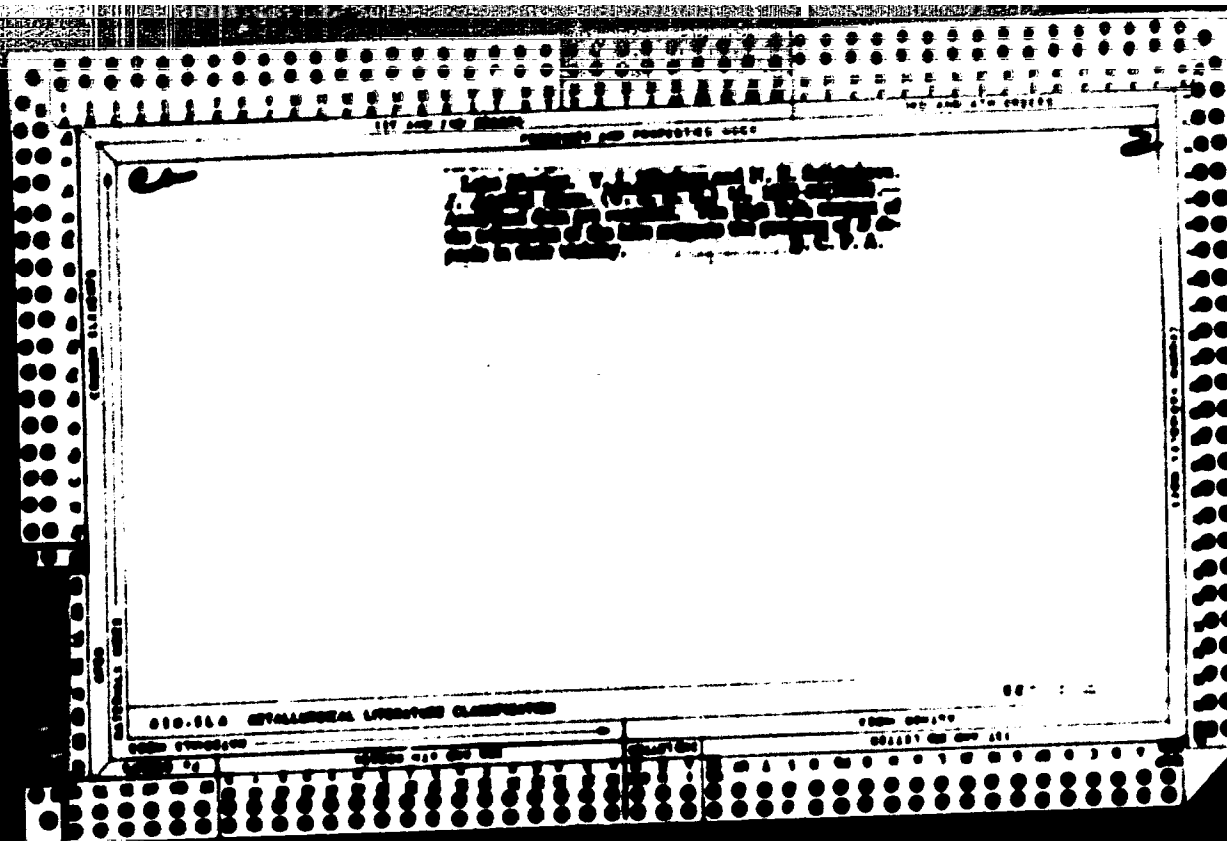


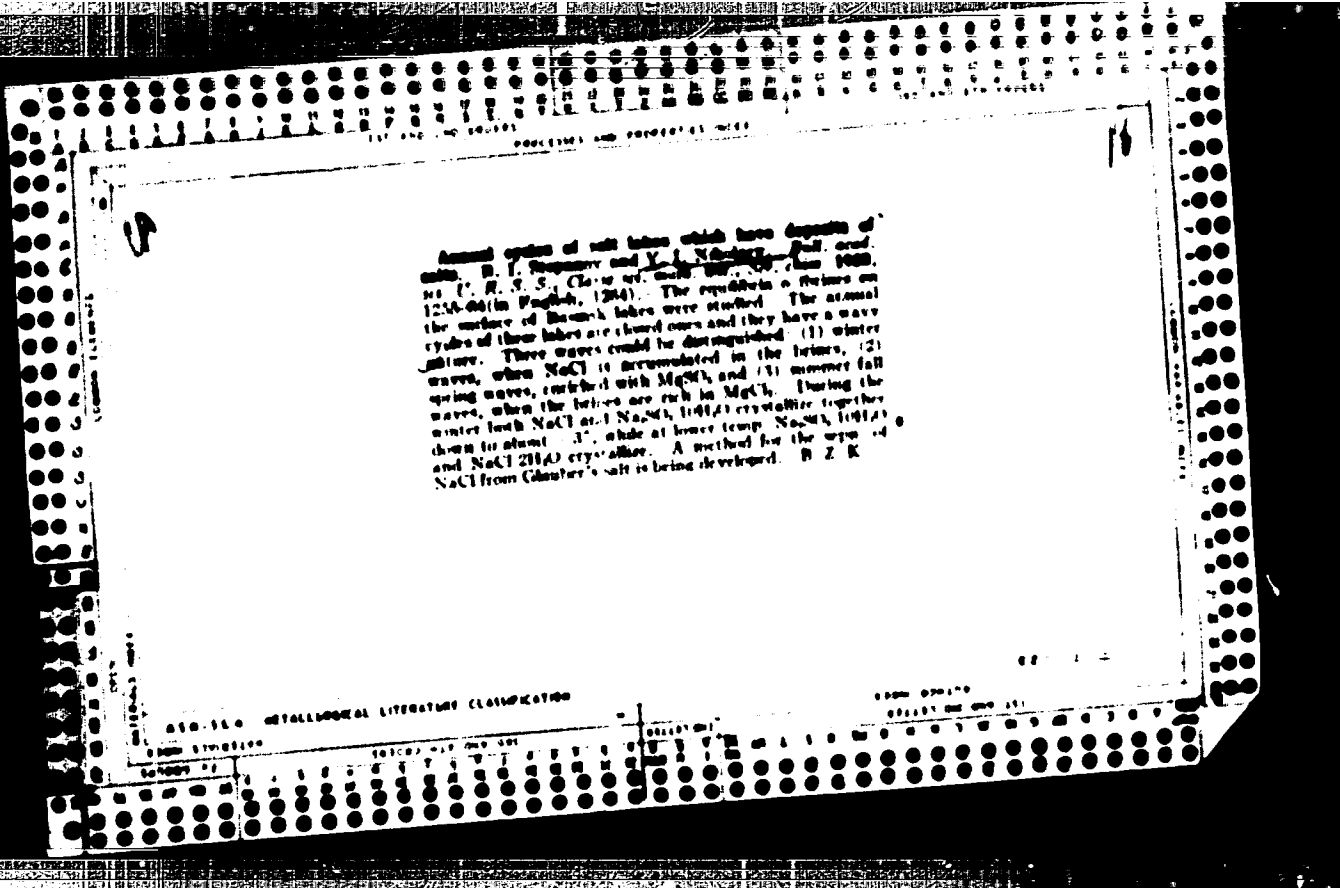


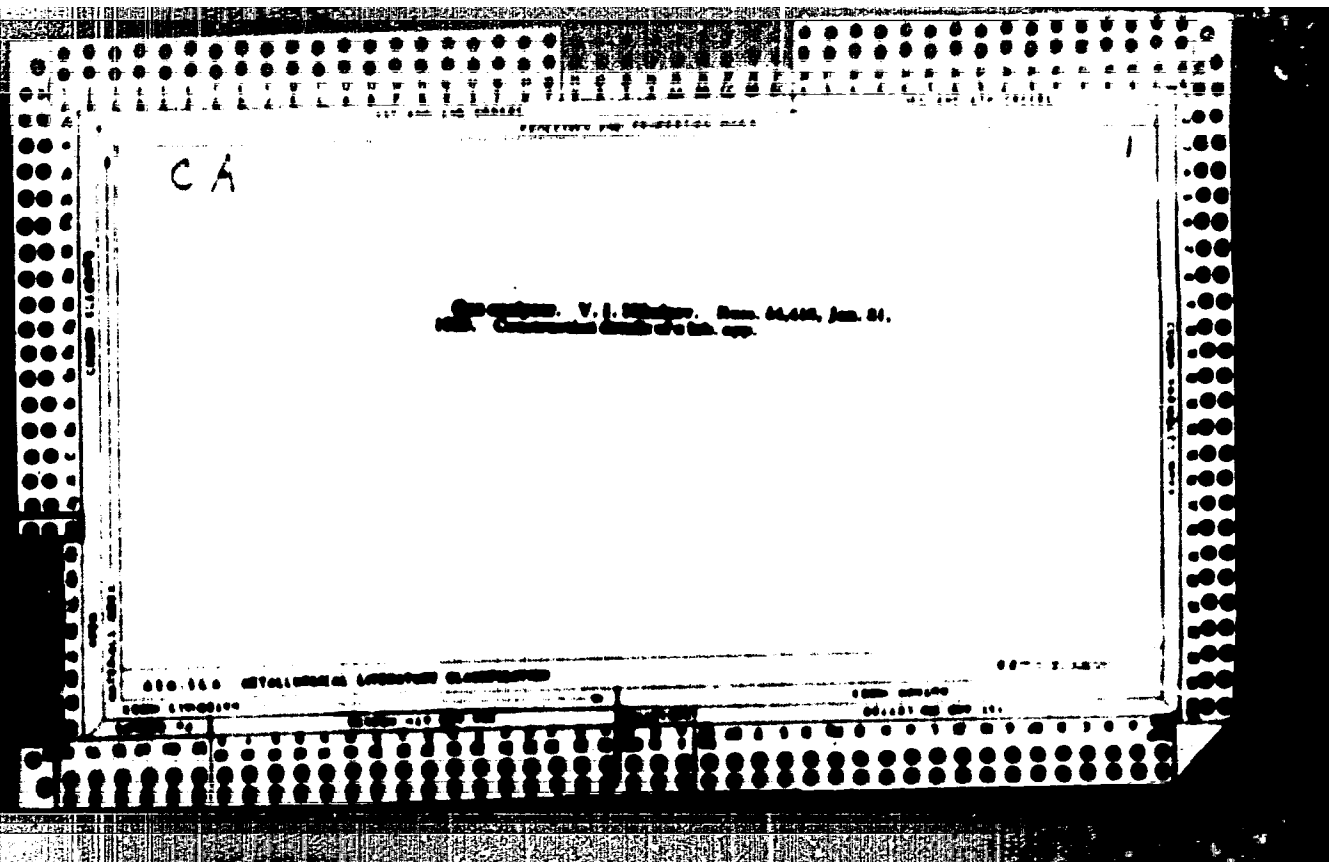
Microfilm on a chemical indicator V. I. Nikitov and
S. K. Kaban. *Compt. rend. acad. sci. U. R. S. S. 20,*
405-4(1959)(in English). - The percentage of Se in the
solid residues from natural waters or salt deposits can be
used to det. their origin. Contents of Se less of over
0.02% are characteristic of salt deposits of Permian origin,
and convers. not over 0.01 to 0.02% are characteristic of
Caspian deposits and natural waters. L. E. Steiner

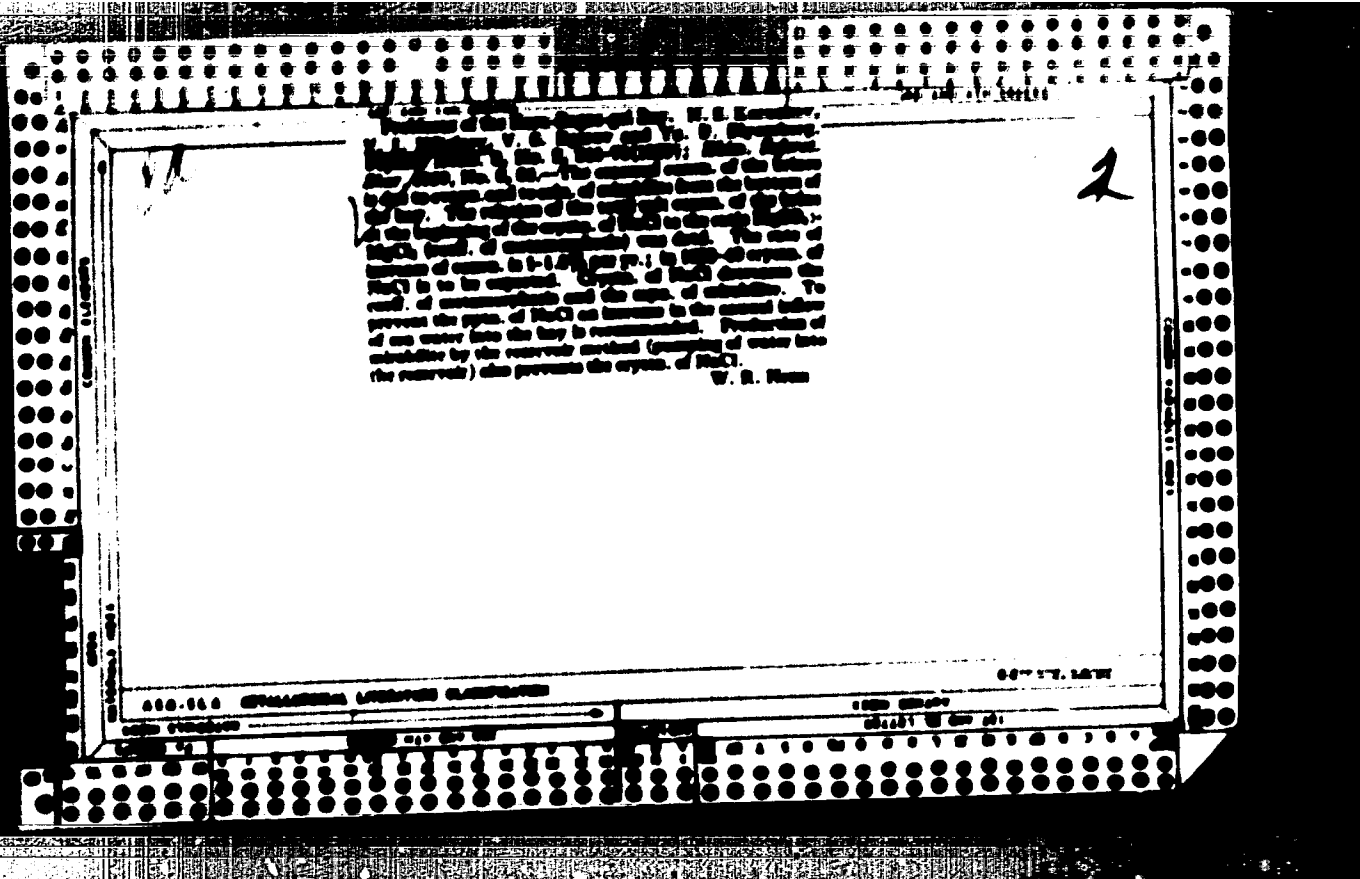
450 SLA METALLURGICAL LITERATURE CLASSIFICATION

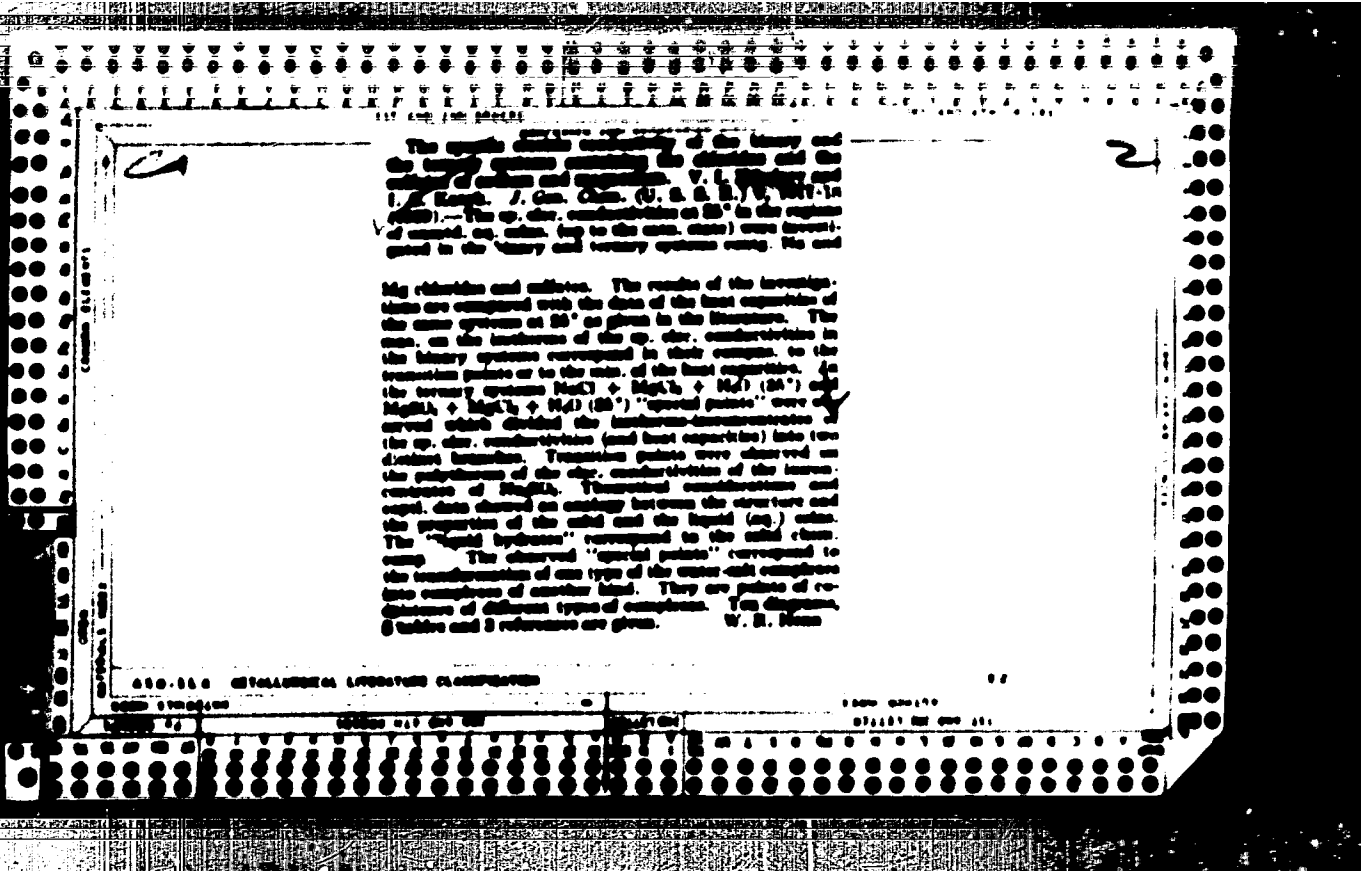
Preparation of potassium chlorate by double decomposition of potassium chlorate with nitric acid. V. J. Melnikov and A. G. Kagan. *Dokl. akad. na. U. S. S. R.* (1957) vol. 128, no. 5, p. 1022, 1023 (English, 1957); *Chem. and metal. U. S. S. R.*, No. 2, 81 (1957) (in English). -- A study of 6 systems of the potassium chlorate and K₂O, led to a method of prepn. of KNO₃ with excess of HNO₃ from 27.7% up and temp. of 1-14°. By crystn., 70% of the theoretical KNO₃ is obtained; further KNO₃ + KCl is crystd. out, and from this mixt. pure KNO₃ is obtained by reprecip. to 0° its yield, min. prod. at 100°. 12-14° KCl is obtained from the mother liquor. A flow sheet is given. T. G. Tabor

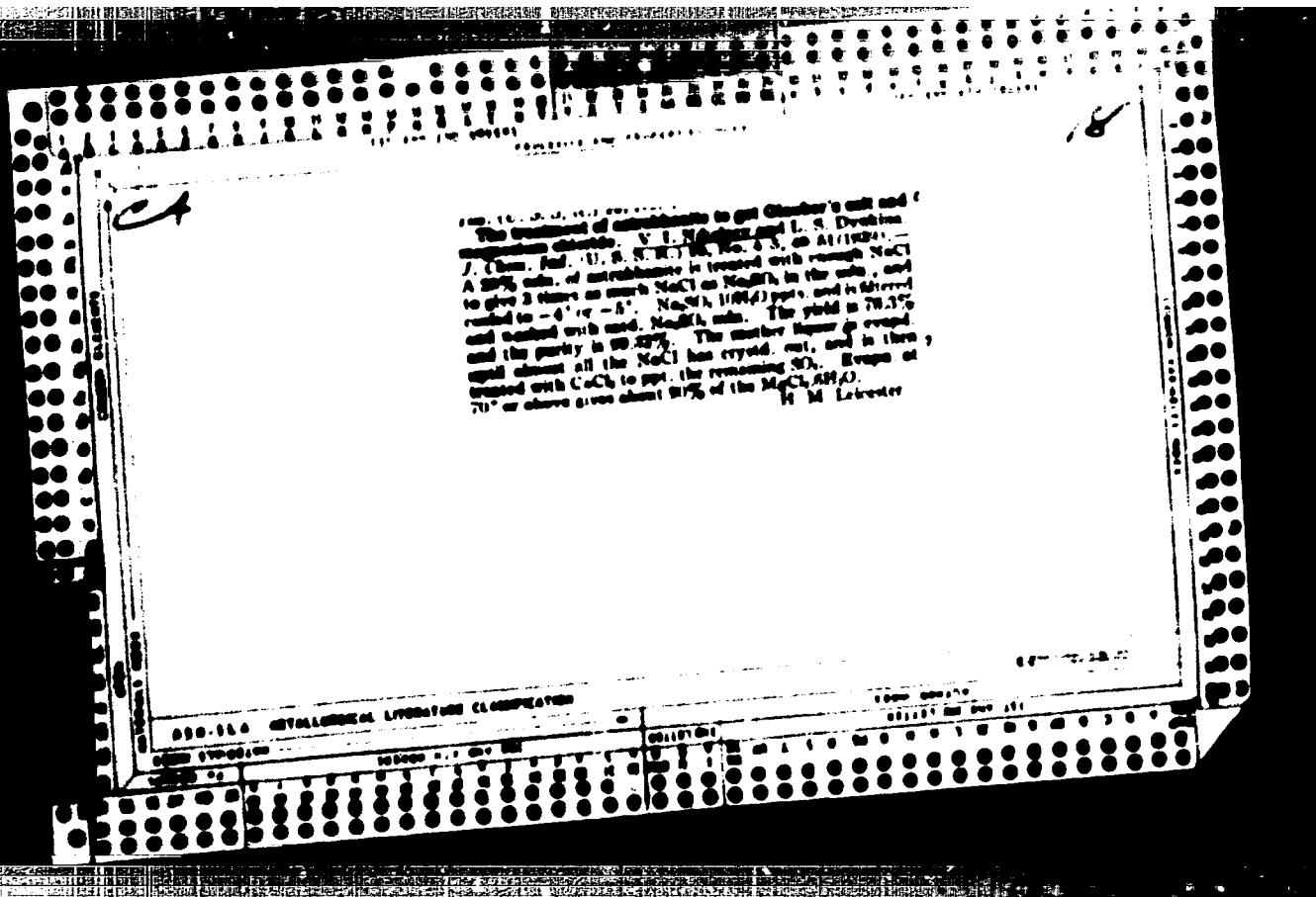












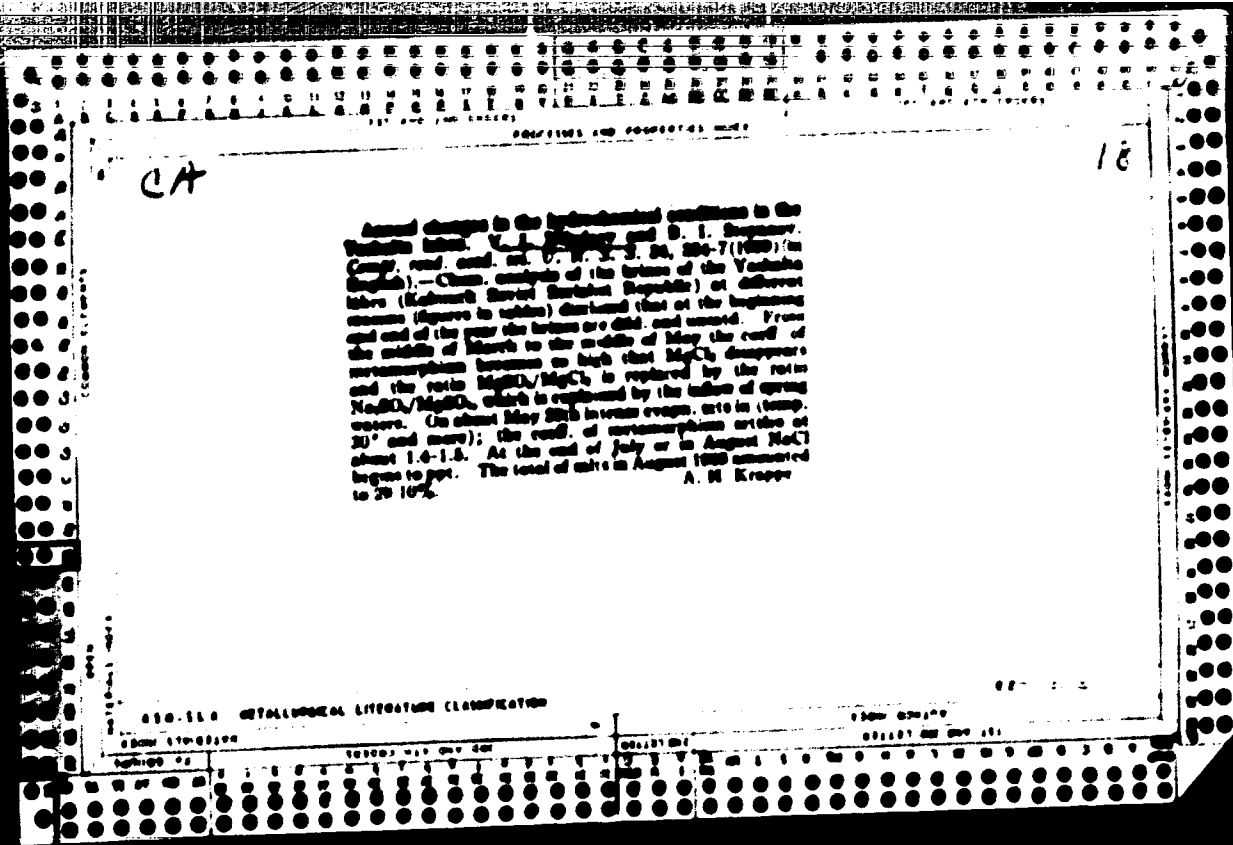
C

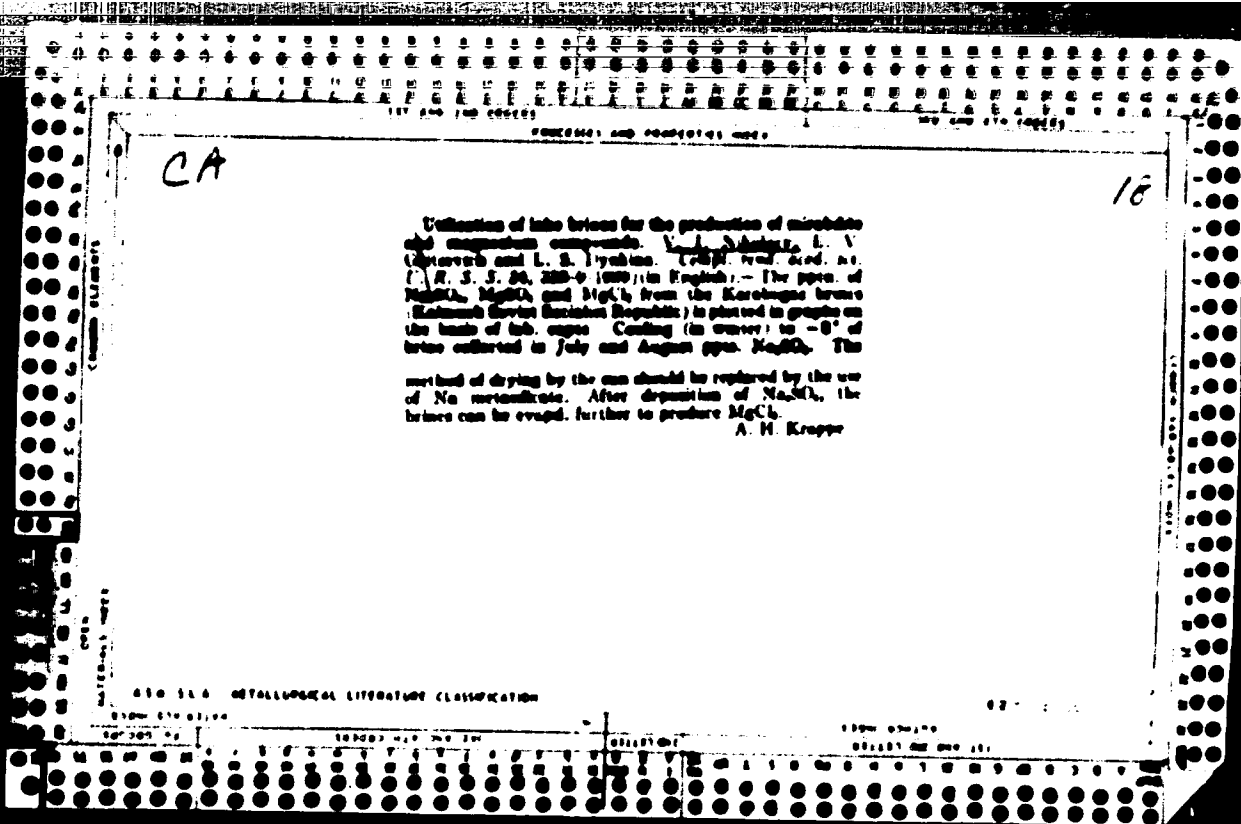
The treatment of nitrobenzene to get Chamber's salt and suspension obtained. V. I. N. and L. S. Dvornik. J. Chem. Ind. (U. S. R. S. E. T. S. No. 4, 1954). — A 20% soln. of nitrobenzene is treated with excess NaCl to give 2 times as much NaCl as NaOH in the soln., and cooled to -4° or -5°. NaOH (100%) ppt. and is filtered and washed with cold NaOH soln. The yield is 70.3% and the purity is 99.37%. The mother liquor is evaporated and the purity is 99.37%. The crystals are then washed with CaCl₂ to ppt. the remaining NaOH. Evaporated at 70° or above gives about 90% of the NaCl, 4H₂O. H. M. Leicester

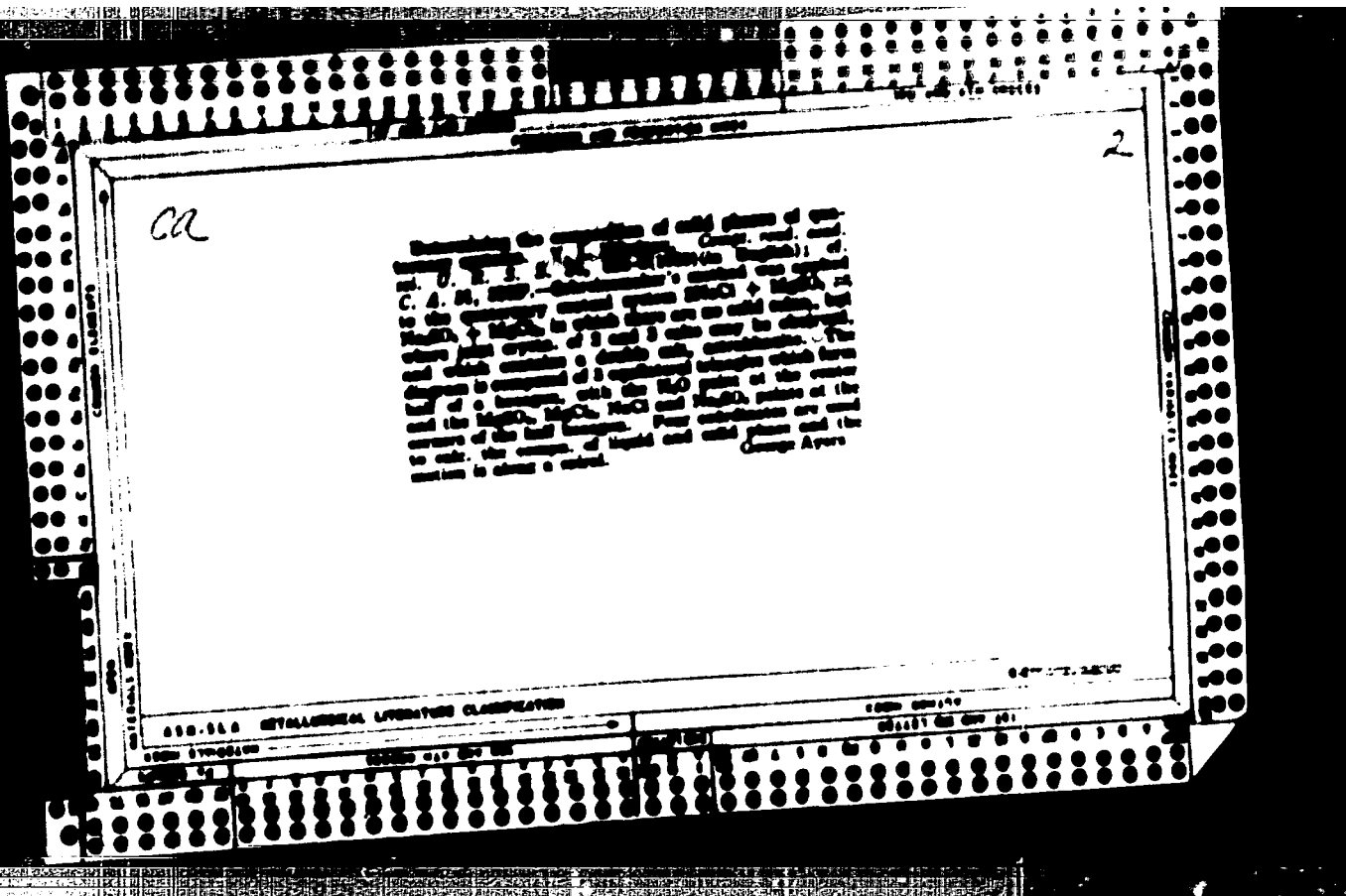
NIKOLAYEV, V. I.

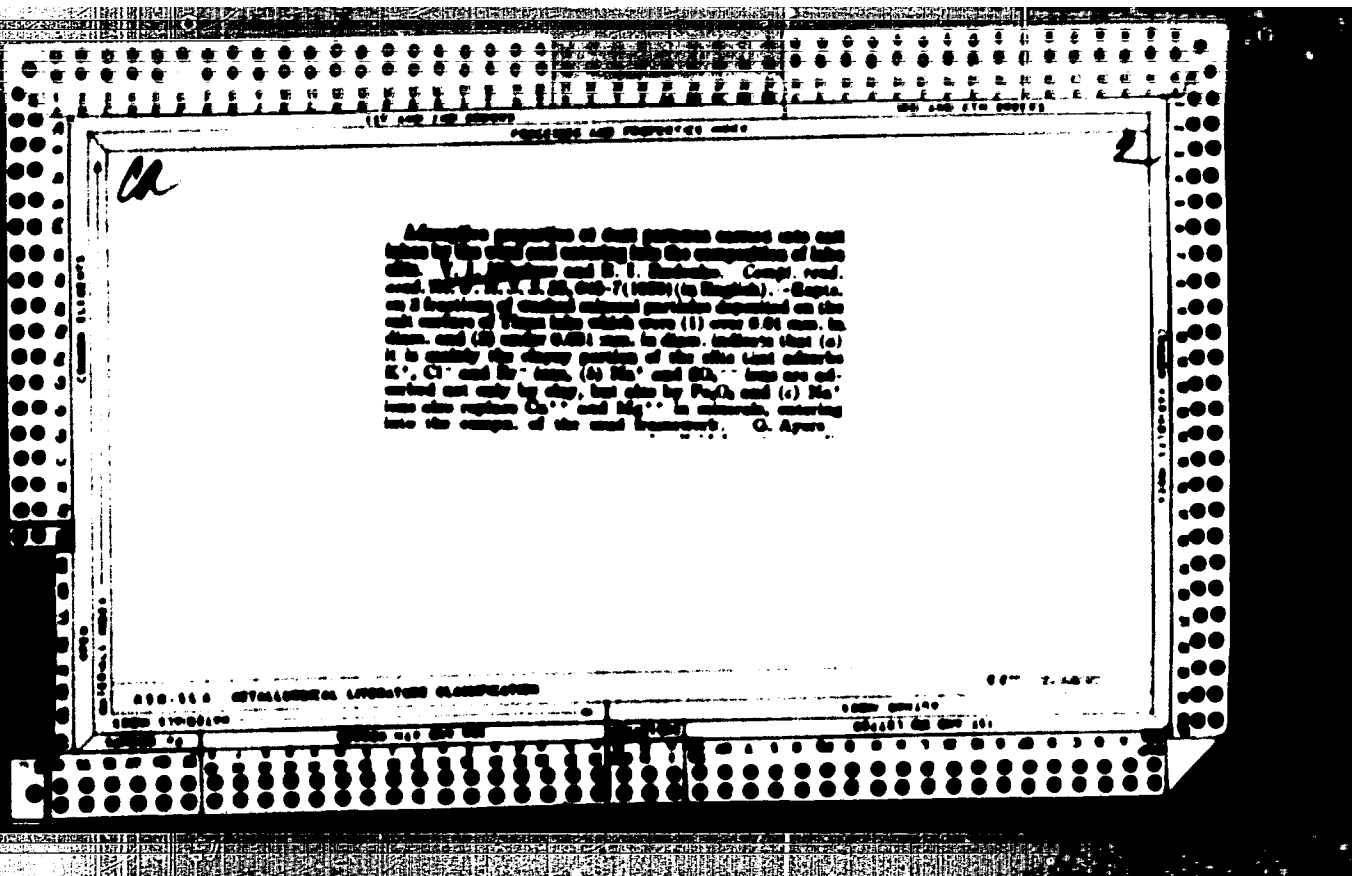
"A New Method of Production of Potassium Saltpeter by Exchange Decomposition of Potassium Chloride with Nitric Acid at Low HNO₃ Concentrations and Temperatures," Dokl. AN SSSR, 22, No.2, 1979

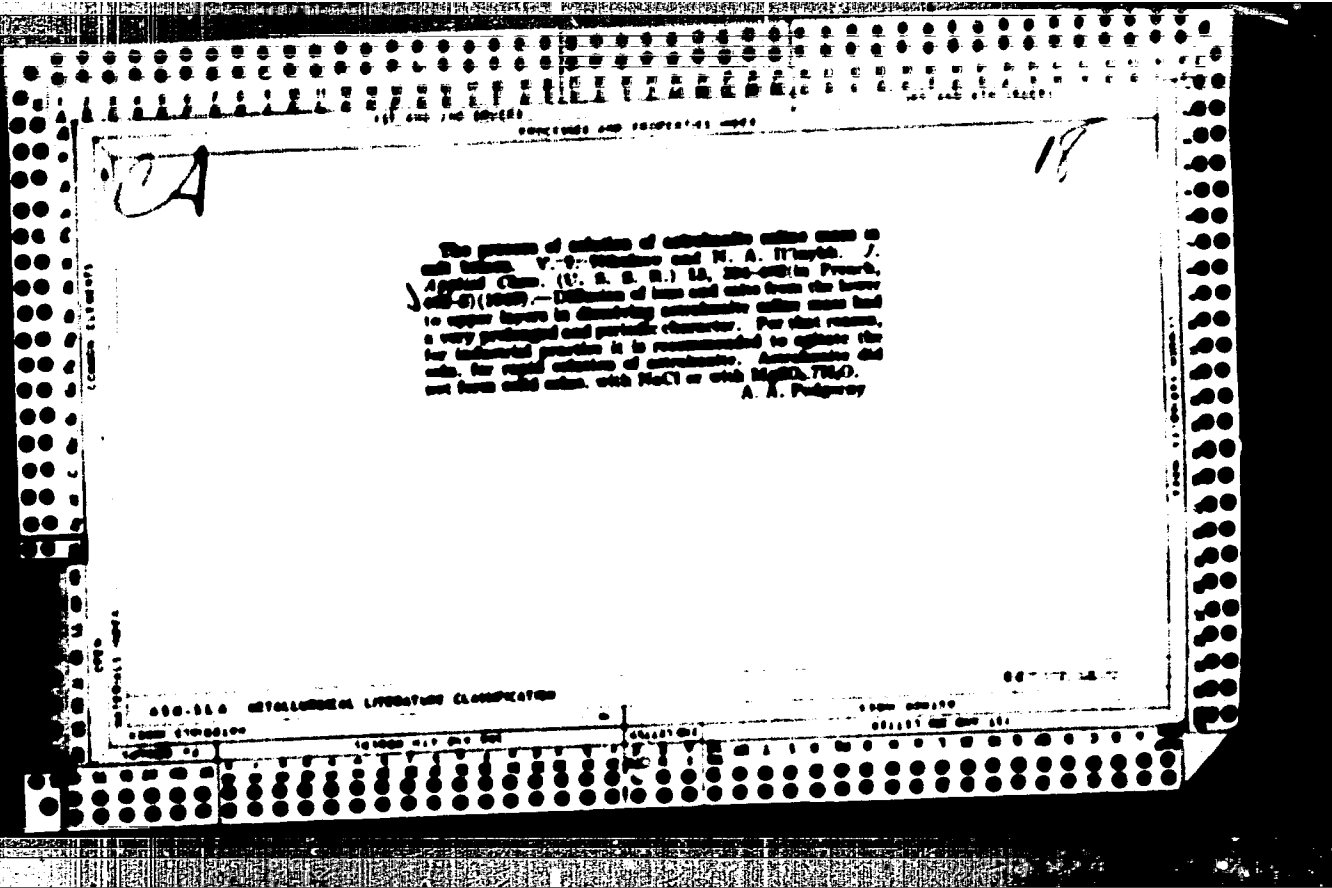
Kaluyk Salt Station, Astrakhan Med. Inst.







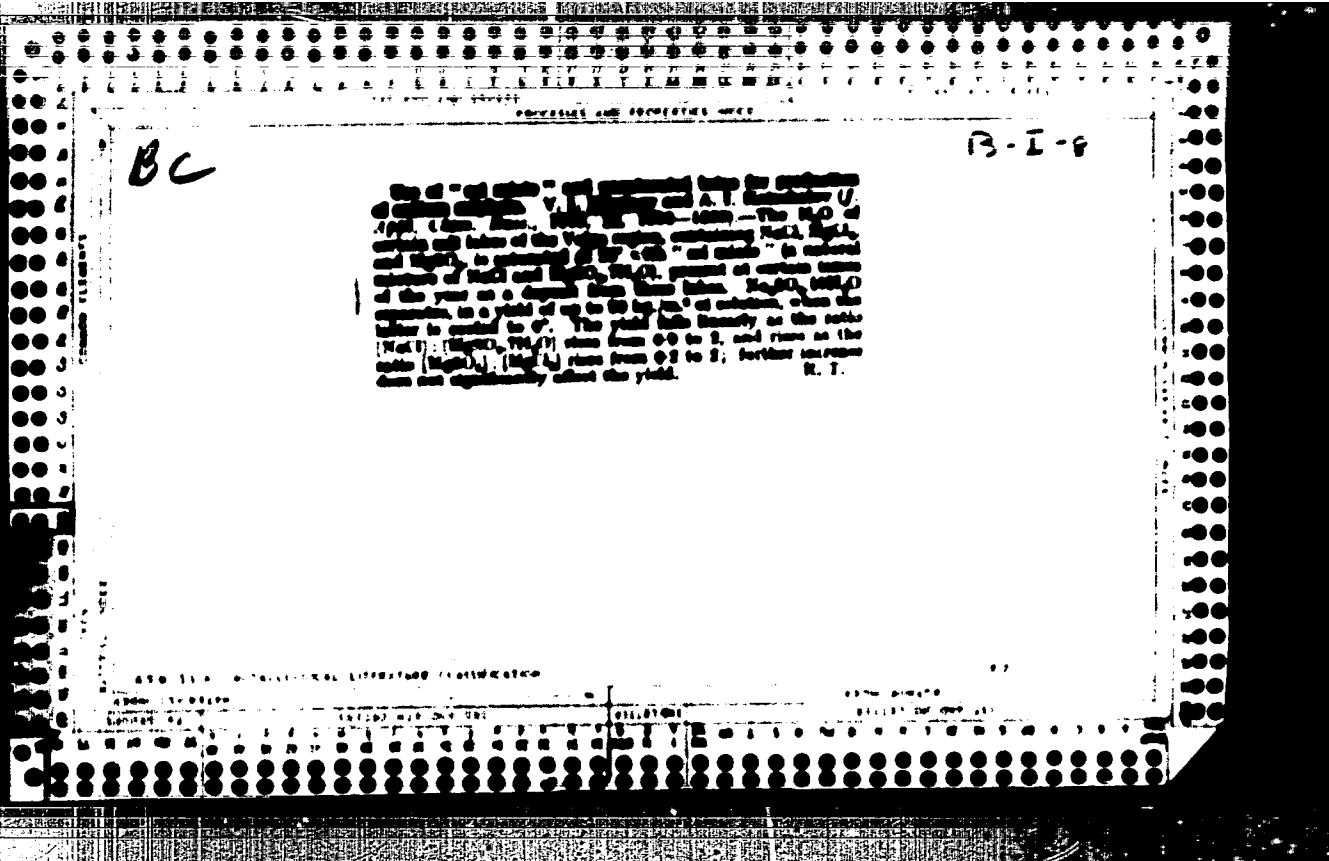


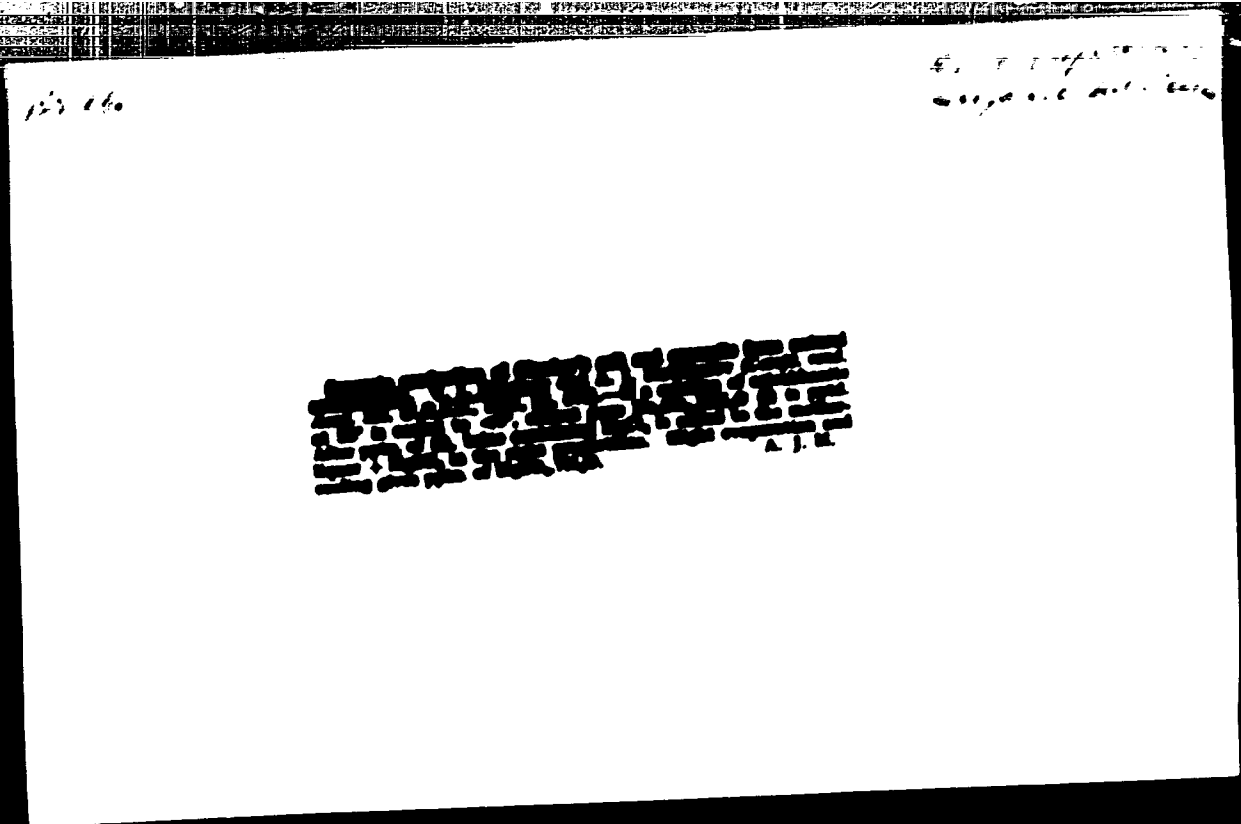


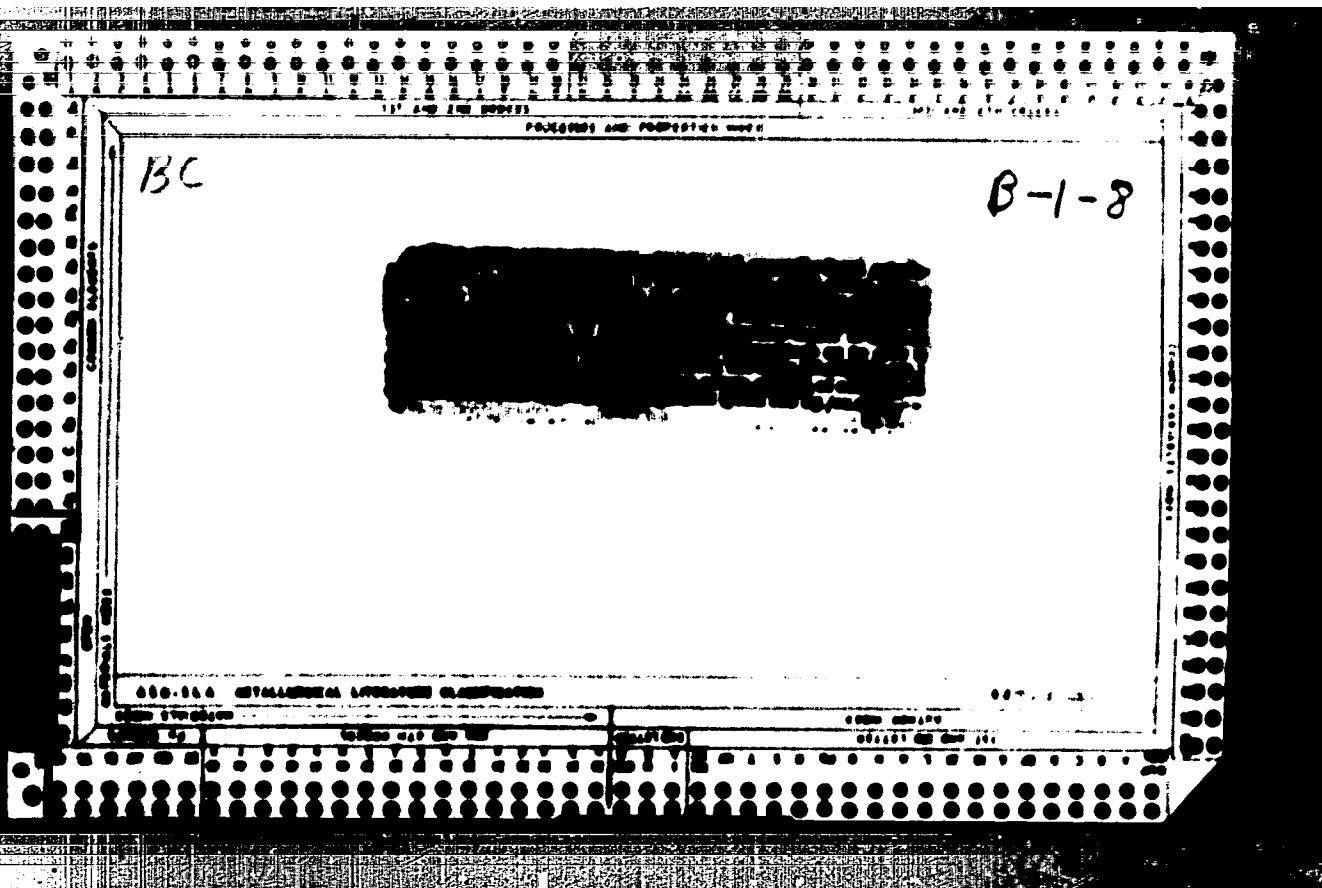
The process of solution of substituted carbon acids in
acid solution. V. V. Vlasov and N. A. Il'yash. J.
Appl. Chem. (U. S. S. R.) 12, 226-227 (1959).
Distillation of ions and acids from the lower
cell-5) (1959).—Distillation of ions and acids from the lower
to upper layers in distilling substituted carbon acids had
a very prolonged and periodic character. For that reason,
for industrial practice it is recommended to replace the
acid for rapid solution of substituted carbon acids. Acetone and
not from acid acids, with NaCl or with MgCl₂.
A. A. Podgorny

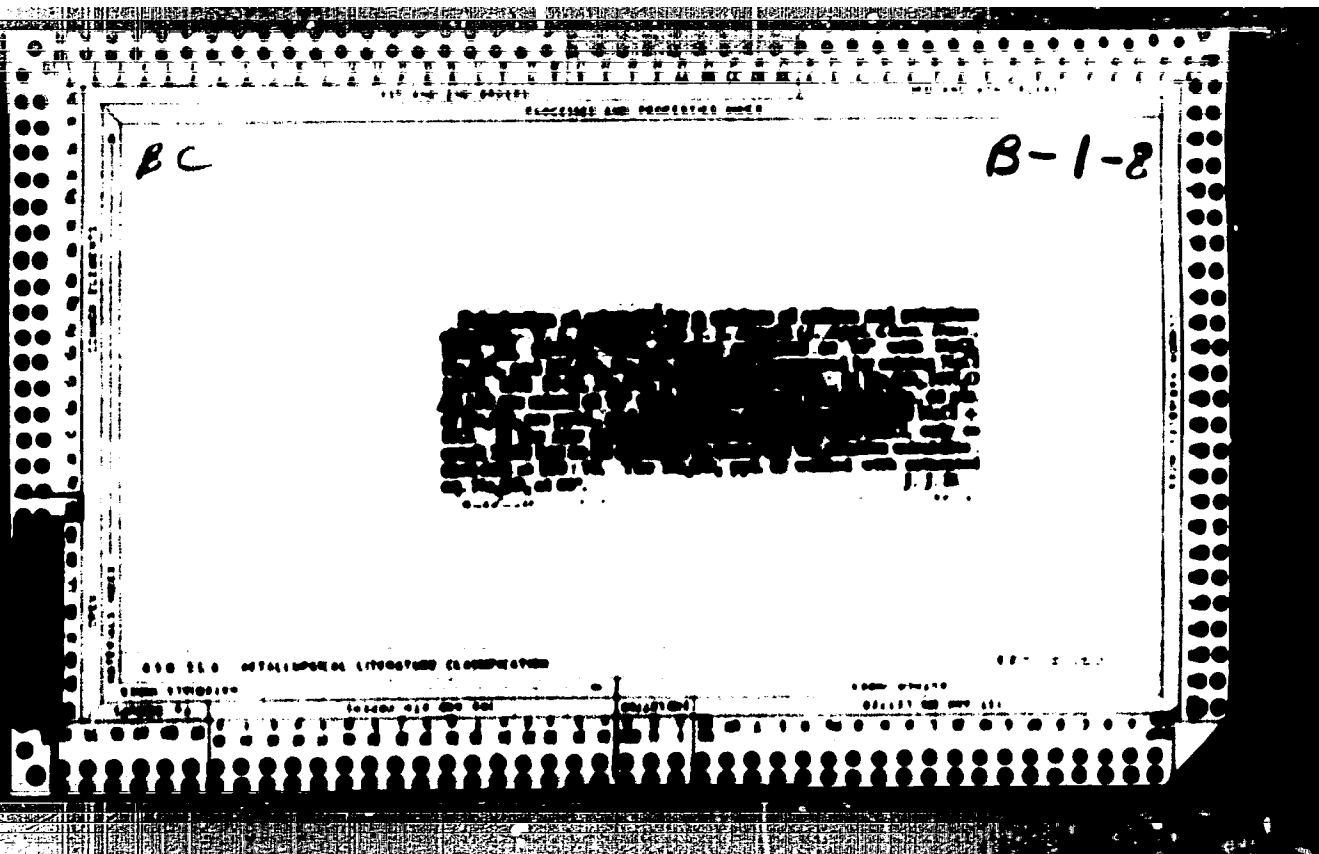
13. 28.

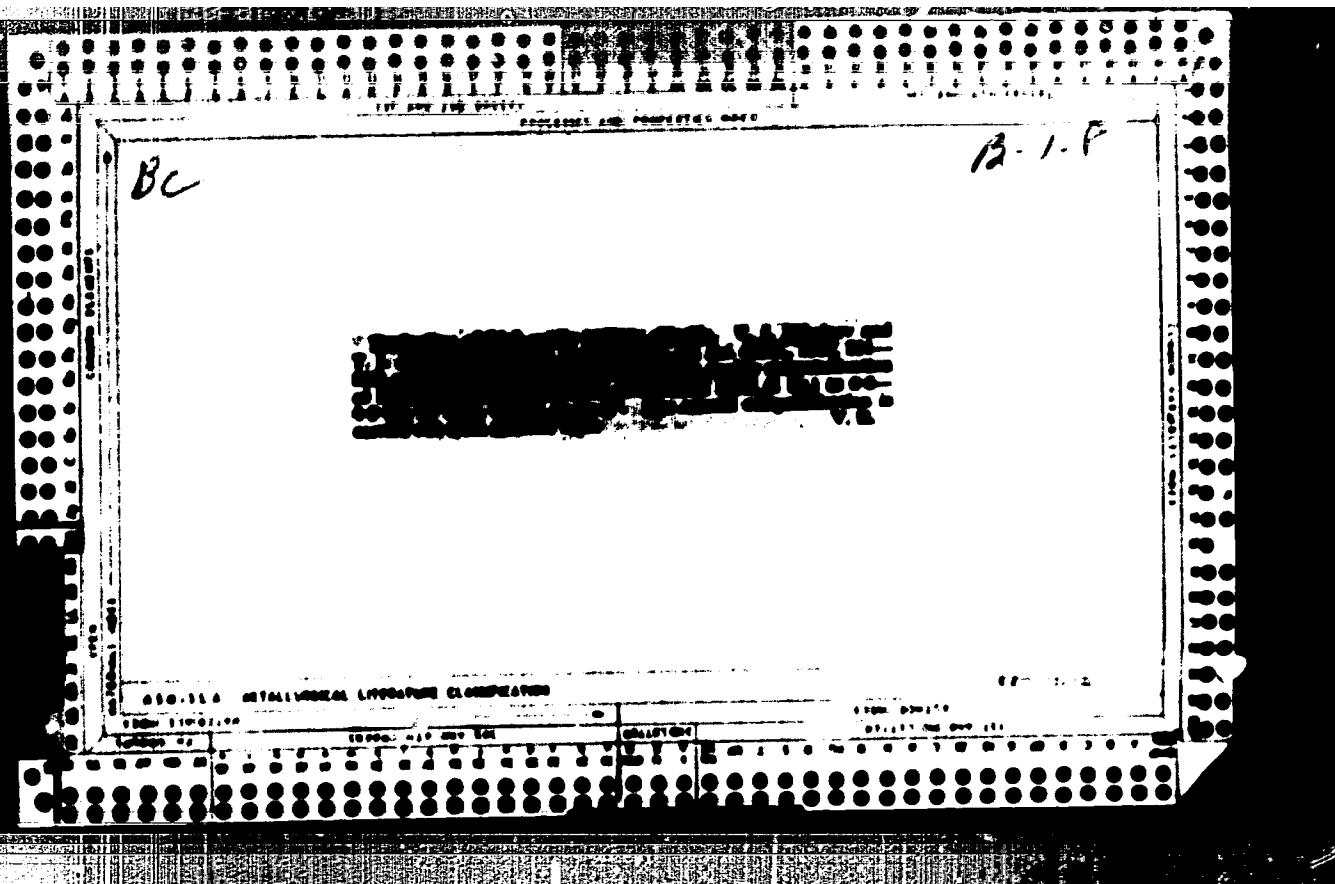
Disruption of crystallinity with rays in gel solutions. V. I. ...
... and N. A. ... *Appl. Chem. Russ.* 1968, 21, 224...
... - Acrylonitrile salt ... in a dispersion of ... (acrylonitrile
... , ... , and ...) which has grown through the ...
... of many salt ... near the ... of The ...
... of this ... in ... salt ... without ...
... . As an ... dispersion in a salt ... the upper
... layer of liquid contained mainly ... , the middle one mainly ... ,
... and the lower one ... and Acrylonitrile ...
... salt ... with ... or ... salt

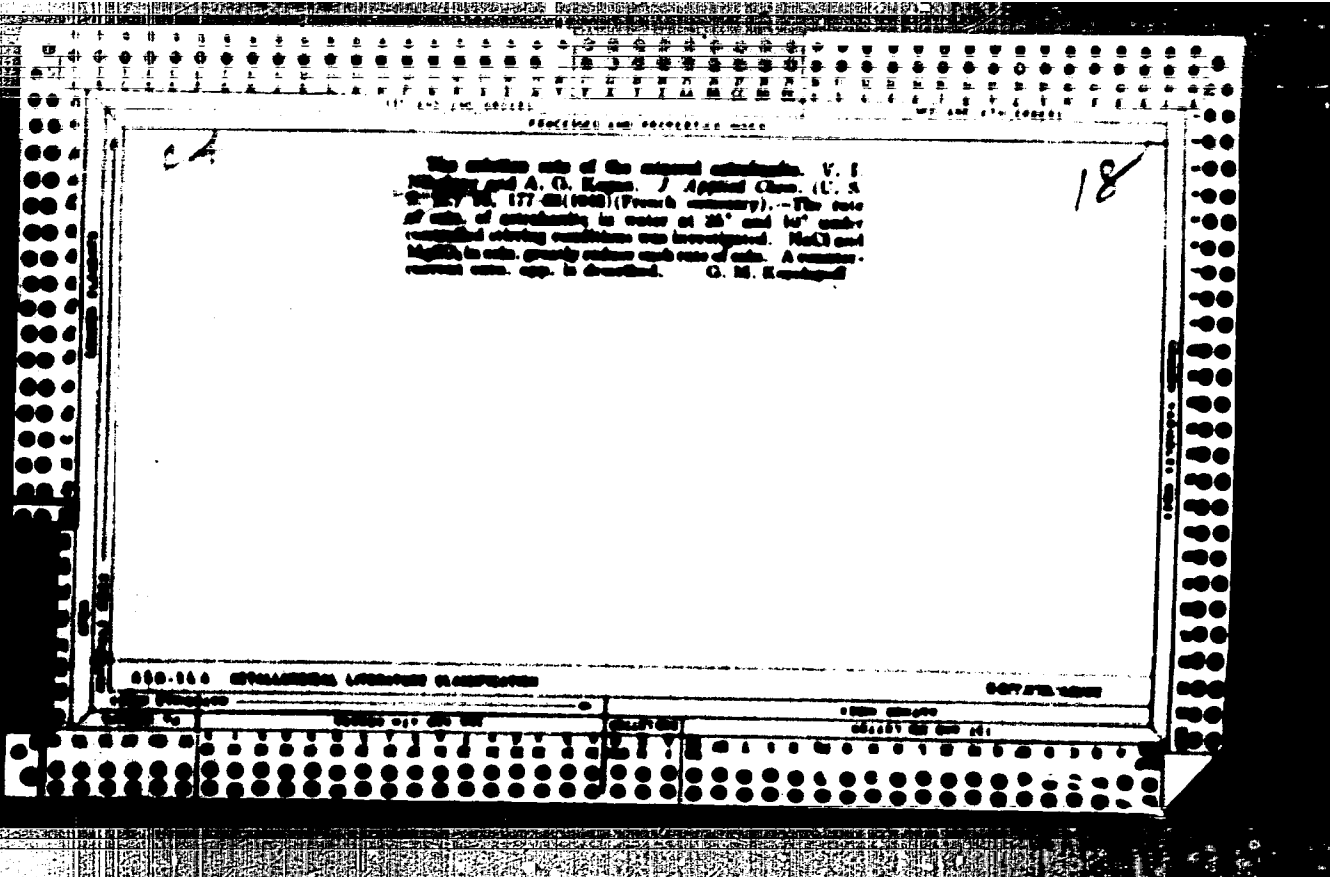


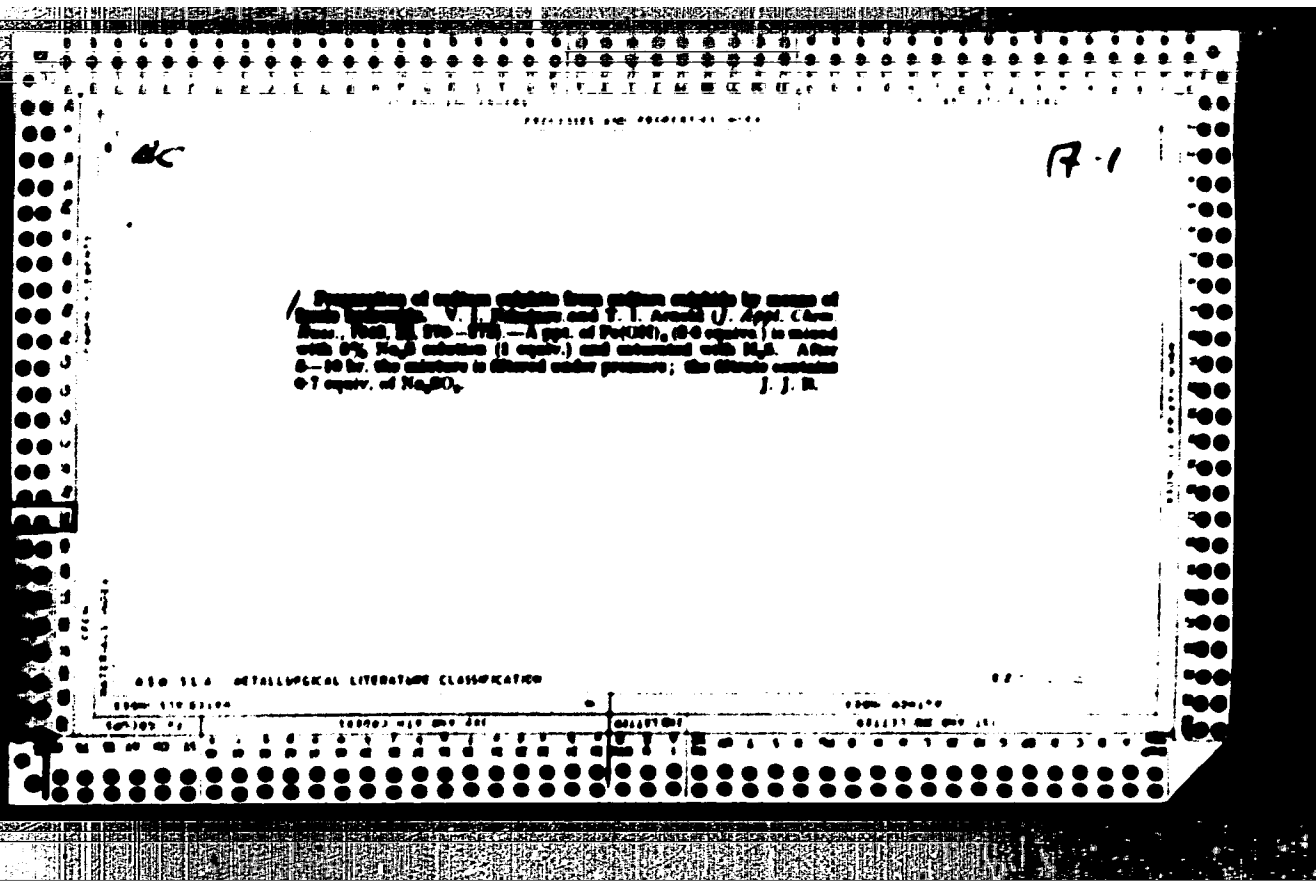




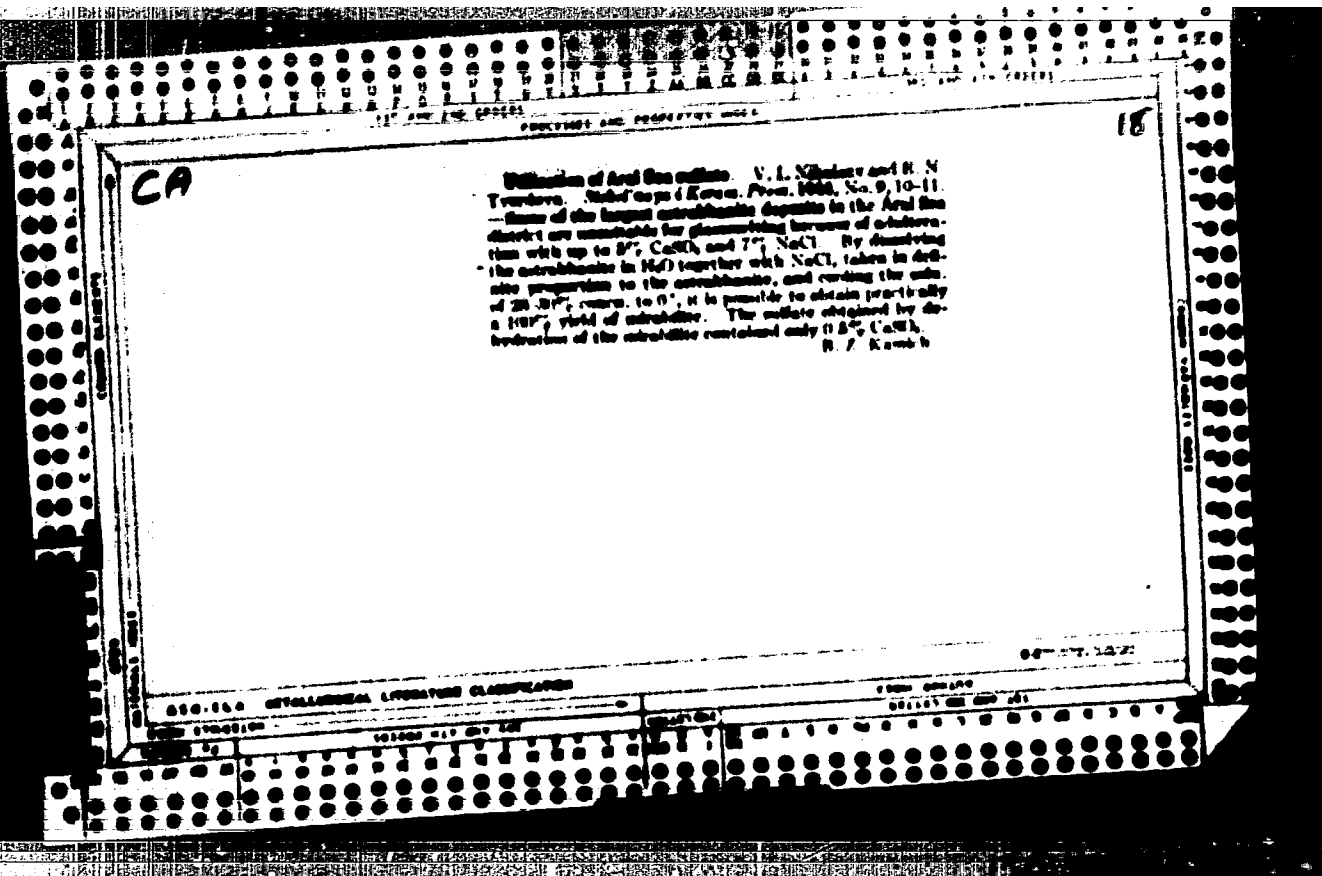


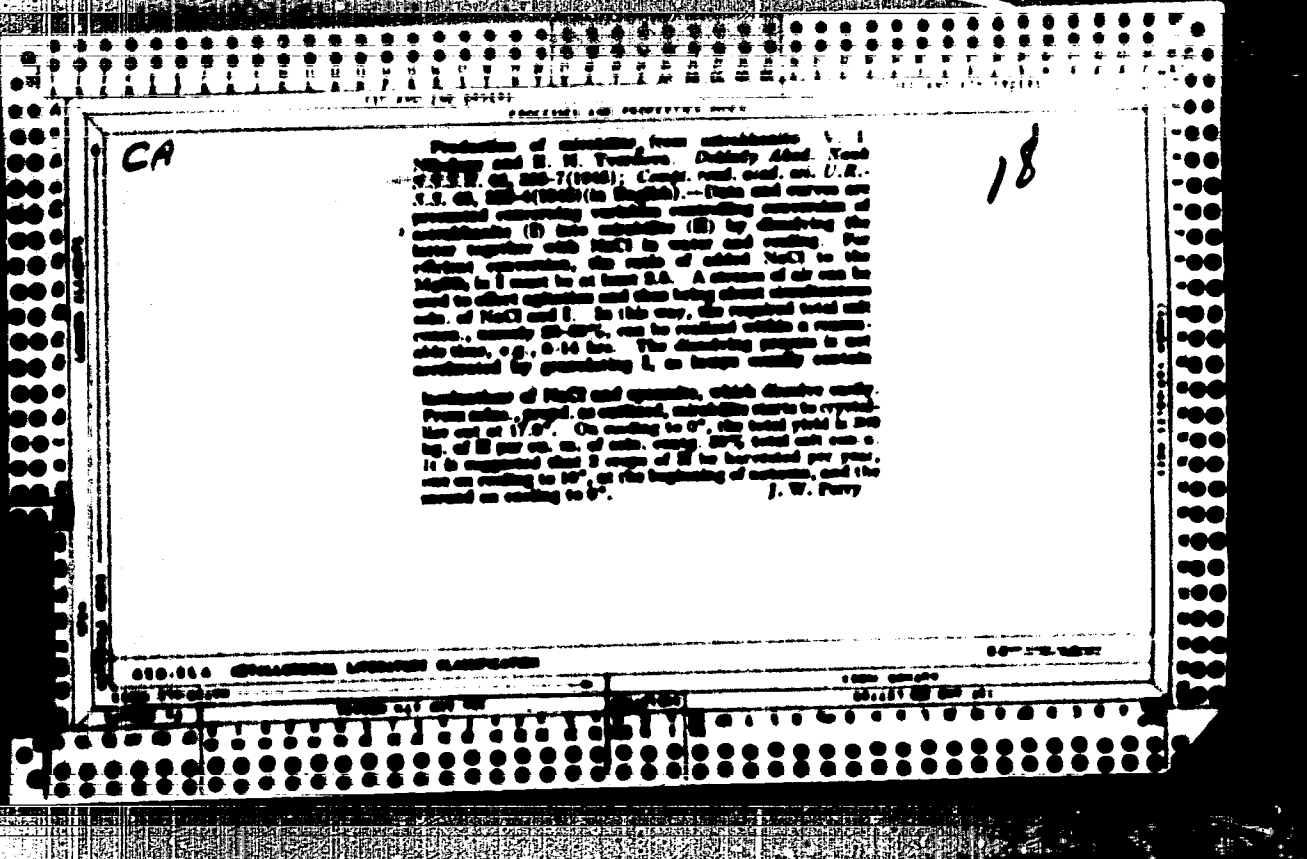


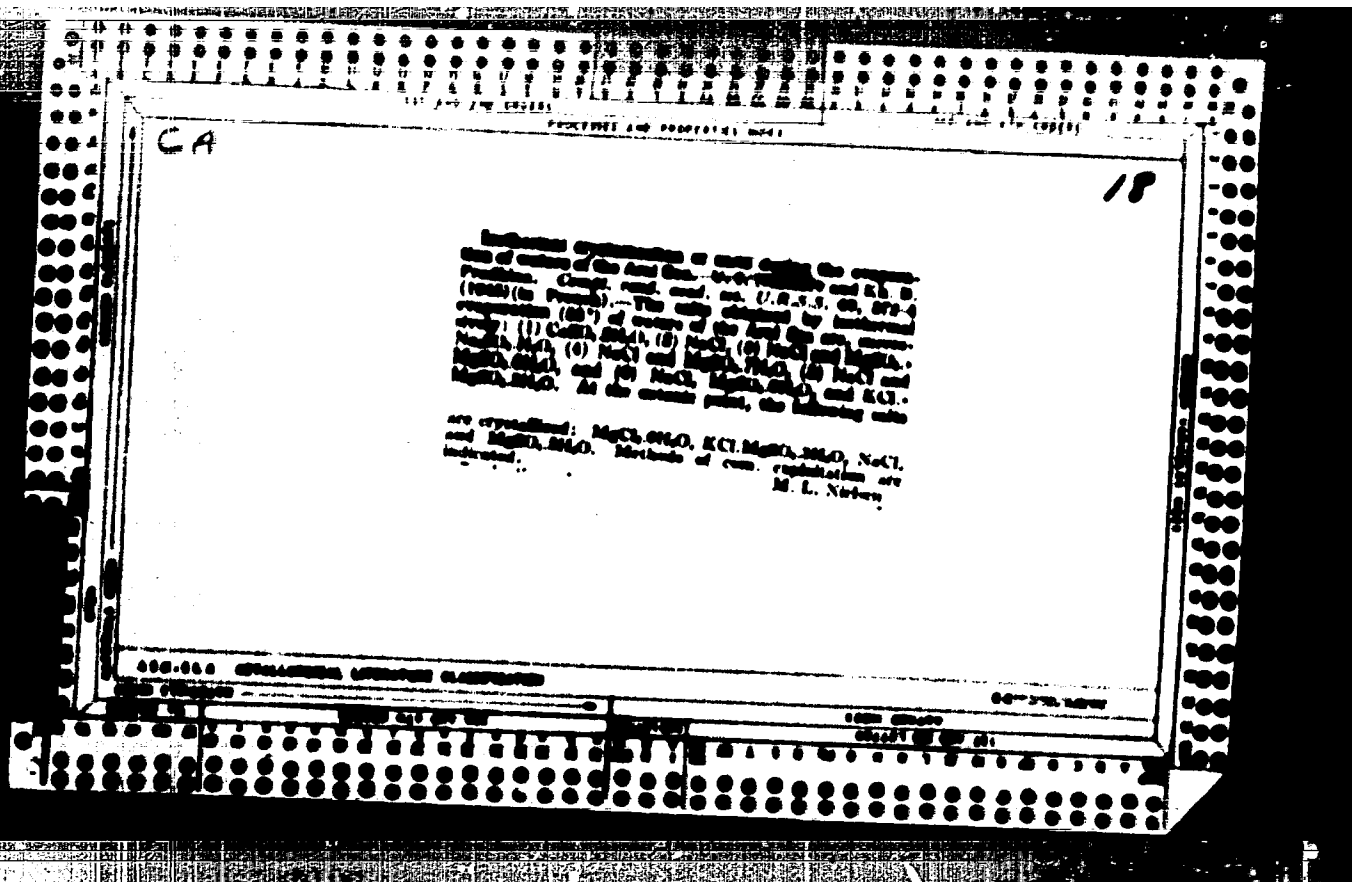




Preparation of carbon oxides from carbon oxides by means of
sulfur dioxide. V. J. Pridmore and T. I. Arnold (*J. Appl. Chem.*
Assoc., 1948, 11, 570-576).—A ppt. of $\text{Fe}(\text{NO})_3$ (0.6 equiv.) is mixed
with 0% Na_2S solution (1 equiv.) and saturated with H_2S . After
6-10 hr. the mixture is filtered under pressure; the filtrate contains
0.7 equiv. of Na_2S . J. J. R.







NIKOLAYEV, V. I.

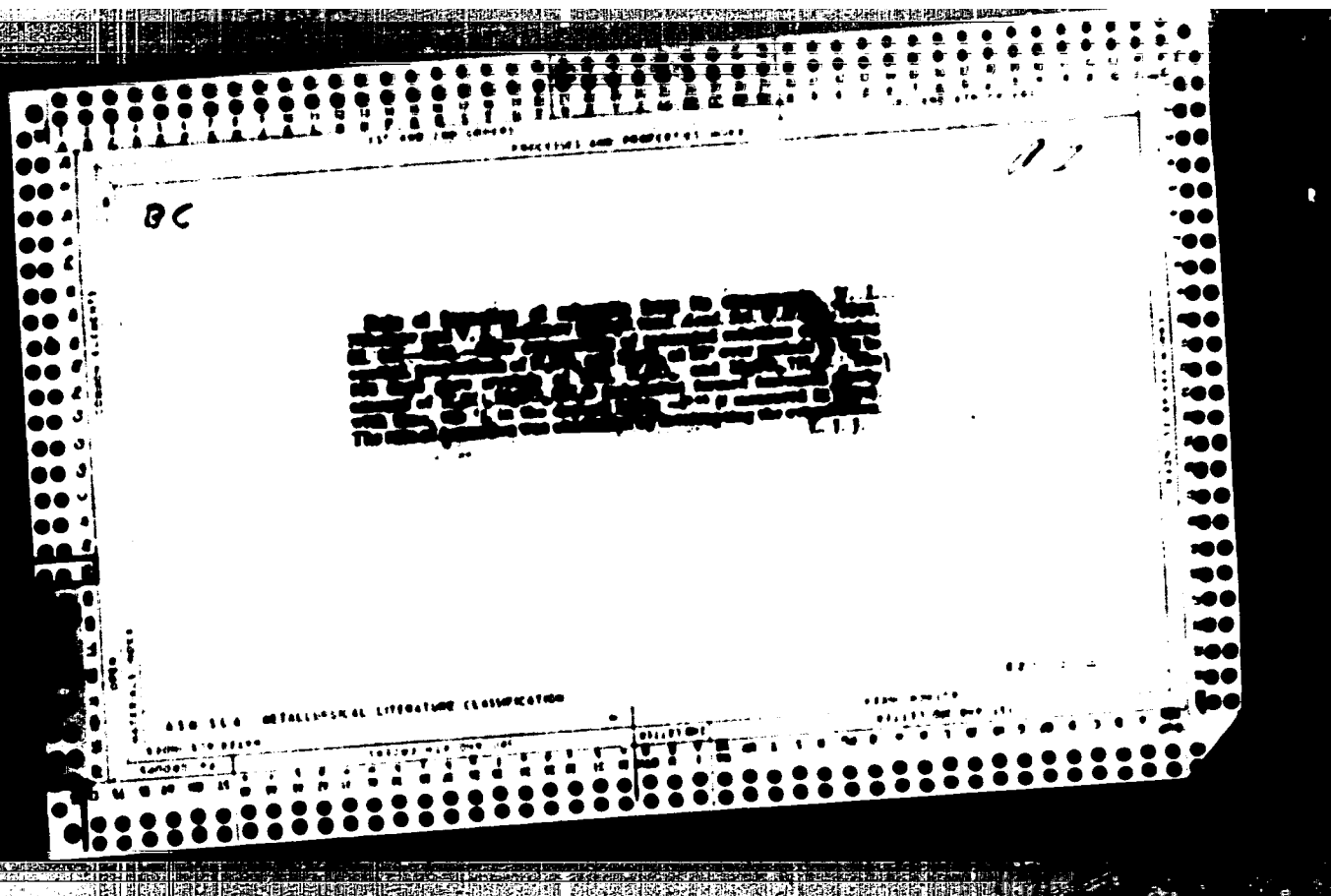
"The Age of the Most Ancient Salt Lakes in the Delta of the River Volga," Doklady Akademi
Nauk SSSR, Vol 50, 1945 (357-358).
(Meteorologiya i Gidrologiya, No 6 Nov/Dec 1947)

SO: U-3218, 3 Apr 1953

CA

Wolfram of the Lithium of the Debarry Electrolyte
 V. I. Nikolov and K. H. Friedrich. *J. Applied Chem* (U.S.S.R.) 10, 770-4(1945)(in Russian).—The brines have the typical salt content (disregarding seasonal variations) MgSO₄ 7.80, MgCl₂ 9.80, KCl 1.18, NaCl 10.87%. To purify Aral magnesia, given contaminated with up to 10-15% CaSO₄, the material is heated to give a 24% MgSO₄ soln., 4 vols. of which are mixed with 5 vols. of the brine and cooled below 0°; this ppt. pure NaCl, 104.0 at 100°, yield, provided the temp. is not allowed to fall below -5°. The mother liquor represents a dil brine of essentially the same relative salt compn. as the original brine and can be used over again. Cooling to 0° or lower a soln. of equal vols. of the brine and a 20% soln. of acetic anhydride (from the same brine) gives MgSO₄ 11.80, MgCl₂ 12.44, NaCl 3.87% give 150-170 kg. NaCl, 104.0/vo. m. brine. To obtain pure opuntia, MgSO₄ 7.80, the brine was evapd. at 20° as long as only NaCl pptd., and evapn. was stopped on reaching the compn. MgSO₄ 10.20, MgCl₂ 12.44, KCl 1.20, NaCl 3.87%; cooling of this soln. to 0° or lower yielded MgCl₂ 7.80 (with not over 1% NaCl) 67.8 kg./vo. m. brine. The remaining mother liquor, MgSO₄ 6.67, MgCl₂ 14.28, KCl 1.77, NaCl 6.31% is evapd. to the extent compn. MgSO₄ 3.00, MgCl₂ 22.20, NaCl 0.74% (yield with regard to the original brine, 12.3%) to obtain MgCl₂.

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NIKOLAYEV, V. I.

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**Water Chemistry
Potassium**

1967

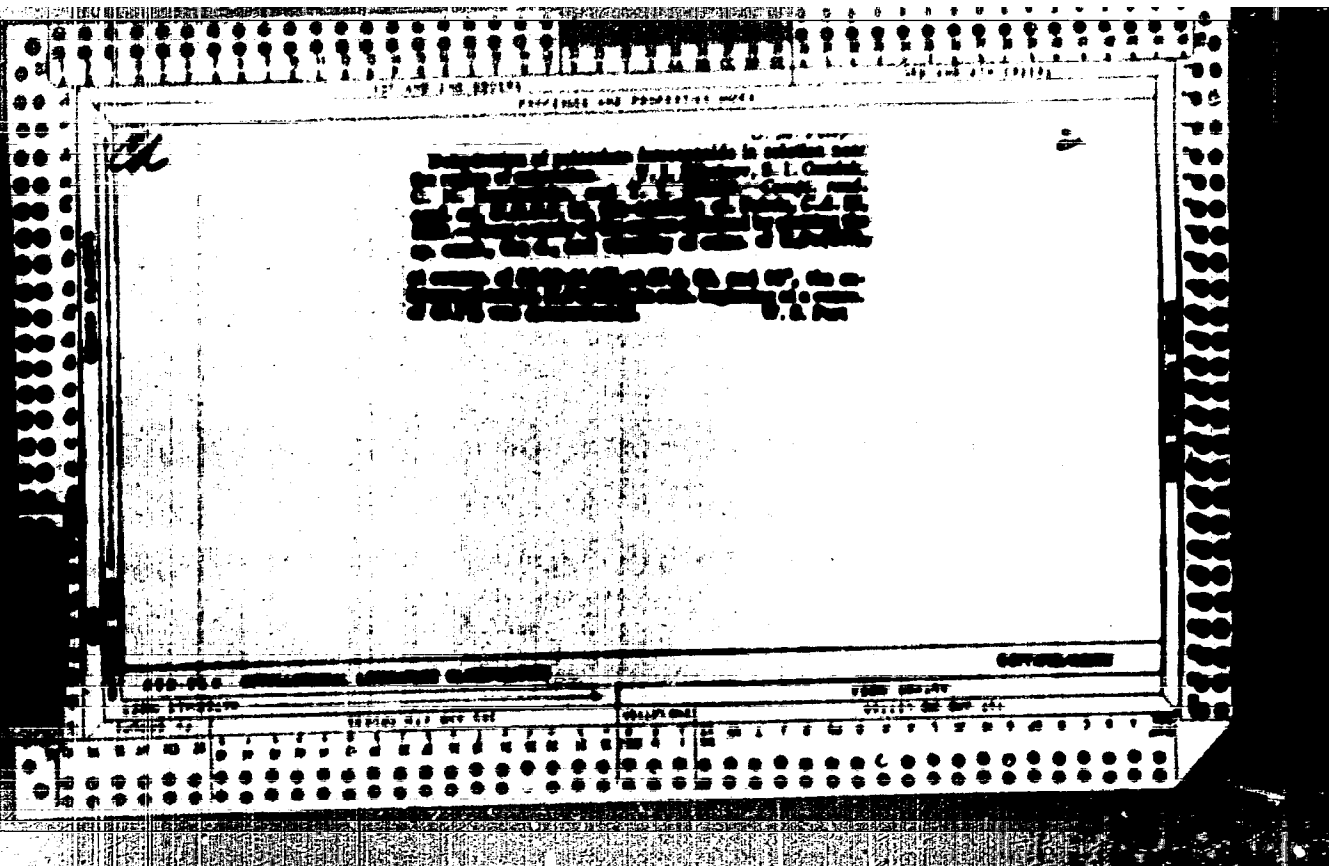
"Seasonal Changes in the Concentrations of Potassium, Bromine, and Boracic Acid in the Salt Lakes of the Delta of the Volga," V. I. Nikolayev, N. M. Segal', Khimicheskii Nauchno-Issledovatskiy Institut, 5 89

"Gidrokhimicheskie Materialy" Vol XIII

Concentration of these ions increases with depth of brines at close of summer; by early autumn come up to maximum values of equilibrium between silts and brines. Phenomena of adsorption of these ions mainly involves argillaceous part of mud complex.

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NIKOLAYEV, V. I.

27142: K Voprosu polucheniya smesiannoy soli, kristallizuyushcheyasya iz keratoprazzakh
rassolov.--avt: I. G. DRUZHININ, V. I. NIKOLAYEV, I. S. CHELYALINA, A. I. LAZAREVA.
Zhurnal prikl. khimii, 1949, No. 8, s. 787-92.--Bibliogr: 1' nazv.

SO: Letopis' Zhurnal'nykh Statey, vol. 36, 1949

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1062, 3108, 1534, 82, 1114

31625
S/197/61/000/012/003/003
B117/B108

AUTHORS: Dobryakov, D., Krumin', Yu., Klyavin', Ya., Nikolayev, V.

TITLE: Investigation of the possibility of conveying spherical
conductive bodies by means of a magnetic traveling field

PERIODICAL: Akademiya nauk Latvyskoy SSR. Izvestiya, no. 12 (173), 1961,
55 - 60

TEXT: Ponderomotive forces were determined, which are necessary for
conveying solid and hollow spheres placed in the magnetic traveling field
of a cylindrical inductor. Experiments were conducted to convey solid
spheres of various materials in a magnetic traveling field inductor under
dynamic conditions. For the motion of a sphere in a tube, an approximate
equation was derived under the following assumptions: (1) the friction is
proportional to the velocity of the sphere, $F_{friction} = kv$; (2) the
acceleration of the sphere is constant, $dv/dz = a = const$; (3) the
electromagnetic force F_{em} does not change with velocity (holds for a small
range of velocities); (4) the energy consumed by the rotation of the sphere
Card 1/3

X

NIKOLAYEV, Viktor Georgiyevich; CHIGOYEV, Iosif Zakharovich; BIRBAK, T.V.,
red.; BIRBAK, A.A., trans. red.

[Distribution and cultivation of fruit and berry species and varieties in North Ossetia] Razmeshcheniye porod i sortov plodovoyagodnykh kul'tur i ukhod za nimi v usloviakh Severnoi Osetii. Ordshonikidze, Severo-Osetiyskoye knizhnoye izd-vo, 1960. 57 p. (MIRA 14:3)

(Ossetia--Fruit culture)

21356

18 8100

1418, 1413, also 1160, 1155 S/126/61/011/004/003/023
1195 B032/B314

AUTHORS: Karchevskiy, A.I. and Nikolayev, V.I.

TITLE: Hall Effect in the Metamagnetic Alloy MnAu₂

PERIODICAL: Fizika metallov i metallovedeniye, 1961, Vol. 11, No. 4, pp. 519 - 524

TEXT: Since the experimental data reported by various authors (Meyer, Taglang et al - Refs. 2-5) on the magnetic properties of MnAu₂ are not in complete agreement, the present authors have investigated the Hall effect, the paramagnetic susceptibility, magnetisation and the magnetocaloric effect in MnAu₂. The MnAu₂ alloy was prepared from 99.99% pure Au and electrolytically pure Mn, taken in the stoichiometric ratio. The alloy was prepared using the method described by Meyer and Taglang (Ref. 2). The Hall effect was measured on rectangular specimens placed in an argon atmosphere in magnetic fields up to 36 000 Oe. The paramagnetic susceptibility was measured by the Gouy method and the magnetisation was determined by the ballistic method. No correction was made for the demagnetisation

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Hall Effect

(Curve a is taken from Ref. 2; Curve b represents the results of Kussmann and Raub - Ref. 4; Curve B represents the results of Klitzing and Gielessen - Ref. 4 and Curve c represents the present results). The magnetocaloric effect was measured in the range 9 000 to 36 000 Oe, at temperatures between +20 and -140 °C. The ferromagnetic Curie point, as determined from the magnetocaloric effect maximum in large fields, was found to be 100 ± 1 °C. The temperature dependence of the magnetocaloric effect maximum and indicates that the alloy is antiferromagnetic in weak fields. Thus, the dependence of the Hall effect on the external magnetic field in the metamagnetic alloy MnAu₂ below the Neel point suggests that the Hall effect in metamagnetics shows the same regularities as in ordinary ferromagnetics.

Acknowledgments to Academician I.K. Kikoin for attention and discussions, to V.I. Kutaytsev for assistance with the preparation of the alloy specimens and to A.S. Nikishin for assistance in the experiments.

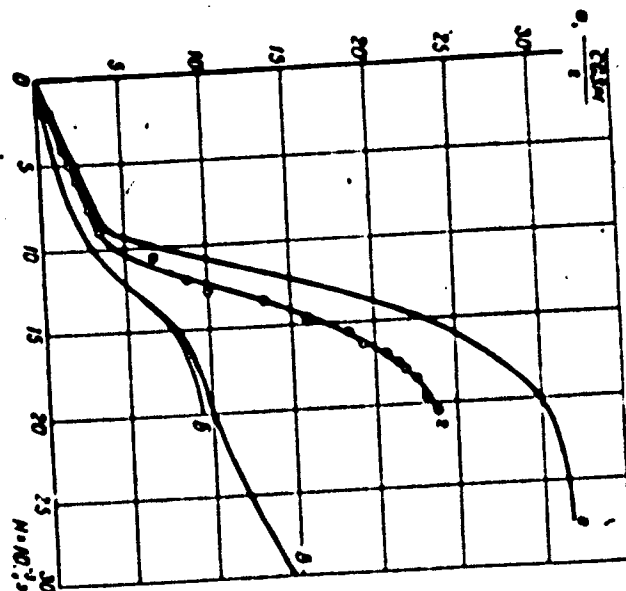
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Hall Effect

Fig. 4:



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E032/E314

24.7900 1144, 1147 1462

AUTHORS: Karchevskiy, A.I. and Nikolayev, V.I.

TITLE: On the Hall effect in the metamagnetic alloy MnAu₂

PERIODICAL: Fizika metallov i metallovedeniye, 1961, Vol. 12,
No. 3, pp. 372 - 375

TEXT: Recent interest in the properties of MnAu₂ is due to its metamagnetic behaviour: in a sufficiently strong magnetic field the alloy experiences a transition from the antiferromagnetic to the ferromagnetic state. Previous work by the present authors (Ref. 1 - FMM, 1961, 11, 519) shows that in a wide range of temperatures and magnetic fields the Hall e.m.f. in metamagnetics may be represented by

$$e_H = R_0 H + R_I I \quad (1)$$

where R_0 is the classical Hall constant,

R_I is the ferromagnetic Hall constant,

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On the Hall effect

I is the magnetisation, and
 H the true magnetic field in the specimen.
The Hall e.m.f. e_H is referred to unit current density and
unit distance between the Hall electrodes. However,
I.G. Fakidov and V.N. Novogrudskiy (Ref. 4 - FMM, 1960, 10, 158)
have reported that when the alloy $MnAu_2$ goes over into the
ferromagnetic state the slope of the $e_H(I)$ curve changes by a
factor of 3. On this basis the authors of Ref. 4 conclude
that the Hall effect in antiferromagnetic and ferromagnetic
states is of different origin. The present authors, on the
other hand, now point out that this conclusion is erroneous
since the bend in the $e_H(I)$ curve is due to the fact that the
Hall e.m.f. of $MnAu_2$ consists of two components, only one of
which is proportional to the magnetisation (c.f. Eq. 1).
Fig. 1 shows the magnetisation σ (cgs/g) of Hall specimens
as a function of the magnetic field H (kOe). These curves are
corrected for the demagnetising factor. The two $MnAu_2$ specimens
Card 2/3,

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E032/E314

On the Hall effect

to $H = 0$. However, it must be emphasised that the corresponding curves must be plotted as a function of the true field in the specimen. The values of R_I for specimens 1 and 2 were found to be -19×10^{-10} and $-15.5 \times 10^{-10} \text{ Vg/A gauss cm}^2$. Using these values of R_I , one can exclude the second component

X

of Eq. (1) and determine the classical component of the Hall effect. A plot of $\Delta e_H = e_H - R_I I$ as a function of the field H was found to give a straight line passing through the origin. This fact leads the present author to the conclusion that the mechanism responsible for the Hall effect in both the ferromagnetic and antiferromagnetic states of MnAu_2 is the same.

Acknowledgments are expressed to Academician I.K. Kikoin and Yu.M. Kagan for discussions. [Abstracter's note - this is an abridged translation.] There are 3 figures and 4 references: 3 Soviet-bloc and 1 non-Soviet-bloc. The English-language reference quoted is: Ref. 2 - E.M. Pugh - Phys. Rev., 1930, 56

1503.
SUBMITTED: January 10, 1961
Card 4/8.

L 5030-66 ENT(d)/ENT(1) IJ(c) ED
ACC NR: AP5021898 UR/0281/65/000/004/0130/0145
621.431.74-5

AUTHOR: Nikolayev, V. I. (Leningrad)

TITLE: The determination of the time spent by an operator solving the problem of ship power plant control

SOURCE: AN SSSR. Izvestiya. Energetika i transport, no. 4, 1965, 130-145

TOPIC TAGS: automatic control system, ship component, man, power plant

ABSTRACT: Automation of ship operation reduces drastically the number of operating personnel needed but, at the same time, increases the importance of their actions. The present author establishes a model of the action of operators (viewed as components of the control system) of ship power plants and after a thorough theoretical analysis derives expressions for carrying out the individual operations constituting the control process. The processing of numerous experimental data shows that there exists a general connection between the amount of information and the time necessary for its reception and conversion. However, under complex conditions this connection may be distorted by side factors which may be revealed only after an extremely careful analysis of all circumstances. The present inquiry will have to be supplemented in the future by the study of the probability of incorrect actions on the part of operators. Orig. art. has: 61 formulas and 4 figures.

ASSOCIATION: None

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