RYSANOV, N. F., Eng.; SHABEL'SKIY, M. M., Eng.

Steam Boilers

Replacing the roof on the boiler room while keeping boiler in operation, Elek. sta., 23, no. 4, 1952.

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

ZAYETS, Vladimir Nikolayevich; PETROVSKIY, Vasiliy Vladimirovich; RYSAKOV, Nikolay Fedorovich; DEREVYANNYKH, B.P., redaktor; LUCHKO, Yu.V., redaktor; KOVALENKO, N.I., tekhnicheskiy redaktor.

[Boiler equipment] Kotel'nye ustanovki. Sverdlovsk, Gos.nauchno-tekhn.izd-vo lit-ry po chernoi i tsvetnoi metallurgii, Sverdlovskoe otd-nie, 1955. 296 p. (MLRA 9:6)
(Boilers)

RYSAKOV, N. F.

AID P - 3070

Subject : USSR/Electricity

Card 1/1 Pub. 29 - 4/29

Authors : Tolstikov, A. I., and Rysakov, N. F., Engs.

Title : Pneumatic removal of slag and ashes from the boiler room with layer burning of fuel

Periodical : Energetik, 7, 8-10, Jl 1955

Abstract : The authors describe an installation of three 30 t/hr boilers operating on lignite coming from Chelyabinsk and Korkinsk. The traveling grate-stokers are of the BTsR type. The pneumatic removal of slag and ashes was built according to the design of the Uralenergomontazh. The authors explain in detail the functioning of this arrangement. Six drawings.

Institution : None

Submitted : No date

RYSAKOV, N. F.

AID P - 2572

Subject : USSR/Engineering

Card 1/2 Pub. 110-a - 11/16

Author : Rysakov, N. F. and M. N. Pesoshnov, Engs.

Title : Pulverization and sorting of the Kizel Coal in pulverized fuel-fired units

Periodical : Teploenergetika, 8, 48-51, Ag 1955

Abstract : The article gives an analysis of Kizel coal properties, i.e. its high volatility, mineral content (pyrite), hardness, etc. Studies on operational efficiency and on deficiencies in the design of pulverizing and sorting equipment are summarized. The wear of the equipment is reportedly too fast. The amount of electric energy needed for operation is determined. Properties of pulverized coal are presented graphically. Ten diagrams.

Institution: Ural Polytechnical Institute and Uralenergomontazh

Teploenergetika, 8, 48-51, Ag 1955 AID P - 2572

Card 2/2 Pub. 110-a - 11/16

(Urals Trust for Installation of Power Machinery and Equipment)

Submitted : No date

RYSAKOV, N.F., dotsent.

Burning Kizel coal in furnaces with shaft-type impact mills.
Trudy Ural.politekh.inst.no.61:38-48 '56. (MLRA 10:2)
(Furnaces) (Combustion)

FADYUSHINA, M.P., inzh.; RYSAKOV, N.F., kand. tekhn. nauk, dotsent

Study of the mixing unit of a reactor. Izv. vys. ucheb. zav.; energ. 7 no.8:121-125 Ag '64. (MIRA 17:12)

1. Ural'skiy politekhnicheskiy institut imeni S.M.Kirova. Predstavlena kafedroy teplovykh elektricheskikh stantsiy.

RYSAKOV, N.F., dotsent; SYROMYATNIKOV, N.I., prof., doktor tekhn. nauk

Utilization of fuel in power production and technology. Sbor. nauch. trud. Ural. politekh. inst. no.122:133-139 '61.
(MIRA 17:12)

YANKILOVICH, M.G., inzh.; RYSAKOV, N.F., kand.tekhn.nauk

Application of boiler scavenging. Energetik no.9:5-7 S '64.
(MIRA 17:10)

SERGEYEV, A.A.; RYSAKOV, N.F., dots., retsenzent; SAMOVA, T.M., inzh., red.

[Brief handbook for the boiler maker] Kratkii spravochnik kotel'shchika-montazhnika. Moskva, Mashgiz, 1963. 206 p. (MIRA 17:4)

RYSAKOV, N.F., dotsent

Dynamics of gas generation during thermal treatment of lignite with high-speed superheating. Trudy Ural. politekh. inst. no.108:39-49 '61. (MIRA 16:9)

RYSAKOV, N.F.

Problem concerning the use of Chelyabinsk coal in the production of electric power. Trudy Ural politekh. inst. no.76:48-60 '60. (MIRA 16:6)

(Chelyabinsk--Coal)
(Electric power)

RESHETIN, N.I., prof.; RYSAKOV, N.F., dotsent

Reactors for thermal fuel gasification using solid heat carriers. Trudy Ural. politekh. inst. no.108:50-56 '61. (MIRA 16:9)

BASKAKOV, A.P.; GUREVICH, M.I.; RESHETIN, N.I.; RYSAKOV, N.F.; SHALAYEV, N.B.; GIRSHFEL'D, V.Ya., red.; FRIDKIN, L.M., tekhn. red.

[General heat engineering] Obshchaia teplotekhnika. [By] A.P.Baskakov i dr. Moskva, Gosenergoizdat, 1963. 391 p. (MIRA 16:6)

(Heat engineering)

VOLKOV, Ye.V., inzh.; FEYN, L.M., inzh.; RIBAKOV, N.F., dots.; SKOROKHOD, V.F., inzh.; SHAPIRO, S.Ye., inzh.; SHILYAYEV, N.B., inzh.

Conversion of boiler furnaces from block peat to milled peat by installing cyclone furnaces. Izv. vys. ucheb. zav.; energ. 4 no. 1:116-122 Ja '61. (MIRA 14:2)

1. Ural'skiy politekhnicheskiy institut imeni S.M. Kirova, Uralmashzavod i Uralenergochermet. Predstavlena kafedroy promteploenergetiki Ural'skogo politekhnicheskogo instituta. (Furnaces)

BASKAKOV, A.P., RYSAKOV, N.F., SYROMYATNIKOV, N.I.

Some systems for the use of solid fuels for power engineering purposes. Trudy Ural. politekh. inst. no.79:36-45 '59.
(MIRA 13:7)

(Fuel research)
(Power engineering)

RYSAKOV, N.F., dotsent; RUBTSOV, G.K., inzh.

Problem of the use of Bashkiria coal for power engineering purposes. Izv.vys.ucheb.zav.; energ. 2 no.12:77-84 D '59. (MIRA 13:5)

1. Ural'skiy politekhnicheskiy institut imeni S.M.Kirova. Predstavlena kafedroy promteploenergetiki.
(Bashkiria--Coal) (Power engineering)

BASKAKOV, A.P.; RYSAKOV, N.F.; LEVIN, I.S.; RUBTSOV, G.K.

Thermal decomposition of brown coal at different heating rates.
Gaz.prom. 5 no.6:15-19 Je '60. (MIRA 13:6)
(Coal gasification)

RESHETIN, N.I., prof.; RYSAKOV, N.F., dots.

New reactor for the thermal decomposition of fuel. Izv.vys. uchob.zav.; energ. 3 no.1:106-109 Ja '60. (MIRA 13:1)

1. Ural'skiy politekhnicheskiy institut im. S.M.Kirova. Predstavlena kafedroy promteploenergetiki.
(Furnaces)

11(7) SOV/143-59-2-10/19

AUTHORS: Volkov, Ye.V., Engineer; Rysakov, N.F., Docent; and Shalayev, N.B., Engineer

TITLE: The Application of Cyclone Stokers With Liquid Slag Removal for Firing Cut Peat (O primeneniyem tsiklonnykh topok s zhidkim shlakoudaleniyem dlya szhiganiya frezernogo torfa)

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy - Energetika, 1959, Nr 2, pp 79-86 (USSR)

ABSTRACT: Since about 50% of the coal required by the economic districts of the Ural, including the Sverdlovsk, Perm' and Chelyabinsk Oblast', are mined in Karaganda, Kuznetsk, Ekibastuz, Cheremkhovo and Khakasiya, the authors recommend exploiting the local peat deposits as a boiler fuel. In the past, many methods for using peat as a boiler fuel have been tried, but these experiments failed, since an economic and stable firing of peat could not be achieved. Only the pneumatic stokers of TsKTI, which were based on the whirl principle of A.A. Shershnev, had some

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success and together with the shaft-mill method, they found the most wide-spread application. The cyclone stokers, suggested by Professor G.F. Knorre, are the latest development in this field. The shaft-mill method has a heat liberation value of $150 \cdot 10^3$ kcal/m^3 h, while that of the TsKTI stoker is $120 \cdot 10^3$ kcal/m^3 h, which is relatively low and therefore large stoker volumes are required. In addition, soot traps must be installed, since about 85% of the peat ash are carried out of the smokestacks with the first method and almost 100% with the TsKTI stoker. The large stoker volumes and the soot traps of the presently used methods are not suitable for a large-scale conversion of boiler stokers to use peat as fuel. Therefore, only 2.09 million tons of peat were mined in the Sverdlovsk Oblast', in 1957, while the annual output could be around 40-50 million tons annually, since the peat deposits in this area alone are estimated at 4.5 billion tons. The Ural

The Application of Cyclone Stokers With Liquid Slag Removal for Firing Cut Peat

peat is composed of small particles, those having a size of 3-4 mm amount to only 10-15% and its ash content is 8.9-9%. The melting point of the ash varies between 1050 and 1170°C. The moisture content changes annually; in 1956 it was 46.3%, while it decreased in 1957 to 42%. Mining one ton of peat costs presently 16-18 rubles, but this cost could be reduced with large-scale mining methods. For using peat as boiler fuel on a large scale, the authors recommend a cyclone stoker with liquid slag removal. However, there are no publications available on data for firing peat in cylone stokers. According to data furnished by M.A. Nadzharov [Ref 5] for coal-fueled cyclone stokers, the slag viscosity must not exceed 250 poise at 1400°C. Calculations showed that with a 50% moisture content of the peat, temperatures of only 1400-1500°C could be obtained at the outlet of the cyclone stoker, even if hot air of 400° C was blown in, while theoretically 1640°C were re-

quired. The authors had the opinion that such a temperature would not provide a stable and continous removal of the liquid slag. When burning peat in a cyclone stoker with liquid slag removal, the main problem is to provide a temperature in the combustion chamber which exceeds the melting temperature of the slag to a considerable degree. The authors performed the same calculations for peat with a moisture content of 30-35% which showed that a temperature of 1706-1733°C could be achieved when blowing in air at 350-400°C. Figure 1 shows the graphical presentation of the calculation results. A footnote says that the slag viscosities of various fuels are under investigation at UPI - Ural'skiy politekhnicheskiy institut imeni S.M. Kirova (Ural Polytechnical Institute imeni S.M. Kirov). Based on the theoretical calculations an experimental cyclone stoker was built at UPI, as shown by figure 2. A fan was used, powered by a 50 kw asynchronous motor,

which produced a pressure of 2,000 mm water column at 3,000 m^3/h air consumption. The air heater provided temperatures of up to 500°C. The combustion chamber of the cyclone stoker is shown by figure 3. The peat used for the experiments was preliminarily dried and had a moisture content of 15-20%, its ash content was 11% with 62-69% volatile matter. Its heat value was 3900-4100 kcal/kg. The peat was fed into the cyclone stoker at a rate of 450 kg/h at an air temperature of 350°C, whereby heat liberation values $Q/V_{ts} = 9 \cdot 10^6$ kcal/m^3h and $Q/F_{ts} = 7.5 \cdot 10^6$ kcal/m^3h were obtained. The gas temperatures in the cyclone stoker were 1500-1600°C while the surface temperature of the liquid slag flowing out of the tap hole was 1380-1440°C. Pyrometer errors must be taken into consideration, thus the actual temperatures were somewhat higher. Based on the positive results of the experiment, the Kafedra PTE - Kafedra promtep-

The Application of Cyclone Stokers With Liquid Slag Removal for Firing Cut Peat

loenergetiki (Chair of Industrial Thermal Power Engineering) of UPI suggested at a conference of the technical council of TETs UZTM and the Toplivnyy komitet NTOEP (Fuel Committee NTOEP) on June 28, 1957, to install a cyclone stoker for burning peat with a reduced moisture content at one of the boilers of TETs UZTM. The conference recommended the suggested reconstruction to the administration of the TETs UZTM and asked the Kafedra PTE of UPI to work out a project for such a reconstruction. There are 2 diagrams, 1 graph and 9 Soviet references.

ASSOCIATION: Ural'skiy politekhnicheskiy institut imeni S.M. Kirova (Ural Polytechnical Institute imeni S.M. Kirov)

PRESENTED: Kafedra promteploenergetiki (Chair of Industrial Heat Engineering)

SUBMITTED: November 10, 1958

BASKAKOV, A.P., kand.tekhn.nauk, dotsent; RYSAKOV, N.F., dotsent

Effective use of fuel. Izv.vys.ucheb.zav.; energ. no.5:120-124 My '58. (MIRA 11:8)

1.Ural'skiy politekhnicheskiy institut imeni S.M. Kirova.
(Fuel)

RYSAKOV, P.

Foreign Relations - Scandinavia

Aggravation of Anglo-American conflicts in Scandinavia, Vop. ekon., No. 8, 1952

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

RYSAKOV, P.

Scandinavia - Foreign Relations

Aggravation of Anglo-American conflicts in Scandinavia. Vop. ekon. no. 8, 1952.

9. Monthly List of Russian Accessions, Library of Congress, October 1952 /1966, Uncl.

RYSAKOV, S. V.

Rysakov, S. V. "Survey of Methods Used at Observation Posts for Estimation of Pests and Diseases of Cereals, Apple Trees and Grapes," Itogi Nauchno-Issledovatel'skikh Rabot Vsesoiuznogo Instituta Zashchity Rastenii za 1935 Goda, 1936, pp. 530-533.
423.92 L54I

So: SIRA SI - 90-53, 15 Dec., 1953

ACCESSION NR: AT4043151 S/2754/64/000/003/0202/0220

AUTHOR: Ry*sakov, V.M.

TITLE: Approximate methods of computation and simulation techniques of transient processes in radio wave propagation

SOURCE: Leningrad. Universitet. Problemy* difraktsii i rasprostraneniya voln, no. 3, 1964. Rasprostraneniye radiovoln (Radio wave propagation), no. 3, 202-220

TOPIC TAGS: radio wave, radio wave propagation, transient process, simulation, surface wave propagation, path attenuation function

ABSTRACT: General solutions of transient phenomena in surface wave propagation are complicated and require application of a computer even for simple signals of the type δ (t) and u(t) cos $\omega_0 t$. If only the distortions in the signal are of interest, however, several simplifications can be introduced. For a planar homogeneous earth the range factor e^{ikr}/r is normalized out and the path attenuation function $W(sr)$ is approximated by $W(x_1, x_2)$, where $x_1 = \frac{\omega}{\omega_{01}}$, $x_2 = \frac{\omega}{\omega_{02}}$. Here ω_{01} and ω_{02} are characteristic frequencies of the path i.e., $\omega_{01} \sqrt{\frac{2\sigma C}{\varepsilon C_0}}$ at which sr = 1 when displacement currents are neglected, and

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ACCESSION NR: AT4043151

$\omega_{o2} = \frac{2C\,\mathfrak{C}m}{\tau}$ at which $|sr| = 1$ when conduction currents are neglected ($sv = -ikv/$

$2(\mathfrak{C}m - \frac{i\sigma}{\omega\mathfrak{C}o}))$. The function W (x_1, x_2) is the transfer function of the path and can be written as the sum of two functions, $W'(x_1)$ for a purely conductive path and $W^1(x_2)$ for a purely dielectric path. Analytic expressions for $W^1(x_1)$ and $W^1(x_2)$ are given and a table of f_{o1} and f_{o2} is given for 7 different surface conditions and ranges from 1 to 200 km. The normalized field is now $E^1(i\omega) = W(x_1, x_2)\, E^1{}_o(i\omega)$ where $E^1{}_o(i\omega)$ is the field at the antenna. For a double-layer flat earth the path transfer function is written in terms of 2 characteristic frequencies for each layer and a frequency ω_c at which the depth of the upper layer, $V = \sqrt{\sigma_1 \omega}\, h_c = 1$ i.e., $\omega_c = \frac{1}{h^2 \sigma_1 \mu}$. The general double-layer case requires a computer solution but special cases, such as with negligible upper layer conductance, are easily handled and give results within 20% of the true values. The path transfer function is approximated by a circuit: for a purely conductive path two RC circuits in cascade with time constants of $\tau 2/\omega_{o1}$ and for a purely dielectric

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path one RC circuit with a time constant of $2/\omega_{o2}$. The compensation for the $\mathcal{T}$-circuit is an RLC circuit with $\omega_{o1} = \frac{1}{\sqrt{LC}}$ and $W_{o1}\frac{L}{R}$ and for the $\mathcal{C}$- circuit it is a special RC - coupled amplifier. The transfer function for the homogeneous earth path is approximated by parallel combination of compensated $\mathcal{T}$- and $\mathcal{C}$- circuits followed by a linear mixer. For the stratified earth path with high conductivity in the upper layer the circuit is a parallel combination of a σ- circuit for the lower layer followed by an overcompensated video amplifier to account for response in the vicinity of ω_c, a $\mathcal{T}$-circuit for the upper layer and a $\mathcal{C}$- circuit for the upper layer. In case of low conductivity in the upper layer the approximating circuit is a $\mathcal{C}$- circuit followed by a delay line and mixer combination to simulate the multiple signal reflections which arise in such paths. A combination of these circuits was used to construct a path simulation system. Measurements of the response of this system using simple signals $\delta(t)$, $u(t)\cos\omega_o t$, $u(t)\sin\omega_o T$ and $\delta(t) - u(t)\omega_o$ sin $\omega_o t$, as well as arbitrary pulses, showed a deviation of 5% or less from true values. It was concluded that the initial pulse form (at the antenna) is very important and that small changes in the initial pulse form can influence the final response very significantly. For this reason, the transient characteristics of the antenna must be considered in detail when computing the transient response of the ground wave propagation path. Orig. art. has:

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ACCESSION NR: AT4043151

15 figures, 10 formulas and 1 table.

ASSOCIATION: Leningradskiy universitet (Leningrad University)

SUBMITTED: 00 ENCL: 00 SUB CODE: EC

NO REF SOV: 009 OTHER: 003

Card 4/4

L 11114-66 EWT(1)/T/FCS(k) WR SOURCE CODE: UR/0141/65/008/006/1187/1195

ACC NR: AP6002303 44 44 44 53 53

AUTHOR: Bulgakov, A. K.; Busev, N. I.; Rysakov, V. M.

ORG: Leningrad State University (Leningradskiy gosudarstvennyy universitet)

TITLE: Transient processes in linear antennas 25B,41

SOURCE: IVUZ. Radiofizika, v. 8, no. 6, 1965, 1187-1195

TOPIC TAGS: antenna, microwave antenna, transient electromagnetic field

ABSTRACT: Transient phenomena which occur during either stationary or nonstationary radiation from a linear antenna are investigated. For the traveling wave case, it is shown that radiation impedance is independent of the excitation waveform and the antenna length, and has a value of 83 ohm. In the general case of reflections from an antenna termination, it is shown that most of the attenuation occurs in the reflected rather than the incident portions of the applied wave. For step-function or similar sharply-rising driving voltages, it thus becomes necessary to take these reflections into account; whereas for sufficiently slowly rising voltages, they may be safely ignored. The analysis was extended to a study of transient effects in the near-field antenna region. Experimental results are given for both near- and far-field response to step-function excitation of load matched antennas. The authors conclude that in traveling wave antennas, transient effects must be considered in the near-field region, and for this reason it is not correct to equate antenna action to that of an equivalent point source dipole. Orig. art. has: 4 figures. [SH]

UDC: 621.396.671

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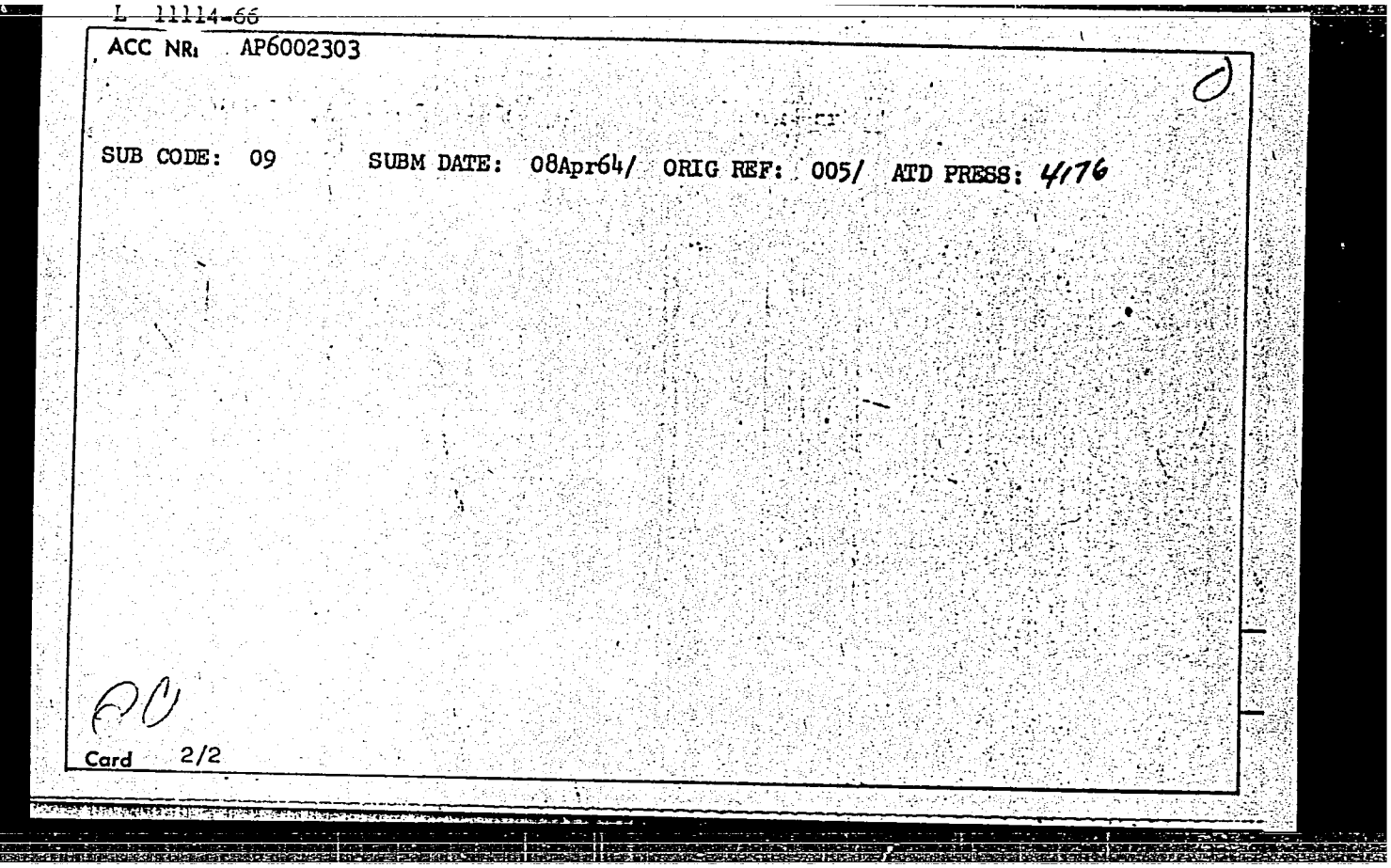

L 11114-66
ACC NR: AP6002303

SUB CODE: 09 SUBM DATE: 08Apr64/ ORIG REF: 005/ ATD PRESS: 4176

Card 2/2

BULGAKOV, A.K.; RYSAKOV, V.M.

Possibility of applying high frequency electromagnetic oscillations to geophysical prospecting. Probl.dif.i raspr.voln. 1:143-150 '62. (MIRA 15:6)

(Prospecting--Geophysical methods) (Electromagnetic waves)

S/754/62/000/001/004/006

AUTHOR: Bulgakov A. K., Rysakov V. M.

TITLE: Possibility of using high frequency electromagnetic oscillations in geophysical prospecting

PERIODICAL: Leningrad. Universitet. Problemy difraktsii i rasprostraneniya voln. no. 1. 1962. Rasprostraneniye radiovoln. 143-150

TEXT: The possibility of employing high-frequency waves in geophysical prospecting is investigated using calculations made with an electronic computer, with special emphasis on the intepretation of experimental data obtained in measurements of the surface impedance of geological structures (or of quantities related with the impedance. The earth is regarded as a double-layer plane-parallel structure with an upper layer of thickness ℓ and a lower layer extending to infinity. Approximate formulas are derived for the dielectric constant (ϵ_2), the thickness (ℓ), and the resistivity (ρ) of the upper layer in terms of the average surface impedance (δ_{av}, the experimentally measured quantity) and the reflection coefficient R , which can be regarded as equal to unity in most cases when the two layers differ appreciably in their electric properties:

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$$\varepsilon_2 = \delta_{av}^{-2}, \quad \ell = \frac{\delta_{av}}{2\Delta f}, \quad \rho_2 = \frac{5.7 \cdot 10^{10} \delta_{av}^2}{\Delta f \cdot \ln \frac{\Delta\delta}{\ell_{av} R_1}} \qquad (1)$$

The accuracy of the above approximate formula was checked against exact calculations with an electronic computer and found to be within 10% in most cases, but the value of deviated under some circumstances from the true value by a factor 2 -- 3. It is shown that an appreciable amount of information concerning the properties of the upper layer can be obtained only if the resistivity of the upper layer exceeds 1000 ohm-meters, when the radio-frequency range from 1 to 10 Mc/sec is most suitable. Direct measurement of surface impedance entails certain practical difficulties, but it is pointed out that satisfactory results are obtained by measuring quantities associated with the surface impedance, namely the coefficient of reflection from the earth's surface for a normally incident wave or the height amplification, the latter by a procedure described by J. R. Wait (ref. 3, Geofisica pura e appl. vol.28, 47, 1954). There are four figures and three references, the first two in Russian. V. V. Novikov, an assistant in the Radiophysics faculty of the Leningrad State University, is credited with the calculations.

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S/754/62/000/001/005/006

AUTHOR: Bulgakov A. K., Rysakov V. M.

TITLE: Experimental investigation of transients in radiowave propagation

PERIODICAL: Leningrad. Universitet. Problemy difraktsii i rasprostraneniya voln. no. 1. 1962. Rasprostraneniye radiovoln. 151-155.

TEXT: The investigation was aimed at ascertaining experimentally the effect of various paths on the waveform of a radio-frequency pulse of the medium length band. The hitherto published theoretical computations used an excessive idealization of the field source. A short vertical antenna was used to transmit cosinusoidal step functions with 550 kc/sec carrier. The transmitting antenna was at a hight of 18 m, a 0.5 m antenna was used for reception, the signal being amplified and fed to an oscilloscope. The waveforms obtained in propagation over different paths were measured. When the paths had high conductivity (mud) the pulse waveform remained constant up to distances of 2 km. At low ground conductivity a noticeable decrease in the amplitude of the high-frequency oscillations was observed even after less than one km. At larger distances the high-

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frequency components attenuate almost completely, owing to preferred propagation of the low-frequency components. Interesting results were obtained in the case of propagation over two-layer grounds, and it is shown that some data can be obtained in this manner concerning the relative thicknesses and conductivityes of the layers. There are six figures and five references, two to work by Wait (Can. j. Phys.) and three to work by Johler.

RYSAKOV, V.M.; ANDREYEV, V.S.

Experimental study of surface impedances in the band 1.5 to 10 Mc. Probl.dif.i raspr. voln 2:212-218 '62. (MIRA 16:4)
(Radio waves) (Impedance (Electricity))

S/169/62/000/009/046/120
D228/D307

AUTHORS: Bulgakov, A. K. and Rysakov, V. M.

TITLE: Experimental investigation of transients during the propagation of radio waves

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 9, 1962, 38, abstract 9A255 (In. collection: Probl. difraktsii i rasprostr. voln, 1, L., Leningr. un-t, 1962, 151-155)

TEXT: The results of experimentally investigating the influence of different routes on the form of the medium-wave band's radio-frequency pulse are described. The transmitter's antenna (a vertical pin, 18 m in height) was fed by current of the type $i = 1(t)\cos\omega_0 t$ with a frequency charge of 550 kc/s (1(t) is the unit switching-on function). At the observation point the signal studied was received on a vertical 0.5-m high antenna, amplified by a wide-band amplifier, and put into a two-beam slave-sweep oscillograph, from whose screen photographs were taken. Time marks were fed to the oscillograph's second beam. The authors quote examples of oscillograms,

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Experimental investigation of ...

obtained in the propagation of pulses over routes of high (a bog) and low ($\sigma \simeq 3 \times 10^{-3}$ ohm$\cdot$m^{-1}) conductance and over a two-layer structure. In the latter case the upper layer was of about 10-20 m and had a low conductance $\simeq 3 \times 10^{-4} - 1.5 \times 10^{-5}$ ohm$^{-1}\cdot$m^{-1}, but the lower layer was a good conductor. It is noted that on the propagation of a pulse over a well conducting medium its form hardly changes with distance, right up to the limiting distances (3 km) which were studied. The decrease in the amplitude of the high-frequency oscillations at a distance of only 1 km is distinctly noticeable in the second case, and these fade practically completely when the distance is further increased. When studying the propagation of pulses over a two-layer structure, considerable distortions were observed; these can be explained by the superimposition of the signal, reflected from the top surface of the lower well-conducting layer. It is pointed out that the upper layer's thickness can be readily ascertained on the oscillograms from the lag of the reflected pulse. It is mentioned that the depths, computed from these data (on the assumption that ε in the top layer equals 10 - 20),

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S/169/62/000/009/046/120
Experimental investigation of ... D228/D307

were found to be extremely close to values obtained by the method of d.c. vertical electric sounding. It is indicated that more detailed analysis of the distortions in the pulse's form will evidently allow not just the bottom layer's depth to be ascertained, but also the structure's electric parameters. [Abstracter's note: Complete translation.]

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3252

S/141/62/005/002/014/025
E192/E582

9.1914

AUTHORS: Dulcakov, A.K., Rysakov, V.M.

TITLE: Experimental investigation of the transient radiation of a vertical antenna

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Radiofizika, v. 5, no. 2, 1962, 328 - 332

TEXT: The transients radiated by a vertical antenna supplied with the current of the type:

$$I = 1(t) \cos (\omega_o t),$$

where 1(t) is the unit step function, were investigated experimentally. Both the dependence of the transient response on the distance from the antenna (the height being fixed) and the height of the antenna (the distance of the observation point from the antenna being fixed) were investigated. The transmitted frequency was f_o = 550 kc/s and the transmitted signal was received by a short vertical antenna (λ = 0.5 m) whose transients could be neglected. The signal so received was amplified in a

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Experimental investigation ....

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wide-band amplifier and applied to an oscilloscope where the transients could be photographed. The experiments indicated the presence of the HF oscillatory transients which were due to the multiple reflections of the applied pulse from both ends of the antenna. The duration of the transient which is defined as the time necessary for the reduction of the amplitude of the HF oscillations by e times was about 10 τ , where $\tau = 2\ell/c$. The period of the HF oscillations T was approximately equal to the transit time of the wave to the top of the antenna and back. In general, the duration of the transients increases with distance from the antenna and its height. There are 7 figures.

SUBMITTED: July 28, 1961

Card 2/2

RYSAKOV, V.N., inzh.; YANKOVSKIY, O.A., kand.tekhn.nauk

Construction of culverts on slopes. Transp. stroi. 12 no.2:18-20 F '62. (MIRA 15:7)

(Culverts) (Cranes, derricks, etc.)

SOV/58-59-9-21044

Translation from: Referativnyy Zhurnal Fizika, 1959, Nr 9, p 234 (USSR)

AUTHORS: Molchanov, A.P., Gyunninen, E.M., Mel'nikov, A.V., Molchanov, Al.P., Myasnikov, L.L., Ryzakov, V.N., Skripov, F.I., Filippov, M.M.

TITLE: Results of the Observations of the Solar Eclipses of 1952 and 1954 at a Wavelength of 3.2 cm

PERIODICAL: V sb.: Polnyye solnechn. zatmeniya 25 fevr. 1952 g. i 30 iyunya 1954 g. Moscow, AN SSSR, 1958, pp 331 - 332

ABSTRACT: The authors give the results of the radio observations of the solar eclipses of 25 Feb. 1952 and 30 June 1954. The residual intensities of the sun's radio emission amount to < 4% and 0.98% respectively.

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3

L 36331-66

ACC NR: AT6012894 SOURCE CODE: UR/0000/65/000/000/0155/0159

AUTHOR: Krinchik, Ye. P.; Rysakova, S. L.

43
B+1

ORG: None

TITLE: The effect of the significance factor of a signal on information processing by man

SOURCE: Sistema chelovek i avtomat (Man-automaton systems). Moscow, Izd-vo Nauka, 1965, 155-159

TOPIC TAGS: bionics, information processing, psychology, man machine relation

ABSTRACT: The authors discuss experiments designed to determine the effects of psychological factors such as the degree of signal significance on information processing by man in choice-making situations. The authors cite experiments conducted at the Department of Psychology, MGU (Otdeleniye psikhologii MGU) under the supervision of Prof. A. N. Leont'yev. The results of these experiments were published ("Voprosy psikhologii" 1962, No 6). Leont'yev studied the effect of the degree of signal significance on reaction time as a function of the quantity of average information. Similar experiments were conducted in which selection reaction time as a function of the quantity of average

Card 1/2

L 36331-66

ACC NR: AT6012894

information was studied under conditions of work with signals, characterized by various degrees of significance. Various reinforcements and degrees of signal significance were used. The results of these experiments showed that changes in reaction time and rate of information processing take place in conformity with the degree of signal significance which the subject formed under various types of reinforcement. Orig. art. has: 2 figures.

SUB CODE: 05 / SUBM DATE: 02Aug65 / ORIG REF: 001

Card 2/2

RYSAKOVA, Ye.N., kand.med.nauk

Protective action of vaginal bacilli. Report No.2: Antibiotic properties of vaginal bacilli. Sbor.rab.Sverd.med.inst. no.32:146-152 '61. (MIRA 16:2)

1. Iz kafedry mikrobiologii Sverdlovskogo meditsinskogo instituta.

(ANTIBIOSIS) (BACILLUS VAGINAE)

RYSAKOVA, Ye.N., kand.med.nauk

Protective action of vaginal bacilli. Report No. 1: Antagonistic properties of vaginal bacilli. Sbor.rab.Sverd.med.inst. no.32: 142-146 '61. (MIRA 16:2)

1. Iz kafedry mikrobiologii Sverdlovskogo meditsinskogo instituta.
(BACILLUS VAGINAE) (ANTIBIOSIS)

30432

S/076/62/036/006/006/011
B124/B110

11.2110

AUTHORS: Pokhil, P. F., Romodanova, L. D., and Rysakova-Romashkan, O. P.

TITLE: Combustion of binary model oxidant - fuel mixtures

PERIODICAL: Zhurnal fizicheskoy khimii, v. 36, no. 6, 1962, 1331-1332

TEXT: Pressed specimens (ρ = 1.9-2.0) were examined at a pressure of approximately 10^{-2} mm Hg in order to study the combustion of the stoichiometric mixtures $KClO_4$ - naphthalene (I) and $KClO_4$ - starch (II). At this pressure, the mixture (II) becomes self-igniting and burns without flame on heating to 560°C. Approximately 120 cal/g heat was emitted during decomposition in the reactive layer of the condensed phase. When the mixture (II) was heated in vacuo to 560°C, it formed 100-110 cm^3 gaseous products per g of mixture and about 65% smoke which burned in the air on ignition. A liquid phase formed at the surfaces of the two mixtures studied. The surface temperature was approximately 640°C in mixture II.

Card 1/2

When heating mixture I to 80°C, naphthalene sublimed and at about 620°C it decomposed to gaseous products. Complete combustion of the two mixtures was observed to occur at a pressure of approximately 20 kg/cm^2. The combustion mechanisms of the two mixtures may thus be assumed to resemble that of ballistite powders. There are 1 figure and 1 table. The English-language reference is: W. H. Andersen, K. W. Bills, E. Mishuck, G. Moea, R. D. Schulz, Comb. and Flame, no. 3, 301, 1959.

ASSOCIATION: Akademiya nauk SSSR, Institut khimicheskoy fiziki
(Academy of Sciences USSR, Institute of Chemical Physics)

SUBMITTED: June 19, 1961

RYSALIEV, M. I VSYAKIKH. A. S.

25150. RYSALIEV, M. I VSYAKIKH, A. S. Plemennoe Zhivotnovodstvo Soukhozov Kirgizii. Sots. Zhivotnovodstvo, 1949, No. 3, S. 28-33

SO: Letopis' No. 33, 1949

RYSAN, Jaromir

Complex processing of barytes in the Czechoslavak Socialist Republic. Przem chem 39 no.6:311-314 Je '60.

1. Rudniany, Spiska Nova Ves, Czechoslovakia

P/014/61/040/006/001/002
D253/D302

AUTHOR: Ryšán, Jaromir, (Rudniany)

TITLE: Baryte processing in Czechoslovakia

PERIODICAL: Przemysł chemiczny, v. 40, no. 6, 1961, 311-314

TEXT: Processing of the Slovak sideritic baryte is described. Of the main Czechoslovakian deposits, the largest are found at Rudniany and these have, therefore, received greatest attention. The Rudniany ore is a mixture of siderite, baryte, tetrahedrite, chalcopyrite, quartz and shale. Intergrowth of the various minerals excludes the use of gravitational methods of separation into concentrates. The ore is of 2 kinds: (a) sideritic ore containing 30% Fe, 10% $BaSO_4$, 10% SiO_2, 0.15% Cu, 0.03% Hg and a graphite shale; and (b) ferrobaryte composed of 10% Fe and 50-70% $BaSO_4$. The latter is free from graphite and yields a high concentrate suitable for bleaching. Refining of the sideritic ore has been worked out and consists of a magnetic separation followed by a series of flotations. Sodium lauryl sulphonate (Syntopon CP paste) was used in laboratory experiments for

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P/014/61/040/006/001/002
D253/D302

Baryte processing...

the baryte flotation. The process will come into operation upon the completion of the new plant at the end of the 3rd-5-year plan. Eventual attainment of 97% $BaSO_4$ in the concentrate is expected. Ferrobaryte will be refined intermittently as required by the same method and at the same plant, yielding a concentrate which may then be bleached and processed into pigment. To meet critical demand, flotation of ferrobaryte was first carried out in 3 copper refineries in 1956 and was later centralized in a single plant. Composition of the concentrates obtained is tabulated. For flotation, the ore must be crushed (70-80% below 200 mesh), suspension density should be 250-300 g/l, and 0.8 Kg oleic acid, 1.2 Kg Syntonpon CP and 0.45 Kg water glass must be added per ton of ore. Further chemical processing of the barytic concentrate in 1956 gave rise to a number of problems as the materials could not be utilized directly due to the unfavorable chemical composition and fineness; thus even direct reduction to BaS proved impossible because of excessive (> 70.6 %) Fe^{2+} content. It was found that at least 90% $BaSO_4$ and not more than 1.5% SiO_2 and 5.3% R_2O_3 were

Card 2/4

Baryte processing...

needed for successful reduction. A baryte extraction plant was opened on 1.7.1957 and continues production to the present day. The chemical treatment processes are then described. The processes are fairly costly due largely to acid corrosion of the equipment. On the chemical side, the yield of baryte concentrate is 0.02 - 0.06 t/hr/m^3 of extraction vessel and requires 2.3 Kg of 100% H_2SO_4 per Kg of Fe dissolved. The losses amount to 5.4% during removal of siderite and a further 1.6% in fines. Additional losses include $\sim$3% during the reduction to BaS_1 as dust. It is estimated that 2000 Kg of pure concentrate are needed for 1 ton of BaS. Some of these losses may be avoided, e.g. by more efficient dust catching or granulation of the reduction mixture and general improvements are anticipated in the future. Methods of bleaching the flotation concentrate with acidic wastes from the production of titania white were evolved in 1956-58 for ores containing no elemental C. Standards for such concentrates are the same as for the reduction. A continuous bleaching process was devised in 1959 and will be put into operation in 1961,

Card 3/4

Baryte processing...

employing the same equipment for both chemical refining and bleaching. At present BaS production is carried out in the same equipment as used for chemical refining. In the latter, 1.5 t of concentrate are treated with $1m^3$ of waste acid at $90^{\circ}C$, for $1\frac{1}{2}$ hours. In multistage flotation dark foam collects in the first few tanks and light in the last. The products consist of a light suspension ($\sim$1800 g/l) and a dark foam containing $\sim$15% of baryte concentrate. The suspension is filtered, washed, filtered again and converted to BaS. The fines yield bleached baryte and pigment. Concentrate collected by the foam is reduced to BaS. Refinement of baryte for the petroleum industry, by the removal of flotation reagents and finer granulation, is now being investigated. Large scale production of baryte concentrates and of a wide range of Ba compounds is expected in the near future. There are 1 figure and 2 tables.

ASSOCIATION: Spiska Nova Vés, Rudniany, ČSRS

Card 4/4

RYSAN, Vaclav; SVOBODA, Zdenek

A hundred-channel amplitude analyzer. Jaderna energie 6 no.5: 167 My '60.

1. Ustav jaderneho vyzkumu, Ceskoslovenska akademie ved, Praha.

85027
Z/036/60/000/005/004/004
A201/A026

9,6000 (1024, 1099, 1160)

AUTHORS: Ryšan, Václav; Svoboda, Zdeněk

TITLE: 100-Channel Amplitude Analyzer

PERIODICAL: Jaderná energie, 1960, No. 5, p. 167

TEXT: The Ústav jaderné fysiky (Institute of Nuclear Physics) built a 100-channel amplitude analyzer with a nickel-wire magnetostriction memory. The apparatus is of cabinet design with power sources mounted in the lower half and two vertically mounted drawers of the apparatus proper in the upper half. Radiation hitting the detector is converted to electric pulses, whose amplitude corresponds with the energy of the radiation. The analyzer directs these pulses into the individual channels according to their respective amplitudes. The apparatus operates on the principle of amplitude-to-time conversion with pulses being stored in a magnetostriction memory. The spectrum measured is indicated on a screen in the binary system in the form of permanent bright spots. Amplified pulses are fed to the analyzer where they are further amplified and shaped. Subsequently, they pass through a gate to the comparator circuit. Here their amplitude is compared to a linearly increasing, periodically repeating sawtooth

Card 1/3

voltage. The result obtained is a time period defined by the starting point of a sawtooth and the point of agreement. The pulse obtained is recorded in the channel corresponding with the established time period. The number of channels is variable by a switch in 4 stages (60, 80, 100, and 120 channels). The memory consists of a 6.5 m long, 0.15 mm diameter nickel-plated wire. Its delay is 1,300 μsec. It is capable of storing a maximum of 1,200 pulses with a repeating rate of 1 Mc. Additional measurements, e.g., with a two-crystal sum spectrometer, are made possible by a switch-controlled gating circuit. Pulses of the integrated spectrum are extracted from an independent output terminal. The readout of the spectrum from the screen is facilitated by the division of channels into groups of five, and by a transparent grating with numbers indicating the channel capacity at a given point on the screen. However, this arrangement is far from being ideal and, therefore, an automatic readout attachment with an electric calculating machine is being developed. Technical data: Number and capacity of channels: approximately 10^6 pulses with 60 channels, 3×10^4 pulses with 80 channels, 4×10^3 pulses with 100 channels and 10^3 pulses with 120 channels. Width of channels: 3.3 v with 60 channels, 2.5 v with 100 channels, 2 v with 100 channels, and 1.6 v with 120 channels. Resolving power: 1.4 msec. Gating circuit: channel closes by positive pulse, opens by negative pulse. Num-

85027

Z/038/60/000/005/004/004
A201/A026

100-Channel Amplitude Analyzer

ber of vacuum tubes per channel: 0.77. Power input: 1 kw. There are: 1 photograph and 1 English reference.

ASSOCIATION: Ústav jaderného výzkumu ČSAV (Insitute of Nuclear Research, CSAV) in Prague

Card 3/3

RYSANEK, Antonin; PARIZKOVA, Dagmar

Preparation of pearl polyvinyl acetate. Chem prum 12 no.5:271-274 My '62.

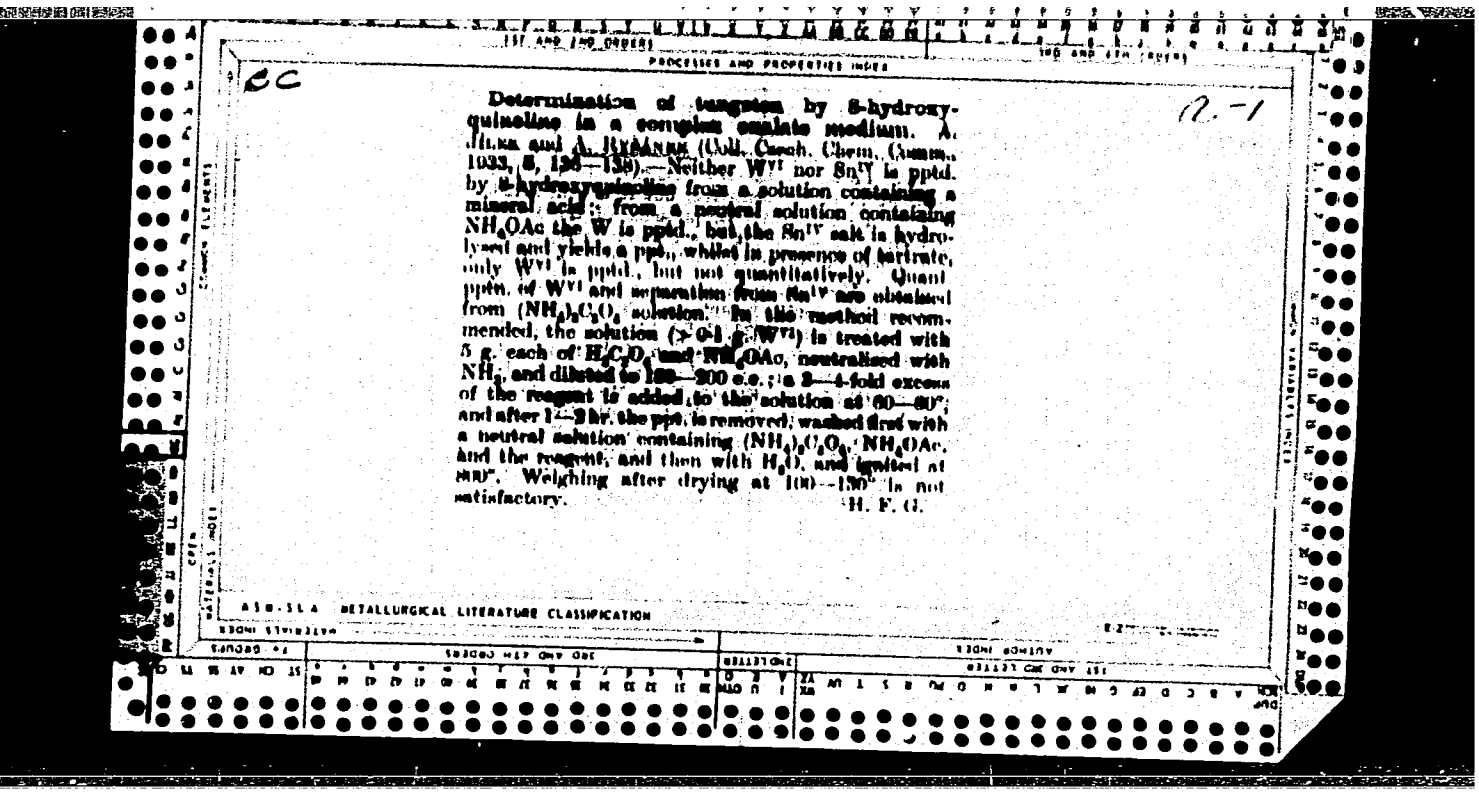
1. Vyzkumny ustav makromolekularni chemie, Brno.

RYSANEK, A.

Distr: 4E2c(j)

Preparation of concentrated synthetic latexes. Antonín Ryšánek (Výzk. úst. makromolekulární chem., Brno, Czech.). *Chem. průmysl* 10, 100–2(1960).—The influence has been discussed of the reaction conditions on the colloid-chem. stability of the system during emulsion polymerizations; a theoretical treatment is given of the dependence of the concn. of emulsifier (C) and the rate of addn. of the latter on the no. (N) and the diam. of the particles (L), and on the concn. of polymer in the latex (c). From a graphical interpretation of the relations between C, N, L, and c the conditions of the emulsion polymerization can be estd.

J. Šebenda



PROCESSES AND PROPERTIES INDEX

2C

2.-1

Determination of tungsten by 8-hydroxyquinoline in a complex oxalate medium. A. Jilek and A. Rymánek (Coll. Czech. Chem. Comm., 1933, 5, 126—139).—Neither W^{VI} nor Sn^{IV} is ppted. by 8-hydroxyquinoline from a solution containing a mineral acid; from a neutral solution containing NH_4OAc the W is ppted., but the Sn^{IV} salt is hydrolysed and yields a ppt., whilst in presence of tartrate, only W^{VI} is ppted., but not quantitatively. Quant. ppn. of W^{VI} and separation from Sn^{IV} are obtained from $(NH_4)_2C_2O_4$ solution. In the method recommended, the solution (>0·1 g. W^{VI}) is treated with 5 g. each of $H_2C_2O_4$ and NH_4OAc, neutralised with NH_3, and diluted to 150—200 c.c.; a 2—4-fold excess of the reagent is added to the solution at 60—80°, and after 1—2 hr. the ppt. is removed, washed first with a neutral solution containing $(NH_4)_2C_2O_4$, NH_4OAc, and the reagent, and then with H_2O, and ignited at 800°. Weighing after drying at 100—150° is not satisfactory. H. F. G.

A58-SLA METALLURGICAL LITERATURE CLASSIFICATION

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

3RD AND 4TH ORDERS

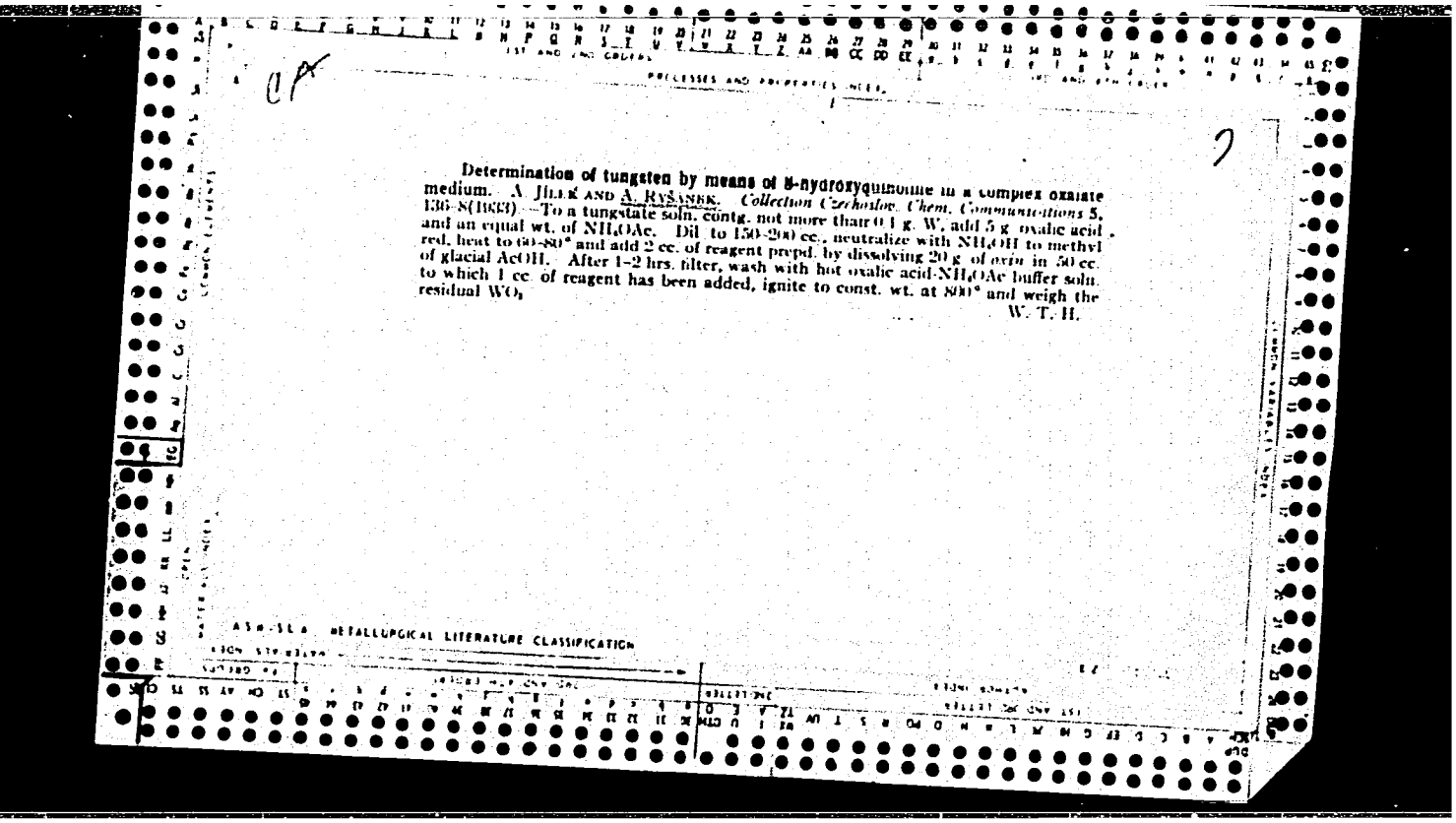
BC

a-1

Separation of tungsten from tin by 8-hydroxyquinoline in presence of sodium oxalate. A. Jílek and A. Jelínek (Coll. Czech. Chem. Comm., 1936, 8, [illegible]; cf. [illegible], 1935, [illegible]).—The quantities of W found in W-Sn mixtures by the method previously given are high since the W ppt. retains some stannic acid. The wt. of ppt. obtained from 40—100 mg. of W and 5—200 mg. of Sn in a medium of aq. $Na_2C_2O_4$, NaOAc, 2% AcOH, and the reagent corresponds with the W, since the co-pptd. Sn compensates for the W left in solution. Double pptn. effects quant. separation. The solution is treated with 50 c.c. of 10% $H_2C_2O_4$, neutralised with NaOH, diluted to 200—250 c.c., and 2 c.c. of reagent (2 g. of 8-hydroxyquinoline in 5 c.c. of AcOH) are added to the solution at 60—80°. After 1 hr. the ppt. is removed, washed first with aq. $Na_2C_2O_4$ at 70°, then with reagent, and finally with H_2O, boiled with conc. H_2SO_4, cooled, and reheated after addition of H_2O. Excess of NaOH is added, and reppt. is effected with $H_2C_2O_4$ etc. as above. The ppt. is ignited in presence of $H_2C_2O_4$.

J. G. A. G.

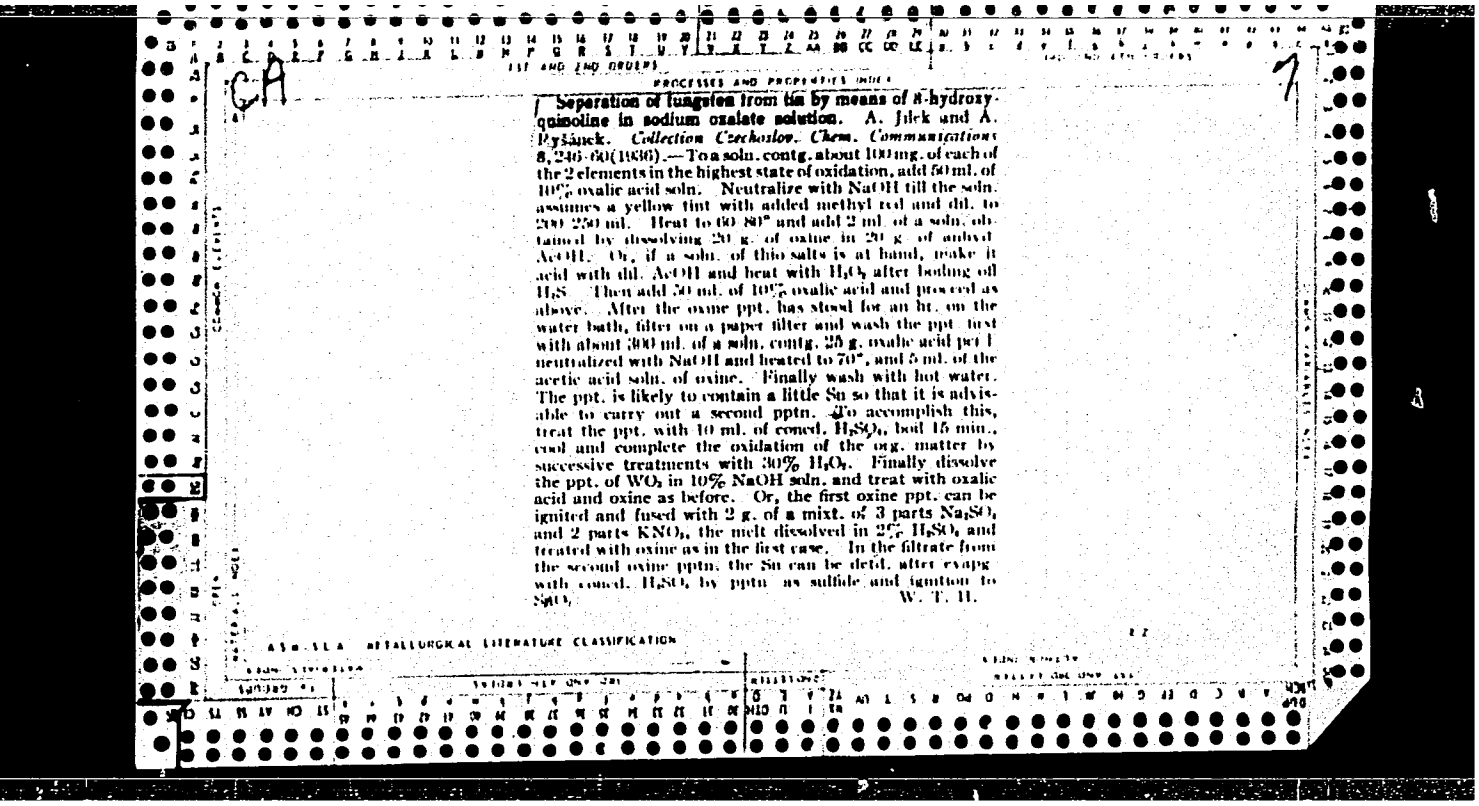
ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



Determination of tungsten by means of 8-hydroxyquinoline in a complex oxalate medium. A. Jilek and A. Ryšánek. *Collection Czechoslov. Chem. Communications* 5, 136-8(1933).—To a tungstate soln. contg. not more than 0.1 g. W, add 5 g. oxalic acid and an equal wt. of NH_4OAc. Dil. to 150-200 cc., neutralize with NH_4OH to methyl red, heat to 60-80° and add 2 cc. of reagent prepd. by dissolving 20 g. of *oxin* in 50 cc. of glacial AcOH. After 1-2 hrs. filter, wash with hot oxalic acid-NH_4OAc buffer soln. to which 1 cc. of reagent has been added, ignite to const. wt. at 800° and weigh the residual WO_3.

W. T. H.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

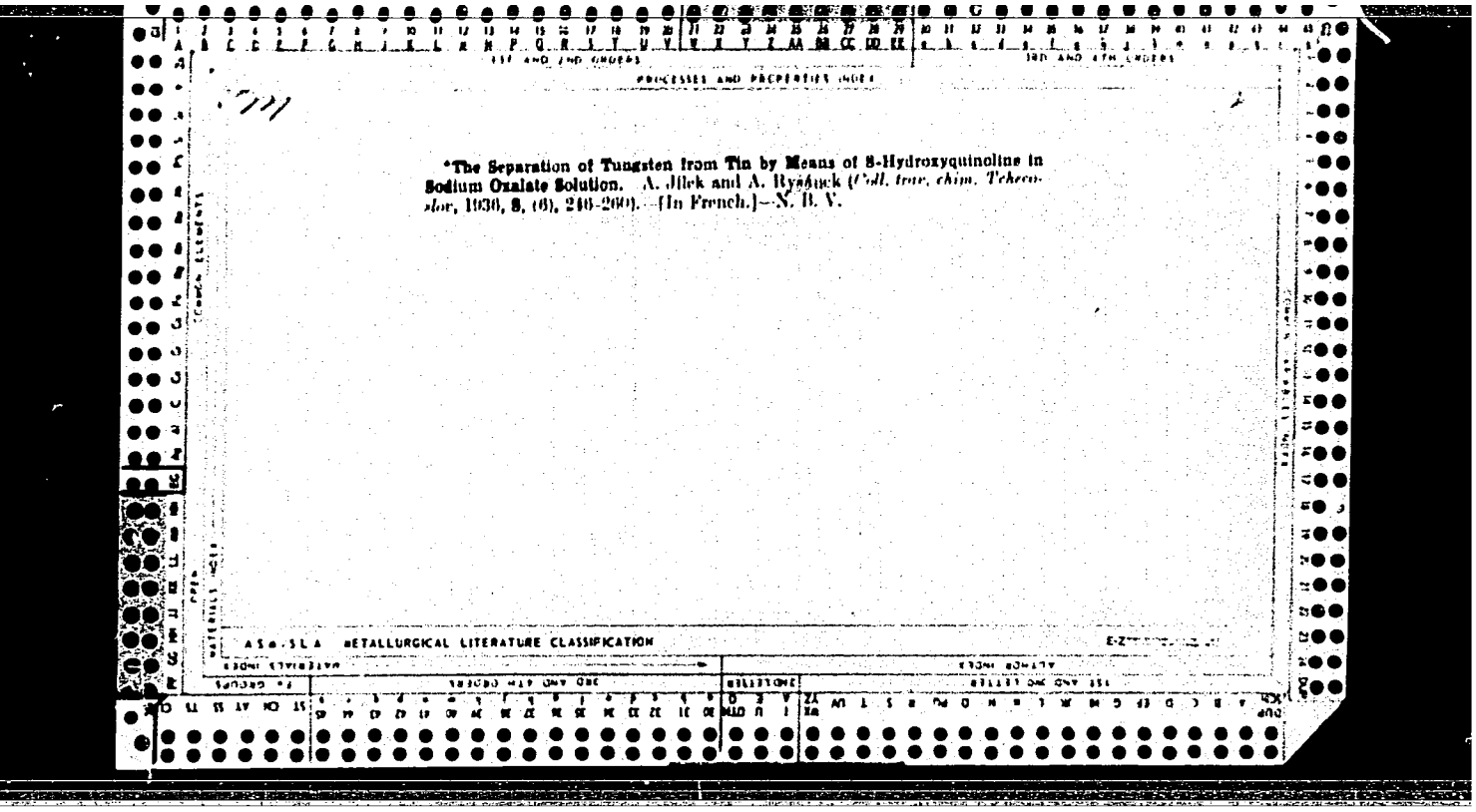


CA

PROCESSES AND PROPERTIES INDEX

Separation of tungsten from tin by means of 8-hydroxyquinoline in sodium oxalate solution. A. Jilek and A. Rylšánek. *Collection Czechoslov. Chem. Communications* 8, 246-60(1936).—To a soln. contg. about 100 mg. of each of the 2 elements in the highest state of oxidation, add 50 ml. of 10% oxalic acid soln. Neutralize with NaOH till the soln. assumes a yellow tint with added methyl red and dil. to 200-250 ml. Heat to 60-80° and add 2 ml. of a soln. obtained by dissolving 20 g. of oxine in 20 g. of anhyd. AcOH. Or, if a soln. of this salts is at hand, make it acid with dil. AcOH and heat with H_2O_2 after boiling off H_2S. Then add 50 ml. of 10% oxalic acid and proceed as above. After the oxine ppt. has stood for an hr. on the water bath, filter on a paper filter and wash the ppt. first with about 300 ml. of a soln. contg. 25 g. oxalic acid per l. neutralized with NaOH and heated to 70°, and 5 ml. of the acetic acid soln. of oxine. Finally wash with hot water. The ppt. is likely to contain a little Sn so that it is advisable to carry out a second pptn. To accomplish this, treat the ppt. with 10 ml. of concd. H_2SO_4, boil 15 min., cool and complete the oxidation of the org. matter by successive treatments with 30% H_2O_2. Finally dissolve the ppt. of WO_3 in 10% NaOH soln. and treat with oxalic acid and oxine as before. Or, the first oxine ppt. can be ignited and fused with 2 g. of a mixt. of 3 parts Na_2SO_4 and 2 parts KNO_3, the melt dissolved in 2% H_2SO_4 and treated with oxine as in the first case. In the filtrate from the second oxine pptn. the Sn can be detd. after evapg. with concd. H_2SO_4 by pptn. as sulfide and ignition to SnO_2. W. T. H.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



"The Separation of Tungsten from Tin by Means of 8-Hydroxyquinoline in Sodium Oxalate Solution. A. Jilek and A. Ryšánek (*Coll. trav. chim. Tchecoslov.*, 1930, **8**, (6), 240-260). [In French.]—N. B. V.

PHASE I BOOK EXPLOITATION SOV/4983

International symposium on macromolecular chemistry. Moscow, 1960.

Mezhdunarodnyy simpozium po makromolekulyarnoy khimii, SSSR, Moskva, 14-18 iyunya 1960 g; doklady i avtoreferaty. Sektsiya II. (International Symposium on Macromolecular Chemistry Held in Moscow, June 14-18; Papers and Summaries) Section II. [Moscow, Izd-vo AN SSSR, 1960] 559 p. 5,500 copies printed.

Sponsoring Agency: The International Union of Pure and Applied Chemistry, Commission on Macromolecular Chemistry

Tech. Ed.: T.A. Prusakova.

PURPOSE: This book is intended for chemists interested in polymerization reactions and the synthesis of high-molecular compounds.

COVERAGE: This is Section II of a multivolume work containing papers on macromolecular chemistry. The papers in this volume treat mainly the kinetics of various polymerization reactions initiated by different catalysts or induced by radiation. Among the research techniques discussed are electron paramagnetic resonance spectroscopy and light-scattering interpolation. There are summaries in English, French and Russian. No personalities are mentioned. References follow each article.

45

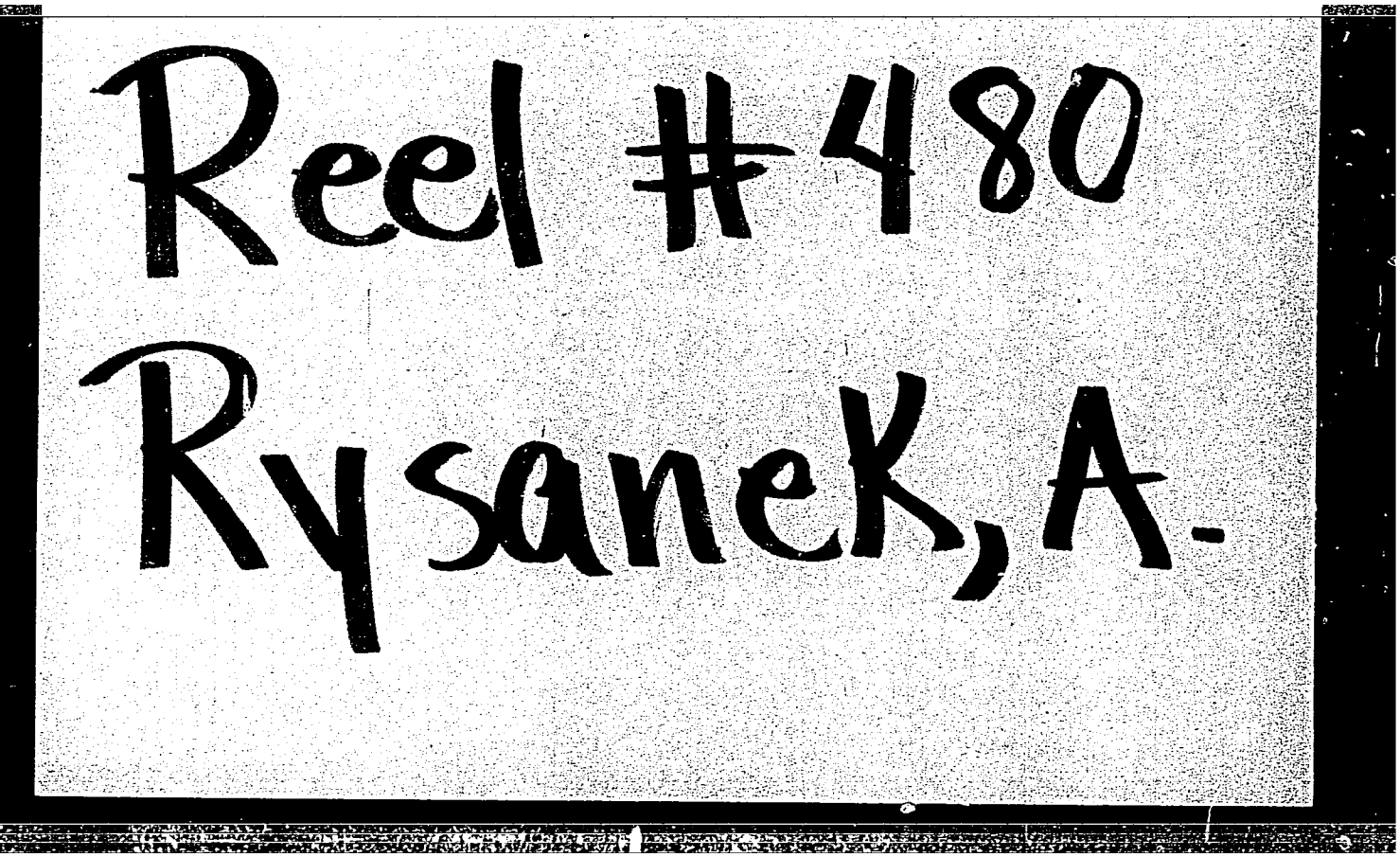
RYSANEK, A.

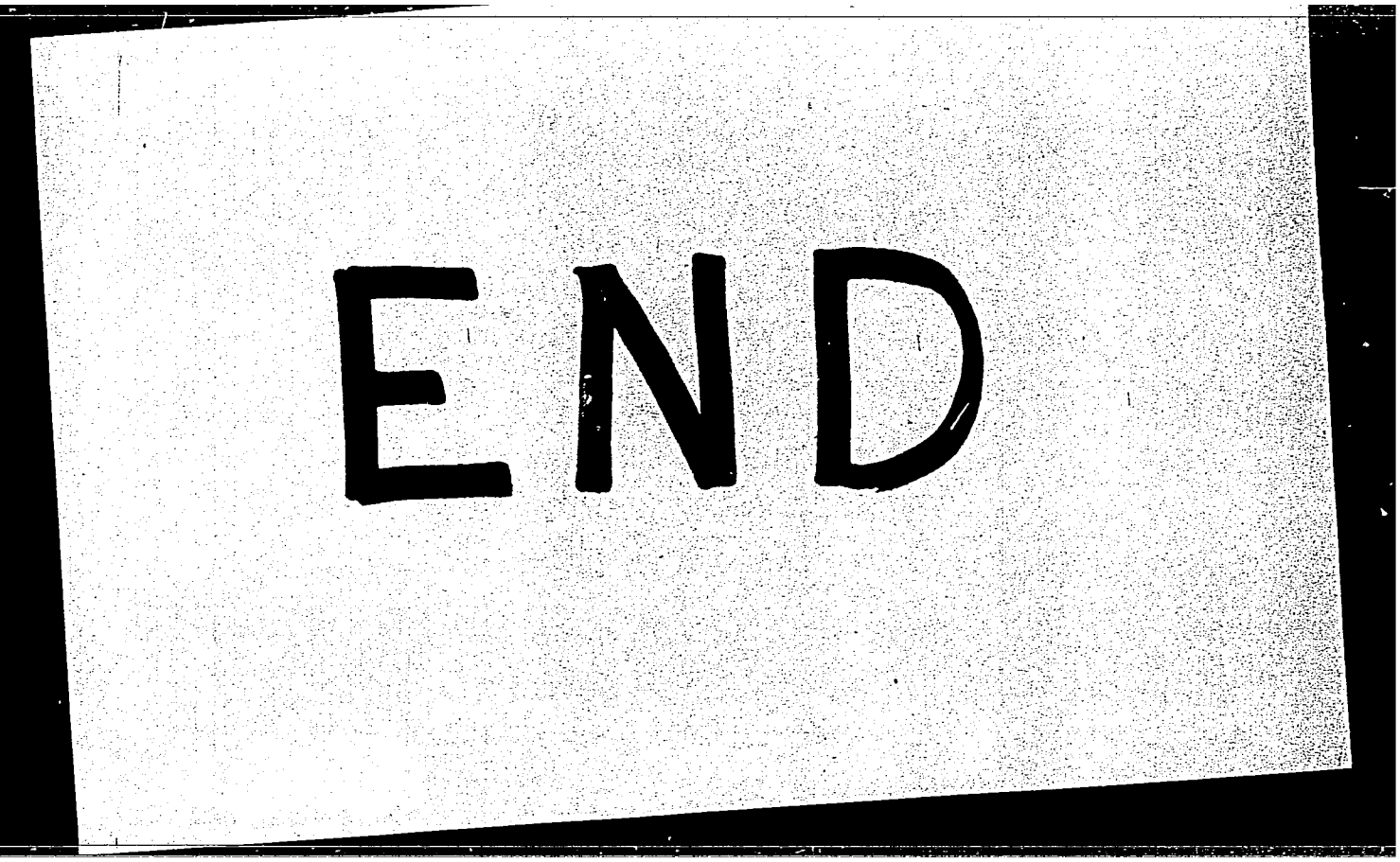
Distr: 4E2c(j) 1 3 2- JAJ (NB) (MAV) 1

The theory of emulsion polymerization. A. Ryšánek (Macromol. Research Inst., Brno, Czech.). *J. Polymer Sci.* 29, 557-63(1958).—The influence of a retarding substance in the system, as per Smith-Ewart theory of emulsion polymerization, is investigated. The concept of Harkins (*CA* 44, 7581*h*) was used to derive an expression for the no. of reacting particles and the polymerization curve in emulsion polymerization, showing that the only centers of reaction in emulsion polymerization are the swollen soap micelles, and after disappearing, the polymer particles in colloidal dispersion in a medium contg. the dissolved initiator. For detg. the polymerization curve during emulsion polymerization in presence of retarding substances, it is assumed that the active concn. of this retarding substance near the reacting radical is const. throughout the first 2 stages of the polymerization. An equation is given to indicate the change of the concn. of reacting particles with time and properties of the polymerization system. The relation det. the polymerization curve from the start of the polymerization until the active concn. near the reacting radical is no longer const. An equation for the decrease in monomer concn. is given.

Arthur Lyem

1/1





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