

SKLYAROV, G.A.; SOKOLOV, A.V., otv. red.

[Forest-steppe soils of the Bashkir A.S.S.R., their genesis and productive characteristics] [lesostepnye pochvy Bashkirskoi ASSR, ikh genezis i proizvodstvennaia kharakteristika. Moskva, Nauka, 1964. 244 p. (MIRA 17:10)

1. Chlen-korrespondent AN SSSR (for Sokolov).

Sokolov, A.V.

USSR/Electronics - Radio tubes

Card 1/1 Pub. 133 - 7/18

Authors : Sokolov, A. V., Engineer

Title : Travelling-wave tube

Periodical : Vest. svyazi 12, 15-15, Dec 1954

Abstract : The structural features and working principles of a traveling-wave tube, having shortened non-inductive outlets and small spaces between the electrodes, are described. Installations employing such travelling-wave tubes are listed. Travelling-wave tubes in analogy with conventional electron tubes can be divided into three types: 1) high-capacity output tubes; 2) tubes for preliminary amplification and 3) receiver tubes with low natural noise level. The electron mechanism of the tube has a sufficiently broad band so that band-pass of an installation working on such a travelling-wave tube is determined by energy input and output elements. The functions of the tube are described. Diagrams

Institution : Ministry of Communications, USSR

Submitted : ...

SOKOLOV, A. V.

Engineer, Jr. Sci. Aide of the NII of the Communication Industry

"Radio-Relay Communication Lines," Vest. Svyazi, No. 11, pp 6-7, 1953

Translation No. 420, 22 Jun 55

SOKOLOV, A. V.

USSR/Electronics - Communications

Card 1/1 Pub. 133 - 4/16

Authors : Borodin, S. V.; Minashin, V. P.; and Sokolov, A. V.

Title : High frequency apparatus for radio relay communication lines

Periodical : Vest. svyazi 5, 7-10, May 1955

Abstract : A description of the operation and construction of component parts of high frequency apparatus used in telephone communications relay stations, is given. The apparatus is used in conjunction with duplex operation of wide-band frequency, condensed at the central K-24 station for a simultaneous transmission and reception of 24 telephone signals. Illustrations; drawing; diagrams.

Institution:

Submitted :

SOKOLOV, A.V.

Frequency allocation and interference in radio relay lines. *Elektrosviaz'* 10 no.2:3-8 P '56. (MIRA 9:6)

(Radio relay systems)

SOKOLOV, A. V. and KUZNETSOV, V. D.

"Protective Ability and Decoupling in a Periscopic Antenna System," by V. D. Kuznetsov and A. V. Sokolov, *Elektrosvyaz*, No 1, Jan 57, pp 17-20

A series of experiments were conducted with a multichannel microwave radio-relay system "periscopic" antenna to determine protective ability from the interference of adjacent channels.

It was estimated that for a relay system with 240 or more channels having a distance of 1,000 km or more, the protective ability of the antennas should be at least 60 decibels to assure a satisfactory two-frequency communication system. The form and dimensions of the antenna components were as follows: the upper reflector was continuous, flat, inclined 45° and 3.2 m in diameter; the lower reflector was a continuous, concave ellipsoid of rotation, with a 3.2-m diameter circle in its horizontal projection. The radiating element was in the form of a one-meter horn with a 45 cm square mouth. The gain of the antenna system was about 30 db and the losses in the reflector system about 3 db, when operating in the frequency range of 2,000 Mc. Three types of relay towers, 45, 55, and 75 m high, were involved in the test; the distance between the two upper reflectors and the two lower reflectors for the 55-meter tower were 9.6 and 14 m, respectively.

The results obtained in the experiment led to the conclusion that a periscopic antenna system of the described construction can protect reception up to 60 db, provided different polarizations are applied to the signals traveling in the opposite directions.

Sum 12 14

SOKOLOV, A. V.

109-11-4/8

AUTHORS: Vvedenskiy, B.A. and Sokolov, A.V.

TITLE: Investigations of the Tropospheric Propagation of Metre, Decimetre and Centimetre Radio-waves in the USSR (Issledovaniya troposfernogo rasprostraneniya metrovykh detsimetrovykh i santimetrovykh radiovoln v SSSR)

PERIODICAL: Radiotekhnika i Elektronika, 1957, Vol.II, No.11, pp. 1375 - 1389 (USSR)

ABSTRACT: The first experiments on the propagation of modulated ultra-shortwaves (at a wavelength of 3.8 m) were first carried out in the USSR by M.V. Shuleykin in 1922. During 1926-27, Vvedenskiy and others investigated the possibility of practical application of the attenuation or gain effects produced at metric wavelengths by metallic and other objects. These investigations showed that the electric field is inversely proportional to the square of the distance from the transmitting antennae and directly proportional to the height of the transmitting and receiving antennae. In 1931, Shein and Kuzovkin designed transmitters and receivers capable of operating at distances up to 20 km, while, in 1932-33, a regular communication link at metre waves was established between Moscow and Noginsk (a distance of 45 km). The experiments carried out by means of that system showed that

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... years, a considerable number

109-11-4/8

Investigations of the Tropospheric Propagation of Metre, Decimetre and Centimetre Radio-waves in the USSR.

works have been devoted to the tropospheric propagation of the whole ultra-shortwave band, the investigation of the troposphere, the stability of the field, relationship between the meteorological conditions and the electrical parameters, investigation of the irregularities in the troposphere, attenuation and scattering of the waves in clouds and the design of ultra-shortwave radio links. Thus, in 1946, Braude and Ostrovskiy evaluated the fields over the sea and dry land for wavelengths of 0.3 to 9 m, while A.N. Shchukin and others took into account the effect of the tropospheric irregularities. During 1952-55, A.I. Kalinin derived formulae for the calculation of the fields at short distances and at distances well beyond the line-of-sight; he also determined the limits of applicability of the optical diffraction theory. In 1952, M.A. Leontovich, G.A. Grinberg and others made a theoretical investigation of the influence of the Earth-surface irregularities on the wave propagation. The problem of the influence of the meteorological conditions on the wave propagation was studied by V.N. Troitskiy, who investigated the reflection coefficients of various types of tropospheric irregularities as a function

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6(4,6)

SOV/111-59-9-5/31

AUTHOR: Sokolov, A.V., Chief Designer, and Polukhin, V.A.,
Chief Engineer of the Radio-Relay Line

TITLE: The Moscow-Smolensk Radio-relay Line

PERIODICAL: Vestnik svyazi, 1959, Nr 9, pp 5-7 (USSR)

ABSTRACT: This article describes the radio-relay line between Moscow and Smolensk, and presents information on tuning, operation and service of the line. The line is used for transmission of TV programs from the Moscow telecenter to the relay station Smolensk, and consists of two high-frequency trunks: one one-way trunk for image transmission and a two-way trunk for sound transmission and auxiliary communications which will also be used for multi-channel telephone communications. The line is equipped with the R-60 apparatus intended for multi-channel telephone communication over distances up to 2500 km, and TV program transmission up to 1000 km. The line, about 380 km long, includes ten stations; structure and antenna equipment of the

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The Moscow-Smolensk Radio-Relay Line

SOV/111-59-9-5/31

stations is briefly described as are the operating rooms at the stations (Fig 1) and at the terminal points. A block diagram of a terminal and an intermediate station is presented (Fig 2). Power sources are briefly described. Several way stations are equipped with TV relay equipment for local broadcast service. A full complement of reserve equipment is provided at each station, and the whole system of intermediate stations can be put on automatic operation (outlined). The authors outline the process of preliminary and final orientation of the antenna equipment at each station on the line, and briefly describe the thorough checking of the equipment at each station and its operation. In the course of antenna orientation it was observed that if the upper reflector of the antenna system was located higher than 70 m, a marked decrease in signal strength at the receiver input was evident; in such cases new, and larger reflectors were installed. On the basis of experience gained in these tuning operations the authors present recommendations

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The Moscow-Smolensk Radio-Relay Line

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for the tuning procedure on similar radio-relay lines using the R-60. Some basic performance data and specifications for the RF section, image channel and sound channel are given. In conclusion the authors outline operational procedure on the radio-relay line. There are 1 photograph, 1 block diagram, and 4 graphs.

ASSOCIATION: Nauchno-issledovatel'skiy institut (NII) ministerstva svyazi SSSR (Scientific-Research Institute of the Ministry of Communications of the USSR)

Card 3/3

SOKOLOV, A.V.

Experiment in conducting a complete wire broadcasting service in
the Kostroma Province. Vest. svyazi 19 no.7:24-25 Ял '59.
(MIRA 13:8)

1. Sekretar' Kostromskogo obkoma Kommunisticheskoy Partii Sovetskogo
Soyuza.

(Kostroma Province--Wire broadcasting)

SOKOLOV, A-V.

PHASE I BOOK EXPLOITATION

SOV/3550

Borodich, Sergey Vladimirovich, Vladimir Pavlovich Minashin, and Arseniy Vasil'yevich Sokolov

Radioreleynaya svyaz' (Radio Relay Communications) Moscow, Svyaz'-izdat, 1960. 434 p. Errata slip inserted. 17,000 copies printed.

Resp. Ed.: S.V. Borodich; Ed.: V.I. Bashchuk; Tech. Ed.: K.G. Markoch.

PURPOSE: This is a textbook approved by the Ministry of Communications, USSR, for use in communications tekhnikumns. It was prepared in accordance with the program of the course "Radio Relay Communications."

COVERAGE: The book describes the fundamentals of radio relay communications, the structure of all the components of a radio relay line, principles of design of radio relay lines, and the electrical characteristics of communication channels and methods of measuring them. Particular attention is paid to radio relay communication systems using frequency-division multiplexing and frequency modulation, systems considered the most promising and . . .

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SOKOLOV, A. V., VVEDENSKIY, B. A., ARMAND, N. A., KALININ, A. I., KOLOSOV, M. A.,
SHABELNIKOV, A. V. and SHIRAY, R. A.

"Long Range Tropospheric Propagation of Ultra Short Radio Waves."

report presented at Commission II, 13th General Assembly of the International
Scientific Radio Union in London, 5-15 Sept 1960.

Report available, Encl. to B-3,176,875, 30 Jan 61

ARMAND, N.A.; VVEDENSKIY, B.A.; KALININ, A.I.; KOLOSOV, M.A.; SOKOLOV, A.V.;
SHABEL'NIKOV, A.V.; SHIREY, R.A.

Long-range tropospheric propagation of microwaves; a survey.
Radiotekh.i elektron. 6 no.6:876-885 Je '61. (MIRA 14:6)
(Microwaves)

3

2hh60

S/109/61/006/006/001/016
D204/D303

9,9300 (1344)

AUTHORS: Armand, H.A., Vvedenskiy, B.A., Kalinin, A.I.,
KolosoV, M.A., Sokolov, A.V., Shabel'nikov, A.V.,
and Shirey, R.A.

TITLE: A survey of work on the tropospheric propagation of
ultrashort radiowaves

PERIODICAL: Radiotekhnika i elektronika, v. 6, no. 6, 1961,
867 - 885

TEXT: The large body of experimental work done in this field has
been aided by the perfecting of apparatus and auxiliary instru-
ments and given impetus by the need for more knowledge to assist
the development of telephony, television and radio communications.
The authors examine the following: 1) Relations between field
strength and distance; 2) Signal level and frequency: the theoret-
ical picture is confused, state the authors, but most experimen-
tal work suggests that P_r/P_o (P_r - received power, P_o - value in

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free space) declines as the frequency rises. No uniform value of $P_r(\lambda)$ has been found as yet, probably because of the changeability of the tropospheric structure and meteorological conditions; 3) Signal and time: Signal fading may be rapid or slow. Most information concerns 300 - 500 km traces. Slow fading is caused by the appearance or disappearance of inversion layers, large irregularities and changes in the value of $d\epsilon/dh$. Usually the signal strength is greater in the evening and at night, clearer in summer than in winter and at shorter (100-150 km) rather than longer (400 - 500 km) distances. The amplitude is related to frequency; also, as it combines with slow fading, the average amount of fading increases reaching, according to some sources, a maximum at 100-130 km. Others maintain that it declines with increase in distance to an equal summer and winter value of 3 - 10 db at 900 km; 4) Loss of antennae amplification: The phenomenon occurs beyond the horizon and means that for an antenna with an amplification coefficient G , exceeding 35-40 db, amplification is less than in free space. To account for this there are two hypotheses: (1) Spreading of radio-

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waves in a statistically non-homogeneous medium leads to distortion of the wave front in the plane of the receiving antenna and thus the energy absorbed is less than in the absence of amplitude and phase fluctuation. (2) elementary waves with various random angles of approach may reach the receiving antenna. These hypotheses have been investigated but comparison of results is hampered by differences in experimental conditions. For a 300 km trace the amplification loss increases with increase in the average amplification of receiving and transmitting antennae and with an increase of D to 300 - 500 km and $f = 2290$ megacycles. At greater distances the loss falls; 5) Signal distortion: Work in this field either treats the troposphere as an ideal quadruple network or aims to determine the amplitude correlation of the signal components on different frequencies in the transmitted spectrum. If with antennae with low directivity the amplitude of delayed waves is diminished by diffraction weakening of the earth's surface and the "directivity" of the troposphere, then at antennae with narrow patterns the amplitude of these waves decreases because of the di-

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directivity of the antenna. The maximum transmitted frequency band depends on the width of the directivity pattern of the antenna. The random nature of the tropospheric radiation means that signal distortion has a random pattern as experiments in the USSR have confirmed. Two separated antennae in space diminish distortion and guarantee a large carrying capacity of tropospheric radio links;
6) Radio-meteorological research: Refractometric measurements have dealt with the structure of the troposphere and, in particular, the value of $\epsilon(h)$, $(\Delta\epsilon)^2$ and the area of turbulence

usually varies within the range $0.3 - 3N$ units and irregular layers are usually 1 - 300 m thick. "Jump" intensity in these regions is usually 2 - 50 or 60 N units, large especially in the "invisible clouds". It was stated that at a height $h = 3000$ m and more $(\Delta\epsilon)^2/l$ is too small to explain distant fields and its alteration with height does not give the necessary value of $P_r(D)$. The authors

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A survey of work on the ...

then deal with incoherent scatter and globular irregularities: In the last few years much attention has been devoted to the conception of incoherent scatter. Two chief theories have been established: One which gives for the frequency subordinate of P_r/P_0 , a coefficient of $\lambda^{-4/3}$, and the theory of "disturbance of the gradient", which gives λ . The second approaches more closely to the experimental facts, and is generally preferred. Maxwell's equations for statistically non-homogeneous layers above a spherical earth have not yet been resolved and a solution must combine the theory of diffraction spread with pereoptical theory. All theories, in essence, approach those of a "radar form type"

$$\frac{P_r}{P_0} = QD^2 \int_V \frac{\sigma(\theta)}{R_1^2 R_2^2} dV, \tag{1}$$

where Q is a constant factor; $\sigma(\theta)$ - "scatter area" - a junction for the influence of fluctuation ϵ and its relation to λ and the

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gradient de/dh ; with this formula theory discrepancy concerns basi-
cally the value of σ . σ , moreover, can be expressed simply as

$$d(\theta) = \frac{c}{\sin^2(\frac{\theta}{2})}$$

where θ = radiation angle, D = angular distance between
transmitter and receiver; c = expression giving ratios of 1, de/dh
and others to $(\Delta \varepsilon)^2$. For whole even numbers $m > 2$ this accords
well with a general formula and is integrated with formula 2 to
give

$$\frac{P_r}{P_o} = Q b A_m D^{-m+3}, \tag{2}$$

where A_m depends on m . If $b \approx h^{-n}$, then $D^{-m+3-2n}$ replaces D^{-m+3} ;
 m can be substituted by nearest even whole number, in cases of
close approximation. Current theories give results approximate to

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Eq. 2. Finally mentioned are: a) incoherent scatter and turbulency layers, and b) coherent reflecting layers. On a) it is pointed out that the use of tropospheric layers for wave reflection has been extensively studied and that in 1955 V.N. Troitskiy (Ref. 107: Radiotekhnika, 1956, 11, 5, 3) obtained a calculated formula which accorded with experimental observations. On b) it is noted that stable layer reflection has met with two objections: The first concerns the incompatibility of the existence of great changeability patterns over long distances with the idea of stable tropospheric layers; the second, is, however, theoretical and hardly affects the practical aspect of the problem; the existence of layers has been firmly established and it is positive that a diffraction approach to the problem of spread along the earth's curvature will be of value. A simplification of reported formulae was attempted and

$$\frac{P_r}{P_o} = \frac{1}{D} \Phi (\lambda, [\frac{d}{dh}]_0, h_1, h_2) \exp [- \alpha D],$$

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was obtained. where Φ is a complicated function, analogous to the high factors of classical diffraction theory, containing frequency responses and 'comp' ratios $[d\epsilon/dh]_0$, a - another function of type $A - B \ln A$ related to parameters, whose size A and B does not depend on λ . Though not strictly accurately descriptive of the fluctuation character of the field the equation gives the necessary experimental ratio $P_r(D)$. There are 9 figures and 119 references: 24 Soviet-bloc and 97 non-Soviet-bloc. The four most recent references to the English-language publications read as follows: Radio transmission by ionospheric and tropospheric scatter, Proc. I.R.E., 1960, 48, 1, 30; E.D. Denman, Proc. I.R.E., 1960, 48, 1, 112; I.H. Vogelman, I.L. Ryerson, M.H. Bickelhaupt, Proc. I.R.E., 1959, 47, 5, 688; L.A. Ames, E.T. Martin, E.J. Rogers, Proc. I.R.E., 1959, 47, 5, 769.

SUBMITTED: July 27, 1960

Card 8/8

DOMBROVSKIY, I.A.; SOKOLOV, A.V., red.

[Radio communication systems using artificial earth
satellites, 1963] Radiosistemy svyazi s iskusstven-
nymi sputnikami Zemli 1963. Moskva, AN SSSR, 1964. 289 p.
(MIRA 18:7)

ARMAND, N.A.; VVEDENSKIY, B.A.; GUSYATINSKIY, I.A.; IGOSHEV, I.P.;
KAZAKOV, L.Ya.; KALININ, A.I.; KOLOSOV, M.A.; LEVSHIN, I.P.;
LOMAKIN, A.N.; NAZAROVA, L.G.; NEMIROVSKIY, A.S.; PROSIN,
A.V.; RYSKIN, E.Ya.; SOKOLOV, A.V.; TARASOV, V.A.; TRASHKOV,
P.S.; TIKHOMIROV, Yu.A.; TROITSKIY, V.N.; FEDOROVA, L.V.;
CHERNYY, F.B.; SHABEL'NIKOV, A.V.; SHIREY, R.A.; SHIFRIN, Ya.S.;
SHUR, A.A.; YAKOVLEV, O.I.; ARENBERG, N.Ya., red.

[Long-distance tropospheric propagation of ultrashort radio
waves] Dal'nee troposfernoe rasprostranenie ul'trakorotkikh
radiovoln. Moskva, Sovetskoe radio, 1965. 414 p.
(MIRA 18:9)

PROCESSES AND PROPERTIES INDEX

2-3

Zhur. Fiz. Khim.,

Chlorination of p-nitrobenzotrinitrile.
 V. V. Kuznetsov and A. V. ...
 Chem. Rep. 1959, 24, 100. ...
 of p-nitrobenzotrinitrile in bright daylight
 for 11-12 hours ...
 b.p. 100-105 ...
 with hydrochloric acid ...
 the corresponding ...
 the ...
 p-nitrobenzotrinitrile ...
 nitrile group ...
 the formation of ...
 NO₂N₂O₂ ...

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

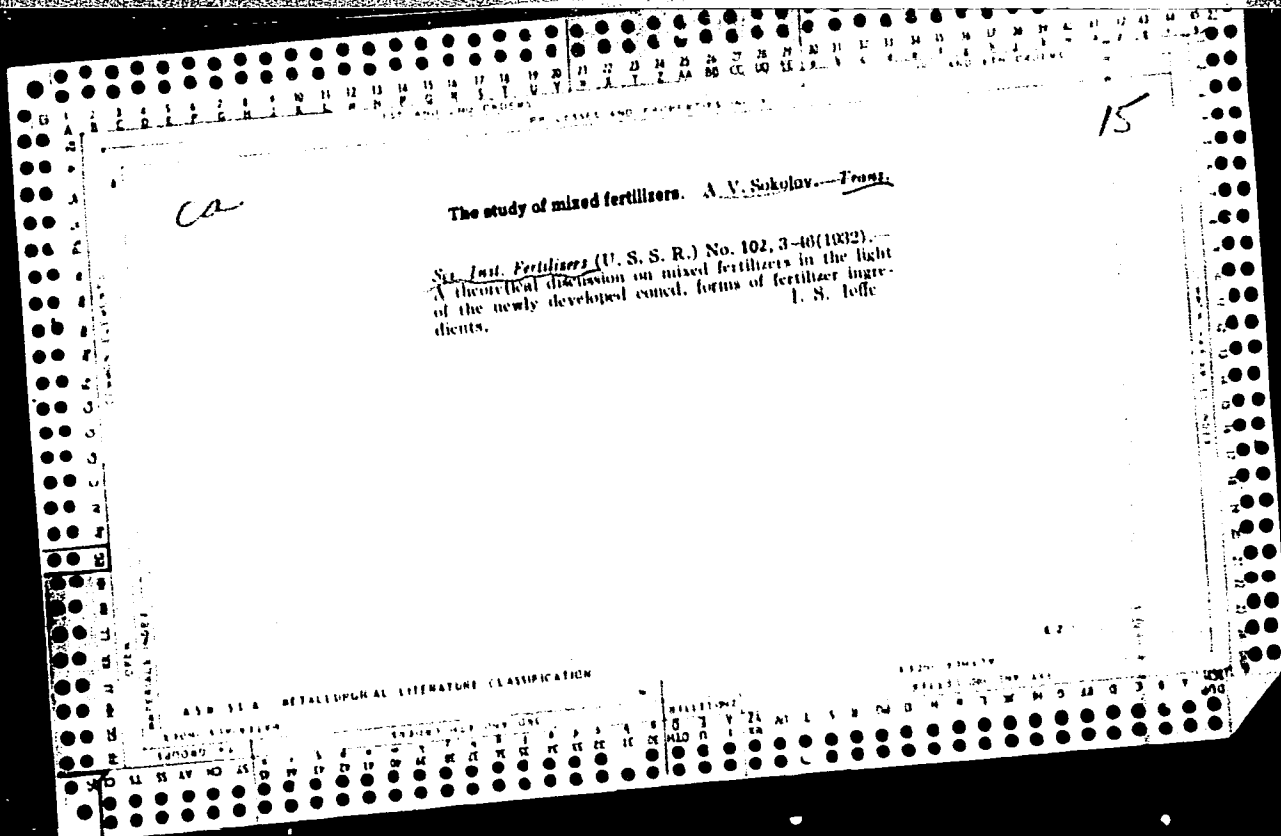
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12

The importance of soil type and mechanical composition for sensitivity of plants to chlorine. A. V. Sokolov. *Repts. Sci. Inst. Fertilizers and Insectofungicides, Leningrad, 3rd Intern. Congr. Soil Sci., Oxford 1938*, 23-32 (in French).—From pot expts. with cereals, flax, hemp and buckwheat on soil and soil-sand mixts., in which complete fertilizers are compared with sulfate and Cl. It is concluded that Cl in fertilizers is more harmful on podzols than on chernosems; on the former more Cl is absorbed by the plants. The cause is not lower pH developed by chlorides, nor is liming always an effective remedy. In general, potatoes and fiber plants growing on light soils are more adversely affected by Cl than when growing on compact soils. Nineteen references. C. J. S.

A 50-51 A METALLURGICAL LITERATURE CLASSIFICATION

E-2

1938

PROCESSES AND PROPERTIES INDEX

15

Experiments with triple fertilizers. A. V. Sokolov and V. V. Volkova. *Trans. Sci. Inst. Fertilizers-Insectofungicides* (U. S. S. R.) No. 120, 5-11(1935).—Nitrophoska and Ammophos were similar in their effectiveness as fertilizers. On chernozem an excess of P over N gave better results; on podsolic soils equal quantities of N and P gave the best results. Experiments with Nitrophoska and Ammophos in various quantities. *Ibid.* 11-15.—Small adds. of either of the two fertilizers in pot expts. gave the same results. Increased quantities of these fertilizers introduced differences, namely, the Ammophos gave a higher yield of straw with oats. A comparison of Nitrophoska "red III" and "green A" with regular fertilizers. *Ibid.* 15-18.—An acid fertilizer ((NH₄)₂SO₄, superphosphate and KCl), a neutral fertilizer ((NH₄)₂SO₄, Thomas slag and KCl) and an alk. fertilizer (NaNO₃, Thomas slag and KCl) were compared with several batches of Nitrophoska and a mixt. of NH₄NO₃, (NH₄)₂HPO₄, and KCl which approaches the compo. of Nitrophoska. The mixt. proved to be just as efficient as the original Nitrophoska in pot expts. with oats. On chernozem the Nitrophoska was superior to the Thomas slag as the source of P. On the podzols the slag was just as good. A comparison of the triple concentrated fertilizers with an equivalent mixture of ordinary fertilizers under various conditions of soil moisture. *Ibid.* 18-22.—Under conditions of pot expts. there was no difference between the concd. and ordinary fertilizers if the soil was kept at optimum moisture. With a paucity of moisture the concd. fertilizers were superior. J. S. Joffe

ASB-31A METALLURGICAL LITERATURE CLASSIFICATION

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COMMON ELEMENTS

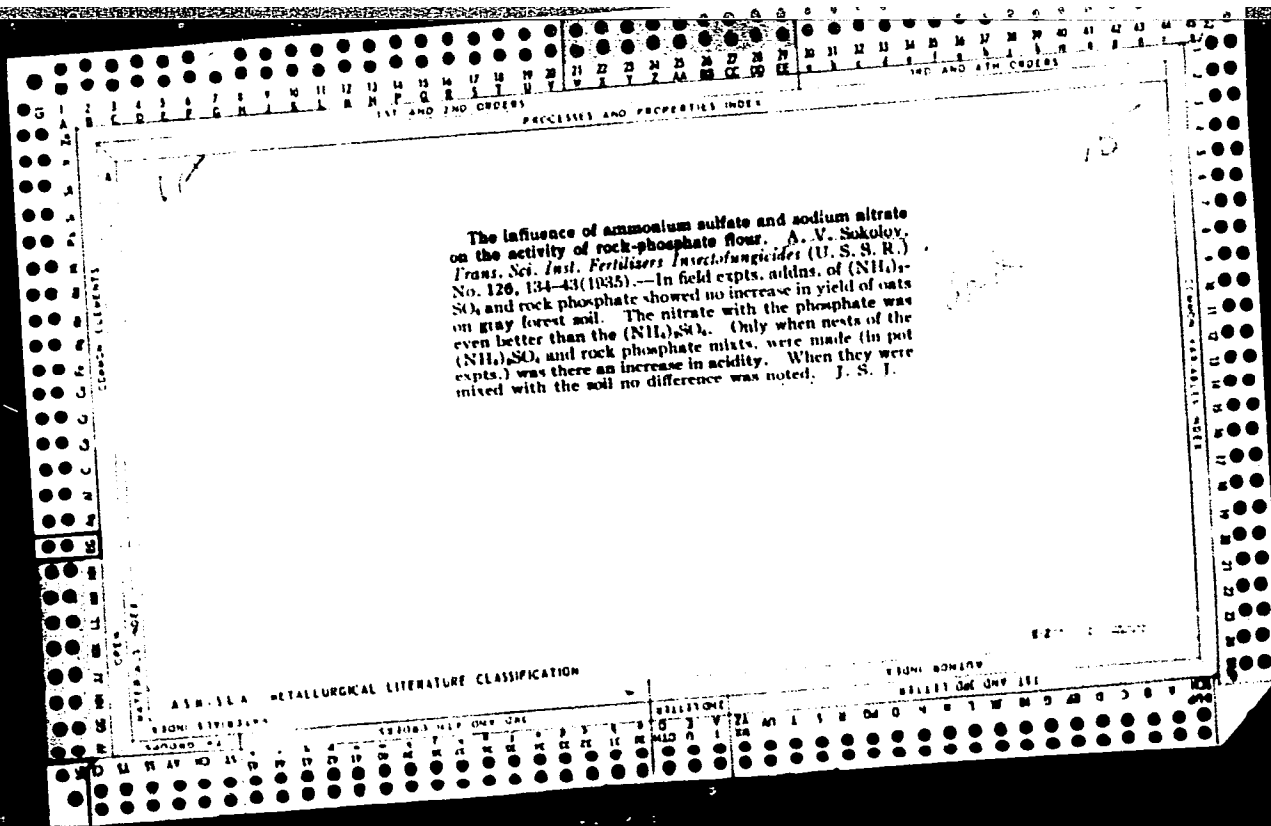
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SUBJECT INDEX

AUTHOR INDEX

1ST AND 2ND ORDERS

3RD AND 4TH ORDERS



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1ST AND 2ND LETTERS 1ST AND 4TH LETTERS

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ca 15

Decreasing the harmful action of an excess of chlorine in ammonium chloride and Potash. A. V. Sokolov. J. Chem. Ind. (Moscow) 13, 795-8(1935).—The sensitivity of plants to the harmful action of excess Cl is less in black earth and clay than in sandy soil. Addn. of the fertilizers to the soil in autumn rather than in spring also decreases the sensitivity. In Ca-contg. soils, these effects are more obvious. Sometimes simultaneous addn. of (NH₄)₂SO₄ also decreases the sensitivity. H. M. L.

Zhur. Khim. Prom.

COMMON ELEMENTS

COMMON VARIETY INDEX

ASB-51A METALLURGICAL LITERATURE CLASSIFICATION

1ST AND 2ND LETTERS

1ST AND 4TH LETTERS

15

Complex nitrogen-phosphorus and triple fertilizers
 A. V. Sokolov. *Novoe v Udobrenii* (Collection of articles) 1937, No. 2, 7-16; *Khim. Referat. Zhur.* 1, No. 4-5, 103 (1938); cf. *C. A.* 30, 64051.—A general summary of the N-P and the triple-strength fertilizers. The ammoniated superphosphates are of no special value in themselves owing to a low N content, but are invaluable components of mixed fertilizers. In weakly ammoniated superphosphates (2-3% N) the H_2PO_4 assimilation is not lower than in simple superphosphates. With a strong ammoniation a H_2PO_4 retrogression occurs which influences its assimilation. This is especially noticeable on chernozem. W. R. H.

ASAC-51A METALLURGICAL LITERATURE CLASSIFICATION

SEARCHED SERIALIZED INDEXED FILED

APR 19 1968

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OFFICE OF TECHNICAL SERVICES

WASHINGTON, D.C.

1ST AND 2ND ORDERS 3RD AND 6TH ORDERS

PROCESSES AND PROPERTIES INDEX

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CA

Results of agrochemical investigations of ammonium chloride with Potasot (mixture of ammonium chloride with potassium chloride). A. V. Sokolov. *Novoe v Upravlenii, Ind. Sol'khosia, Sbornik Statei* 1937, No. 2; *Upravlenii, Ind. Sol'khosia, Sbornik Statei* 1938, No. 1, 104 (1938).—NH₄Cl impoverishes the soil by absorbing K more than does (NH₄)₂SO₄. The action of chlorides on podzol (leached-out soils) is smaller than that of sulfates, while they are not inferior to (NH₄)₂SO₄ on the surface layer of the soil. A comparative study of the action of NH₄Cl and of (NH₄)₂SO₄ showed that these fertilizers are similar in their actions. The fractional addn. of NH₄Cl overcomes its harmful influence on acid soils. N added to clay soils in autumn gives good results, while added to light soils it is easily washed away. Potasot does not give optimum results. Its best use is found in soils producing cereals, beets, feed, on pastures—for plants requiring both N and K.

W. R. Henn

METALLURGICAL LITERATURE CLASSIFICATION

AUTOMATIC LETTERS

1ST AND 2ND ORDERS 3RD AND 6TH ORDERS

1ST AND 2ND ORDERS PROCESSES AND PROPERTIES INDEX 3RD AND 4TH ORDERS

15

ca

The influence of boron on the yield of seeds and hay of legumes. A. V. Sokolov, R. V. D'yakova and K. A. Dmitriev. *Chemicheskoe Selskoye Agr. (U. S. S. R.)*, No. 8, 57-70(1937).—Pot and field expts. with legumes show that the addn. of 1 mg. of B per kg. of soil increases the yield of seed and hay. Especially favorable were the effects of B on podzol soils which received large quantities of lime. T. S. Jeffe

Khim. Sots.

COMMON ELEMENTS

OPEN

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ASB SIA METALLURGICAL LITERATURE CLASSIFICATION

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The use of chlorides as fertilizers. A. V. Sokolov.
Trans. Sci. Inst. Fertilizers Insectofungicides (U. S. S. R.)
 No. 136, 5 (1967); *Chimie & Industrie* 40, 1968.
 NH₄Cl is a fertilizer possessing a strong physiol. activity;

its use is rational in neutral soils, but it is not suitable in acid pozzuolanic soils. Its chief drawback is its high Cl content. The sensitiveness of plants to Cl depends on their nature as well as on the reaction and mech. compo. of the soil. It is higher in acid and in light sandy soils than in neutral and clayey soils. On the other hand, a parallelism has been observed in the sensitiveness of plants to Cl and to Ca.
 A. Papineau-Couture

METALLURGICAL LITERATURE CLASSIFICATION

GROUP		SUBGROUP		SUBSUBGROUP		SUBSUBSUBGROUP		SUBSUBSUBSUBGROUP		SUBSUBSUBSUBSUBGROUP	
1	2	3	4	5	6	7	8	9	10	11	12

1ST AND 2ND CADDERS

PROCESSED AND PRESERVED IN U.S.S.R.

3RD AND 4TH CADDERS

15

Tests on the use of combined nitrogen and potash fertilizer in the form of chlorides and sulfates. A. V. Sokolov. *Trans. Sci. Inst. Fertilizers Insectofungicides* (U. S. S. R.) No. 136, 14-40 (1937); *Chimie & Industrie* 40, 548. — Chlorides (NH_4Cl) have little influence on oat and barley harvests; in a pozzuolanic soil their effect is even more favorable than that of sulfates, though it remains inferior to that of urea and K_2HPO_4 . In the case of clayey forest soils, both chloride- and sulfates act more favorably than urea and phosphate. In the cultivation of flax, use of NH_4Cl after K_2SO_4 gives better results than NH_4Cl alone. For potatoes NH_4Cl has an adverse influence on both harvest yield and starch content.

A. Papineau-Couture

ASA-SLA METALLURGICAL LITERATURE CLASSIFICATION

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

Effects of chlorides on buckwheat and sunflower. A. V. Sokolov. *Trans. Sci. Inst. Fertilizers Insectofungicides (U. S. S. R.)* No. 136, 47-54(1947); *Chimie & industrie* 40, 588.--Excess of chlorides affects buckwheat harvests but has little influence on sunflower. The harmful influence of chlorides is more pronounced in forest soils dild. with sand than in undild. forest soils. Application of chlorides leads to an accumulation of Cl in buckwheat, especially in the straw; there is a simultaneous increase in the Ca, K and Mg contents. The harmful influence of chlorides on buckwheat is greater when used in conjunction with NH₄ than with nitrate. A. P.-C.

AS - SLA METALLURGICAL LITERATURE CLASSIFICATION

PROCESSES AND PROPERTIES INDEX

15

Influence of chlorides on flax and hemp as a function of the time of fertilizing and liming the soil. A. V. Sokolov. *Trans. Sci. Inst. Fertilizers Insectofungicides* (U. S. S. R.) No. 130, 55-61(1937); *Chimie & industrie* 40, 901.— Under certain conditions, changing the time of application of N and Cl fertilizers can improve considerably the effects obtained from them. By sufficiently early (20 days before sowing) application of Cl fertilizers, a favorable result is obtained, due essentially to the elimination of Cl by lixiviation. If the test is carried out under such conditions that lixiviation does not take place, early application of Cl fertilizer offers no advantage. Application of chlorides produces a large accumulation of H₂O-sol. Ca in the soil. On acid podzolic soil, hemp and flax are sensitive to chlorides, the former more than the latter. By liming the harmful action of chlorides on hemp can be suppressed, but it is much less effective in the case of flax.

A. Papineau-Couture

A.S.T.M. METALLURGICAL LITERATURE CLASSIFICATION

AUNTCHS INDEX

1ST AND 2ND LETTERS

PROCESSES AND PROPERTIES INDEX

15

Plant experiments with Potazote. A. V. Sokolov. *Trans. Sci. Inst. Fertilizers Insectofungicides (U. S. S. R.)* No. 136, 63-75(1937); *Khim. Referat. Zhur.* 1, No. 4-5, 92(1938); cf. *C. A.* 30, 4609.—The harmful effect of the Cl in Potazote (KCl + NH₄Cl) can be removed by changing the N:K₂O ratio, and by the proper choice of the phosphate base. Expts. were performed with quitch grass, oats, millet, mustard, flax, buckwheat and hemp on different soils. Flax, buckwheat, and hemp were most sensitive to the chlorides. A decrease of K to N:K₂O = 1:1 gave only a slight effect, while no effect was noticed for the others. The change of NH₄Cl in Potazote to other forms of N (NH₄NO₃ and NH₄SO₄) was more effective. An addn. of basic phosphates corrects the effect of NH₄Cl and of Potazote.

W. R. Henn

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

E-27000-1000

PROCESSES AND PROPERTIES INDEX

15

Role of nonuniform distribution of nutritive elements in the soil from the standpoint of the development of adjacent plants. A. N. Sokolov. *Trans. Sci. Inst. Fertilizers Insectofungicides* (U. S. S. R.) No. 136, 192-202 (1937); *Chimie & Industrie* 40, 588. -- The surface of the soil which can be utilized by plants depends not only on their power to develop their roots laterally, but also on neighboring plants. It was observed, more particularly with buckwheat, that application of the fertilizer at a distance of 50 cm. from the plants increased the yield; but when the plant was sepd. from the fertilizer by other plants it could no longer make use of the fertilizing elements. Owing to the irregular distribution of fertilizing elements in the soil, utilization of these elements by neighboring plants is very unequal. A. P. C.

METALLURGICAL LITERATURE CLASSIFICATION

E. Z. ...

PROCESSES AND PROPERTIES INDEX

15

Effect of the distribution of nutritive elements and moisture at different levels in the soil on root development and yield of plants. A. Y. Sokolov. *Tram. Ser. Inst. Fertilizers, Insect-fungicides (U. S. S. R.)* No. 136, 293-317 (1957); *Chimie & Industrie* 40, 588. Roots of plants can develop actively in the unploughed sub-arable layer provided the latter has received nutritive elements by penetration, which were not absorbed by the surface layer. Introduction of fertilizer in a medium layer of the soil leads to increased root development in this layer at the expense of their development both in the higher and in the deeper soil layers. The moisture content at the different levels has less influence on the distribution of root development than has the amt. of nutritive elements.

A. Papineau-Couture

A.S.A. METALLURGICAL LITERATURE CLASSIFICATION

Boron compounds used as fertilizers. A. V. Sokolov
Bull. Acad. Sci. U. R. S. S. R., Chem. Ser., 1934, No. 1, 207-210 (English 2-6 13) The lack of B available to plants was observed in limed soil, especially strongly limed "podzols" (leached out soils), probably because borates become less sol. in the presence of lime, and, to a smaller degree, because of bad absorption of borates. Therefore, unsatd. acid soils (after treatment with lime) should be enriched with B-contg. fertilizers. The max. effect of B fertilizers was observed in cruciferous, leguminous, chenopodiaceous and umbelliferous plants; the min. in the gramineous plants which contain B. An increase of the seed yield of leguminous plants was observed on "podzols" when much lime was introduced together with B. The dry-rot or con-rot diseases, occurring in beets, can be controlled by B fertilizer. Favorable action of B fertilizer was observed on native soils rich in CaCO₃ in expts. with potatoes, tobacco, vegetables, new textile plants and essential-oil plants. B in the amt. of 1.0 mg. per kg. of soil should be considered as a normal, it can be reduced to 0.3 mg. per kg. of soil without any noticeable decrease of the yield, but 0.1 mg. of B is not sufficient. Any water-sol. B compd. can be used as B fertilizer. Exptl. data are tabulated. Twenty-three references. A. A. Podgorny

12, Ak. Nauk SSSR,
 Ser. Khim.

ASB-51A METALLURGICAL LITERATURE CLASSIFICATION

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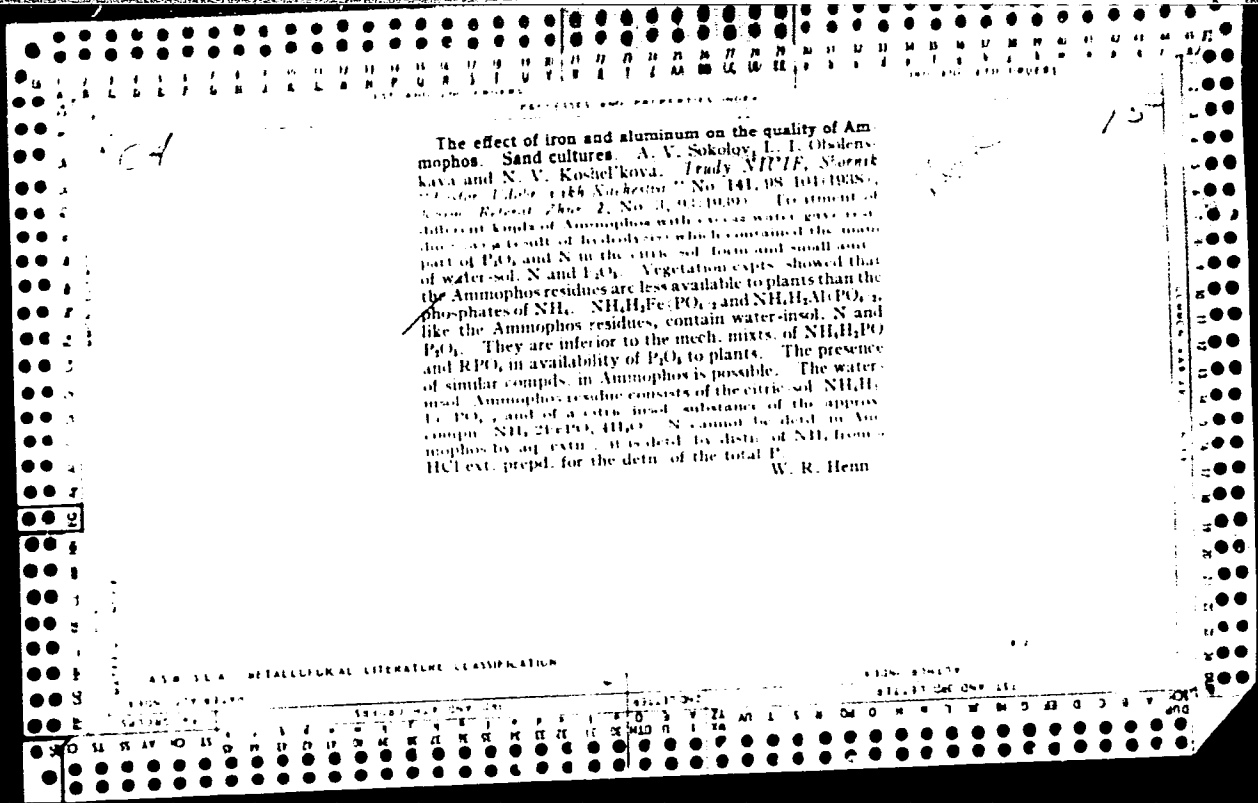
A review of research on the determination of the ag-
 nomic value of the phosphates of the sesquioxides. *A. V. Sokolov, Trans. Sci. Inst. Fertilizers, Leningrad Univ. (USSR), No. 101, pt. 10 (1958), Chem. Zentr. 1959, II, 2861.* - The effect of the phosphates of the sesquioxides on crop yields is definitely weaker than that of sol. Ca phosphates. The effect of Fe phosphate is weaker than that of Al phosphate. Acid Fe phosphates are better assimilated than the neutral or basic forms. Drying and ignition temps. are important in detg. the assimilation of phosphates of the sesquioxides. M. G. Moore

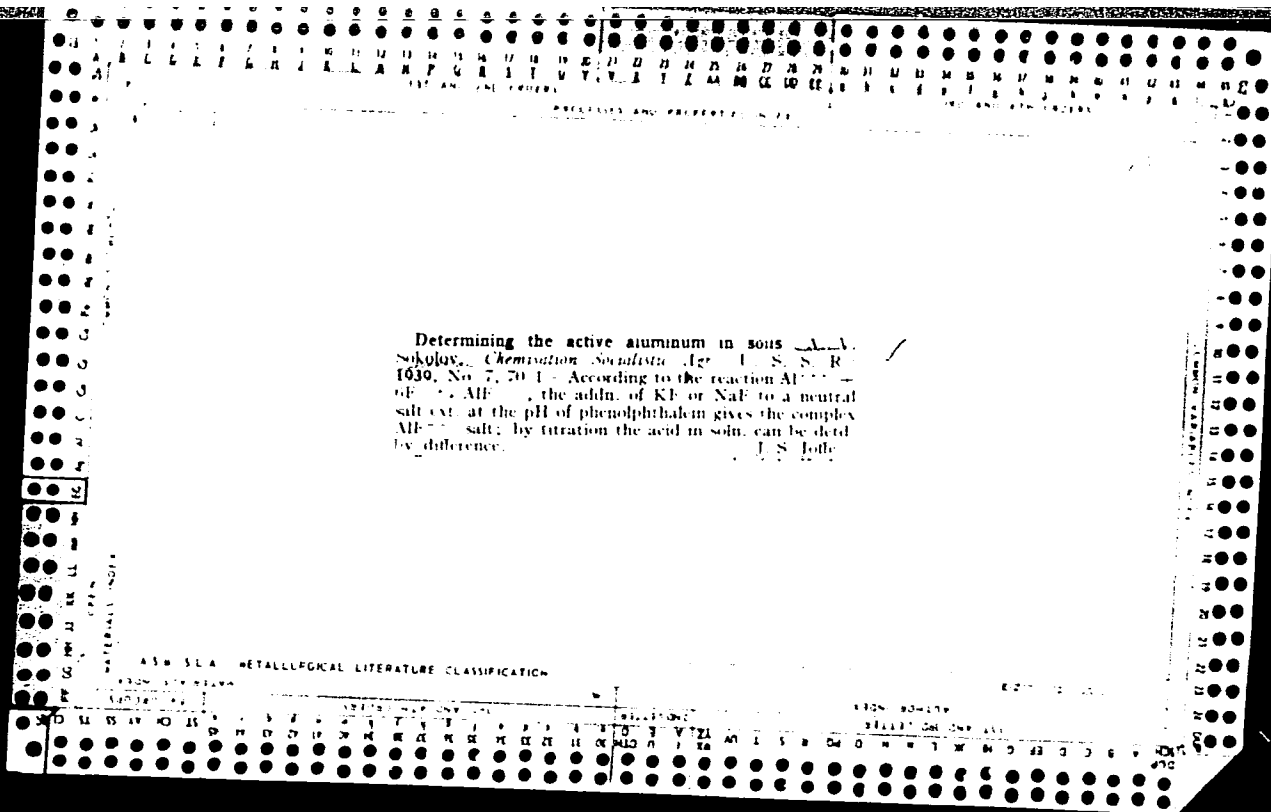
AGRICULTURE - METALLURGICAL LITERATURE CLASSIFICATION

Methods for the investigation of phosphorus fertilizers
A. V. Sokolov. *Trudy N. I. U. I. E., Sbornik "Kachestvo"* No. 141, 87-96, 1938; *Khim Referat. Zhur.* 2, No. 2, 98 (1939). --The comparative effectiveness of the P_2O_5 unit in fertilizers cannot be connected directly with the crop increase obtained. A no. of suggestions are given for the planning of expts. in which the different forms of P fert. zers are compared.

W. R. Henn

AS 31.4 METALLURGICAL LITERATURE CLASSIFICATION





112

Phosphorus nutrition of plants. I. The influence of fertilizers on the accumulation of phosphorus compounds in plants. A. V. Sokolov. *Chemisation Socialistic Agr.* (U. S. S. R.) 1930, No. 8, p. 5. Plant materials, 0.25 to 1.0 kg, are extd. for 5 hrs. with EtOH and the phosphates detd. in the ext. The residue is treated with 120 cc. of 1% HCl for 1 hr. and the phosphates thus obtained are considered as the inorg. forms. Then the P is detd. on the ash of the residue. This gives, by difference, the org. P sol. in HCl. In this fashion barley, peas and flax were investigated under various conditions of P supply in sand and mixts. of sand and soil cultures. It is shown that the accumulation of the various forms of P depends upon the growth period, P supply at the particular moment, the rate of P intake by the plant, and the environmental conditions responsible for the growth of the plant.
I. S. Ioffe

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

1ST AND 2ND LETTERS

3RD AND 4TH LETTERS

5TH AND 6TH LETTERS

7TH AND 8TH LETTERS

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11TH AND 12TH LETTERS

13TH AND 14TH LETTERS

15TH AND 16TH LETTERS

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95TH AND 96TH LETTERS

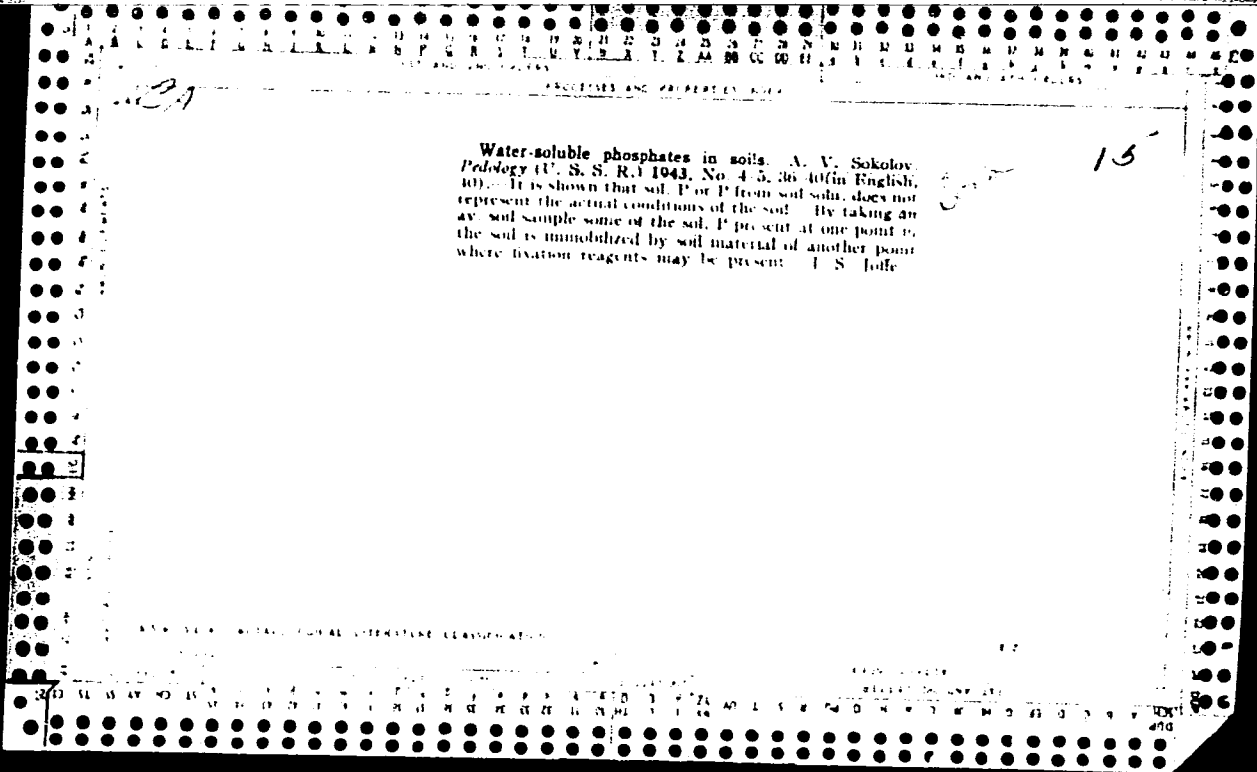
97TH AND 98TH LETTERS

99TH AND 100TH LETTERS

SOKOLOV, A. V.

"A Method for the Fractional Determination of P-containing Compounds
in Plants," A. V. Sokolov, Chemisation Socialistic Agr, (USSR), 1940,
No 10, pp 36-8, Khim Referat Zhur, IV, No 4, pp 82 (1941) (SEE: Inst.
Insect/Fungi. in Ya. V. Samoylov)

SO: U-237/49, 8 April 1949



OBI
 A B C D E F G H I J K L M N O P Q R S T U V W X Y Z AA AB AC AD AE AF AG AH AI AJ AK AL AM AN AO AP AQ AR AS AT AU AV AW AX AY AZ BA BB BC BD BE BF BG BH BI BJ BK BL BM BN BO BP BQ BR BS BT BU BV BW BX BY BZ CA CB CC CD CE CF CG CH CI CJ CK CL CM CN CO CP CQ CR CS CT CU CV CW CX CY CZ DA DB DC DE DF DG DH DI DJ DK DL DM DN DO DP DQ DR DS DT DU DV DW DX DY DZ EA EB EC ED EE EF EG EH EI EJ EK EL EM EN EO EP EQ ER ES ET EU EV EW EX EY EZ FA FB FC FD FE FF FG FH FI FJ FK FL FM FN FO FP FQ FR FS FT FU FV FW FX FY FZ GA GB GC GD GE GF GG GH GI GJ GK GL GM GN GO GP GQ GR GS GT GU GV GW GX GY GZ HA HB HC HD HE HF HG HH HI HJ HK HL HM HN HO HP HQ HR HS HT HU HV HW HX HY HZ IA IB IC ID IE IF IG IH II IJ IK IL IM IN IO IP IQ IR IS IT IU IV IW IX IY IZ JA JB JC JD JE JF JG JH JI JJ JK JL JM JN JO JP JQ JR JS JT JU JV JW JX JY JZ KA KB KC KD KE KF KG KH KI KJ KL KM KN KO KP KQ KR KS KT KU KV KW KX KY KZ LA LB LC LD LE LF LG LH LI LJ LK LM LN LO LP LQ LR LS LT LU LV LW LX LY LZ MA MB MC MD ME MF MG MH MI MJ MK ML MN MO MP MQ MR MS MT MU MV MW MX MY MZ NA NB NC ND NE NF NG NH NI NJ NK NL NO NP NQ NR NS NT NU NV NW NX NY NZ OA OB OC OD OE OF OG OH OI OJ OK OL OM ON OO OP OQ OR OS OT OU OV OW OX OY OZ PA PB PC PD PE PF PG PH PI PJ PK PL PM PN PO PP PQ PR PS PT PU PV PW PX PY PZ QA QB QC QD QE QF QG QH QI QJ QK QL QM QN QO QP QQ QR QS QT QU QV QW QX QY QZ RA RB RC RD RE RF RG RH RI RJ RK RL RM RN RO RP RQ RR RS RT RU RV RW RX RY RZ SA SB SC SD SE SF SG SH SI SJ SK SL SM SN SO SP SQ SR SS ST SU SV SW SX SY SZ TA TB TC TD TE TF TG TH TI TJ TK TL TM TN TO TP TQ TR TS TT TU TV TW TX TY TZ UA UB UC UD UE UF UG UH UI UJ UK UL UM UN UO UP UQ UR US UT UU UV UW UX UY UZ VA VB VC VD VE VF VG VH VI VJ VK VL VM VN VO VP VQ VR VS VT VU VV VW VX VY VZ WA WB WC WD WE WF WG WH WI WJ WK WL WM WN WO WP WQ WR WS WT WU WV WW WX WY WZ XA XB XC XD XE XF XG XH XI XJ XK XL XM XN XO XP XQ XR XS XT XU XV XW XX XY XZ YA YB YC YD YE YF YG YH YI YJ YK YL YM YN YO YP YQ YR YS YT YU YV YW YX YY YZ ZA ZB ZC ZD ZE ZF ZG ZH ZI ZJ ZK ZL ZM ZN ZO ZP ZQ ZR ZS ZT ZU ZV ZW ZX ZY ZZ

PROCESSES AND PROPERTIES INDEX
 LIST AND INDEX GROUPS

CA

Determining available phosphorus in the soil. D. L. Aakimov, A. V. Sobolev, and I. P. Bardobol'skiy. *Akad. Nauk S.S.S.R., Pochvennyy Inst. im. V. V. Dokuchayeva, Kukovskoye dlya Polevyykh i Lab. Issledovaniy Pochv S. Sovremennyye Agrokhim. Metody Issledovaniya Pochv* No. 1, 39-60(1944).—A review of the methods used throughout the work. J. S. Joffe

15

METALS AND ALLOYS
 OPEN
 MATERIALS INDEX

ASH-SEA METALLURGICAL LITERATURE CLASSIFICATION

REGIONAL COMMITTEE
 1971-1972

1973-1974

1975-1976

1977-1978

1979-1980

1981-1982

1983-1984

1985-1986

1987-1988

1989-1990

1991-1992

1993-1994

1995-1996

1997-1998

1999-2000

110A

PROCESSES AND PROPERTIES INDEX

Influence of feeding conditions upon the plant's content of various phosphorus compounds. A. V. Sokolov. *Compt. rend. acad. sci. U.R.S.S.* 49, 123 6(1945)(in English); cf. *C.I.* 34, 548P. --Low P in the nutrient reduced the phytin and nucleoprotein P but not phosphatide contents of oat grains but in the young oat seedling the phosphatide content varied with the amt. of P supplied. These conditions were obtained whether nitrate or an ammonium salt was the source of N. Phosphates participate in the reduction of nitrates. By phosphorylation carbohydrates are oxidized to org. acids and CO₂, and nitrates are reduced by H split off from the carbohydrates.

11 D
Date. AN SSSR.

J. T. Sullivan

COMMON ELEMENTS

COMMON VARIABLES

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

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KOKOLOV, A...

ATL U/D 146

CD 1713.1

ATI 32336

A.V. Kokolov, Dr of Agricultural Sciences read a report at the Conference on Problems of Agricultural Chemistry in the New Five Year Plan held at the House of Scientists of the Academy of Sciences of the USSR on May 17 and 20, 1946, in title "The Tasks of Agricultural Chemistry in the New Five-Plan".

PROCESSED AND PRIORITY INDEX

15

Rechecked.

The utilization of nutrients by plants at a low soil moisture content. A. V. Sokolov, *Pedology* (U.S.S.R.) 1946, 77-80. Expts. are reported on plants grown at various moisture contents supplied in the lower layers. Nutrients are placed in either of the layers. Sandy layers between the lower and surface soil layers cut the moisture movement upward. Whereas some nutrients are utilized from the dry layers by the roots, after having been established, the quantity is much lower than the nutrients taken up from the moist layers. S. discusses the theories on contact exchange between roots and soil particles and gives a crit. appraisal of the contributions available since the days of Liebig.

METALLURGICAL LITERATURE CLASSIFICATION

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SUKOLOV, A.V.

"The Role of the Plant in the soil doctrine of V. Dokuchayev"

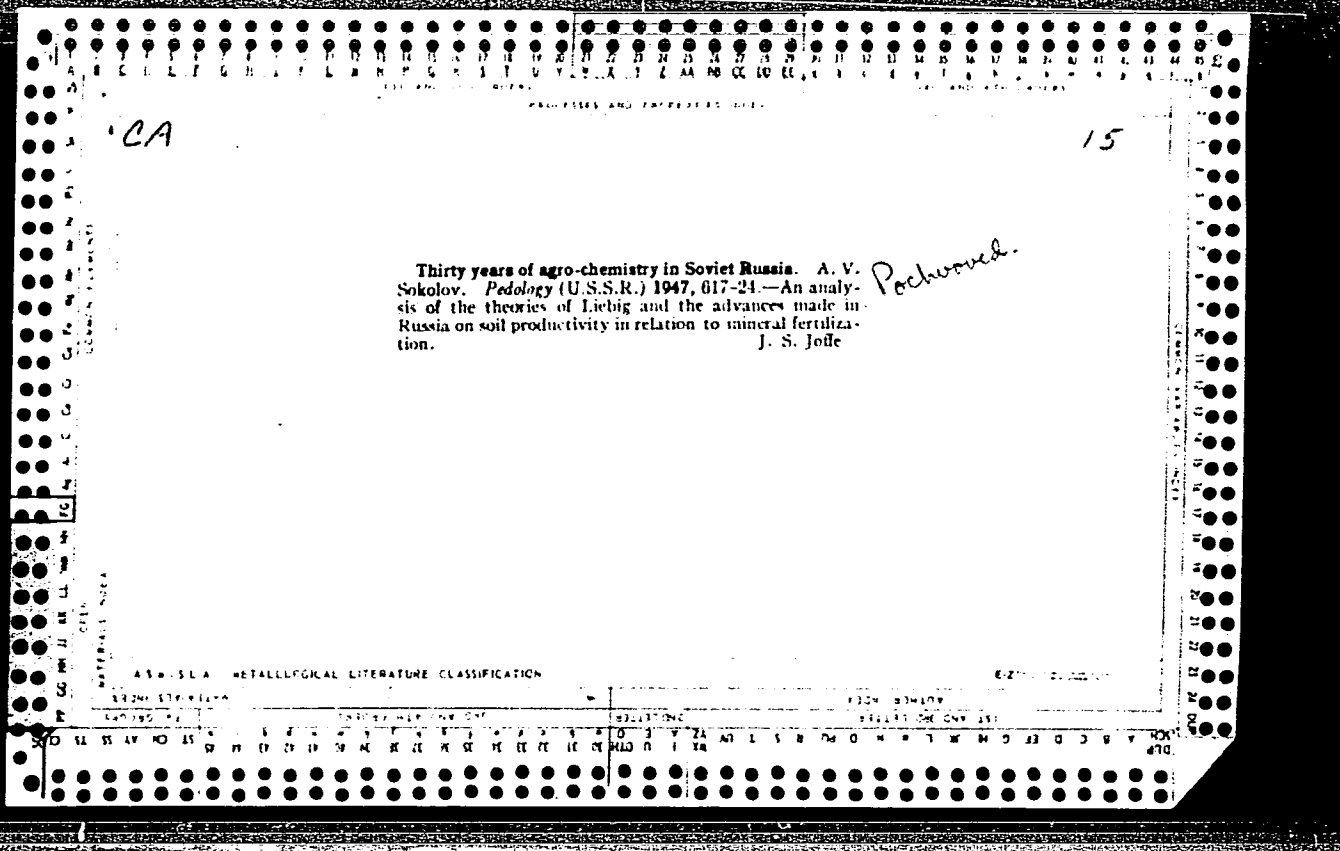
Pochvovedeniye, No.6, 1946

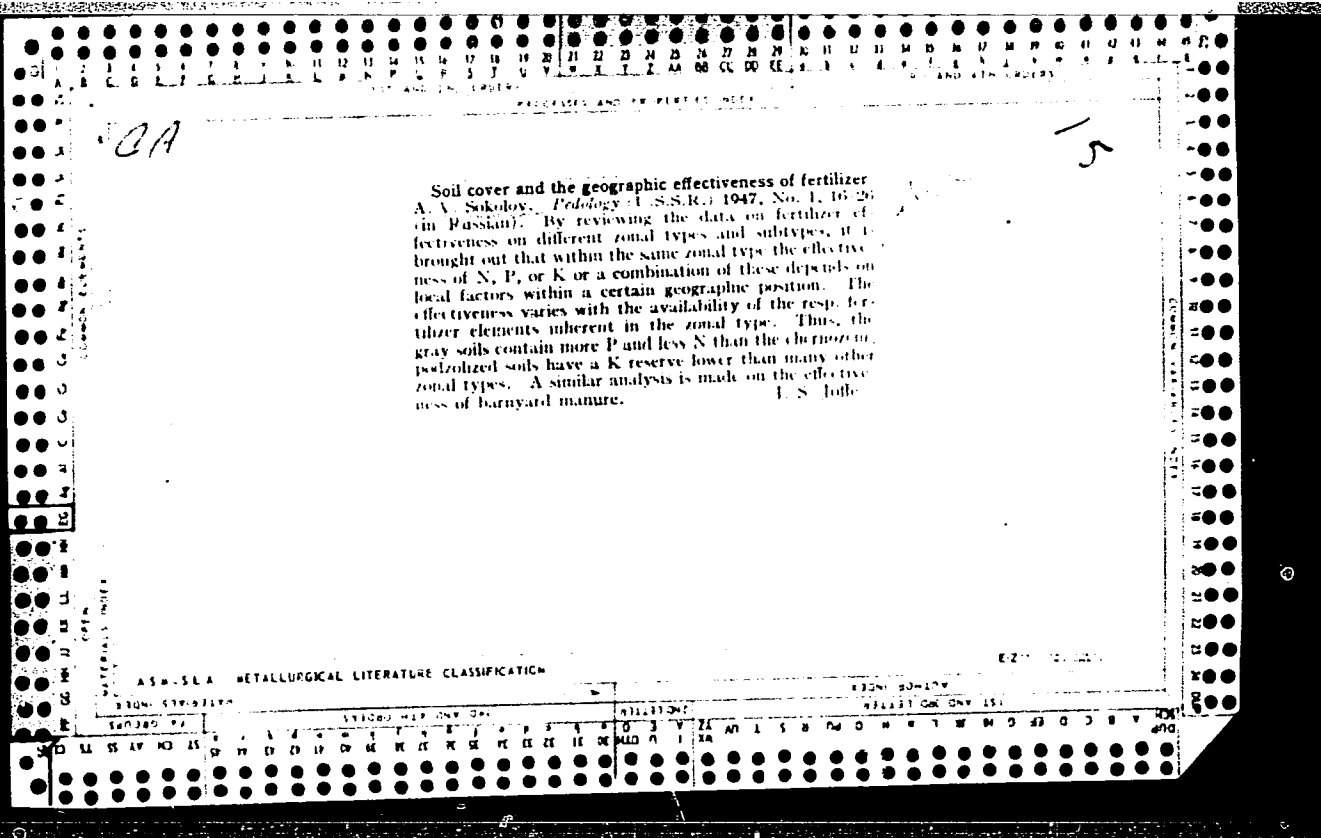
24

On the utilization of symbiotically fixed nitrogen in agriculture. V. V. Sokolov. *Sov. Agron.* 1946, No. 2, p. 15. A review of N fixation by legumes is given. The figures given by investigators used, after analyzing their data, comes to the conclusion that 10 to 60 kg. per ha. is a fair figure for clover. For alfalfa, 10 kg. of N for every ton of hay is considered a close figure. It is also pointed out that for every g. of N fixed 50 g. of org. matter is utilized.

I. S. Ioffe

1946 YEAR METALLURGICAL LITERATURE CLASSIFICATION





SOKOLOV, A. V.

Soils - Analysis

Methods of diagnosing nutritive-element deficiency in soils by physical appearance and plant analysis.
Ruk.issl.pochv. 5, No. 2, 1947.

9. Monthly List of Russian Accessions, Library of Congress, June 1952. UNCLASSIFIED.

SOKOLOV, A. V.

Soils - Analysis

Greenhouse methods of soil analysis.

Ruk. issl. pochv. 5, No. 2, 1947.

9. Monthly List of Russian Accessions, Library of Congress, June 1952. UNCLASSIFIED.

EA

15

The movement of phosphates in the soil. A. V. Sokolov and T. D. Koritskaya. *Pedology (U.S.S.R.)* 1948, 10, 40. Tests were made on the movement and adsorption of P of different sources (mono-, di-, and tri-Ca phosphate, Ca metaphosphate, and K metaphosphate) as affected by temp. and speed of filtration. Plants were grown in a double pot, the inner one receiving N and K salts and the outer one contg. the P salt. The plants were grown in the inner pot which was sepl. from the outer by a cellophane membrane. The phosphates move through the membrane and supply the plants with P. The temp decrease does not alter much the adsorption of P. With an increased speed of filtration more P moves through the soil.

J. S. Joff

Pochwood.

AS - SLA METALLURGICAL LITERATURE CLASSIFICATION

SOKOLOV, A. V.

PA 48/49T4

USSR/Agriculture
Fertilizers
Nitrogen

Jun 48

"History and Current Situation of Soil Science:
Biological Nitrogen and Mineral Fertilizers,"
A. V. Sokolov, 6 pp.

"Pochvovedeniye" No 6

Brief historical review of present knowledge
of biological nitrogen and mineral fertilizers.
Compares fertilizing and soil revitalizing
activity of clover and timothy to action of
mineral fertilizers. Presents recommended methods
for application of mineral fertilizers.

48/49T4

USSR/Agriculture
Soil Science
Phosphates

Oct 48

"Movement of Phosphates in the Soil," A. V. Sokolov,
T. D. Koritskaya, 5 pp

"Pochvovedeniye" No 10

Soil

Low temperatures, high humidity, and increased cultivation of fields decrease phosphate-ion absorption by soil. Movement of phosphates along with soil solutions toward roots of plants increases phosphate intake of plants. Most frequent form of dissolved phosphate is mono-calcium phosphate.

49/49T13

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KAPUSTINSKIY, A.F., redaktor; SOKOLOV, A.V. professor, redaktor;
POSPELOV, I.A., starshyy nauchnyy sotrudnik, redaktor; ~~DEYNEKA~~, O.I.
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MAGIDOV, G.A., kandidat sel'skokhozyaystvennykh nauk [translator];
TOMME, M.F., doktor sel'skokhozyaystvennykh nauk, profassor, redaktor;
SHERGIN, N.P., doktor biologicheskikh nauk, professor, redaktor;
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SORDOV, A. V.

(Leningrad)

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SOKOLOV, A.V.

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SOKOLOV, A. V.

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KAVUN, P.K., red.izd-va; RYLINA, Yu.V., tekhn.rež.

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GORBUNOV, N.I.; SOKOLOV, A.V.; POLYAKOV, Yu.A.

At the Conference of soil scientists of the Polish People's Republic.
Pechvodedenie no.2:115-116 F '59. (MIRA 12:3)
(Poland--Soil research)

So, Kolay, I.L.V.

5(0)
 AUTHOR: Zharovskoy, M. M., Deputy Chairman of the Organization Committee of the VIIIth Mendeleev Congress, Corresponding Member of the AS USSR
 TITLE: VIII. Mendeleev Congress of General and Applied Chemistry (VIII. Mendeleevskiy s'ezd po obshchey i prikladnoy khimii)
 PERIODICAL: Khimicheskaya promyshlennost', 1959, Nr 4, pp 1-10 (USSR)
 ABSTRACT: From March 16 to 23, 1959, the eighth traditional congress of Russian chemists took place in Moscow. The congress was organized by the Academy of Sciences of the USSR, by the Gosyuznomye khimicheskoye obshchestvo imeni D. I. Mendeleeva (All-Union Chemical Society named D. I. Mendeleev), the Gosstativnyy komitet Soversha Ministroy SSSR po khimii (State Committee of the Council of Ministers of the USSR of Chemistry) and by the Ministerstvo vysshey obrazovaniya SSSR (Ministry of Higher Education of the USSR).

Card 2/6

... contribution of the Chairman of the State Committee of the Council of Ministers of the USSR of Chemistry V. I. ...
 ... was given about the "Problems of Scientific Technical Progress of the Chemical Industry" and by the Academician ...
 ... on the "Fundamental Problems of the Polymer Chemistry" in the Plenary meetings the following contributions were given: Academician V. I. ...
 ... the Periodic System of the Elements of D. I. Mendeleev and by the Academician K. K. ...
 ... Academician V. I. ...
 ... Periodic System of D. I. Mendeleev", Academician A. P. ...
 ... Akademik V. A. Engel'gardt - "Fundamental Problems of Biochemistry", Professor K. Sakolov - "Chemical Problems of the Agriculture of the USSR", Director of the Nauchno-Issledovatel'skiy institut khimicheskogo mashinostroyeniya (Scientific Research Institute of Chemical Machine Construction) and Academician ...
 ... the AS USSR Ia. K. ...
 ... of Valence and Acetylation of P. ...
 ... Director of the Institute of Chemistry of the Academy of Sciences of the Chinese People's Republic - "State of the Studies on Rare Elements in the Chinese People's Republic", K. ...
 ... Academician - "Separation of the ... of Cyclobutadiene with Silver Nitrate", Academician I. ...
 ... of the Hydration of the Crystal Hydrates", and Academician R. ...
 ... Compounds by Means of ...
 ... Quantitative Ratio in ...
 ... Professor of the London University ...
 ... Respect to Nitrogen and Oxygen", R. P. ...
 ... Faraday Society and Professor at Oxford University - "The Tunnel Effect in Reactions with the Action of Hydrogen Isotopes" ...
 ... these "Studies of the Kinetics of the Nitration Process",

Card 4/6

Dr. Kolos, A.V.

5(2)

AUTHOR: Zvyagintsev, O. Ye.

BOY/78-4-9-43/44

TITLE: The 8th Mendeleev Congress on General and Applied Chemistry

PERIODICAL: Zhurnal neorganicheskoy khimii, 1959, Vol 4, Nr 9, pp 2178-2182 (USSR)

ABSTRACT: The Congress mentioned in the title was held in Moscow from March 16 to 23, 1959. More than 4000 delegates and guests from 19 countries participated. It was opened by the President of the Organizational Committee, Academician A. N. Nesmeyanov, who asked the participants to discuss the development of chemistry and chemical technology in the USSR in the light of the decisions of the 21st Congress of the CPSU. The following members read papers in the plenary sessions: V. S. Fedorov, Chairman of the Gosudarstvennyy komitet sovetskogo khimii (State Committee on Chemistry of the Council of Ministers, USSR); Tasks of Scientific and Technical Progress in the Chemical Industry; V. A. Kargin; Basic Problems of Polymer Chemistry; A. N. Nesmeyanov; The Periodic System and Organic Chemistry; B. N. Semenov; Basic Problems of Chemical Kinetics; V. I. Spitsyn; The Present State of D. I. Mendeleev's Periodic Law; A. P. Vinogradov; Basic Problems of Radiochemistry; V. A. Engel'gardt; Basic Problems of Biochemistry; A. Y. Eshel'ev; Chemical Problems of Agriculture in the USSR; V. D. Nikolayev; Main Tasks of the Construction of Chemical Machinery and Apparatus; Ya. E. Byrkin; Basic Problems of the Theory of Chemical Linkage; and A. P. Aleksandrov; Chemical Prospects for the Use of Atomic Energy. An appeal to all chemists of the USSR was drawn up in fulfillment of the great tasks posed by the 21st Congress of the CPSU.

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FRANTSESSON, V.A.; KARPINSKIY, N.P.; BALLYBO, N.K.; GRINCHENKO,
A.M.; KRUPSKIY, N.K.

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SOKOLOV, A.V.

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SOKOLOV, A.V.

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SOKOLOV, A. V.

"Methods For Determining The Stock Of Soluble And Available Phosphates In
Soils By Labelled P³²".

report submitted for the 7th Congress of International Society of Soil Science
Madison, Wisconsin, 15-23 Aug 60.

ANTIPOV-KARATAYEV, I.N., akademik, otv.red.; TYURIN, I.V., glavnyy red.;
GORBUNOV, N.I., red.; VERIGINA, K.V., red.; ZONN, S.V., red.;
IVANOVA, Ye.N., red.; KEDROV-ZIKHMAN, O.K., red.; KONONOVA,
M.M., red.; LOBOVA, Ye.V., red.; MISHUSTIN, Ye.N., red.; RODE,
A.A., red.; ROZANOV, A.N., red.; SOKOLOV, A.V., red.; FRIDLAND,
V.M., red.; SHUVALOV, S.A., red.; YEFIMOV, A.L., red.izd-va;
MAKUNI, Ye.V., tekhn.red.

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(Continued on next card)

ANTIPOV-KARATAYEV, I.N.---(continued) Card 2.

Ivanova, Kononova, Rozanov, Fridland, Sokolov). 4. Laboratoriya lesovedeniya Akademii nauk SSSR, Moskva (for Zonn). 5. Vsesoyuznyy nauchno-issledovatel'skiy institut udobreniy i agropochvovedeniya Vsesoyuznoy ordena Lenina Akademii sel'skokhoz.nauk imeni V.I.Lenina i Institut zemledeliya akademii sel'skokhoz.nauk Belorusskoy SSR (for Kedrov-Zikhman). 6. Institut mikrobiologii Akademii nauk SSSR, Moskva (for Mishustin). 7. Nauchnyy institut po udobreniyam i insektofungitsidam im. Ya.V.Samoylova, Moskva (for Sokolov).

(Soil research)

KATALYMOV, M.V., otv.red.; KOROLEV, L.I., red.; SOKOLOV, A.V., red.;
TURCHIN, F.V., red.; UNANYANTS, T.P., red.; DOLGOPOLOV, M.I.,
red.; GRIGOR'YEVA, A.I., red.; BALLOD, A.I., tekhn.red.

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"Psychologische Studien über den Mechanismus der Wirkung von Schlammprozeduren."

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SOKOLOV, A.V., doktor sel'skokhoz.nauk, otv.red.; ASKINAZI, D.L.,
otv.red.; SERDOBOL'SKIY, I.P., kand.sel'skokhoz.nauk, otv.red.;
MARKOV, V.Ya., red.izd-va; SIMKINA, Ye.N., tekhn.red.;
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