

Handwritten: K. A. P. K. 01, L. A.

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U-U See Res Inst Fato.

Klep, Kev, L.A.

Chem

Apparatus for continuous extraction of fatty acids from
 ground fat. U.S. Patent 2,811,400, P. 12, 1958.
 CUMMINS, F. V. Method, L. V. Foran, and A. O. Berger
 U.S.P. 2,811,400, Mar. 25, 1958. The apparatus consists of a horizontal
 cylinder carrying blades alternately stationary and moving
 vanes with the fatty acids flowing through the gaps between
 them. The gaps between the moving and stationary vanes
 are adjustable. One side of the vanes is smooth and the
 other is serrated.

ATAULIN, V.V.; VLASOVA, R.M.; DAVYDOVA, Ye.A.; DANILENKO, I.S.; DZIOV, V.A.;
DUBROVIN, A.P.; YEFANOVA, L.V.; KARPENKO, L.V.; KLEPIKOV, L.N.;
KOTRELEV, S.V.; LUK'YANOV, N.I.; MEL'NIKOV, N.V., prof., obshchiy
red.; MERTYCHAN, A.A.; NEMTINOV, A.M.; POOSYANTS, V.K.; SEMIZ,
M.D.; SKOBLO, G.I.; SLOBODCHIKOV, P.I.; SMIRNOV, V.M.; SUSHCHENKO,
A.A.; SOKOLOVSKIY, M.M.; TRET'YAKOV, K.M.; YISH, Ye.A.; TSOY, A.G.;
TSYPKIN, V.S.; CHEKHOVSKOY, P.A.; CHIZHIKOV, V.I.; ZHUKOV, V.V.,
red.isd-va; KOROVENKOVA, Z.L., tekhn.red.; PROZOROVSKAYA, V.L.,
tekhn.red.

[Prospects for the open-pit mining of coal in the U.S.S.R.; studies
and analysis of mining and geological conditions and technical and
economic indices for open-pit mining of coal deposits] Perspektivy
otkrytoi dobychi uglia v SSSR; issledovanie i analiz gornogeologi-
cheskikh uslovii i tekhniko-ekonomicheskikh pokazatelei otkrytoi
rasrabotki ugol'nykh mestorozhdenii. Pod obshchei red. N.V.Mel'-
nikova. Moskva, Ugletekhnizdat, 1958. 553 p. (MIRA 11:12)

1. Vsesoyuznyy tsentral'nyy gosudarstvennyy proyektnyy institut
"Tsentrprogiproshakht." 2. Chlen-korrespondent AN SSSR (for Mel'-
nikov).

(Coal mines and mining)

KUZNETSOV, K.K., prof.; YASTREBOV, A.I., insh.; PODERNI, Yu.S., insh.;
KLEPIKOV, L.N., red.; TRET'YAKOV, K.M., insh.; MKRTYCHYAN, A.A.,
insh.; SALIKOV, I.A., insh.; PISH, Ye.A., insh.; MASTEROV, A.K.,
insh.; MEL'NIKOV, N.V., akademik, red.; BYKHOVSKAYA, S.M., red.
1zd-va; OVSEYENKO, V.G., tekhn. red.; SABITOV, A., tekhn. red.

[Standard plans for mine development and transportation systems]
Tipovye proekty sistem razrabotki i transporta na kar'erakh. Pod
obshchei red. N.V.Mel'nikova. Moskva, Gosgortekhsdat, Vol.2.[The
transportation system in mine; the justification and calculation
of standard layouts, elements, and technical and economic indices]
Transportnaya sistema razrabotki; obosnovaniya i raschety tipov-
ykh skhem, elementov i tekhniko-ekonomicheskikh pokazatelei.
1962. 462 p. (MIRA 16:2)

1. Moscow. Vsesoyuznyy tsentral'nyy proyektnyy institut po pro-
yektirovaniyu shakhtnogo stroitel'stva kamennougol'noy pro-
myshlennosti.

(Mine haulage) (Strip mining)

SEVER'YANOV, N.N., kand. tekhn. nauk, red.; BERLIN, A.Ye.,
retsensent; VOYTSEKHOVSKIY, G.A., retsensent;
DAVIDOVA, Ye.A., retsensent; ZIL'BERSHTEYN, Ya.Yu.,
retsensent; KIRICHINSKIY, N.R., retsensent; KLEPIKOV,
L.N., retsensent; KUBYNIN, A.Ye., retsensent; LEBEDEV,
V.V., retsensent; MOROZOV, V.P., retsensent; MOSKVIN,
V.B., retsensent; MUSARSKIY, I.S., retsensent; FODERNII,
Yu.S., retsensent; SALIKOV, I.A., retsensent; SUSHCHENKO,
A.A., retsensent; TREI'YAKOV, K.M., retsensent; UL'YANOV,
V.P., retsensent; TSVIRKO, P.P., retsensent; TSOY, A.G.,
retsensent; CHEL'TSOV, M.I., retsensent; SHISHCHITS, G.N.,
retsensent; DIDKOVSKIY, D.Z., otv. red.

[Handbook on the prospecting, planning, and construction
of strip mines] Spravochnik po izyskaniyam, proektirovaniu
i stroitel'stvu kar'erov. Moskva, Nedra, 1964. 2 v.
(MIRA 18:2)

КЛЕПИКОВ, Л. В.

Klepikov, L. V. — "Investigation of the Combined Work of the Bases of Foundations and Transverse Frames of Industrial Buildings with a Steel Skeleton." Min Higher Education USSR, Moscow, Order of Labor Red Banner Engineering Construction Inst imeni V. V. Kuybyshev, Moscow, 1955 (Dissertation for the Degree of Candidate in Technical Sciences)

SO: Knishnaya Letopis', No 24, 11 June 1955, Moscow, Pages 91-104

BELENYA, Ye.I., kand.tekhn.nauk; ~~KLIMIKOV, L.V.~~, kand.tekhn.nauk; SAFONOV,
P.V., inzh.nauchn.red.; OUSEVA, S.S., tekhn.red.

[Study of the joint performance of soils, foundations and transverse
members of steel frames of industrial buildings] Issledovanie sovmest-
noi raboty osnovanii, fundamentov i prperechnykh ram stal'nykh karka-
sov promyshlennykh zdanii. Moskva, Gos.isd-vo lit-ry po stroit. i
arkhit. 1957. 57 p. (Moscow, Tsentral'nyi nauchno-issledovatel'skii
institut promyshlennykh sooruzhenii. Nauchnoe soobshchenie, no.28).

(MIRA 12:11)

(Foundations)

(Soil mechanics)

(Building, Iron and steel)

KLEPIKOV, L. V. *and. tekhn. nauk, dots.*

Methods of analysing empirical data in testing steel construction elements of industrial buildings. *Sbor. tr. VISI*
no. 4:132-137 '58. (MIRA 12:8)
(Building, Iron and steel)

KLEPIKOV, L.V.

Instruction for determining technological loads on ceilings
of industrial buildings. Stroi.mekh.i rasch.soor. 2 no.1:
48-49 '60. (MIRA 13:6)
(Ceilings) (Industrial buildings)

KLEPIKOV, L.V., kand.tekhn.nauk

Distribution of technological loads on ceilings of industrial buildings. Prom.stroi. 38 no.1:62-63 '60.

(MIRA 13:5)

1. Tsentral'nyy nauchno-issledovatel'skiy institut stroitel'noy konstruktsii.

(Strains and stresses) (Ceilings)

KLEPIKOV, L.Y. OTSTAVNON, V.A.

Determining loads in making calculations for structural elements.
Stroi.mekh.i rashch.soor. 4 no.5:39-45 '62. (MIRA 15:11)
(Strains and stresses)

KLEPIKOV, Mikhail Maksimovich, inzh.; SLAVNITSKAYA, M.N., red.;
AZOVKIN, N.G., tekhn. red.

[Economize nonferrous metals] Ekonom'no tsvetnyye metally.
Riazan', Riazanskoe knizhnoe izd-vo, 1962. 15 p.
(MIRA 15:12)

(Nonferrous metals)

KLEPIKOV, M.V., fel'dsher (derevnya Mitroki Kirovskiy oblasti)

How we carry out preventive inoculations. Fel'd. 1 akush. 25 no.6:
45-46 Je '60. (MIRA 19:9)

(VACCINATION)

KLEPIKOV, N.

Combined exhibition and selling of variety stove goods. Sov.
torg. no.8:29-31 Ag '58. (MIRA 11:9)

1. Upravlyayushchiy Khar'kovskoy bazoy Glavgalanterei.
(Wholesale trade)

KLEPIKOV, N.

Wholesale center and retail trade. Sov.torg. 33 no.1:
33-35 Ja '60. (MIRA 13:4)

1. Upravlyayushchiy khar'kovskoy bazoy Ukroptgalanterei.
(Wholesale trade) (Retail trade)

KLEPIKOV, N.

Lessons of the Ukrainian fair. Sov. torg. 35 no.2:11-14 F '61.
(MIRA 14:3)

(Kiev—Exhibitions)
(Ukraine—Manufactures)

KLEPIKOV, N. (g.Khar'kov)

Let's plan wisely! Sov. org. 35 no.3:30-32 Nr '62. (MIRA 15:3)
(Russia--Commerce)

KLEPIKOV, N. (Khar'kov)

Noncontractual relations between the wholesale and retail trade. Sov.
torg. 35 no.9:13-17 8 '62. (MIRA 16:2)

1. Upravlyayushchiy khar'kovskoy basoy "Ukroptgalantereya".
(Kharkov Province—Commerce)

SAPEL'NIKOV, Ya.; GOLOVATYY, I.; GLAZUNOVA, V. aspirant, (Moskva); USTINOV, I.; KOLENKO, A.; KONDRATSKIY, A.; YEFREMOVA, L.; CORBACH, P., konstruktor (Moskva); BERGER, I., kand.ekon.nauk; KLEPIKOV, N.; SINYUTIN, V., kand.ekon.nauk; KORZHENEVSKIY, I., kand.ekon.nauk; PEREPLETCHIK, I.

Fiftieth anniversary of "Pravda." Sov. torg. 35 no.5:38-42
My '62. (MIRA 15:5)

1. Nachal'nik Planovo-ekonomicheskogo upravleniya Ministerstva
torgovli RSFSR (for Sapel'nikov). 2. Nachal'nik planovogo otdela
kurorttorga, g. Berdyanak (for Golovaty). 3. Moskovskiy ordena
Trudovogo Krasnogo znameni institut narodnogo khozyaystva im. G.V.
Plekhanova (for Glasunova). 4. Nachal'nik Otdela tovarcoboti
Gosplana USSR, g. Kiyev (for Kolenko). 5. Glavnyy bukhgalter
Zhitomirskogo gorodskogo torga po torgovle prontovarami (for
Kondratskiy). 6. Starshiy khudozhnik Obshchesoyuznogo doma
modelay (for Yefremova). 7. Zaveduyushchiy sektorom Ukrainskogo
nauchno-issledovatel'skogo instituta torgovli i obshchestvennogo
pitaniya (for Berger). 8. Zaveduyushchiy sektorom Nauchno-
issledovatel'skogo instituta torgovli i obshchestvennogo
pitaniya, g. Moskva (for Sinyutin). 9. Zaveduyushchiy sektorom
Ukrainskogo nauchno-issledovatel'skogo instituta torgovli i
obshchestvennogo pitaniya, g. Kiyev (for Korzhenevskiy).
(Russian newspapers)

KLEPIKOV, N. (Khar'kov)

Let's extend fuller credit for seasonal merchandise.
no.3;15-16 Mr '63.
(Ukraine—Variety stores)

Sov. torg. 36
(MIRA 16:3)

(Credit)

CA. KLEPIKOV, N. F.

The problem of transition emission. N. F. Klepikov. *Vysish Moskov. Univ. S. No. 8, 61-7(1931); Sov. Fiz.-Mat. i Estestv. Nauk No. 8.*—The energy radiated by an electron crossing the boundary between 2 dielec. media is calcul. by a method which is simpler and more rigorous than that of Dinshurg and Frank (cf. *J. Exptl. Theoret. Phys.* (U.S.S.R.) 10, 18(1948)). Their results are confirmed. P. H. Murray

1. SOKOLOV, A. A.; KLEPIKOV, N. P.; TERNOV, I. M.
2. USSR 600
4. Quantum Theory
7. Quantum theory of a "luminous" electron, Zhur eksp i teor fiz, 23, No. 6, 1952.

9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

KLEPIKOV, N.P.

USSR :

Angular distribution of photons of the destruction of electron-positron pairs. V.O. Baklanov and N.F. Klepikov.

Yuzh. Moskov. Univ. Ser. Fiz.-Mat. Nauki. Moscow Univ. Ser. 2, 100-101 (1963).—Annihilation of positrons in metals is considered on a theoretical basis. The features are (1) the assumption of a Maxwell distribution of the velocities of the positrons and (2) the introduction of Compton factors in the probability of the annihilation processes. The distribution can then be calculated by the equation:

$$N(x) = \int_0^{\pi} g(\phi, x) N(\phi) d\phi$$

where x is the angle between the lines joining the photon source and the counters for their detection, ϕ is the angle between the emitted photons, and $g(\phi, x)$ is a geometrical function of ϕ and x . $N(\phi)$ is a function which is related to the probability of annihilation as based on Dirac's theory. The results from the theoretical calculations are compared with the experimental data obtained by Vinov and Dobelev (C.A. 45, 7430e, 1956). Extension to the case of 2 photon emission annihilation processes is discussed. Paul Z. Fung

Conf. 100

Chair Theoretical Physics

KLEPIKOV, N.P.

USSR

537.533.9

8349. On the quantum theory of a bremsstrahlung electron. II. A. K. BOKOLOV, N. P. KLEPIKOV AND I. M. YEREMOV. *Zh. Eksp. ior. Fiz.*, 24, No. 3, 249-52, (1953) In Russian.

In continuation of Pt I (Abstr. 528 (1954)), the authors find the total intensity of radiation, assuming $n/l < 1$. The final equation is

$$W = \frac{2}{3} \frac{e^2 v^2}{c^3} \left(\frac{E}{mc^2} \right) \left[1 - \frac{\sqrt{3}}{2} \left(\frac{A}{mcR} \right) \left(\frac{E}{mc^2} \right)^2 + \dots \right]$$

where R is radius of classical orbit, and E = electron energy. (See also Abstr. 8224 (1953)). P. LACROIX

BB

USSR/Nuclear Physics - Fast Elections 1 Apr 53

"Problem of Emission of Fast Electrons in a
Magnetic Field," A.A. Sokolov, N.P. Klepikov
and I.M. Ternov

2 DAN SSSR, Vol 89, No 4, pp 665-668

In further developing works on quantum theory
of luminescing electron (A.A. Sokolov, DAN
SSSR, 67 (1949); A.A. Sokolov et al., "Class-
ical Field Theory" (Klassicheskaya teoriya
pola) 1951; N.P. Klepikov, Dissertation; A.A.

256T107

Sokolov et al, ZhETF, 23 (1952)) authors suc-
ceeded in computing quantum corrections to
full intensity of emission. Presented by Acad
V.V. Shuleykin 16 Feb 53.

FD 402

USSR/Physics - Electron-positron pairs

Card 1/1

Author : Klepikov, N. P.

Title : Radiation of photons and electron-positron pairs in a magnetic field

Periodical : Zhur. eksp. i teor. fiz. 26, 19-34, Jan 1954

Abstract : By means of the relativistic quantum theory the author treats the phenomenon of the radiating electron and also the radiation of pairs by photons and by electrons. He also considers the one-photon annihilation of pairs in a magnetic field. The results obtained hold true for very strong magnetic fields, where the intensity of radiation of electrons differs essentially from the intensity computed according to the classical theory. The author acknowledges the guidance of Prof A. A. Sokolov. 16 references.

Institution : Moscow State University

Submitted : April 16, 1953

USSR/Physics - Space functional

Card 1/1 : Pub. 22 - 11/44

Authors : Klapikov, N. P.

Title : ~~_____~~
Regarding the theory of the space functional

Periodical : Dok. AN SSSR 98/6, 937-940, October 21, 1954

Abstract : Analysis of the space functional $G_0 = \langle T(\exp i \int L(x) dx) \rangle_0$ is given. Knowledge of how to handle the functional, G_0 , will help in finding all of Green's functions for the spreading of electrons, positrons and photons. A system of equations with variational derivatives determining the functional is presented. The method of successive approximations is used for the proof of the compatibility of the equations. Five references; 3 U.S.S.R. (1951-1954). Diagram.

Institution : Moscow State University im. M. V. Lomonosov

Presented by: Academician N. N. Bogolyubov, June 7, 1954.

KLEPIKOV, N. P.
USSR/Physics - Vacuous functional
Card 1/2 Pub. 22 - 6/47
Authors : Klepikov, N. P.
Title : Solution of a system of equations expressing a vacuous functional
Periodical : Dok. AN SSSR, 100/6, 1057-1059, Feb 21, 1955
Abstract : Ways of finding a solution of a system of linear equations expressing the functional G_0 which describes the vacuum of an electron-positron and an electro-magnetic field reacting with each other, are discussed. The method of functional integrals, which began to be used lately, is considered as the most successful one for the above-mentioned purpose. However, solution in closed and finite forms is still the subject for further research.
Institution : The M. V. Lomonosov State University, Moscow
Presented by: Academician N. N. Bogolyubov, December 8, 1954

Periodical : Dok. AN SSSR, 100/6, 1057-1059, Feb. 21, 1955

Card 2/2 Pub. 22 - 6/47

Abstract : A solution in the form of expansion of the G_0 along the power of reverse e (electric charge) is found to be impossible.

SCHWINGER, J.; ~~KLEPIKOV, N.P.~~ [translator]; LAPIDUS, L.I. [translator];
MAYKOVA, Ye.I., [redaktor]; IOVLEVA, N.A., tekhnicheskiy redaktor

[The theory of quantized fields. Translated from the English] Teoriya
kvantevannykh polei. Perevod s angliiskogo N.P.Klepikova i L.I.
Lapidusa. Moskva, Izd-vo inostrannoi lit-ry, 1956. 252 p. (MLR 10:1)
(Quantum theory)

SUBJECT USSR / PHYSICS CARD 1 / 2 PA - 1289
AUTHOR KLEPIKOV, N.P.
TITLE The Application of the Theory of the Singular Integral Equations
to the Scattering of Particles in an Exterior Field.
PERIODICAL Zhurn.eksp.i teor.fis, 30, fasc.4, 701-706 (1956)
Publ. 4 / 1956 reviewed 9 / 1956

The amplitude (or phase) of scattering can also be determined without making use of auxiliary functions within a considerable energy interval with the help of the integral equations of scattering which already many authors have made the object of their research. These equations generalize the so-called theory of damping.

On the occasion of the direct derivation of the integral equation of scattering the equation for the S-matrix is studied from the point of view of the condition that interaction is switched in at $t = 0$: $i\partial S(t)/\partial t = H(t)S(t) + i\delta(t)$. Here $H(t) = \exp(iH_0 t)H\exp(-iH_0 t)$ denotes the interaction operator in interaction representation. Next, an ansatz for those problems is given in which only outgoing waves exist in the final state. This ansatz is then transformed and inserted into the above integral equation. The expressions for the diagonal operator $\Gamma(E)$, for the nondiagonal operator $U(E)$, and for the probability of the transition from the state i into the state f , which occur in the ansatz, are given. The solution $S(t)$ found here is fully identical with the usual solutions in form of series, and they are unitary for any $t > 0$. The equation for the operator U is a linear singular integral equation.

Žurn.eksp.1 teor.fiz,fasc.4, 30, 701-706 (1956) CARD 2 / 2 PA - 1289

Next, the scattering of a spinless particle is investigated on a central field $(H(\vec{r}) = (g^2/r_0) \phi(r/r_0))$, and the entire solution of the integral equation for U is given. The matrix element H_{1f} is developed according to LEGENDRE'S polynomials. If the solution of this equation is known, expressions for the scattering amplitude, the scattering cross section, and for the phase are obtained by means of the formulae of the general theory of scattering. In the more general case the integral equation for U separates into several equations which correspond to the respective values of the total angular momentum and of the total isotopic spin (or to their projections).

As an example for the application of the theory of singular integral equations the scattering of a spinless particle on a punctiform potential is studied. In the case of an infinite integration interval all solutions of the homogeneous equation vanish. The convergence of the integrals is discussed in detail. Thus it is possible, by means of MUSCHELISVILL'S theory of singular integral equations, to obtain solutions without developing according to coupling parameters. In the case of quantized fields the application of the theory of the systems of singular integral equations is probably useful, but the mathematical side of the problem has as yet not been explained.

INSTITUTION: Institute for Nuclear Problems of the Academy of Science in the USSR.

KLEPIKOV, N. P.

C-3

USSR/Nuclear Physics

Abs Jour : Referat Zhur - Fizika, No 5, 1957, 11092

Author : Klepikov, N.P.

Inst : Institute of Nuclear Problems, Academy of Sciences, USSR

Title : Mechanical Phase Analyzers for the Processing of Experimental Data on Scattering of Spinless Particles by Particles with Spins 0 or 1/2.

Orig Pub : Zh. eksperim. i teor. fiziki, 1956, 30, No 6, 1155-1158

Abstract : A leverage mechanism construction is proposed, permitting finding the four scattering phases for a system with spins 0 or 1/2. The quantities $\exp(2i\delta_j)$ (where δ_j are the scattering phases in the state with momentum $j = 1/2$ respectively) are considered as vectors in a plane, with the moduli of certain linear combinations of these vectors being expressed in terms of quantities measured experimentally.

Card 1/2

USSR/Nuclear Physics

C-3

Abs Jour : Ref Zhur - Fizika, No 5, 1957, 11092

By way of these quantities, the author employs in this the differential scattering cross sections for 0° and 180° , as well as the coefficient of the highest degree in the expansion of the differential cross section by Legendre polynomials. If the errors of the experimental quantities are known, then, by varying the position of the mechanism, it is possible to find the phase errors. It is noted that to find a large number of phases it is necessary to employ either data on polarization, or more complicated relationships.

Card 2/2

SUBJECT USSR / PHYSICS CARD 1 / 2 PA - 1376
AUTHOR KLEPIKOV, N.P.
TITLE Solution of a System of Equations for the Vacuum Functional.
PERIODICAL Dokl.Akad.Nauk, 100, fasc.6, 1057-1059 (1956)
Issued: 10 / 1956 reviewed: 10 / 1956

At first the equation system with the variation derivations for the functional G_0 , which describes the vacuum of the electron-positron fields and electromagnetic fields which are in interaction, is given. Each equation of this system is varied according to the corresponding equation, and the limiting values of the half-sums of the third mixed approximations are put equal to one another.

Next, the possibility of a decomposition of G_0 according to the negative powers of e was investigated. The zero-th approximation of such a decomposition must cause the right sides of the aforementioned system of equations to disappear, and apparently the system of equations thus created has no "non-zero-th" solution. However, it is possible to attempt to solve the aforementioned system of equation also by means of the apparatus of functional equations: The solution in form of a functional integral of the LAPLACE type with linear dependence of the coefficient on all three sources is elementary; it is given here. Integration is carried out in such a manner that the function under the integral sign vanishes on the limits. The functionals $G(x, x')$ and $\langle A_\mu(x) \rangle$ are explicitly given; they solve SCHWINGER'S equations.

Dokl. Akad. Nauk, 100, fasc. 6, 1057-1059 (1956) CARD 2 / 2 PA - 1376

Besides, the aforementioned system of equations has a solution in form of a simple functional integral if certain functionals $F(z, t; A)$ and $\Phi[A]$ exist. The functional $F(x, y)$ occurring in the pertinent equations is GREEN'S function for an electron in an assumed exterior electromagnetic field. For this GREEN'S function and for the functional Φ it is easy to determine solutions in form of series according to the powers of e . This, however, is opposed to the principle that series be avoided, and the decomposition of Φ contains a divergent term. The possibilities of representing the solution of the system of equations for the above mentioned simplified functional in a closed and finite form are further investigated.

After the present work had been completed, E.S. PRADKIN, Dokl. Akad. Nauk, 98, 47 (1954) published a similar computation for the case of mesodynamics.

INSTITUTION: Moscow State University "M.V. LOMONOSOV"

80V/62-2-1-5/7
AUTHORS: Klepikov, N. P. and Sokolov, S. N. (Moscow)
TITLE: Non-linear Confluence Analysis. (Nelineyny kon-
flyuyentnyy analiz.)
PERIODICAL: Teoriya Veroyatnostey i yeye Primeneniya, 1957,
Vol.II, Nr.4, pp.473-475. (USSR)

ABSTRACT: In the treatment of experimental results there frequently arises the problem of finding a curve with a finite number of degrees of freedom which best approximates to the set of experimental points, and also of determining the optimum number of degrees of freedom of such a curve. If the points in a space of l of variables obtained from experiment have errors in fewer than l directions, then the problem is reduced to regression analysis. If experimental errors are also present in the measurements of all the coordinates of the points the problem becomes considerably more complicated. Problems of such a nature are related to confluence analysis. There are possibly cases when a quantity free from error is not an independent variable, and then regression analysis can conveniently replace confluence analysis. In the

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SOV/52-2-4-5/7

Non-Linear Confluence Analysis.

literature up to the present time only the methods of linear confluence analysis are described (Refs.1,2,3). Non-linear confluence analysis is considered from the standpoint of the maximum likelihood method. The likelihood function is a product of curvilinear integrals of the respective distribution densities of each point of the curve. For a sufficiently small curvature and a normal error distribution, these integrals are evaluated approximately, resulting in distribution functions of the normal type but with modified weights and shifted experimental points. Thus, a confluent problem is reduced to an ordinary regressional one. Weight modifications and point shifts may be found by means of successive approximations. There are 4 references, of which 3 are English and 1 Soviet.

ASSOCIATION: Ob'yedinennyy Institut Yadernykh Issledovaniy
(United Institute of Nuclear Research).

Card ~~2/3~~

KLEP/NOY, I. I.

T-100

✓ 4139
MECHANICAL PHASE ANALYSIS FOR TREATMENT OF
EXPERIMENTAL DATA
BY
N. I. KLEP/NOY, A. I. NOY
MOSCOW, U.S.S.R.

AUTHOR: Klepikov, N. P.

56-2-49/51

TITLE: **In Connection With P. V. Vavilov's Letter "The Cross Section of the Interaction of Mesons With Nucleons at High Energies"**
(Po povodu pis'ma P. V. Vavilova "Secheniye vzaimodeystviya mezonov s nuklonami pri bol'shikh energiyakh")

PERIODICAL: Zhurnal Eksperimental'noy i Teoreticheskoy Fiziki, 1958, Vol. 34, Nr 2, pp. 533 - 534 (USSR)

ABSTRACT: In the paper mentioned in the title (reference 1) the total cross section of the interaction of pions with nucleons with infinitely high energies is calculated by means of a dispersion relation which in general is called an inverse dispersion relation. This dispersion relation expresses the imaginary part of the amplitude of forward scattering by means of the real part of this amplitude. The total interaction cross section determined by extrapolation to infinitely high energies amounts to $\sigma_{\infty} = 30$ millibar. The result of such a calculation, however, is no prediction of an experimentally not yet measured quantity but it only serves for the veri-

Card 1/3

In Connection With P. V. Vavilov's Letter "The Cross Section of the Interaction of Mesons With Nucleons for High Energies" 56-2-49/51

ification of the coincidence of the used direct and inverse dispersion relation. This coincidence must exist in any extrapolation of the total cross section and it does not depend on the accuracy of the experimental quantities. The contents of the above-mentioned letter can also be regarded as a computation of the cross sections $\sigma_{\pm}(\omega)$ by means of a relation put down here. This relation results from the elimination of the real parts of the amplitudes of scattering to the front $D_{\pm}(\omega)$ from the direct and inverse dispersion relations. The \pm author investigates a simple example for the purpose of refuting the widespread opinion that the result of the application of the dispersion relations was completely indifferent against the behavior of the cross sections at $\omega \rightarrow 0$. Also with random high frequency ω the cross section σ_{∞} obtained by successive approximation of direct and inverse dispersion relation is determined by that level on which the experimental cross sections are extrapolated. There are 2 references, 1 of which is Slavic.

Card 2/3

In Connection With P. V. Vavilov's Letter "The Cross Section of the Inter-
action of Mesons With Nucleons for High Energies." 56-2-49/51

ASSOCIATION: United Institute for Nuclear Research
(Ob'yedinennyy institut yadernykh issledovaniy)

SUBMITTED: October 29, 1957

AVAILABLE: Library of Congress

1. Nucleons-Pions interaction-Theory

Card 3/3

KLEPIKOV, N.P.

Minimum error in the experimental determination of asymmetry.
Zhur.eksp.i teor.fis. 37 no.4:1139-1142 0 '59.
(MIRA 13:5)

1. Ob'yedinennyy institut yadernykh issledovaniy Universitet
Ayn Shams, Kair, Ob'yedinennaya Arabskaya Respublika.
(Nuclear reactions)

KLEPIKOV, N.P.

Removal of multiplicity in phase shift analysis. Zhur. eksp. i
teor. fis. 41 no.4:1187-1194 O '61. (MIRA 14:10)

1. Institut yadernoy fiziki Moskovskogo gosudarstvennogo
universiteta.
(Scattering (Physics)) (Quantum theory)

KLEPIKOV, N.P.; SMORODINSKIY, Ya.A.; ZARUBINA, I.S. [translator];
SARANTSEVA, V.R., tekhn. red.

Inversion of helicity in nuclear reactions. Dubna, Ob'edinen-
nyi in-t iadernykh issledovaniy, 1962. 8 p.
(No subject heading)

14,6600

41141
S/056/62/043/004/051/061
B104/3186

AUTHORS: Klepikov, N. P., Fedorov, V. V.

TITLE: Some threshold peculiarities in the total cross sections of particle interaction

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 43, no. 4(10), 1962, 1524-1525

TEXT: A. I. Baz' (ZhETF, 33, 923, 1957) adopted a definite form for the matrix elements of scattering near the threshold of a reaction which produces two particles, leading to

$$\sigma_t(E) = \sigma_t(E_n) - \frac{2\pi |k| R_0}{k_i^2} \begin{cases} \sin 2\theta, & E < E_n \\ -\cos 2\theta, & E > E_n \end{cases} \quad (1)$$

for the total interaction cross section. E_n is the threshold energy. If no inelastic reactions take place below E and $E > E_n$, one obtains $\sigma_{inelast} = 2\pi |k| R_0 / k_i^2$ from (1). Further,

$$\sigma_{\text{tot}}(E) = \sigma_{\text{tot}}(E_n) - \frac{2\pi |k| R_0}{k_i^2} \begin{cases} \sin 2\theta, & E < E_n \\ 2\sin^2 \theta, & E > E_n \end{cases} \quad (2)$$

Card 1/13

Some threshold peculiarities ...

3/056/62/043/004/051/061
B104/3186

is derived from (1) for the elastic scattering cross section. For spinless particles δ is the phase for $l=0$, whereas for particles having $0, 1/2$ spins, δ is the phase of the states $s_{1/2}$ or $p_{1/2}$, depending on whether or not the product of the internal parities of the particles changes. In the total interaction cross sections (1) any of the four types of threshold peculiarities to which Baz' refers is possible, which holds likewise for the cross section of a scattering under a definite angle. This reasoning was applied to analyze the threshold peculiarities in the total cross section of π^+ -meson interaction with protons near the threshold of the reaction $\pi^+ p \rightarrow \pi^+ \Sigma^+$ ($E_{\pi} = 891.2 \text{ Kev}$). The straight line

$\sigma_t^{(0)} = 4\pi(-0.086 + 0.218 \cdot 10^{-2} E)$ millibarn (E is the energy using the laboratory system) was drawn based on data obtained by N. P. Klepikov, V. A. Keshcheryakov, S. N. Sokolov (Preprint OIYaI, D-584, 1960) and T. J. Delvin et al. (Phys. Rev. Lett., 4, 242, 1960). An additional parameter

$$\sigma_t(E) = \sigma_t^{(0)}(E) + \sigma_t^{(1)}(E).$$

$$\sigma_t^{(1)}(E) = 4\pi \frac{0.040 \sqrt{|E - E_n|}}{1 + 0.02|E - E_n|} \begin{cases} 1. & E < E_n \\ -1. & E > E_n \end{cases} \quad (3)-(4)$$

Card 2/13

Some threshold peculiarities ...

S/056/62/043/004/051/061
B104/3186

was introduced in the threshold region. Only the parameter in the numerator was subject to variation. For the interpolation of $\sigma_t^{(0)}$ the formula $v^2 = \chi^2/f = 3.2$ holds where χ^2 refers to 15 points near the threshold and $f = 15$. The figure represents the experimental points for $(\sigma_t - \sigma_t^{(0)})/4\pi$ and the curve $\sigma_t^{(1)}/4\pi$. This form of threshold peculiarity is compatible with $\delta = 67.5^\circ$. The peculiarity is supposed to occur in the s-phase. There is 1 figure.

+

ASSOCIATION: Institut yadernoy fiziki Moskovskogo gosudarstvennogo universiteta (Institute of Nuclear Physics of the Moscow State University)

SUBMITTED: May 18, 1962

Fig. Experimental points for $(\sigma_t - \sigma_t^0)/4\pi$ and the curve $\sigma_t^{(1)}/4\pi$.

Card 3/13

WIGNER, Eugene Paul; KLEPIKOV, N.P.[translator]; SMORODINSKIY,
Ya.A., red.

[Theory of groups and its application to the quantum
mechanics theory of atomic spectra]Teoriia grupp i ee pri-
lozheniia k kvantovo-mekhanicheskoi teorii atomnykh spek-
trov. Perevod s dopoln. i ispr.isdaniia N.P.Klepikova.
Pod red. I.A.A.Smorodinskogo. Moskva, Izd-vo inostr. lit-ry
1961. 443 p. Translated from the German. (MIRA 15:10)
(Groups, Theory of) (Quantum theory)

KLEPIKOV, N.P.; ROKITYANSKIY, V.R.; RUDOY, Yu.G.; SAYEVSKIY, F.V.;
FEDOROV, V.V.; YUDIN, V.A.

Threshold singularities in the total cross section of pion
scattering by protons. Zhur.eksp.i teor.fiz. 41 no.3:937-938
S '61. (MIRA 14:10)

1. Institut yadernoy fiziki Moskovskogo gosudarstvennogo
universiteta.

(Mesons--Scattering) (Protons)

S/056/62/043/006/035/067
B125/B102AUTHORS: Klepikov, N. P., Smorodinskiy, Ya. A.

TITLE: Chirality inversion in nuclear reactions

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 43,
no. 6 (12), 1962, 2173-2178

TEXT: The scattering matrix $M \rightarrow (\vec{\sigma} \vec{n}_f) M (\vec{\sigma} \vec{n}_i)$ of the transformation $\delta(1-j-1/2) \vec{\sigma} - \delta(1-j+1/2)$ by S. Minami (Prog. Theor. Phys., 11, 213, 1954) can be written as $M \sim U^\dagger(\vec{n}_f) M U(\vec{n}_i)$. Here \vec{n}_i and \vec{n}_f are the unit vectors in the directions of the incident and the scattered particle in the center-of-mass system. This transformation changes the sign of the transverse polarization of the particles, is anticommutates with the spatial reflexion $P(\vec{\sigma} \vec{n}) = -(\vec{\sigma} \vec{n})P$ and satisfies also the unitary condition $i(\vec{M}^\dagger - \vec{M}) = 2\vec{k} \vec{M}^\dagger \vec{M}$, which remains valid when $\vec{M} \rightarrow -\vec{M}^\dagger$. $\vec{M} \rightarrow -\vec{M}$ corresponds to the change of signs of all phases, this comprises the change of signs, the transition to the hermitean-adjoint matrix in the spin space and the

Card 1/3

Chirality inversion in nuclear ...

S/056/62/043/006/035/067
B125/B102

exchange of the final and the initial momentum. The successive rotation of all spins through π around the momenta and the transformation (7) furnishes the chirality inversion of all particles. For particles with spin $1/2$ the chirality inversion reduces itself to $\delta(1-j-1/2) \leftrightarrow -\delta(1-j+1/2)$ (L. D. Puzikov et al., ZhETF, 32, 592, 1957). By modifying the operators, these considerations can be generalized for particles with arbitrary spin. For particles having the arbitrary spin S the operator $U(\vec{n})$ goes over into $\exp[i(\vec{S} \cdot \vec{n})\pi]$. In systems with several particles the inversion chirality must be made for each single particle. By contrast with systems having half-integral spin, the Minami transformation and the chirality inversion do not change the parity of states in systems having integral spin. The remaining ambiguities can be removed by determining the sign of the longitudinal polarization (by measuring the pseudoscalar $(\vec{S} \cdot \vec{n})$, when an electric or magnetic field is applied or by investigating the energy dependence of the effects). Invariance of the observed values with respect to the transformation $M \rightarrow -U^*MU$ is removed with multiple scattering owing to the Thomas precession of spins.



Card 2/3

Chirality inversion in nuclear ...

S/056/62/043/006/035/067
B125/B102

ASSOCIATION: Ob'yedinennyy institut yadernykh issledovaniy (Joint Institute of Nuclear Research); Moskovskiy gosudarstvennyy universitet (Moscow State University)

SUBMITTED: June 22, 1962 (initially)
July 12, 1962 (after revision)

Card 3/3

S/056/63/044/001/062/067
B102/B186

AUTHOR: Klepikov, N. P.

TITLE: A "necessary experiment" in proton-proton scattering

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 44,
no. 1, 1963, 376 - 381

TEXT: It is shown that the difficulties which arise in determining the parameters of the p-p scattering matrix can be considerably reduced by a proper choice of the experiments made at a fixed energy below the pion production threshold. Such a procedure leads to the conception of the "necessary experiment" defined previously (Klepikov, ZhETF, 41, 1187, 1961). If unitarity is taken into account, the n parameters of the scattering matrix can be determined in n+1 measurements in sufficiently accurate experiments on single, double and triple proton scattering. The quantities obtained from the "complete experiment" (Pusikov et al. ZhETF, 32, 592, 1957) are:

$$\sigma(z) = \frac{1}{4} (|a|^2 + |b|^2 + |c|^2 + |d|^2 + |e|^2) = \sum_{n=0, 1, \dots} \sigma^{(n)} z^{2n} \quad (7)$$

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S/056/63/044/001/062/067
B102/B186

A "necessary experiment" in...

$$\sigma(z) P_n(z) = \text{Re } a z^e = z \sqrt{1-z^2} \sum_{m=0,1,\dots} (\sigma P_n)^{(2m)} z^{2m}, \quad (8)$$

$$\sigma(z) D_{nn}(z) = \frac{1}{5} (|a|^2 - |b|^2 + |c|^2 - |d|^2 + |e|^2) = \sum_{m=0,1,\dots} (\sigma D_{nn})^{(2m)} z^{2m}, \quad (9)$$

$$\sigma(z) K_{nn}(z) = \frac{1}{5} (|a|^2 + |b|^2 - |c|^2 - |d|^2 + |e|^2) = \sum_{m=0,1,\dots} (\sigma K_{nn})^{(2m)} (-z)^{2m}, \quad (10)$$

$$\sigma(z) C_{nn}(z) = \frac{1}{5} (|a|^2 - |b|^2 - |c|^2 + |d|^2 + |e|^2) = \sum_{m=0,1,\dots} (\sigma C_{nn})^{(2m)} z^{2m}, \quad (11)$$

The parameters a,b...e are the factors of the scattering matrix

$$M = \frac{1}{5} a [| + (\sigma_{1n})(\sigma_{2n})] + \frac{1}{5} b [| - (\sigma_{1n})(\sigma_{2n})] + \frac{1}{5} c [(\sigma_{1m})(\sigma_{2m}) + (\sigma_{1l})(\sigma_{2l})] + \frac{1}{5} d [(\sigma_{1m})(\sigma_{2m}) - (\sigma_{1l})(\sigma_{2l})] + \frac{1}{5} e (\sigma_{1n} + \sigma_{2n}), \quad (1)$$

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8/056/63/044/001/062/067
B102/B186

A "necessary experiment" in...

the Coulomb parameters are neglected. For all cases the number of equations obtained from the quantities of the "complete experiment" are given, and the mathematical technique is described in detail. There are 2 tables.

ASSOCIATION: Institut yadernoy fiziki Moskovskogo gosudarstvennogo universiteta (Institute of Nuclear Physics of the Moscow State University)

SUBMITTED: August 25, 1962

Card 3/3

KLEPIKOV, N.P.; FEDOROV, V.V.

Some threshold singularities in total cross sections of
particle interactions. Zhur. eksp. i teor. fiz. 43
no.4:1524-1525 0 '62. (MIRA 15:11)

1. Institut yadernoy fiziki Moskovskogo gosudarstvennogo
universiteta.

(Nuclear reactions)

KLEPIKOV, N.P.; SMORODINSKIY, Ya.A.

Spirality inversion in nuclear reactions. Zhur. eksp. i teor. fis.
43 no. 6: 2173-2178 D '62. (MIRA 16:1)

1. Ob'yedinenyy institut yadernykh issledovaniy i Moskovskiy
gosudarstvennyy universitet.
(Nuclear reactions) (Nuclear spin)

AZHGIREY, L.S.; KLEPIKOV, M.P.; KUMKIN, Yu.P.; MESHCHERYAKOV, M.G.;
NURUSHEV, S.B.; STOLETOV, G.D.; SARANTSEVA, V.R., tekhn.red.

[Phenomenological analysis of pp-interaction at 657 Mev]
Fenomenologicheskii analiz pp-vzaimodeistviia pri 657 mev.
Dubna, Ob"edinennyi in-t iadernykh issledovani. Pt.1. 1963. 3 p.
(MIRA 16:6)

(Protons—Scattering)

KLEPIKOV, N.P.

The "necessary experiment" in proton-proton scattering. Zhur.
eksp. i teor. fiz. 44 no.1:376-381 Ja '63. (MIRA 16:5)
(Protons--Scattering)

KLEPIKOV, Nikolay Petrovich; SKOLOV, Skiff Nikolayevich; LIVSHITS,
B.L., Fed.

[Analysis and planning of experiments by the method of
maximum likelihood] Analiz i planirovanie eksperimentov
metodom maksimuma pravdopodobia. Moskva, Nauka, 1964. 163 p.
(MIRA 17:10)

L 17212-63 EWT(m)/DDS AFFTC/ASD
ACCESSION NR: AP3005295 S/0056/63/045/002/0376/0377

AUTHOR: Klepikov, N. P.

52
51

TITLE: Phase shifts of Coulomb pp scattering

SOURCE: Zhur. eksper. i teoret. fiz., v. 45, no. 2, 1963, 376-377

TOPIC TAGS: proton-proton scattering, Coulomb scattering, phase shift, relativistic correction, form factor correction

ABSTRACT: It is pointed out that in order to calculate accurately the phase shifts of proton-proton Coulomb scattering it is necessary to take into account the relativistic corrections to the matrix elements, calculated by Garren (Phys. Rev. v. 101, 419, 1956) and the form-factor corrections calculated by Hofstadter (Phys. Rev. Lett. v. 8, 381, 1962). The resultant table of phase shifts and corrections for 660 MeV protons shows that in the case of lower momenta the corrections are far from negligible. The corrections become

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L 17212-63

ACCESSION NR: AP3005295

negligible for the higher momenta but appreciable for higher energies. Orig. art: has 1 table.

ASSOCIATION: Institut yadernoy fiziki Moskovskogo gosudarstvennogo universiteta (Nuclear Physics Institute, Moscow State University)

SUBMITTED: 20Feb63

DATE ACQ: 06Sep63

ENCL: 01

SUB CODE: PH

NO REF SOV: 001

OTHER: 003

Card. 2/4

AZHGREY, L.S.; KLEPIKOV, N.P.; KUMKIN, Yu.P.; MESHCERYAKOV, M.G.;
NURUSHEV, S.B.; STOLETOV, G.D.

Phenomenological analysis of pp-interaction at 657 Mev. Part 1.
Zhur. eksp. i teor. fiz. 45 no.4:1174-1182 O '63. (MIRA 16:11)

ACCESSION NR: AP4025940

S/0056/64/046/003/1074/1078

AUTHOR: Azhgirey, L. S.; Klapikov, N. P.; Kuzelkin, Yu. F.; Mashcheryakov, M. G.;
Nurushev, S. B.; Stolotov, G. D.

TITLE: Further refinement of pp scattering phase shifts at 657 MeV

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 46, no. 3, 1964,
1074-1078

TOPIC TAGS: pp scattering, scattering phase shift, triple scattering parameter,
mixing parameter, absorption parameter, phase shift real part, unique phase shift
set, statistical reliability

ABSTRACT: In view of additional information recently obtained by various investi-
gators, the results of a phase shift analysis of pp scattering at 657 MeV are re-
fined by taking into account new data on the angular dependence of the triple-
scattering parameter A. These experimental data are found to be represented with
statistical reliability by a set of the real parts of the phase shifts, the mix-
ing parameters, and the averaged absorption parameters. Arguments are presented
which indicate that the obtained phase shift set is unique, particularly in view

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✓

ACCESSION NR: AP4025940

of the smooth transition between the solution and the corresponding curves for energies below 345 MeV. Orig. art. has: 2 figures and 1 table.

ASSOCIATION: Ob"yedinennyy institut yadernyykh issledovaniy (Joint Institute of Nuclear Research)

SUBMITTED: 30Aug63

DATE ACQ: 16Apr64

ENCL: 01

SUB CODE: PH

NR REF SOV: 006

OTHER: 003

Card 2/2

ACCESSION NR: AP4043655

S/0056/64/047/002/0757/0766

AUTHOR: Klepikov, N. P.

TITLE: On the completeness of the "complete" scattering experiment

SOURCE: Zh. eksper. i teor. fiz., v. 47, no. 2, 1964, 757-766

TOPIC TAGS particle scattering, scattering amplitude, uniqueness theorem, existence theorem, elastic scattering

ABSTRACT: The complete scattering experiment is defined as the experiment which will yield the amplitude of scattering of particles with a fixed energy. Although theoretically a complete experiment in pure form is not feasible, since no angular distribution can be measured for all angle values with complete accuracy, nonetheless the use of the concept of the complete experiment is convenient for proving the uniqueness of the analysis of real experiments. The author examines the existence and uniqueness of the complete experi-

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ACCESSION NR: AP4043655

ment under two assumptions: either the cross sections are small enough, or the scattering amplitude can be uniformly expanded in spherical functions. It is shown that in the case of elastic scattering of particles with spins $(0, 0)$, $(0, 1/2)$, and $(1/2, 1/2)$ the complete experiment is compatible only with two scattering amplitudes which satisfy the condition of unitarity and analyticity (relative to $\cos\theta$) in the vicinity of the segment $-1 \leq \cos\theta \leq 1$, if the experiment is invariant with respect to helicity inversion, and is compatible with only one amplitude if this invariance is violated. Only the observation of the scattering cross sections of spinless particles can be complete if data on the electromagnetic forces and of the target properties cannot be employed. "The author thanks Professor Ya. A. Smorodinskiy, Professor M. M. Vaynberg, R. M. Ry*ndin, and S. M. Bilen'kiy for useful discussions." Orig. art. has: 23 formulas.

ASSOCIATION: Institut yadernoy fiziki Moskovskogo gosudarstvennogo

Card 2/3

Y,
ACCESSION NR: AP4043655

universiteta (Nuclear Physics Institute, Moscow State University)

SUBMITTED: 16Mar64

ENCL: 00

SUB CODE: NP

NR REF SOV: 007

OTHER: 003

Card 3/3

FEDOROV, V.V.; KLEPIKOV, N.P.

Planning of experiments discriminating between various curves.
IAd. fis. 1 no.6:1032-1034 Je '65. (MIRA 18:6)

1. Institut yadernoy fiziki Moskovskogo gosudarstvennogo uni-
versiteta.

KLEPIKOV, N.P.; SMORODINSKIY, Ya.A.

Inversion of helicities. IAd. fiz. 2 no.2:392 Ag '65.

(MIRA 18:8)

1. Ob'yedinennyy institut yadernykh issledovaniy.

GORELIK, R.B.; KLEPIKOV, N.P.; YUDIN, V.A.

Unitary description of reactions with the formation of several nonrelativistic particles. IAd. fiz. 1 no.1:152-159 Ja '65. (MIRA 18:7)

1. Moskovskiy gosudarstvennyy universitet.

KLEPIKOV, S.A.

Unknown copy of maps from the "Atlas of the Russian Empire" of
I.K.Kirilov. Izv.Vses. geog. ob-va 88 no.1:87-89 Ja-F '56.
(Maps, Early) (MLRA 9:6)

КЛАПИКОВ, Sokrat Aleksandrovich; ТИХОМИРОВ, M.N., skadnik, redaktor;
КHOVANSKIY, I.P., tekhnicheskii redaktor

[Bibliography of printed maps of the city of Moscow from the 16th to the 19th century] Bibliografiia pechatnykh planov goroda Moskvy XVI-XIX vekov. Pod red. i so vstup. stat'ei M.N.Tikhomirova. Moskva [Gos. biblioteka SSSR im. V.I.Lenina]. 1956. 120 p.

(MLRA 10:2)

(Bibliography--Moscow--Maps)

KLEPIKOV, S.A.; GEMKER, R.F.

Picture of a mammoth in a cheap popular print. Paleont. zhur.
no.4:124-126 '62. (MIRA 16:1)

1. Gosudarstvennaya biblioteka SSSR imeni Lenina i Paleontologi-
cheskiy institut AN SSSR. (Mammoth) (Paleontology--Pictorial works)

КЛЕПИКОВ С.И. 115-58-1-7/23
AUTHOR: Susloy, V.N., Candidate of Technical Sciences, and Klepikov, B.I.
TITLE: The Welding in Carbondioxide of Heat Resistant Perlite Steel of 20 KhMFL Grade (Svarka v uglekislom gize toploustoychivoy perlitnoy stali 20 KhMFL)
PERIODICAL: Svarochnoye Proizvodstvo, 1958, Nr 1, pp 22 - 25 (USSR)
ABSTRACT: Fireproof chrome-molybdenum-vanadium steel of 20 KhMFL grade is used for the production of fundamental parts of boilers, turbines, steam pipes, etc., working under temperatures up to 540° C. The welding of this steel is carried out by hand with electrodes of TSL-20 type. The author relates the tests at TsNITMASH in the semi-automatic welding of 20 KhMFL steel in carbondioxide media. The goal was to devise the composition of a special electrode rod, to choose the thermal process of welded joints, and to test instantaneous and durable mechanical properties of the metal in the seams. The author recommends using electrode rods of the 08 KhGSMF type whose composition is not over 0.1% C; 0.7 to 0.9% Si; 1 to 1.3% Mn; 0.95 to 1.25% Cr; 0.3 to 0.4% V; 0.5 to 0.7% Mo; not over 0.025% S; not over 0.03% P; not over 0.25% Ni. Steel parts up to 30 mm thick are to be subjected to a preliminary and an accompanying heating up to at least 320° C. Welded joints of 20 KhMFL steel carried out in

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135-58-1-7/23

The Welding in Carbondioxide of Heat-Resistant Ferrite Steel of 20 KhMFL Grade

the carbondioxide gas must undergo a high-temperature tempering under 690 to 710° C with a time-lag of not less than 7 hours. The mechanical qualities of the seams were determined on the samples of multiple pass seams, welded with the test rods. The durability limits of seams welded in carbondioxide gas with test rods under a temperature of 540° C, are 15.5 kg/mm² and they comply with technical requirements. The welding in carbondioxide of fire-proof steels increases the labor efficiency by 2.5 - 3 times in comparison with manual welding with TSi-20 electrodes, and the costs of 1 kg of welded metal are reduced by 1.5 - 1.7 times. There are 5 tables, 7 figures and 4 Soviet references.

ASSOCIATION: TsNIITWASH

AVAILABLE: Library of Congress

Card 2/2

1. Welding 2. Carbondioxide-Applications 3. Steel-Heat resistant

85185

S/135/60/000/003/002/005
A115/A029

1.2300

AUTHORS: Suslov, V. N., Candidate of Technical Sciences, Klepikov, S. I.,
Graduate EngineerTITLE: CO₂-Shielded Welding of Horizontal Seams on Thick Metals

PERIODICAL: Svarochnoye proizvodstvo, 1960, No. 3, pp. 6-8

TEXT: In this article compiled in cooperation with Graduate Engineer A.D. Kuznetsova, welders V.I. Praporshchikov and V.D. Tereshin and Candidate of Technical Sciences S.Ye. Sinadskiy results of tests on semi-automatic CO₂-shielded welding of horizontal seams on 100-200-mm thick metal are given. 180-mm thick 22 K (22K) steel weldments filled with 1.6 mm Св-08Г2СА (Sv-0802SA) wire designed by TsNIIIMash were tested. A satisfactory fusion of seam base and basic metal edge is ensured by a preliminary 50° split of the edge and a 4 mm distance between metal sheets as shown in Figure 1. Best results were achieved by vertical welding, beginning at the seam base and proceeding to the longitudinal seams. The following method is recommended: $I_{weld} = 300 \pm 340$ amp, $U_0 = 27 - 30$ v, gas consumption 1,000 lit/h and pre-heating of 22K steel weldments up to 180-200°C. The continuity of welded joints was examined by a УЗД-7У (UZD-7U) ultrasonic

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85185

8/135/60/000/003/002/005
A115/A029

CO₂-Shielded Welding of Horizontal Seams on Thick Metals

defectoscope by the Candidate of Technical Sciences M.R. Gubanova and Graduate Engineer A.V. Yermakov. Metallographic and X-ray tests were carried out by Graduate Engineer B.I. Goroshkov. A macrograph of a welded joint of 100-mm thick metal is shown in Figure 2 and selection of shavings and cuts for chemical and mechanical examination in Figure 3. The chemical composition of built-up metal and basic material is given in Table 1. Mechanical properties of welded joints were examined after welding and again after thermal processing. Welding was performed with a CO₂-shielded welding device mounted on a ПШ-5У (PSh-5U) semi-automatic machine. The influence of tempering on filler metal and on welded joint is shown in Figures 4 and 5. Filler metal met the technical standard of TU at 550°C, the basic metal of the joint zone only at 650°C. The latter developed fractures and examination revealed a great deal of non-metallic impurities and structural heterogeneity. Its low quality is evident from data in Table 2 and resilience tests in the temperature intervals of -50°C to +50°C shown in Figure 6. Semi-automatic CO₂-shielded welding demands thorough removal of slag from seams and elimination of draughts impairing CO₂-shielding. There are 6 figures, 2 tables and 1 Soviet reference. X

ASSOCIATION: TsNIITMash (Central Scientific Research Institute of Technology and Card 2/2 Machine Building)

KLEPIKOV, S.M.

Frozen Ground

Electric heating of frozen ground. Rab. energ., 2, No. 7, 1952.

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

KLEPIKOV, S.H.

Concrete Construction

Experience in operating vibrators. Gidr. stroi. 21 No. 7, July 1952

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

KLEMINOV, S. M.

Electric Transformers

Experience with the operation of model 1-100 transformers, *Nat. energ.* 3, No. 1, 1953.

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

~~KLEPIKOV, S.M.~~ [Klepikov, S.M.] (Kiev)

~~Precompressed steel bars~~ [in Ukrainian with summaries in Russian
and English]. Prykl. mekh. 3 no.4;432-442 '57. (MIRA 11:2)

1. Kiivs'kiy inzhenerno-budivsel'niy institut.
(Steel bars)

KLEPIKOV, S.M., Cand Tech Sci--(disc) "Pre-stressed steel girders."

Kiev, 1958. 15 pp (Min of Higher Education USSR. Kiev Construction Engineering Inst), 150 copies (KL, 44-53, 122)

-38-

KLEPIKOV, S.N., insh.

Calculating prestressed steel girders. Stroil. prom. 36 no. 7:30-
34 J1 '58. (MIRA 11'8)

(Girders)

KLEPIKOV, Sergey Nikolayevich; SURYGINA, E.N., red.; LEUSHCHENKO, N.L.,
tekh. red.

[Technical and economic analysis of prestressed steel trusses]
Tekhniko-ekonomicheskii analiz predvaritel'no napriashennykh
stal'nykh ferm. Kiev, Gosstroizdat UkrSSR, 1962. 26 p.
(MIRA 16:6)

(Trusses) (Building, Iron and steel--Costs)

КЛЕПИКОВ, С.Н. (Киев)

Calculation of beams on elastic foundations with a variable coefficient
of the subgrade. Gen., fund. i mekh. grun. 7 no.5:21-23 '65.
(MIRA 18:10)

KLEPIKOV, S.N., kand.tekhn.nauk; KONOVALOV, P.D., inzh.

Stand for testing models of buildings on irregularly
sagging foundation beds. Stroikonstr. no.1:178-183
'65. (MIRA 19:1)

1. Nauchno-issledovatel'skiy institut stroitel'nykh
konstruktsiy Gosstroya SSSR, Kiev.

KLEPIKOV, T.; IAPSHIN, I.

More attention to the introduction of internal cost accounting
in automotive transportation units. Avt. transp. 43 no.2:36-38
F '65. (MIRA 18:6)

1. Glavnyy bukhgalter Voronezhskogo avtoupavlaniya (for Klepikov).
2. Nachal'nik finansovogo otdela Voronezhskogo avtoupavlaniya
(for Iapshin).

KLEPIKOV, V.

What centralisation of the construction industry has given us.
Zhil. stroi. no.7:11-13 '59. (MIRA 12:10)

1. Nachal'nik Upravleniya stroitel'stva Rostovskogo sovmarkhosa.
(Rostov Province--Construction industry)

KLEPIKOV, V. A.

KLEPIKOV, V. A. -- "The Facias and Cellular Space in the Wrist." First Moscow Order of Lenin Medical Inst Imeni I. M. Sechenov. Moscow, 1956. (Dissertation for the Degree of Candidate in Medical Sciences).

So.: Knizhnaya Letopis', No. 6, 1956.

KLEPIKOV, V. A.

USSR / Human and Animal Morphology (Normal and Pathological): Integument.

S

Abs Jour : Ref. Zhur - Biologiya, No. 3, 1959, 12378

Author : Klopikov, V. A.

Inst : "

Title : On Some Peculiarities of the Structure of Subcutaneous Tissue of the Palmar Surface of the Wrist.

Orig Pub : On 30 human wrists, 5 parts of the subcutaneous tissue were distinguished: regions of thenar, hypothenar, middle part of the palm, commissural openings and palmar side of the fingers. The difference in structure of these parts concerns first of all the character of the subcutaneous tissue, its interrelationship with the skin and muscular fascia, as well as the connection of deeper-laying layers and adjoining regions with the tissue.

Card 1/1

KLEPIKOV, Y.A. (Moskva, L-254, Pravyy Butyrskogo khutora, d.8-a, kv.6)

The hypodermis of the palmar surface of the hand and its structural peculiarities. [with summary in English]. Arkh.anat.gist. i embr. 35 no.2:74-78 Mr-Apr '58 (MIRA 11:5)

1. Kafedra operativnoy khirurgii i topograficheskoy anatomii (nav. - prof. Y.V. Kovanov) i Moskovskogo meditsinskogo instituta im. I.M. Sechenova.

(HAND, anatomy & histology
hypodermis of palm, structural peculiarities (Rus))

KLEPIKOV, V.A.

Combining academic instruction with agricultural work in the schools
of Chinese People's Republic. Bibl. v shkole no.2:71-76 Mr-Ap '61.

(MIRA 14:3)

1. Institut, teorii i istorii pedagogiki Akademii pedagogicheskikh nauk
RSFSR.

(China--Agriculture--Study and teaching)
(China--Education, Cooperative)

ANIKINA, T.I., dots.; BOGUSLAVSKAYA, T.B., ass.; BOVASH, Yu.M., dots.; GEYMAN, D.V., ass.; GRENADEROV, Yu.V., ass.; DOBROVA, N.B., ass.; KLEPIKOV, V.A., ass.; ZURILOVA, A.V., ass.; KULIK, V.P., mlad. nauchn. sotrv; NIKOLAYEV, P.D., dots. [deceased]; SYCHENIKOV, I.A., dots.; TRAVIN, A.A., ispoln. obyazannosti prof.; RYBALKIN, P.Ye., ass.; KOVANOV, V.V., prof., red.; PROKOF'YEV, V.P., red.; ZAGOREL'SKIY, in.l., tekhn. red.

[Special methodology for practical work in topographic anatomy and operative surgery] Chastnaya metodika prakticheskikh zaniatii po topograficheskoi anatomii i operativnoi khirurgii. 1zd.2., perer. i dop. Pod red. V.V.Kovanova. Moskva, 1963. 224 p. (MIRA 16:12)

1. Moscow. Pervyy meditsinskiy institut. 2. Kollektiv преподаvateley kafedry operativnoy khirurgii i topograficheskoy anatomii 1-go Moskovskogo instituta imeni I.M.Sechenova (for all except Prokof'iev, Zagorel'skiy). 3. Zaveduyushchiy kafedroy operativnoy khirurgii i topograficheskoy anatomii 1-go Moskovskogo instituta imeni I.M.Sechenova, chlena-korrespondent AMN SSSR (for Kovanov).

(ANATOMY, SURGICAL AND TOPOGRAPHICAL)
(SURGERY, OPERATIVE)

PLEPIKOV, V. D.

Sheving-protsess. Moskva, Mashgiz, 1946. 146, (2) p. illus., diagrs.

Bibliography: p.(148).

(Shaving-process.)

CtY

DLC: TJ187.K55

SO: Manufacturing and Mechanical Engineering in the Soviet Union, Library of Congress, 1953.

KLEPIKOV, V.D., kandidat tekhnicheskikh nauk, dotsent.

**Burnishing-shaving process. Vest.mash.27 no.3:52-56 '47. (MLBA 9:4)
(Gear-cutting machines)**

KLEPIKOV, V.D. *

~~Increasing~~ the efficiency of gear-tooth milling. Stan.1 instr. 29
no.12:12-18 D '58. (MIRA 11:12)
(Gear cutting)

KLPIKOV, Y.D. kand. tekhn. nauk; PETROCHENKO, P.F.; SHAPIRO, I.I.;
VOROB'Yeva, A.M., inzh.; Gvozdeva, A.M., inzh.; STRUZHESHTRAKH,
Ye.I., inzh., red.; KRIVOLAPOV, M.A., tekhn. red.

[General engineering norms for time for technical standardization of
machining on gear-cutting machines] Obshcheshinostroitel'nye
normativy vremeni dlia tekhnicheskogo normirovaniia rabot na sub-
resnykh stankakh; melkoseriinnoe i edinichnoe proizvodstvo. Moskva,
Gos. nauchno-tekhn. issled-vo mashinostroit. lit-ry, 1959. 63 p.

(MIRA 12:12)

1. Moscow. Nauchno-issledovatel'skiy institut truda. Tsentral'noye
byuro promyshlennykh normativov po trudu. 2. Tsentral'noye byuro
promyshlennykh normativov po trudu pri Nauchno-issledovatel'skom
institute truda (TsBPNT pri NIIT) (for Klepikov, Vorob'yeva, Gvoz-
deva). 3. Glavnyy inzhener Tsentral'nogo byuro promyshlennykh
normativov po trudu (TsBPNT) (for Petrochenko). 4. Zaveduyushchiy
otdelom mashinostroyeniya Tsentral'nogo byuro promyshlennykh normati-
vov po trudu (for Shapiro).

(Gear cutting)

PETROCHENKO, P.F.; SHAPIRO, I.I.; KLEPIKOV, V.D., kand.tekhn.nauk;
VOROB'YEVA, A.M., inzh.; GVOZDNVA, A.M., inzh.; STRUZHESTRAKH,
Ye.I., inzh., red.; SIMONOVA, M.M., red.isd-va; BABOCHKIN, A.T.,
tekhn.red.

[General norms for cutting conditions and time in the machinery industry for technical normalization of machining on gear-cutting machines; large-lot and mass production] Obshcheshinostroitel'nye normativy reshimov rezaniia i vremeni dlia tekhnicheskogo normirovaniia rabot na suboresnykh stankakh; krupnoseriinca i massovoe proizvodstvo. Moskva, Gos.nauchno-tekhn.isd-vo mashinostroit. lit-ry, 1959. 143 p. (MIRA 13:1)

1. Moscow. Nauchno-issledovatel'skiy institut truda. Tsentral'noye byuro promyshlennykh normativov po trudu. 2. Glavnyy inzhener Tsentral'nogo byuro promyshlennykh normativov po trudu pri Nauchno-issledovatel'skom institute truda (for Petrochenko). 3. Zaveduyushchiiy otdelom mashinostroyeniya Tsentral'nogo byuro promyshlennykh normativov (for Shapiro).

(Gear cutting)