

24(5)  
AUTHORS:

Galayko, V. P., Pargamanik, L. E.

SOV/20-123-6-12/50

TITLE:

On the Correlation Functions for Systems of Equal Charged Particles (O korrelyatsionnykh funktsiyakh dlya sistemy odinakovykh zaryazhennykh chastits)

PERIODICAL:

Doklady Akademii nauk SSSR, 1958, Vol 123, Nr 6, pp 999-1002 (USSR)

ABSTRACT:

In the present paper, the correlation functions for charged particles (in the inhomogeneous case) are constructed according to the method of iterations which permits the calculating of corrections of any order of approximation. The authors investigate also the physical significance of this method. The potential energy of the particle in the self-consistent field is introduced into the equations of this problem. The authors investigate the interaction of a pair of charged particles which are placed in a "medium" of particles of the same kind. At small mutual distances this interaction satisfies the Coulomb (Kulon) law, but at great distances the Coulomb interaction is shielded by the "medium", and the interaction is due to the self-consistent field. In first approximation it is possible to

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neglect the correlation of the medium with the first particle. A formal expansion is not advantageous, and the authors apply the method of iterations. According to this method, it is possible to find all the  $k$ -particle potentials with any desired degree of exactness. The explicit calculations are, however, very complicated and not interesting from the viewpoint of physics. The authors then give a formula for the potential energy of the interaction of a subsystem which consists of  $s$  charged particles. This formula represents the sum of the energy of interaction of each particle with the "medium", of the energies of the shielded (by the medium) interaction of all the pairs, of all the triplets, ..., of all the sets of  $s$  particles. The interaction with the self-consistent field and the Debye (Debye) pair interaction play the main rôle. The other terms in the above-mentioned formula are of higher order of smallness. According to the results of the present paper, effective-short-range forces (which can be described by a Debye potential) can be introduced. In the inhomogeneous case, the expressions found for the correlation functions are valid for functions which occupy a finite volume.

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The method discussed in this paper can be applied to systems of charges of various signs and to the kinetic theory of charged particles. The authors thank I. M. Lifshits who discussed the results of the present paper. There are 4 references, 3 of which are Soviet.

ASSOCIATION: Khar'kovskiy gosudarstvennyy universitet im. A. M. Gor'kogo  
(Khar'kov State University ineni A. M. Gor'kiy)

PRESENTED: July 18, 1958, by M. N. Bogoljubov, Academician

SUBMITTED: July 17, 1958

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L 22256-66 EWT(1) IJP(c) GG

ACC NR: AP6010993

SOURCE CODE: UR/0056/66/050/003/0717/0723

AUTHOR: Galayko, V. P.

5/  
B

ORG: Khar'kov State University (Khar'kovskiy gosudarstvennyy universitet)

TITLE: Stability limits of the superconducting state in a magnetic field for superconductors of the second kind

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 50, no. 3, 1966, 717-723

TOPIC TAGS: superconductivity, superconductor, BCS theory, critical temperature, *magnetic field*

ABSTRACT: The Gibbs free energy function  $\Omega(\Delta)$  for a <sup>2/</sup>superconductor in a magnetic field is treated on the basis of the BCS theory as a functional of the superconducting ordering parameter. This extends the corresponding expression of the Ginsburg—Landau theory to arbitrary temperatures. The free energy is minimum at equilibrium. This yields equilibrium electrodynamic equations, which in the case of superconductors of the second kind describe the usual superconducting state with finite penetration of the field, as well as the mixed Abrikosov

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state with vortex lines which permeate the massive superconductor. The second variation of the free energy is investigated in the vicinity of the superconducting state, and it is shown that the state is stable with respect to small fluctuations of the ordering parameter up to a certain critical field  $H_{c1} > H_{c1}^*$  for which  $\delta^2 \Omega$  changes sign for the first time. The field strength  $H_{c1}^*(T)$  is calculated for extremely hard superconductors ( $\kappa \gg 1$ ).

[CS]

SUB CODE: 20/ SUBM DATE: 23Sep65/ ORIG REF: 006/ OTH REF: 005/

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L 22763-66 EWT(1)/EWT(m)/EWA(d)/EWP(t) IJP(c) JD/GG  
ACC NR: AP6008737 SOURCE CODE: UR/0386/66/003/003/0121/0125

AUTHOR: Galayko, V. P. B 34

ORG: Khar'kov State University im. A. M. Gor'kiy (Khar'kovskiy gosudarstvennyy universitet)

TITLE: Motion of vortex filaments in superconducting alloys 4

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki. Pis'ma v redaktsiyu. Prilozheniye, v. 3, no. 3, 1966, 121-125

TOPIC TAGS: superconductivity, quantum liquid, crystal lattice structure, crystal dislocation phenomenon

ABSTRACT: Since it is difficult (21) ~~to~~ to apply the ordinary hydrodynamic approach to the motion of vortex filaments in superconductors of type II, owing to the presence of the lattice, the author shows that, in view of the Coulomb interaction and in view of the field character of the vortex, it is sufficient for the solution of the problem to find directly the response of the superconducting system to an external field. Relations are then presented which constitute, together with Maxwell's equations <sup>2/</sup> and the continuity equation, a complete system that yields the vortex equation of motion. These relations are derived from the general principles of nonequilibrium thermodynamics by expressing the work performed on the system by the external cur-

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rent per unit time in terms of the response of the system and evaluating the minimum work of the reversible transition into the nonequilibrium state in terms of the parameters of a filament situated in an external field. The author thanks J. Bardeen (USA) for a stimulating influence on this work and I. M. Lifshits for calling attention to the work of A. M. Kosevich on the theory of dislocation (Teoriya dislokatsiy [Dislocation Theory], Offset, Physicotech. Inst. Ukr. Acad. Sci., Khar'kov, 1963), which is formally close to the problem considered here. Orig. art. has: 5 formulas.

SUB CODE: 20/    SUBM DATE: 15Dec65/    ORIG REF: 003/    OTH REF: 001

Card 2/2 UVA

L 43674-66 25(1)/2006/12(1)/471 100(2) 25.00

ACC NR: AP6018811 SOURCE CODE: UR/0056/66/050/005/1322/1326

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69  
B

AUTHOR: Galayko, V. P.

ORG: Kharkov State University (Khar'kovskiy gosudarstvennyy universitet)

TITLE: Formation of vortex nuclei in superconductors of the second type

SOURCE: Zh eksper i teor fiz, v. 50, no. 5, 1966, 1322-1326

TOPIC TAGS: vortex flow, magnetic field intensity, nuclear energy, superconductor, SUPERCONDUCTIVITY

ABSTRACT: Because the <sup>S</sup>superconductivity state is stable under small fluctuations of the regulating parameter, sufficiently large fluctuations are needed to effect transitions to the mixed state in superconductors of the second type in a magnetic field. The vortex lines are produced near the surface and penetrate into the superconductor. The minimum critical size of the vortex nucleus is that at which it does not "close up" but continues to develop further. It has been shown that the shape of the vortex line and the value of the energy barrier for the nucleus is determined.

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ACC NR: AP6018811

by two factors: the interaction between the vortex and magnetic field and the elasticity of the vortex line. The vortex line forms a semicircle, the end of which touch the surface of the superconductor. The value of the energy barrier, overcome during formation of the vortex, has been calculated. It has been shown that the barrier vanishes in a critical current on the surface, i. e., when the superconducting state becomes unstable under small fluctuations. The author thanks I. M. Lifshits for his criticism of the work and valuable remarks. Orig. art. has: 1 figure and 5 formulas. [Based on author's abstract] [NT]

SUB CODE: 20/ SUBM DATE: 19Nov65/ ORIG REF: 006/ OTH REF: 002/

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Card 2/2

L 00759 67 BWT(1) IJP(c) GG

ACC NR: AP6023698

SOURCE CODE: UR/0126/66/021/004/0496/0509

AUTHOR: Galayko, V. P.ORG: Kharkov State University im. A. M. Gor'kiy (Khar'kovskiy gosuniversitet)TITLE: Local equations of electrodynamics for London-type superconductorsSOURCE: Fizika metallov i metallovedeniye, v. 21, no. 4, 1966, 496-509

TOPIC TAGS: superconductivity, quantum electrodynamics, vortex

ABSTRACT: In a maximally hard superconductor, the structure of the vortex filaments in the hybrid state does not play any substantial part at fields which are not too close to  $H_{c2}$ . This confirms the possibility of using local equations of electrodynamics for describing such superconductors. The article shows by means of direct calculations that the indicated equations in the first nonvanishing approximation in terms of parameter  $1/\chi$  coincide with equations of the two-liquid model in the theory of superconductivity. These equations are used to analyze the problem of penetration of a magnetic field into a massive superconductor. The critical field  $H_{c1}$  up to which the superconducting state is stable with respect to slight gap fluctuations leading to the formation of vortices was calculated (the gap being the ordering parameter  $\Delta$ ). The manner in which the hybrid state is described by these equations is discussed. Author is indebted to I. M. Lifshitz for many helpful discussions and is deeply grateful to J. Bardeen (USA) for elucidating the fundamental aspects of the general problem of local

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UDC: 537.312.62

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ACC NR: AP6023698

equations of electrodynamics for superconductors of group II. Orig. art. has: 28 formulas.

SUB CODE: 20/ SUBM DATE: 31Jul65/ ORIG REF: 010/ OTH REF: 009

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Card 2/2

VERBOLOV, Vladimir Il'ich; SOKOL'NIKOV, Vladimir Mikhaylovich;  
SHIMARAYEV, Mikhail Nikolayevich; GALAZIN, G.I., otv.  
red.

[Hydrometeorological regime and heat budget of Lake Baikal]  
Gidrometeorologicheskii rezhim i teplovoi balans ozera  
Baikal. Moskva, Nauka, 1965. 372 p. (MIRA 18:5)

GALAZIY, G.I.

TIKHOMIROV, B.A.; GALAZIY, G.I.

Determination of the age of *Sieversia glacialis* R.Br. and some questions  
pertaining to the longevity of plants. Bot. Zhur. 37, No.3, 332-348 '52.  
(Biol.A 28 no.3:6877 '54) (MLRA 5:6)

GALAZIY, G.I.

Vertical growth limit of trees and its dynamics in the mountains of  
Eastern Siberia. Trudy Bot.inst. Ser.3 no.9:210-329 '54.  
(Siberia, Eastern--Trees) (MIRA 8:4)

GALAZIY, G. I.

Some data on the length of life of the tansy *Tanacetum sibiricum* L.  
and the pasqueflower *Pulsatilla Turczaninovii* Kryl. et Serg. Bot.  
zhur. 39 no.6:910-915 N-D '54. (MLRA 8:2)

1. Vostochno-Sibirskiy filial Akademii nauk SSSR, Irkutsk.  
(Tansy) (Pasque flower)

**GALAZIY, G.I.**

Botanical method of determining data on the history of high water levels and some other phenomena on Lake Baikal. Dokl.AN SSSR no.5: 811-813 Ag '55. (MLRA 9:1)

1.Baykal'skaya limnologicheskaya stantsiya Vestchno-Sibirskogo filiala Akademii nauk SSSR. Predstavlena akademikom V.N.Sukachevym. (Baikal, Lake--Hydrology)



GALAZIY, G.I.

Botanical method of determining the dates of historical high water levels on Lake Baikal. Bot.zhur.41 no.7:1006-1020 JI, '56.

(MLRA 9:10)

1. Baykal'skaya limnologicheskaya stantsiya Vostochno-Sibirskogo filiala Akademii nauk SSSR.  
(Baikal, Lake--Hydrology)

ROSSOLIMO, L.L.; GALAZIY, G.I., otvetstvennyy redaktor; ZNAMENSKAYA, V.K.,  
redaktor izdatel'stva; MOSKVICHEVA, N.I., tekhnicheskiy redaktor.

[The temperature cycle of Lake Baikal] Temperaturnyi rezhim ozera  
Baikal. Moskva, Izd-vo Akad. nauk SSSR, 1957. 551 p. (Akademiya  
nauk SSSR. Baikal'skaia limnologicheskaya stantsiya. Trudy, no.16)  
(Baikal, Lake--Temperature) (MLRA 10:8)

GALAZIY, G. I.

"Botanical Method Serving Hydrology and Engineering Geology"

report presented at the 3rd All-Union Hydrological Congress, 7-17 Oct 1957,  
Leningrad

(Izv. Ak. Nauk SSSR, ser. geograf., 3, pp3-9, 1958)

MAZIN, G.I.

Growing conditions of trees on the shores of Lake Baikal. Bot.zhur.

44 no.5:696-704 My '59.

(MIRA 22:11)

1. Baykal'skaya limnolovicheskaya stantsiya, poselok Listvenichnogo,  
Irkutskoy oblasti.

(Baikal region--Trans) (Coast channels)

VOTINTSEV, Konstantin Konstantinovich; GALAZIY, G.I., otv.red.;  
VAGINA, N.S., red.izd-va; UL'YANOVA, O.G., tekhn.red.

[Hydrochemistry of Lake Baikal] Gidrokhimiia ozera Baikal.  
Moskva, Izd-vo Akad.nauk SSSR, 1961. 310 p. (Akademiia nauk  
SSSR. Baikal'skaia limnologicheskaiia stantsiia. Trudy, Vol.  
20) (MIRA 14:8)

(Baikal, Lake--Water--Composition)

MARTINSON, Gerbert Genrikhovich; GALAZIY, G.I., otv.red.; TSVETKOV, N.V.,  
red.izd-va; VINOGRADOVA, N.F., tekhn.red.

[Mesozoic and Cenozoic mollusks in continental sediments of  
Transbaikalia, Mongolia, and the Siberian Platform]  
Mezozoiskie i kainozoiskie molliuski kontinental'nykh Moskva,  
Izd-vo Akad.nauk SSSR, 1961. 332 p. (Akademiia nauk SSSR.  
Baikal'skaia limnologicheskaiia stantsiia. Trudy, vol.19)  
(MIRA 14:4)

(Asia--Mollusks, Fossil)

KOZHOV, Mikhail Mikhaylovich; GALAZLY, G.I., otv. red.; OSIPOVA, L.S.,  
red. izd-va; GUSEVA, A.P., tekhn. red.

[Biology of Lake Baikal] Biologiya ozera Baikal. Moskva, Izd-  
vo Akad. nauk SSSR, 1962. 314 p. (MIRA 15:5)  
(Baikal, Lake--Freshwater biology)

GALAZIY, G.I.

Conditions for the growth of trees on the coast of Bol'shoy  
Ushkaniy Island in Lake Baikal. Trudy Vost.-Sib.biol.inst.  
SO AN SSSR no.1:114-139 '62. (MIRA 16:1)  
(Bol'shoy Ushkaniy Island--Trees)



VOTINTSEV, Konstantin Konstantinovich; POPOVSKAYA, Galina Ivanovna;  
MAZEPOVA, Galina Fedorovna; GALAZIY, G.I., otv. red.;  
REZNICHENKO, O.G., red. izd-va; POLYAKOVA, T.V., tekhn. red.

[Physicochemical regime and plankton life of the Selenga  
region in Lake Baikal.] Fiziko-khimicheskii rezhim i zhizn'  
planktona Selenginskogo raiona ozera Baikalskogo. Moskva, Izd-  
vo Akad. nauk SSSR, 1963. 320 p. (Akademiya nauk SSSR.  
Sibirskoe otdeleniye. Limnologicheskiy institut. Trudy, vol. 97)

GALAZIY, G.I.; NOVOSELOV, Ye.N.

Baikal. Irkutsk, Limnologicheskii in-t Sibirskogo otd-  
nina AN SSSR. 1964. 1 v. (MIRA 18:3)

ZAICA, Viktor Yevgen'yevich; GALAZIY, G.I., otv. red.;  
ARTAMOSHIN, A.S., red.

[Parasites of fishes in Lake Baikal] Parazitofauna ryb ozera  
Baikal. Moskva, Nauka, 1965. 105 p. (MIRA 18:6)

VOTINTSEV, Konstantin Konstantinovich; GILSONEV, Ivan Vladimirovich;  
TOLMACHEVA, Anna Petrovna; SALAVY, S.I., etv. med.

[Geochemistry of the rivers of the Lake Baikal basin.] Gidrokhimia  
rek basseina ozera Baikal. Moskva, Nauka, 1965. 494 p. (Akademiya  
nauk SSSR. Sibirskoe otdalenie. Limnologicheskii institut. Trudy,  
vol. 8(28)). (MIRA 18:7)

1. Nauchnyye sotrudniki Baykal'skoy limnologicheskoy stantsii  
AN SSSR (for Tolmacheva, Glazunov).

BUYANTUYEV, B.R.; GALAZIY, G.I.; KROTOV, V.A.; SHOTSKIY, V.F.

Comprehensive utilization and conservation of the natural resources  
of lake Baikal. Dokl. Inst. geog. Sib. i Dal'. Vost. no.2:3-13 '62.

(MIRA 18:10)

GALAZKA, Aleksander; KWIATKOWSKI, Stefan

On diagnostic difficulties in some forms of hypertrichosis in women. Pol. tyg. lek. 19 no.51:1964-1966 21 D '64

1. Z II Kliniki Chorob Wewnętrznych Akademii Medycznej we Wrocławiu (Kierownik: prof. dr. Antoni Falkiewicz).

GALAZKA, A

POLAND / Microbiology. Human and Animal Pathogens. Corynebacteria.

F

Abs Jour: Ref Zhur-Biol., No 2, 1959, 5635.

Author : Wolska, K.; Abgarowicz, A.; Rozwadowska, W.; Galazka, A.; Kukiz, T.

Inst : Not given.

Title : Studies on Vaccines and Vaccination Against Diphtheria in Poland in 1955-1956. II. Confirmation of Diphtheria Immunity by Use of the Schick Test (Wolska, K.). III. Comparative Study of Six Domestic Vaccines by Epidemiological Tests (Wolska, K.; Abgarowicz, A.; Rozwadowska, W.). IV. Comparative Evaluation of Four Domestic Vaccines in Laboratory Tests (Abgarowicz, A.; Galazka, A.; Kukiz, T.).

Orig Pub: Przegl. epidemiol., 1957, 11, No 4, 343-364.

Abstract: No abstract.

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GALAZKA, Artur

Infectious cerebrospinal meningitis in Poland during 1919-1957 in  
the light of world situation. Przegl.epidem. 13 no.4:347-360 '59.

1. Z Zakładu Epidemiologii Państwowego Zakładu Higieny w Warszawie  
Kierownik: Prof.dr. Jar Kostrzewski.  
(MENINGITIS epidemiol.)



ABGAROWICZ, Anna, dr; GALAZKA, Artur; KUKIZ, Tadeusz (Warszawa)

Studies on the immunizing properties of the tetanus  
component of enteric tetanus vaccines produced in Poland.  
Zesz probl nauki Pol 23 241-250 '61.

GALAZKA, Artur; KUKIZ, Tadeusz; ABGAROWICZ, Anna

Use of various methods in an attempted evaluation of the diphtherial and tetanic component in 3 diphtheria-tetanus-whooping cough vaccines of domestic production. Przegl.epidem. 15 no.2:163-178 '61.

1. Z Zakladu Epidemiologii Panstwowego Zakladu Higieny w Warszawie  
Kierownik: prof. dr J. Kostrzewski.

(TETANUS immunol) (DIPHTHERIA immunol)  
(WHOOPING COUGH immunol) (VACCINES)

RODKIEWICZ, Teresa; GALAZKA, Artur

Description of an epidemic of diphtheria in the village Chojnik in the Olsztyn region with special reference to the carriage of *Corynebacterium diphtheriae*. *Przeegl. epidem.* 15 no.4:341-354 '61.

1. Z Wojewodskiej Stacji Sanitarno-Epidemiologicznej w Olsztynie  
Dyrektor: dr W. Kuzia Z Zakladu Epidemiologii Panstwowego Zakladu  
Higieny w Warszawie Kierownik: prof. dr J. Kostrzewski.

(DIPHTHERIA epidemiol)

POLAND

GALAZKA, Artur and OLAKOWSKI, Tadeusz; Department of Epidemiology (Zaklad Epidemiologii), State Institute of Hygiene (Panstwowy Zaklad Higieny), Warsaw, Director: Prof Dr J. KOSTRZEWSKI; and the Warsaw Wojewodztwo Health and Epidemiological Stations (Warszawska Wojewodzka Stacja Sanitarno-Epidemiologiczna) in Anin, Director: Dr J. ZASZCZYC.

"Immunization of School-Age Children Against Diphtheria"

Warsaw, Zeszyt Epidemiologiczny, Vol XVI, No 4, 1962,  
pp 431-442

Abstract: [Authors' English summary modified] The need for immunization against diphtheria is discussed. Children aged 7 to 14 were immunized with two aluminum hydroxide adsorbed vaccines mixed with tetanus toxoid. The two vaccines had amounts of diphtheria toxoid varying by a factor of 10 per dose. Post-vaccination reaction and immunogenic response were tested. The vaccine containing 20 Lf per dose produced more post-vaccination reactions as compared with the vaccine

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Warsaw, Przegląd Epidemiologiczny, Vol XVI, No 4, 1962  
pp 431-442 (continued)

with only 2 LD per dose. This difference is statistically significant. Both vaccines produced good immunogenic response after the booster dose; the vaccine containing less diphtheria toxoid did not produce satisfactory response in school-age children. The antibody level after immunization rose logarithmically, as a function of the initial level before immunization. The occurrence of post-vaccination reactions as a function of antibody level before immunization is analysed and discussed. Recommendations on further studies and practices are made. 9 tables; 15 references, mainly Western.

2/2

GALAZKA, Aleksander, starszy asystent

Pathomechanism of decreased erythrocyte sedimentation rate.  
Rozpr. wydz. nauk med. 9 no.1:51-117 '64.

1. Z Katedry 2 Kliniki Chorob Wewnętrznych AM we Wrocławiu  
(Kierownik: prof. dr med. Antoni, Falkiewicz) Recenzenci:  
doc. dr med. B. Bogdanikowa, prof. dr med. A. Kieczński.

GALAZKA, Artur

Preparation of the reference diphtheria-tetanus-pertussis vaccine and standardization of its diphtheria and tetanus components. I. The diphtheria component. Med. dosw. mikrobiol. 16 no.4:295-308 '64.

Preparation of the reference diphtheria-tetanus-pertussis vaccine and standardization of its diphtheria and tetanus components. II. The tetanus component. Ibid.:309-321.

1. Z Zakladu Epidemiologii Panstwowego Zakladu Higieny (Kierownik: prof. dr. J. Kostrzewski).

GALAZKA, Artur; AEGARCWICZ, Anna

Some observations on the epidemiological situation of diphtheria  
in Poland during the period 1960-1962. *Pediat. Pol.* 39 no.2:  
191-199 F\*64.

1. Z Zakladu Epidemiologii Panstwowego Zakladu Higieny w  
Warszawie; kierownik: prof.dr. J.Kostrzewski.

\*



GALAZKA, Artur; ABGAROWICZ, Anna

Evaluation of the immunizing potency of diphtheria-tetanus vaccines tested in school children and animals. Med. dosw. mikrobiol. 17 no.2:109-121 '65.

1. Z Zakladu Epidemiologii Panstwowego Zakladu Higieny w Warszawie (Kierownik Zakladu: prod. dr. J. Kostrzewski).

GALAZKA, Artur; OLAKOWSKI, Tadeusz; ADAMUS, Jan

Immunization of school children against diphtheria and tetanus.  
Przegl. epidemiol. 19 no.1:17-29 '65

1. Z Zakladu Epidemiologii Panstwowego Zaklady Higieny w  
Warszawie (Kierownik: prof. ir. med. J. Kostrzewski) z  
Warszawskiej Wojew. Stacji Sanitarno-Epidemiologicznej w  
Aninie (Dyrektor: dr. med. J. Zasztowt) i z Miejskiej Stacji  
Sanitarno-Epidemiologicznej w Walbrzychu (Dyrektor: lek. med.  
J. Adamus).

GALAZKA J.

POL.

3098

585.331:468

Galazka J. Application of Thermionic Spectral Analysis in the Metal Industry.

„Zastosowanie emisyjnej analizy widmowej w przemyśle metalowym”. Technika Lotnicza. No. 6, 1953, pp. 132—139, 18 figs., 9 tabs.

Principles, importance and prospects of making use of spectral analysis in the metal industry. Description of spectral apparatus, particularly excitors. The author emphasizes the simplicity and remunerability of spectrographic analysis as economising time and material in industrial laboratories. Specification of equipment for spectrographical laboratories — both scientific and industrial.

GALAZKA, Jerzy

The limits of detectability and determination in spectrographic analysis. I.  
Chem anal 7 no.2:301-309 '62

1. Katedra Materialoznawstwa, Wydział Mechaniczny, Energetyki i Lotnictwa,  
Politechnika, Warszawa.

GALAZKA, Jerzy

POLAND

LOBZOSKI, Jerzy; GALAZKA, Jerzy

Department of Chemical Materials, Faculty of Mechanics,  
Energetics and Aviation Technology of the Warsaw Poly-  
technic School (Katedra Materialoznawstwa Wydziału  
Mechanicznego Energetyki i Lotnictwa Politechniki  
(dawniej Katedra Technologii Lotniczej), Warsaw (both?)

Warsaw, Chemia analityczna, No 5, 1963, 695-703.

"Preparation of Spectrographic Standards of Luralumin  
Type".

GALAZKA, Jerry, mgr inz.; NACHYLLO, Marion, mgr inz.

Level of radioelectric disturbances of appliances of class  
1 and 2. Wied elektrotechn 32 no.3:76-77 Mr'64.

GALAZKA, Jerzy, inż.

Typification and development of pump construction. Przegl techn  
86 no.2:4 10 Ja '65.

GALAZKA, P. (Engr.):

Chłodnie Sztuczne i Ich Działania. (Artificial Cold & Its Actions). Warsaw, 1948, 39 pages.



GALAZKA, R.; GIRIAT, W.

Electrical properties of the CdTe-HgTe system. Bul Ac Pol Mat 9 no.4:  
281-285 '61.

1. Institute of Physics, Polish Academy of Sciences. Presented by  
L. Sosnowski.

L 31539-66 ETC(f)/T/EMP(t)/ETI IJP(c) RDW/JD  
ACC NR: AP6010792

SOURCE CODE: PO/0053/66/000/003/0111/0117

AUTHOR: Baranowski, J. ; Dziuba, Z. ; Galazka, R. ; Gariat, W. ; Szymanska, W. Zakrzewski, T. 67  
62  
B

ORG: Institute of Experimental Physics, Warsaw University (Instytut Fizyki Doswiadczalnej Uniwersytetu Warszawskiego); Physics Institute, PAN (Instytut Fizyki, PAN) 17

TITLE: Electrical and photomagnetic properties of single crystals of the Cd<sub>x</sub>Hg<sub>1-x</sub>Te semiconductor system

SOURCE: Przegląd elektroniki, no. 3, 1966, 111-117

TOPIC TAGS: single crystal, crystal property, semiconductor crystal, electric property, photomagnetic effect

ABSTRACT: The paper presents some results of investigations on the Cd<sub>x</sub>Hg<sub>1-x</sub>Te system. Single crystals of x = 0.00, 0.05, 0.10, and 0.15 were used for the investigations. The dependence of electrical conductivity  $\delta$  and the Hall constant  $R_H$  on temperature in the range from 4.2K to 400K was investigated. The dependence of  $R_H$  and  $\delta$  on magnetic field intensity was also measured. The materials investigated show a high electron mobility; the maximal values of electron mobilities are of the order of  $10^5$  cm<sup>2</sup>/Vsec. Mobility increases with increasing x and attains its maximum values for x at about 0.1. In these materials, at temperatures below room temperature there is a very strong dependence of  $R_H$  and  $\delta$  on magnetic field intensity. It was determined that for x = 0.00 the width of the forbidden energy gap at the temperature of absolute zero is  $E_g = 0 \pm 0.0003$  eV. For x > 0,  $E_g > 0$ , and x = 0.05 it is  $E_g = 0.015$  eV,

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L 31539-66

ACC NR: AP6010792

and for  $x = 0.15$ ,  $E_g = 0.06$  eV. The photomagnetic effect was investigated at room temperature. High sensitivity to infrared radiation was established. The material with  $x = 0.10$  is sensitive to radiation from the visible range to wavelength of 10 microns. It was also established that the photomagnetic effect for  $x = 0.10$  depends on the frequency of incident radiation. This dependence is caused by the appearance of a thermal component (Nernst effect). The experimental results are presented in the form of curves and compared with published data. The results are discussed in detail in the light of existing literature. The authors thank Prof. L. Sosnowski for his interest in this work and discussions. The authors also thank Docent Dr. W. Wardzynski, J. Ginter, Dr. J. Mycielski, and Dr. J. Rauluszkiewicz for valuable comments they made in the course of this investigation. Orig. art. has: 7 figures. 5

SUB CODE: 20 / SUBM DATE: none / ORIG REF: 003 / OTH REF: 006 / SOV REF: 002

Card 2/2 LC

ACCESSION NR: AP4011794

P/0045/63/024/006/0791/0800

AUTHOR: Galazka, R. R.

TITLE: Preparation, doping and electrical properties of Cd sub 0.1 Hg sub 0.9 Te

SOURCE: Acta physica polonica, v. 24, no. 6, 1963, 791-800

TOPIC TAGS: semiconductor, three-component semiconductor, Hall mobility, solid state physics, three-component semiconductor, Hall mobility, solid state physics, three-component crystal, crystallography, Cd sub x Hg sub 1 - x Te-type semiconductor, compound semiconductor, HgTe, CdTe

ABSTRACT: Mixed crystals of the  $Cd_xHg_{1-x}Te$  type are an insufficiently studied group of semiconductors. The technology of  $Cd_xHg_{1-x}Te$  compounds has not been adequately analyzed or described up to the present time. Author attempted to establish the optimal processes for the synthesis and crystallization of HgTe and CdTe which leads to a mixed semiconductor. The effect of excess Cd, Te and Hg upon the electrical properties of  $Cd_{0.1}Hg_{0.9}Te$  was also investigated.

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ACCESSION NR: AP4011794

An attempt was also made as to which foreign elements dope the conductor to p- and n-types. The effect of variegated processing and doping upon the purity and electrical properties of the sample was analyzed by measuring the Hall coefficient and electrical conductivity versus the temperature over the range 77k to 300k. Doping was with Cu, In, Al and Ni. The composition of the compound (the value for x) was determined by measuring its density. In the case of  $A_xB_{1-x}$ -type solid solutions crystallizing in one phase and in the same crystallographic system, the density of a solution containing x moles of component a can be written in the form

$$d_x = \frac{x \sum_{i=1}^n M_{Ai} + (1-x) \sum_{i=1}^n M_{Bi}}{V_{ex}} = \frac{n[x(M_A - M_B) + M_B]}{V_{ex}} \quad (1)$$

where  $V_{ex}$  is the volume of the elementary cell of the solid solution;  $M_A$  and  $M_B$  are the atomic masses of the lattice nodes (or their molecular masses if A and B are chemical compounds); n is the number of nodes belonging to one and the same elementary cell (or the number of molecules of a given compound per one elementary cell). The density varies linearly with the composition.

Card 2/3

ACCESSION NR: AP4011794

The Te atoms probably take up the Hg positions, yielding down levels. Hg dopes the semiconductor to p-type. Excess of Cd produces no noticeable change. Hole mobility was estimated at  $\mu_p = 420 \text{ cm}^2/\text{voltsecond}$ . Material was obtained wherein the value of the product of the Hall coefficient (R) and conductivity ( $\sigma$ ) amounted to  $4 \times 10^7 \text{ cm}^2/\text{voltsecond}$  at 200k. Although the above analysis dealt with a  $\text{Cd}_{0.1}\text{Hg}_{0.9}\text{Te}$  semiconductor, the conclusions and discussions can be valid for other semiconductor of the type  $\text{Cd}_x\text{Hg}_{1-x}\text{Te}$ , especially in the region of small values for the parameter x. "The author wishes to thank Professor L. Sosnowski for his numerous and helpful remarks. The author is indebted to Dr. W. Gariat and Mrs. W. Szymanska, m. Sci., for their profound and detailed discussions of the problem." Orig. art. has: 7 figures, 2 equations and 1 table.

ASSOCIATION: Institute of Physics, Polish Academy of Sciences, Warsaw

SUBMITTED: 17Jun63

DATE ACQ: 04Feb64

ENCL: 00

SUB CODE: PH, GE

NO REF SOV: 001

OTHER: 011

Card 3/3

L 8497-65 EWT(1)/EWG(k)/EWT(m)/EPA(sp)-2/EPA(w)-2/EEG(t)/T/EEG(b)-2/  
EWP(q)/EWP(b)/EWA(m)-2 Po-4/Pz-6/Bab-24/P1-4 IJP(c)/AND(a)-5/AFWL/SSD/  
RAEM(a)/ESD(gs)/ESD(t)/RAEM(t) JD/AT  
ACCESSION NR: AP4043443 0/0030/64/006/002/0549/0554

AUTHOR: Snidower, L.; Rauluszkiewicz, J.; Galazka, R. R.

TITLE: Determination of the effective mass in n-type InSb by means of magnetoplasma reflection

SOURCE: Physica status solidi, v. 6, no. 2, 1964, 549-554

TOPIC TAGS: magnetoplasma reflection, refractive index, intraband transition, semiconductor, degenerate semiconductor, spherical energy band, nonparabolic energy band, plasma reflection, carrier concentration, indium antimonide, magnetoplasma

ABSTRACT: The refractive index for intraband transitions in degenerate semiconductors in the presence of a magnetic field has been calculated for spherical and nonparabolic energy bands. The results have been used for describing the plasma and magnetoplasma reflections, and for determining the effective mass of carriers in heavily doped InSb. Plasma and magnetoplasma reflections are observed in n-type InSb with carrier concentrations of  $10^{18}$  to  $10^{19}$   $\text{cm}^{-3}$ . The values of the effective mass of the electrons confirm Kane's band struc-

Card 1/2

7, 8497-65

ACCESSION NR: AP4043443

3

ture to concentrations exceeding  $10^{19} \text{ cm}^{-3}$ . In the absence of a magnetic field the reflectivity dropped to a minimum at the frequency  $\omega_{\text{min}}$  and then rose to high values for  $\omega < \omega_{\text{min}}$ . In the presence of a magnetic field the reflectivity was distinctly split, and the distance between the two minima depended on the magnetic field. The effective mass was estimated at a lattice dielectric constant  $\epsilon = 15.4$ , and the concentration of current carriers was calculated from the position of the minimum of reflectivity in the absence of a magnetic field using the evaluated effective mass. The results are presented in tabular form in the original article. "The authors thank Prof. Dr. L. Sosnowski and Dr. J. Kolodziejczak." Orig. art. has: 3 figures, 16 formulas, and 1 table.

ASSOCIATION: Institute of Physics, Polish Academy of Sciences, Warsaw

SUBMITTED: 05Jun64

ATH PRESS: 3104

ENCL: 00

SUB CODE: 88

NO REF SOV: 000

OTHER: 008

Card

2/2



ACCESSION NR: AP4039358

P/0047/64/015/002/0191/0211

AUTHOR: Galazka, R. R.

TITLE: Infrared radiation detectors

SOURCE: Postepy fizyki, v. 15, no. 2, 1964, 191-211

TOPIC TAGS: infrared radiation detector, thermal detector, thermocouple, photoelectric cell, semiconductor infrared detector, photoelectric infrared detector, photoconductivity, Johnson noise, photoelectromagnetic effect, Nernst photoelectromagnetic effect, infrared photodetector

ABSTRACT: The subject of the article is the problem of detection of infrared radiation and a description of some types of detectors. From the standpoint of their mechanism of operation, such detectors may be divided into two principal categories: (1) thermal detectors, operating on the principle of change in the physical properties of a body subjected to the heat of infrared rays, and (2) quantum or photon detectors, which utilize various types of photo-effects and directly related phenomena. All types of detectors have a common parameter, the minimum detectable power (MDP). The article discusses semicon-

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ACCESSION NR: AP4039358

ductor infrared detectors operating in the spectral range of 3 to 20 microns, and thermal detectors, which are sensitive over a much wider range. The discussion was limited to the 3-20  $\mu$  range because the semiconductor detectors operating in this range are comparatively unknown, and only InSb detectors which have an upper limit of 6.5  $\mu$  are used in practical technical applications. Theoretical calculations are given for photon detectors. Photoelectric cells are found to be much more convenient than thermocouples. Investigations of photoelectric effects in compounds of Cd and Hg show that these materials are eminently suitable for infrared detection. Orig. art. has: 12 figures, 39 formulas, and 5 tables

ASSOCIATION: Instytut Fizyki PAN, Warszawa (Institute of Sciences)

SUBMITTED: 00

DATE ACQ: 12Jun64

ENCL: 00

SUB CODE: PH

NO REF SOV: 000

OTHER: 044

Card 2/2

5

POLAND

BARANOWSKI, Jacek; DZIUBA, Zbigniew; GALAZKA, Robert; GIRIAT, Witold;  
SZYMANSKA, Wanda; ZAKRZEWSKI, Tadeusz

1. Institute of Experimental Physics, University of Warsaw  
(Instytut Fizyki Doswiadczalnej Uniwersytetu Warszawskiego)  
- (for ?) 2; Institute of Physics, Polish Academy of Sciences  
(Instytut Fizyki, Polskiej Akademii Nauk) - (for ?)

Warsaw, Przegląd elektroniki, No 3, March 1966, pp 111-117

"Electric and photomagnetic properties of the  $Cd_xHg_{1-x}Te$   
single crystals."

GALAZKA, Wiktor, inż.

Possibilities of improving the electric power management of  
the Polish State Railroads. Przegl kolej elektrotech 13  
no.1:8-11 Ja '61.

GALAZKA, Wiktor, inż.

A conference of the electric engineers of the Polish  
Railroads. Przegl kolej elektrotech 14 no.4:120-122  
Ap '62.

GALAZKA, Wiktor, inż.

Electric power installations on the Polish State Railroads during  
the winter period 1962/63. Przegl kolej elektrotech 15 no.5:124-125  
My '63.

GALAZKA, Z.

New method of plastic surgery of the esophagus with diaphragm.  
Polski przegl. chir. 24 no.5:725-728 Sept-Oct 1952. (CLML 23:4)

1. Of the Second Surgical Clinic (Head--Prof. J. Rutkowski, M.D.) of  
Lodz Medical Academy. 2. Experimental Surgery.

... ..

Jakubowski J., Nosal W., Praska H. and Galaska Z. II Klin. Chir. wewn., Akad. med., Lodz; II Klin. chir., Akad. med., Lodz. O zachowaniu sie elektrokardiogramu pod wplywem emocji zwiazanej z zabiegami operacyjnymi, po uspianiu i po niektorych zabiegach na ukladzie wegetatywnym, oraz na zatoce szyjnej. The ECG under the influence of emotion due to operation after anaesthesia and after some surgical interventions on the carotid sinus and AMS. Polsk. Arch. Med. wewn. 1953, 2/2 (283-290) Graphs 2

In 21 patients examined immediately prior to operation the following changes were observed in 20 cases as compared to the ECG taken 1 day prior to operation: acceleration of the heart's action, elevation of P<sub>11,III</sub> flattening of the T-wave and lowering of the ST segment. The changes in ST and T were more evident in all cases, after i.v. injection of morphine and atropine. During the first stage of pentothal anaesthesia these changes either increased or decreased. 24 hours after the operation all ECGs returned to their initial patterns. Unilateral novocaine block of the carotid sinus was without effect on the ECG, whilst its denervation caused in 2 out of 12 cases flattening or inversion of the T-wave in all leads. In some cases where block, vagotomy or sympathectomy were performed, no significant changes in the ECG were observed.

Gibinski - Eytom

SO: ESCRATA IBERICA, Section VI, Vol. 6, No. 1, January 1954



GALAZKA, Zbigniew

Dermoid cyst of the lung. Polski tygod. lek. 9 no.22:699-701  
31 May 54.

1. Z II Kliniki Chirurgicznej Akademii Medycznej w Lodzi, kier.  
prof. dr Jerzy Rutkowski.

(TERATOMA,  
lung)

(LUNGS, neoplasms,  
teratoma)

GALAZKA, Zbigniew

Surgical treatment of cardiospasm. Polski przegl. chir. 26 no.11:  
979-984 Nov 54.

1. Z II Kliniki Chirurgicznej Akademii Medycznej w Lodzi. Kierownik:  
prof. dr med. J. Rutkowski.  
(CARDIOSPASM, surgery.)

GALAZKA, Zbigniew

Personal technic in the closure of the bronchial stump. Polski  
przegl. chir. 28 no.1:1-11 Jan 56.

1. Z I Kliniki Chirurgicznej A. M. w Lodzi Kierownik: prof. dr.  
med. M. Stefanowski Lods, ul. Poludniowa 20 m. 60.

(BRONCHI, surg.

closure of bronchial stump, new technic. (Pol))

GALAZKOWA, K.

GALAZKOWA, K. Dyeing of steelon mixed with wool, cotton, and artificial viscose fiber. Biuletyn Wlok. p. 4.

Vol. 10, no. 6, June, 1956  
PRZEMYSŁ SPOZYWCZY  
TECHNOLOGY  
Warsaw, Poland

So. East Accession Vol. 6, no. 2, Feb. 1957

GADZKOWA, R.

COUNTRY : Poland H-34  
 CATEGORY :  
 ABST. PER. : Wynal., 10. 10 1958, 10. 59443  
 AUTHOR : Gadzka, R.  
 LANG. : Not given  
 TITLE : The Dyeing of Polyamide Fibers, Nylon and Blends of Nylon and Other Fibers  
 ORGA. PUB. : Przegląd Włókienn., 12, No 7, 1958; Stud Inst Włókienn., 13, No 4, 19 (1958)  
 SUMMARY : A short note on the results obtained from the dyeing of nylon fabrics for umbrella manufacture with methylized dyes (Neolans, Palatins). Results obtained from the dyeing of nylon fabrics with designs of viscose rayon with direct fast dyes (Chlorantine) and of blends of nylon and cotton with vat dyes are also described.  
 1. Pedimen

CARD: 1/1

GALAZKOWA, Krystyna; JANISZEWSKI, Karol

Thermal resistivity of dyes applied to polyester fibers and methods of testing. Przegl włokien 16 no.12:632-640 D '62.

1. Instytut Włokiennictwa,<sup>1</sup> Lodz.

BOGDANIKOWA, Beata; GALAZKOWA, Zofia

Relation of the CRP reaction to other inflammatory indices in certain internal diseases. Pelski tygod. lek. 16 no.6:207-211 6 P '61.

1. Z III Kliniki Chorob Wewnętrznych A.M. we Wrocławiu; kierownik: prof. dr E. Szezeklik.

(C-REACTIVE PROTEIN) (INFLAMMATION diag)

GALAZKOWA, Zofia

SURNAME, Given Names

(4)

Country: Poland

Academic Degrees: not given

Affiliation: Third Clinic for Internal Diseases (III Klinika Chorob Wewnetrz-  
nych), School of Medicine (AM, Akademia Medyczna), Wroclaw;

Director: Prof. E. SZCZEKLIK, Dr.  
Source: Warsaw, Przegląd Lekarski, Vol XVII, Ser II, No 8, 1961, pp 294-297.

Data: "Application of A Phenothiazine Group Derivative in Some Internal Diseases."

Authors:

MASTOR, Jerzy

WRAECC, Krzysztof

GALAZKOWA, Zofia

75

GPC 981643



SZCZEKLIK, Edward; BOGDANIKOWA, Beata; GALAZKOWA, Zofia

Behavior of lipoprotein T fractions in arteriosclerosis. Polskie  
arch. med. wewn. 32 no.3:331-390 '62.

1. Z III Kliniki Chorob Wewnętrznych AM we Wrocławiu Kierownik:  
prof. dr med. E.Szczeklik.  
(LIPOPROTEINS blood) (ARTERIOSCLEROSIS blood)

SZCZEKLIK, E.; PYZIOL, A.; GALAZKOWA, Z.

Behavior of lipoproteins in the blood serum and heparinocytes in the blood in myocardial infarction. Kardiol. Pol. 8 no.3:215-219 '65.

1. Z III Kliniki Chorob Wewnętrznych AM we Wrocławiu (Kierownik: prof. dr. E. Szczeklik).

GALAZKOWA, Z.; SZCZEKLIK, A.

behavior of seromucoid in the blood serum in early phases of myocardial infarction. Kardiol. Pol. 8 no.2:119-123 '65.

1. Z III Kliniki Chorob Wewnętrznych AM we Wrocławiu (Kierownik prof. dr. E. Szczeklik).

ACC NR: AT6034485

SOURCE CODE: UR/0000/66/000/000/0023/0029

AUTHOR: Fleyshman, N. P. (L'vov); Galazyuk, V. A. (L'vov)

ORG: none

TITLE: Concentration of stresses in the vicinity of an elliptic opening in a non-slanting spheric shell

SOURCE: Khar'kov. Politekhnicheskiy institut. Dinamika i prochnost' mashin (Dynamics and strength of machines), no. 3. Kharkov, Izd-vo Khar'kovskogo univ., 1966, 23-29

TOPIC TAGS: stress concentration, stress distribution, spheric shell

ABSTRACT: The problem of stress concentrations in the vicinity of an elliptic opening in a spheric shell is generalized to the case of a non-slanting spheric shell with an elliptic opening of finite size and of arbitrary eccentricity. As shown by V. Z. Vlasov in 1962, the problem is expressed by four differential equations

$$\nabla^2 w_j + \mu_j w_j = 0 \quad (j = 0, 1, 2) \tag{1}$$

$$\nabla^2 \chi + 2\chi = 0, \tag{2}$$

where

$$\mu_0 = 2, \quad \mu_{1,2} = 1 \pm i \frac{2R}{3} \sqrt{3(1-\nu^2)}, \tag{3}$$

$$\nabla^2 = \frac{R^2}{AB} \left[ \frac{\partial}{\partial \alpha} \left( \frac{B}{A} \frac{\partial}{\partial \alpha} \right) + \frac{\partial}{\partial \beta} \left( \frac{A}{B} \frac{\partial}{\partial \beta} \right) \right]. \tag{4}$$

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ACC NR: AT6034485

The bending  $w$  is the sum of  $w_1$ ,  $w_2$ , and  $w_3$  found by the solution of Eqs. (1) and (2). The components of the stress- and deformation state are given by the functions  $w = w(\alpha, \rho)$  and  $\chi(\alpha, \rho)$ . By choosing proper coordinates, the equations are solved by separation of variables, and the problem is reduced to the determination of the eigenvalues and eigenfunctions of the differential equation of Lamé with periodic boundary conditions. Orig. art. has: 45 equations.

SUB CODE: 20 / SUBM DATE: 01Jun66/ ORIG REF: 009

Card 2/2

CHUMACHENKO, V.N.; GAL' BEN, Yu.V.

Best electric power plant of the economic council of Rostov.  
Energetik 10 no. 1:32-34 Ja '62. (MIRA 14:12)  
(Rostov---Electric power plants)

L 49193-65 EPA(s)-2

ACCESSION NR: AP501521D

RJ/COOL/64/000/008/0289/0294

10  
9  
8

AUTHOR: Drapanescu, Ovidiu (Chief engineer) (Craiova); Stamate, Sergiu (Chief engineer) (Craiova); Galbenu, George (Engineer) (Craiova); Cimpeanu, Aurel (Engineer, Assistant) (Timisoara)

TITLE: Experimental investigations on the starting characteristics of synchronous and asynchronous electrical rotating machines 29

SOURCE: Electrotehnica, no. 8, 1964, 289-294

TOPIC TAGS: electrical power engineering, electric rotating equipment

Abstract [Authors' English summary modified]: An experimental study of the characteristics  $M = f(s)$  for synchronous and asynchronous machines. Synchronous machines with powers of 300 to 1,000 kilowatt were studied, especially with regard to the dependence of the coupling during the starting process on the tension and resistance to which the exciting winding is connected. For asynchronous motors, the relation between the characteristic  $M = f(s)$  and the slot type and inclination was studied. orig. art. has 2 figures, 4 formulas, 5 graphs, and 2 tables.

Card 1/2

L-49193-65

ACCESSION NR: AP5015210

ASSOCIATION: UEPC

SUBMITTED: 29Oct63

NO REF SOV: 000

ENCL: 00

OTHER: 007

SUB CODE: EE

JPRS

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*cd* 2/2



DRAGANESCU, Ovidiu, ing. (Craiova); GALBENU, Gheorghe, ing. (Craiova);  
Cristea, Nicolae, ing. (Craiova)

Influence of the nature of the cage material on the starting  
parameters of synchronous machines. Electrotehnica 13 no.2:  
41-45 F '65.

1. "Electroputere" Plant, Craiova. Submitted November 27,  
1964.

L 41640-66

ACC NO: AP6031211

SOURCE CODE: RU/0004/65/000/002/0041/0045

AUTHOR: Draganescu, Ovidiu (Engineer); Galbenu, Gheorghe (Engineer); Cristea, Nicoale (Engineer)

ORG: "Electroputere" Works, Craiova (Uzinele "Electroputere")

43  
B

TITLE: Influence of the nature of cage material on the starting parameters of synchronous machines

SOURCE: Electrotehnica, no. 2, 1965, 41-45

TOPIC TAGS: electric motor, electric engineering

ABSTRACT: Experimental studies on the behavior of the MSA synchronous motor (630 kilowatt, 6 kilovolt, 1,000 rotations per minute) with various metals as cage material leads the authors to recommend the proper materials in terms of the desired characteristics. Orig. art. has: 7 figures and 1 table. [Based on authors' Eng. abst.] [JPRS]

SUB CODE: 09 / SUBM DATE: 27Nov64 / ORIG REF: 005

Card 1/1 of

UDC: 621.313.323.045.56.001.21

GALBENU, V.

GALBENU, V.

Transportation of goods inside and outside of enterprises of production, distribution, and supply.

P. 3 (REVISTA CALOR PARTE) (Bucuresti, Rumania) Vol. 6, no. 1, Jan. 1958

SO: Monthly Index of East European Accessions (SEAE) 13 Vol. 7, No. 5, 1958

AUTHORS: Yuriyev, Yu. K., Sadovaya, N. K., Gal'bergman, M. A. 79-28-3-12/61

TITLE: Selenophene Chemistry (Khimiya selenofena)  
X. Synthesis of the 3-methylselenophene-2-Aldehyde and  
2,3-as Well as 2,4-Dimethylselenophene  
(X. Sintez 3-metil'selenofen-2-al'degida i 2,3- i 2,4-  
dimetil'selenofena)

PERIODICAL: Zhurnal Obshchey Khimii, 1958, Vol. 28, Nr 3, pp. 620-624  
(USSR)

ABSTRACT: In the iodination and reaction with metallo-organic compounds  
of the selenophene nucleus in 3-methylselenophene and 2,4-  
dimethylselenophene (Ref 3) the authors assumed in  
consequence of the analogous structure of seleno- and  
thiophene that there must be also an analogy with respect  
to their chemical properties. Therefore they assumed  
a priori that in the 3-methylselenophene the substitution  
of hydrogen by iodine is accompanied by the formation of  
2-iodo-3-methylselenophene, which after the action of  
lithium phenyl and after carbonization converts to 3-methyl-

Card 1/3

## Selenophene Chemistry

X. Synthesis of the 3-methylselenophene-2-Aldehyde and  
2,3-as Well as 2,4-Dimethylselenophene

79-88 3-12/61

selenophene-2-carboxylic acid. They also concluded that in the iodination of 2,4-dimethylselenophene the substitution of hydrogen by iodine in the position 5 of the nucleus takes place at a formation of 5-iodo-2,4-dimethylselenophene. Therefore, after its metal reaction and carbonization they attributed to the final product the structure 2,4-dimethylselenophene-5-carboxylic acid. The proof had, however, to be given that in the presence of a methyl group in the position 3 of the selenophene nucleus halogenation and mercurization actually take place in the position 2 and that also with 2,4-dimethylselenophene this substitution reaction takes place in position 5. In the present work convincing proof is furnished for this orientation with regard to 3-methyl- and 2,4-dimethylselenophene in the iodination and mercurization. For the synthesis of 2,4-dimethylselenophene the authors used the 2-methylpentene-3, which was added to the reaction with selenium dioxide in the presence of chromium oxide and aluminum oxide, as well as to the reaction with metallic selenium (see mentioned reaction process). From this can be seen that from the step-by-step process only

Card 2/3

Selenophene Chemistry

79-28-3-12/61

X. Synthesis of the 3-methylselenophene-2-Aldehyde and  
2,3-as Well as 2,4-Dimethylselenophene

one 2,4-dimethylselenophene could be obtained. For the synthesis of 2,3-dimethylselenophene the 3-methylselenophene was used the formulation of which leads to an aldehyde to which the structure 3-methylselenophene-2-aldehyde was attributed; this could be supported by experiments. This aldehyde converts to 3-methylselenophene-2-carboxylic acid in oxidation, and to 3-methylselenophene-2-carbinol in reduction. In the investigated reactions of halogenation, mercurization and formulation of 3-methylselenophene it was also proved that the substitution of hydrogen takes place in the position 2 of the selenophene cycle (see formulae).

There are 8 references, 7 of which are Soviet.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet  
(Moscow State University)

SUBMITTED: February 4, 1957

Card 3/3

5(3)

AUTHORS:

Yur'yev, Yu. K., Sadovaya, N. K., Gal'bershtam, M. A.

SOV/79-29-6-44/72

TITLE:

Chemistry of Selenophene (Khimiya selenofena). XVIII. Synthesis of the Isomeric Trimethyl Selenophene and of Tetramethyl Selenophene (XVIII. Sintez izomernykh trimetilselenofenov i tetrametilselenofena)

PERIODICAL:

Zhurnal obshchey khimii, 1959, Vol 29, Nr 6, pp 1970 - 1973 (USSR)

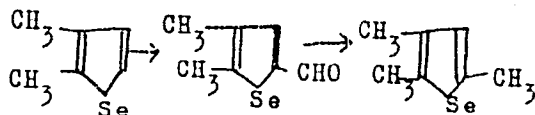
ABSTRACT:

The authors continued their investigation on the methyl homologues of selenophene (Ref 1). They made use of the possibility of a subsequent formylation of the selenophene and the reduction of the aldehyde group into the methyl group for the synthesis of the trimethyl selenophene and of tetramethyl selenophene, hitherto unknown. The synthesis of 2,3,5-trimethyl selenophene was based on 2,3-dimethyl selenophene which, by the action of dimethyl formamide, led to the 2,3-dimethyl selenophene-5-aldehyde. This aldehyde yielded the 2,3-dimethyl selenophene-5-carboxylic acid in the case of oxidation with silver oxide. In the reduction according to the general method by Kizhner (Ref 3) the 2,3,5-trimethyl selenophene was obtained.

Card 1/3

Chemistry of Selenophene. XVIII. Synthesis of the  
Isomeric Trimethyl Selenophene and of Tetramethyl Selenophene

SOV/79-29-6-44/72



3,4-dimethyl selenophene served as initial product for the synthesis of 2,3,4-trimethyl selenophene. Its formylation yielded 3,4-dimethyl selenophene-2-aldehyde the oxidation of which led to the 3,4-dimethyl-selenophene-2-carboxylic acid. In the reduction of 3,4-dimethyl selenophene-2-aldehyde 2,3,4-trimethyl selenophene was obtained, which served as initial product for the synthesis of tetramethyl selenophene. In the formylation of 2,3,4-trimethyl selenophene 2,3,4-trimethyl selenophene-5-aldehyde was obtained, which in the case of oxidation formed 2,3,4-trimethyl selenophene-5-carboxylic acid, in the case of reduction 2,3,4,5-tetramethyl selenophene (Scheme 2). From the two isomeric trimethyl selenophene only 2,3,4-dimethyl selenophene yielded the 5-chloro mercuri-2,3,4-trimethyl selenophene by means of mercurization; the 2,3,5-trimethyl selenophene did not enter this reaction. There are 7 Soviet references.

Card 2/3



Chemistry of Selenophene. XVIII. Synthesis of the SOV/79-29-6-44/72  
Isomeric Trimethyl Selenophene and of Tetramethyl Selenophene

ASSOCIATION: Moskovskiy gosudarstvennyy universitet (Moscow State University)

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Card 3/3

YUR'YEV, Yu.K.; GAL'BERSHTAM, M.A.; SADOVAYA, N.K.

Chemistry of selenophene. Part 26: Reactions of 2-chloromethyl-  
selenophene and its homologs. Zhur.ob.khim. 32 no.4:1301-1307  
Ap '62. (MIRA 15:4)

1. Moskovskiy gosudarstvennyy universitet imeni M.V.Lomonosova.  
(Selenophene)

YUR'YEV, Yu.K.; SADCVAJA, N.K.; GAL'BERSHTAM, M.A.

Chemistry of selenophene. Part 35: Chloromethylation of selenophene  
and its homologs. Zhur. ob. khim. 32 no.1:259-263 Ja '62.

(MIRA 15:2)

1. Moskovskiy gosudarstvennyy universitet imeni M.V.Lomonosova.  
(Selenophene)

YUR'YEV, Yu.K.; GAL'BERSHTAM, M.A.

Chemistry of selenophene. Part 39: Condensation reactions  
of 2-chloromethylselenophene. Zhur.ob.khim. 32 no.10:3249-3252  
0 '62. (MIRA 15:11)

1. Moskovskiy gosudarstvennyy universitet imeni  
M.V. Lomonosova.

(Selenophene)  
(Condensation products (Chemistry))

YUR'YEV, Yu.K.; GAL'BERSHTAM, M.A.; ROZANTSEV, G.G.

Selenophene chemistry. Part 41: Reaction of  
2-chloromethylselenophene with ~~amino~~ alcohols.  
Zhur.ob.khim. 32 no.11:3562-3567 N '62. (MIRA 15:11)

1. Moskovskiy gosudarstvennyy universitet imeni  
M.V. Lomonosova.

(Selenophene) (Alcohols)

YUR'YEV, Yu. K.; GAL'BERSHTAM, M. A.

Chemistry of selenophene. Part 42: Synthesis of tetrasubstituted ethylenediamines of the selenophene series. Zhur. ob. khim. 32 no.12:3922-3925 D '62. (MIRA 16:1)

1. Moskovskiy gosudarstvennyy universitet imeni M. V. Lomonosova.

(Ethylenediamine) (Selenophene)

YUR'YEV, Yu.K.; GAL'BERSHTAM, M.A.

Chemistry of selenophene. Part 43: Reaction of 2-chloromethyl- and 2,5-dimethyl-3-chloromethylselenophene with potassium cyanide. Zhur.ob.khim. 33 no.2:462-466 F '63. (MIRA 16:2)

1. Moskovskiy gosudarstvennyy universitet imeni M.V.Lomonosova.  
(Selenophene) (Potassium cyanide)

YUR'YEV, Yu.K.; GAL'BERSHTAM, M.A.

Chemistry of selenophene. Part 45: 5-Halo-2-chloromethylselenophenes.  
Zhur.ob.khim. 33 no.6:1789-1793 Ja '63. (MIRA 16:7)

1. Moskovskiy gosudarstvennyy universitet imeni M.V.Lomonosova.  
(Selenophene)





YURIYEV, Yu.K.; GALIBERDZAN, M.A.; FIKSITSEVA, A.S.

Kinetic study in the series of five-membered heterocyclic compounds.  
Part 2: Kinetics of solvolysis of 2-chloromethyl and 2,5-dimethyl-3-  
chloromethyl compounds of furan, thiophene, and selenophene in methyl  
alcohol. *Izv. vys. ucheb. zav.; khim. i khim. tekhn.* 7 no.4:598-602  
'64.  
(MIRA 17:12)

1. Kafedra organicheskoy khimii Moskovskogo gosudarstvennogo univer-  
siteta im. M.V. Lomonosova.

NOVITSKIY, K.Yu.; KHACHATUROVA, G.T.; GAL'BERSHTAM, M.A.; KANDROF, I.I.;  
YUR'YEV, Yu.K.

Synthesis of some chloromethyl compounds of the furan series.  
Vest. Mosk. un. Ser. 2: Khim. 19 no.6:63-65 Nov '64.

(MIRA 18:3)

1. Kafedra organicheskoy khimii Moskovskogo universiteta.

YUR'YEV, Yu.K.; GAL'BERSHTAM, M.A.; KANDROR, I.I.

Cleavage of di (2-thienyl)- (2-selenyl) lead under the effect of  
hydrogen chloride. Zhur. b. khim. 34 no.12:4116 D '64  
(MIRA 18:1)

1. Moskovskiy gosudarstvennyy universitet imeni M.V.Lomonosova.