"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1

LINDORF, L.A.; FUFURIN, N.P.; ULITSKIY, M.S.; USTINOV, P.I.; ZEYLIDZON, Ye.D.; MININ, G.P.; KOTS, A.Ya.; KHAVIN, N.Z.; MURAVLEVA, N.V.; LIBERMAN, A.Ya.; BARANOV, B.M.; ZVENIGORODSKIY, I.S.; IVANOV, V.S.; IOFFE, F.Ye. [deceased]; BURLAKOV, B.M.; MIRENBURG, L.A. [deceased]; FAYERMAN, A.L., red.

[Aid for studying engineering regulations governing the operation of electric power plants and networks] Posobie dlia izucheniia pravil tekhnicheskoi ekspluatatsii elektricheskikh stantsii i setei. Izd.2., peresmotrennoe. Moskva, Energiia, 1965. 551 p. (MIRA 18:6)

1. Russia (1923- U.S.S.R.) Gosudarstvennyy proizvodstvennyy komitet po energetike i elektrifikatsii.

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1

S/526/62/000/024/003/013
D234/D308

AUTHORS: Zozulya, M.V., Khavin, O.O. and Kozub, Yu.I.

TITLE: Composition diagrams of heat exchangers consisting of longitudinally ribbed pipes

SOURCE: Akademiya nauk Ukrayins'koyi RSR. Instytut teploenerhetyky. Zbirnyk prats', no. 24, 1962. Teploobmin ta hidrodynamika, 24-32

TEXT: The authors give several diagrams of heat exchangers, classified into types with one or two pipe racks and with collector outlet of the heat carrier. Versions with one rack require U-shaped bends in a non-ribbed section of the pipes. Results of design of 3 different versions are tabulated and compared with the parameters of an ordinary smooth pipe heat exchanger, showing that the former are more advantageous. There are 7 figures and 1 table.

Card 1/1

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1

KHAVIN, V.

Activity of our shop organization of the All-Union Society of Inventors and Efficiency Promoters. Izobr. i rats. no.1: 29-30 Ja '59. (MIRA 12:1)

1. Predsedatel' tskhovoy organizatsii Vsesoyuznogo obshchestva izobretateley i ratsionalizatorov Kuybyshevskogo zavoda "Avtotraktorodetal'."

(Efficiency, Industrial)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1

ZEMSKOV, P.I., kand. tekhn. nauk; KHARCHENKO, Ye.N., inzh.;
YAKUSHINA, Ye.N., inzh.; KHAVINA, R.B., inzh.

Engine gearing made of high-strength cast iron. Lit. proizv. no.1:9-11 Ja '66. (MIRA 19:1)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1

MALVIN, V.F., Cand Phys-Math Sci--(diss) "Application of functional analysis to certain problems of the theory of analytical functions." Len, 1958. 10 pp (Len Order of Lenin State U im A.A.Zhdanov), 150 copies Bibliography: pp 9-10 (17 titles) KL(44-58,120)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1

AUTHOR: KHAVIN, V.P. 15-1-5/10

TITLE: On Analytic Functions Which can be Represented by Integrals of the Type Cauchy-Stieltjes (Ob analiticheskikh funktsiyakh, predstavimykh integralom Koshi-Stiltyesa)

PERIODICAL: Vestnik Leningradskogo Universiteta, Seriya Matematiki, Mekhaniki i Astronomii, 1958, Nr 1(1), pp.66-79 (USSR)

ABSTRACT: Let R be the augmented complex plane, $E \subset R$ an infinite closed subset of R, the complement G of which is not empty. Let S_E be the set of all functions which are analytic in R except in a finite number of finite points belonging to G. Let

$$(1) \qquad \|f\| = \max_{z \in E} |f(z)| \quad , \quad f \in S_E \quad .$$

Now $u(z)$ is assumed to be analytical in G, $f \in S_E$ to be analytical everywhere except in the points $a_1, a_2, \ldots, a_m$. Then

$$(2) \qquad F(f) = \sum_{k=1}^{m} \frac{1}{2\pi i} \int_{|z-a_k|=r_k} f(z)u(z)dz$$

where the integration circles are not to intersect each other and lie entirely in G, is a homogeneous additive functional.

Card 1/2

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1

On Analytic Functions Which can be represented by Integrals of the Type Cauchy-Stieltjes 43-1-5/10

Theorem: In order that the function u(z), analytic in G, admits the representation

$$u(z) = \frac{1}{2\pi i} \int_E \frac{d\,g(\varrho)}{\varrho - z}, \quad z \in \bar{E}$$

whereby g(e) is a measure given on the subsets of E, it is necessary and sufficient that (2) is continuous in S_E with respect to the norm (1).

The author then considers the case $E = E_z \{ |z| \geqslant 1 \}$ and obtains a generalization of the theorem on the Cauchy integrals of F. Riesz. On this basis some theorems on the multiplication of the Cauchy-Stieltjes integrals and on the invariance of these integrals under the conformal mappings are proved. Some inner properties of analytic functions are discovered which cause the desired possibility of representation. The proofs are based on the theorems of Hahn-Banach and Banach-Steinhaus. 10 theorems are proved. 2 Soviet and 3 foreign references are quoted.

SUBMITTED: 25 December 1956

AVAILABLE: Library of Congress

Card 2/2 1. Analytic functions 2. Integral functions

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1

AUTHOR: Khavin, V.P.

20-118-5-8/59

TITLE: Analytic Continuation of Power Series and Faber Polynomials (Analiticheskoye prodolzheniye stepennykh ryadov i mnogochleny Fabera)

PERIODICAL: Doklady Akademii Nauk, 1958, Vol 118, Nr 5, pp 879-881 (USSR)

ABSTRACT: Let G be a simply connected domain of the z-plane containing the point $z = \infty$. The closed bounded complementary set K of G is assumed to contain more than one point. Let $\phi(z)$ map G conformally onto the exterior of $|w| = \rho$ so that in the neighborhood of ∞ it is $\phi(z) = z + \alpha_0 + \frac{\alpha_1}{z} + \dots$. For integer $k \geqslant 0$ it is $[\phi(z)]^k = \phi_k(z) + \frac{\alpha_1^{(k)}}{z} + \frac{\alpha_2^{(k)}}{z^2} + \dots$, where $\phi_k(z)$ is the Faber polynomial of k-th degree. Furthermore let

$$(1) \qquad \varphi(z) = \frac{b_1}{z} + \frac{b_2}{z^2} + \dots + \frac{b_n}{z^n} + \dots$$

be a series which converges in a certain neighborhood of

Card 1/3

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019

$z = \infty$.

Theorem: Let be $\phi_k(z) = c_0^{(k)} + c_1^{(k)} z + \dots + c_k^{(k)} z^k$.

In order that (1) converges to a function analytic in G, it is necessary and sufficient that

$$\overline{\lim_k} \left| c_0^{(k)} b_1 + c_1^{(k)} b_2 + \dots + c_k^{(k)} b_{k+1} \right|^{1/k} \leqslant \rho$$

Theorem: The following claims are equivalent :

1.) The series $\sum_{s=1}^{\infty} b_s z^s$ converges for $|z| < 1$ to an analytic function which possesses no nonreal singularities in a rectilinear star with the origin $z = 0$.

2.) $\overline{\lim} \left| c_0^{(m)} b_1 + c_1^{(m)} b_2 + \dots + c_m^{(m)} b_{m+1} \right|^{1/m} \leqslant \frac{1}{2}$

Card 2/3

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let the integrals $\int_0^1 |u_0(r)|dr$, $\int_0^1 |u_0(re^{i\theta})|dr$ be convergent.

Then there exists a function $\psi(\varphi)$, $0 \leq \varphi \leq \theta$ so that

$$\int_0^\theta |\psi(\varphi)|^p \, d\varphi < +\infty$$

$$u_0(z) = \int_0^\theta \frac{\psi(\varphi)d\varphi}{e^{i\varphi}-z} + u_1(z), \qquad |z|<1,$$

where $u_1(z)$ is regular everywhere except of the acr $z = e^{i\varphi}$, $\theta \leq \varphi \leq 2\pi$.

There are 7 references, 2 of which are Soviet, 1 German, 1 Italian, 1 French, 1 American, and 1 Spanish.

PRESENTED: March 12, 1958, by V.I.Smirnov, Academician
SUBMITTED: March 8, 1958

Card 2/2

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1

16(1)

AUTHOR: Khavin, V.P. SOV/43-59-19-5/14

TITLE: On the Norms of Some Operations in the Space of Polynomials

PERIODICAL: Vestnik Leningradskogo universiteta, Seriya matematiki, mekhaniki i astronomii, 1959, Nr 19(4), pp 47-59 (USSR)

ABSTRACT: In the space of all polynomials of at most n-th degree with the norm $\|p\|_L = \max_{z \in L} |p(z)|$ the author considers the operation U_n which lets correspond to every polynomial $p(z) = \sum_{k=0}^{n} c_k z^k$ the sequence of complex numbers $(c_0, c_1, \ldots, c_n)$:

$$U_n p = (c_0, c_1, \ldots, c_n).$$

Let

$$(6) \qquad \|c\|_{l_p^d} = \left(\sum_{k=0}^{n} d_k^{2-p} |c_k|^p \right)^{1/p}, \quad p > 0.$$

Theorem 1: Let L be a closed rectifiable Jordan curve. If $|z| < 1$ lies in the interior of L and if there exist numbers α, β $(0 \leq \alpha < \beta \leq 2\pi)$ so that $z = e^{it}, \alpha \leq t \leq \beta$, belongs to the curve L, then the following assertions are equivalent:

Card 1/3

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1

On the Norms of Some Operations in the Space of Polynomials SOV/43-5949-5/14

1) $\lim_{n\to\infty} \|U_n\|_{l_p^d} = +\infty$

2) $\sum_{k=0}^{\infty} d_k^2 = +\infty$.

Here $\|U_n\|_{l_p^d} = \sup_{\|p\|_L \leq 1} \|U_n p\|_{l_p^d}$, $0 < p \leq 2$.

Theorem 2: If $0 < p \leq 2$, $\sum_{k=0}^{\infty} d_k^2 = +\infty$, $d_k \geqslant 0$, $k=0,1,\ldots$, then there exists a function $f(z) = \sum_{k=0}^{\infty} c_k z^k$ regular everywhere outside of $[1,+\infty)$ and continuous in $|z| \leq 1$, where

$$\sum_{k=0}^{+\infty} d_k^{2-p} |c_k|^p = +\infty .$$

Theorem 3: Let $t_0, t_1, \ldots, t_n, \ldots$ be a sequence of non-negative

Card 2/3

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1

On the Norms of Some Operations in the Space of Polynomials SOV/43-59-19-5/14

numbers so that $\sum_{n=0}^{\infty} t_n^r = +\infty$ for all $r>0$. Then there exists a function regular outside of $[1,+\infty)$ and continuous in $|z|\leq 1$ which in $|z|<1$ has the Taylor expansion $f(z) = \sum_{n=0}^{\infty} c_n z^n$, where $\sum_{n=0}^{\infty} t_n |c_n|^{2-\varepsilon} = +\infty$ for all ε, $0<\varepsilon<2$.

The author mentions B.M.Makarov and B.A.Samokish. He thanks Professor S.M.Lozinskiy and Professor S.B.Stechkin for advice. There is 1 figure, and 11 references, 6 of which are Soviet, 2 French, and 3 Polish.

SUBMITTED: July 1, 1958

Card 3/3

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1

16(1)

AUTHOR: Khavin, V.P. SOV/20-126-3-14/69

TITLE: On a Problem of V.V.Golubev

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 126, Nr 3, pp 511-513 (USSR)

ABSTRACT: The question given by V.V.Golubev [Ref 1] whether every function f(z) regular outside the curve L is representable by a series

$$f(z) = \sum_{k=0}^{\infty} \int_L \frac{y_k(t)dt}{(t-z)^{k+1}} + f(\infty)$$

is answered positively by the author. He mentions B.A.Vostretsov whose results partially overlap with the author's results, and Sukhomlinov.
There are 9 references, 5 of which are Soviet, 2 German, 1 Spanish, and 1 Swedish.

ASSOCIATION: Leningradskiy gosudarstvennyy universitet imeni A.A.Zhdanova (Leningrad State University imeni A.A.Zhdanov)

PRESENTED: February 13, 1959, by V.I.Smirnov, Academician

SUBMITTED: January 26, 1959

Card 1/1

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1

16(1)

AUTHOR: Khavin, V.P. SOV/20-127-4-7/60

TITLE: The Rate of Growth of Functions of the H_p Class and the Multiplication of Integrals of the Cauchy-Stieltjes Type

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 127, Nr 4, pp 757-759 (USSR)

ABSTRACT: Let $\lambda = \lambda(r)$ be a continuous, positive, monotonely increasing function defined on $[0,1)$. Let X_λ denote the set of all functions regular in $|z| < 1$ for which $M(r,f) = O(\lambda(r))$, where $M(r,f) = \max_{0 \leq \theta \leq 2\pi} |f(re^{i\theta})|$. Let H_p be the class defined in [Ref 1].

Theorem: Let $p > 0$. From $H_p \cap X_\lambda \subset \bigcup_{\varepsilon > 0} H_{p+\varepsilon}$ there follows: $\sup_{0 < r < 1} \lambda(r) < +\infty$.

Theorem: Let $p > 0$. From $\bigcap_{p' < p} H_{p'} \cap X_\lambda \subset H_p$ there follows: $\sup_{0 < r < 1} \lambda(r) < +\infty$.

Theorem: Let B be the class of all bounded functions regular in the unit circle. From $\bigcap_{p > 0} H_p \cap X_\lambda \subset B$ there follows $\sup_{0 < r < 1} \lambda(r) < +\infty$.

Card 1/3

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1

The Rate of Growth of Functions of the H_p Class and the Multiplication of Integrals of the Cauchy-Stieltjes Type SOV/20-127-4-7/6

Theorem: Let K be the class of functions f regular in the unit circle, which are representable by an integral of the type $\int_0^{2\pi} \frac{dg(\theta)}{e^{i\theta}-z}$, where g is a function of bounded variation. Let $\{m_n\}_{n=0}^{\infty}$ be a sequence of non-negative numbers, where $m_n = o(\log n)$, $\lim_{n\to\infty} m_n = +\infty$. There exists a function φ regular in $|z|<1$ and continuous in $|z|\leq 1$ with the properties: 1. $\varphi(1)=0$, 2. $\sum_{n=0}^{\infty} \frac{1}{n!} |\varphi^{(n)}(0)| m_n < +\infty$, 3. $\varphi \frac{1}{1-z} \notin K$ (although $\frac{1}{1-z} \in K$).

Theorem: Let a function φ regular in $|z|<1$ have the property that $\sum_{n=2}^{\infty} \frac{1}{n!} |\varphi^{(n)}(0)| \log n < +\infty$. Then $\varphi\psi \in K$ if $\psi \in K$.

Card 2/3

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1

The Rate of Growth of Functions of the H_p Class and the Multiplication of Integrals of the Cauchy-Stieltjes Type SOV/20-127-4-7/6

The author mentions V.I.Smirnov, and B.M.Makarov; he thanks D.A.Vladimirov for aid.
There are 8 references, 6 of which are Soviet, 1 French, and 1 Polish.

ASSOCIATION: Leningradskiy gosudarstvennyy universitet imeni A.A.Zhdanova (Leningrad State University imeni A.A.Zhdanov)

PRESENTED: April 16, 1959, by V.I.Smirnov, Academician

SUBMITTED: March 25, 1959

Card 3/3

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1

68801

~~16(1)~~ 16,3000 S/020/60/131/01/010/060

AUTHOR: Khavin, V.P.

TITLE: Space of Bounded Regular Functions 16

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol 131, Nr 1, pp 40-43 (USSR)

ABSTRACT: Let R be the extended complex plane ; F a closed set of points in R ; $G = R \setminus F + \Lambda$; A(F) the set of all functions regular on F . The author considers the class B(G) of the functions regular and bounded in G. He shows that this class can be characterized as additive functionals which are given in A(F) and continuous in a topology which is weaker than the topology of A(F). The results overlap with the investigations of S.Ya. Khavinson to whom the author thanks for valuable advices.
There are 7 references, 5 of which are Soviet, 1 German, and 1 Spanish.

ASSOCIATION: Leningradskiy gosudarstvennyy universitet imeni A.A.Zhdanova (Leningrad State University imeni A.A. Zhdanov)

PRESENTED: November 17, 1959, by V.I. Smirnov, Academician

SUBMITTED: October 16, 1959

Card 1/1

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1

KHAVIN, V.P.; KHAVINSON, S.Ya.

Some evaluations of analytical capacity. Dokl.AN SSSR. 138 no.4: 789-792 Je '61. (MIRA 14:5)

1. Predstavleno akademikom V.I.Smirnovym.
(Topology)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1

ZAYEZDNYY, Aleksandr Mikhaylovich; KLYATSKIN, I.G., retsenzent; KHAVIN, V.P., retsenzent; SOBOLEVA, Ye.M., tekhn. red.

[Harmonics synthesis in radio engineering and electrical communications] Garmonicheskii sintez v radiotekhnike i elektrosviazi. Moskva, Gos.energ.izd-vo, 1961. 535 p. (MIRA 15:2)
(Radio) (Telecommunication) (Harmonic analysis)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1

KHAVIN, V.P.

Relations between certain classes of functions, regular in the unit circle. Vest. LGU 17 no.1:102-110 '62. (MIRA 15:1)
(Functions, Analytic)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1

KHAVIN, V.P.

Space of bounded regular functions. Sib. mat. zhur. 2 no.4: 622-638 Jl-Ag '61. (MIRA 14:9)
(Functions, Analytic) (Spaces, Generalized)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1

S/044/63/000/001/010/053
A060/A000

AUTHOR: Khavin, V. P.

TITLE: An analogue to the Laurent series

PERIODICAL: Referativnyy zhurnal, Matematika, no. 1, 1963, 24, abstract 1B112 (In collection: "Issled. po sovrem. probl. teorii funktsiy kompleksn. peremennogo". Moscow, Fizmatgiz, 1961, 121 - 131)

TEXT: On a closed bounded set F of a plane, the notion of a real measure μ is introduced (the measure is denumerably additive and possesses the property that the set obtained from F by subtracting a set of measure zero, has the set F itself as its closure), and the following proposition is proven. If F is a bounded, closed, connected set, and G is an open complement to F, then the class of functions analytic in G coincides with the class of functions representable in the form

$$u(z) = C + \sum_{k=0}^{\infty} \int_F \frac{y_k(t)d\mu}{(t-z)^{k+1}}, \qquad (1)$$

Card 1/2

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1

An analogue to the Laurent series

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A060/A000

where C is a constant, and

$$\int_F |y_k(t)|^2 \, d\mu < \infty, \quad \lim_{k\to\infty} \sqrt[k]{\int_F |y_k(t)|^2 \, d\mu} = 0.$$

Equality (1) is analogous to the representation of a function analytic at infinity and having in the continued plane only a finite number of singular points, by means of Laurent expansions in the neighborhood of those points. The necessary and sufficient conditions are also established for the function analytic in G to be of the form (1), but with a finite number of terms.

G. L. Lunts

[Abstracter's note: Complete translation]

Card 2/2

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1

KHAVIN, V.P.

Analytic representation of linear functionals in spaces of harmonic and analytic functions continuous in a closed region. Dokl. AN SSSR 151 no.3:505-508 Jl '63. (MIRA 16:9)

1. Leningradskiy gosudarstvennyy universitet im. A.A.Zhdanova. Predstavleno akademikom V.I.Smirnovym.
(Functional analysis)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1

SMIRNOV, Vladimir Ivanovich; LEBEDEV, Nikolay Andreyevich; KHAVIN, V.P., red.

[Constructive theory of functions of complex variables] Konstruktivnaia teoriia funktsii kompleksnogo peremennogo. Moskva, Izd-vo "Nauka," 1964. 438 p. (MIRA 17:8)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1

KHAVIN, V.P. (Leningrad)

Boundary properties of Cauchy type integrals and harmonically adjoint functions in regions with rectifiable boundaries. Mat.sbor. 68 no.4:499-517 D '65.

(MIRA 18:12)

1. Submitted July 9, 1964.

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1

L 30787-66 EWT(d)/T IJP(c)

ACC NR: AP6022093 SOURCE CODE: UR/0199/66/007/001/0055/0060

AUTHOR: Val'skiy, R. E.; Khavin, V. P.

ORG: none

30
B

TITLE: Elimination of singularities of analytic functions and transfer of mass

SOURCE: Sibirskiy matematicheskiy zhurnal, v. 7, no. 1, 1966, 55-60

TOPIC TAGS: analytic function, Lipschitz condition, mathematic space, distribution theory

ABSTRACT: The author proves that the space A Lip (X) of functions that are analytic on some open set X and satisfy the Lipschitz condition there is conjugate to some space of functions that are analytic on the complement of X. Necessary and sufficient conditions for A Lip (X) to be nontrivial are given. The starting point for the discussion is a problem on transferring mass so as to equalize the distribution in a space. Orig. art. has: 6 formulas. [JPRS]

SUB CODE: 12 / SUBM DATE: 23Dec64 / ORIG REF: 005

Card 1/1 JS UDC: 517.53

0915 0004

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1

L 04270-67

ACC NR: AP6013298 SOURCE CODE: UR/0413/66/000/008/0091/0091

AUTHORS: Dyban, Ye. P.; Klimenko, V. N.; Rudkin, S. K.; Stradomskiy, M. V.; Khavin, V. Yu.; Shvets, I. T.

ORG: none

TITLE: Apparatus for measuring the temperature of revolving machine details. Class 42, No. 180833 [announced by Institute of Technical Thermophysics, AN UkrSSR (Institut tekhnicheskoy teplofiziki AN UkrSSR)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 8, 1966, 91

TOPIC TAGS: temperature measurement, thermocouple, electromagnet, magnetic circuit, MEASURING INSTRUMENT, MECHANICAL STRESS

ABSTRACT: This Author Certificate presents an apparatus for measuring the temperature of revolving machine details. The apparatus contains thermocouples fixed on the revolving detail and connected into the chain of movable electromagnets of the induction-type contactless current receivers. The fixed magnets of the latter are connected into a circuit for amplifying and registration of the measured impulses (see Fig. 1). To diminish the influence of the machine shaft displacement and the interference of the nearby electromagnets, the magnetic connections of the fixed magnets are provided with magnetic screens placed on both sides of the connections in parallel to the rotation axis. The shaft carries a spline-like

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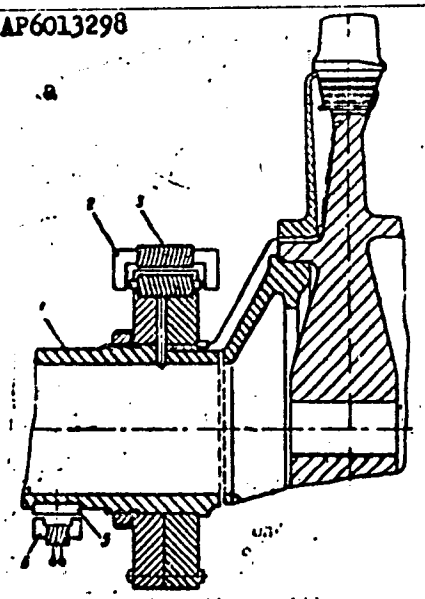
L 04270-67

ACC NR: AP6013298



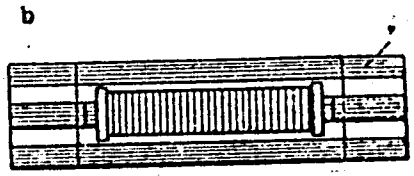


Fig. 1. 1 - machine shaft; 2 - magnetic connection; 3 - fixed electromagnets; 4 - magnetic screen; 5 - spline-like protrusion; 6 - auxiliary magnet

protrusion which, together with an auxiliary magnet, forms a system producing the directing impulses sent to the recording circuit. Orig. art. has: 1 figure.

SUB CODE: 13/ SUBM DATE: 08Feb65

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SHVETS, I.T., akademik; DYBAN, Ye.P., kand.tekhn.nauk; KHAVIN, V.Yu., inzh.

Heat transfer in the labyrinth glands of turbine wheels. Energomashinostroenie 9 no.12:8-11 D '63. (MIRA 17:1)

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L 3464-66 EWT(m)/EWP(w)/EWA(d)/EWP(v)/T-2/EWP(t)/EWP(k)/EWP(z)/EWP(b)/
ETC(m) EM/MJW/JD/WW

ACCESSION NR: AP5024137 UR/0096/65/000/010/0047/0051 79
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B

AUTHOR: Dyban, Ye. P. (Candidate of technical sciences); Stradomskiy, M. V.; Khavin, V.Yu.; Shvets, I. T. (Academician AN UkrSSR); Kurosh, T. D. (Engineer)

TITLE: Experimental investigation of the GT-6-750 turbine cooling system

SOURCE: Teploenergetika, no. 10, 1965, 47-51

TOPIC TAGS: turbine design, hydraulics, turbine cooling, thermodynamics/ GT-6-750 turbine

ABSTRACT: The newly developed cooling system for the rotor of a GT-6-750 high pressure turbine was investigated. Six tests were made on the temperature state of the rotor and 11 on the hydraulic characteristics of the cooling system. Cooling system efficiency was evaluated from measurements of metal temperature and cooling air pressure under steady state cooling conditions. Results of the measurements shown graphically, demonstrate that, with an overall consumption of cooling air of 0.86 kg/sec. and an initial gas temperature of 750C, there is assured a maximum temperature level not higher than 410C over the disc plates. This is substantially lower (by 100-110C) than the permissible value for heat resistant perlitic steel type EI-415. With this system, the main body of heat is

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removed from the upper part of the disc plate. Thus, heating up of the main body of the rotor proceeds very rapidly and steady state conditions are attained within 45-50 min after startup. The radial and axial temperature gradients are within permissible limits. In general, the highest temperature gradients over the thickness of a disc amount to 110C and are attained after 40 minutes from the start of heating. Orig. art. has: 5 figures

ASSOCIATION: Institut tekhnicheskoy teplofiziki AN UkrSSR (Institute of Industrial Thermophysics, AN UkrSSR); Ural'skiy turbomotornyy zavod (Ural Turbine Motor Plant)

SUBMITTED: 00 ENCL: 00 SUB CODE: PR

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SHVETS, I.T. [Shvets', I.T.], akademik; DYBAN, Ye.P. [Dyban, Ye.P.]; KHAVIN, V.Yu.

Experimental study of heat exchange in labyrinth packings of gas turbines. Dop. AN URSR no.10:1332-1336 '62. (MIRA 18:4)

1. Institut teploenergetiki AN UkrSSR.

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1

KHAVIN, YA M

Sooruzheniya I Zoaniya NA Poverkh-hosti Shakht (Structures and buildings at the surface of mines) Moskva, Ugletekhizdat, 1950.
378 p. tables, Diagrs.

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1

TARAKANOV, K.I., inzh.; KHAVIN, Ya.M., inzh.

Construction of buildings and mine surface structures using standard plans. Shakht.stroi. no.4:4-6 Ap '59. (MIRA 12:5)
(Mine buildings) (Mining engineering--Standards)

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1

TARAKANOV, K.I., inzh.; KHAVIN, Ya.M.

Raise the technical level of the construction of industrial buildings and installations in the coal industry. Shakht. stroi. 5 no.9:1-6 S '61. (MIRA 16:7)

1. Gosstroy SSSR (for Tarakanov). 2. Gosudarstvennyy institut po proyektirovaniyu shakhtnogo stroitel'stva v yuzhnykh rayonakh SSSR (for Khavin).
(Industrial buildings) (Coal mines and mining)

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1

KHAVIN, Z.F., inzh.

Concerning the evaluation of activity of industrial enterprises. (MIRA 14:8)
Vest. elektroprom. 32 no.9:13-17 S '61.
(Electric industries--Accounting)

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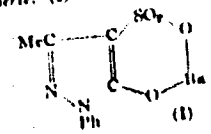
Sulfonation reaction. XII. Sulfonation of 1-phenyl-3-methyl-5-pyrazolone. I. S. Ioffe and Z. Ya. Khavin. *J. Gen. Chem.* (U.S.S.R.) 14, 822-4, 1944 (English summary). Sulfonation of 1-phenyl-3-methyl-5-pyrazolone by H_2SO_4, H_2O below 10°, followed by neutralization by BaO, gave the *Ba deriv.* (I) of enolized *1-phenyl-3-methyl-5-pyrazolone-4-sulfonic acid.* The 4-sulfonic acid is very labile and is readily cleaved by HNO_2 or diazonium salts, while heating with 95% H_2SO_4 transforms it to the 4'-sulfonic acid, which is formed under all but the mildest conditions of sulfonation of the initial pyrazolone (Mollenhof, *Ber.* 25, 1041(1892)). G. M. Kosolapoff



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KHAVIN, Z. YA.

Feb 1947

USSR/Chemistry - Butadiene
Chemistry - Bromobutadienes

" Splitting Off of Hydrogen Halides from the Dihalogen Butenes Formed During the Chlorination and Bromination of Butadiene: Synthesis of Alphachlor- and Alpha-bromobutadienes, Their Characteristics and Properties of Products," A. L. Klebanskiy, R. M. Sorokina, Z. Ya. Khavin, 16 pp

"Zhur Obshch Khim" Vol XVII, No 2

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Sulfonation reaction. XIV. Sulfonation of 1-phenyl-3-methyl-5-pyrazolone and preparation and properties of sulfonic acids of phenylmethylpyrazolone. I. S. Ioffe and Z. Ya. Khavin. *J. Gen. Chem.* (U.S.S.R.) 17, 522-7(1947)(in Russian); cf. *C.A.* 40, 2847[9].—1-Phenyl-3-methyl-5-pyrazolone (I) (10 g.) in 50 g. 96% H_2SO_4 was heated 1.5 hrs. at 200-20° until the reaction was complete (a few drops of the mixt. in 3-4 cc. H_2O is treated with several drops of $NaNO_2$ and 2-3 cc. Et_2O and shaken; completion of the reaction is shown by a colorless Et_2O layer and intensely yellow aq. layer), poured into 100 g. ice, and filtered after standing until pptn. was complete, giving 92% *1-p-sulfophenyl-3-methyl-5-pyrazolone*, difficultly sol. in cold H_2O, sol. in hot H_2O, forms in hot aq. soln. with $BaCO_3$ the *Ba salt*, which is sol. in H_2O but can be recrystd. from aq. EtOH. The acid or the Ba salt with $NaNO_2$ gives the water-sol. nitroso deriv. *p*-$O_2NC_6H_4N_2Cl$ gives an orange-yellow azo dye which is fairly sol. in H_2O and in alkalies with a red color. The free acid reduces NH_3-Ag_2O and gives with $FeCl_3$ a red color which fades on heating or acidification with HCl. It is stable to hydrolysis; heating to 100-20° with 24% HCl does not affect it. I (10 g.), thoroughly dry, was added slowly to 30 g. 20% oleum and the soln. kept several days at 10-15° (end of reaction shown by treating a few drops with 3-4 g. ice, shaking with Et_2O, and treating the Et_2O layer with $NaNO_2$ and acid, which should give a barely yellow color); after pouring on 100 g. ice, keeping the temp. below 2-3°, the soln. was neutralized with $BaCO_3$, filtered, concd. to 100 cc., again filtered, treated hot with EtOH until crystn. began, and cooled, giving 60% *1-phenyl-3-methyl-5-pyrazolone-4-sulfonic acid* as white scales, *Ba salt*, silvery crystals, contains 5.5 moles H_2O and cannot be completely dehydrated without decompn., is sol. in H_2O, poorly sol. in dil. EtOH; $AgNO_3$ gives an insol. *Ag salt*; $FeCl_3$ gives a blue-violet color; $NaNO_2$ in acid soln. causes loss of $BaSO_4$ and gives 4-nitroso-1-phenyl-3-methyl-5-pyrazolone, m. 157-8° (from H_2O); reaction with *p*-$O_2NC_6H_4N_2Cl$ in the presence of NaOAc also causes loss of $BaSO_4$ and gives a dye, m. 198-9° (from C_6H_6), which is identical with the product of similar coupling of I. The free acid loses the SO_3 group as easily as does the Ba salt. I (10 g.) was slowly added to 50 g. 20% oleum with cooling, then heated on a steam bath 2 hrs. (test as above should give an almost colorless Et_2O layer), poured slowly with cooling into 200 g. ice, the cooled soln. neutralized with $BaCO_3$, filtered, and the filtrate evapd. to 50 cc. and treated with EtOH to give 78.7% of the *Ba salt of 1-p-sulfophenyl-3-methyl-5-pyrazolone-4-sulfonic acid*; on crystn. from dil. EtOH this is obtained as colorless needles, sol. in H_2O, more sol. in dil. EtOH than the Ba salt of the 4-sulfonic acid; it contains $6H_2O$ and cannot be completely dehydrated without decompn.; treatment with $AgNO_3$ gives an insol. Ag_2 salt; with $FeCl_3$ it gives a red color; $NaNO_2$ in acid soln. splits off the 4-sulfo group and gives a nitroso compd. identical with that of the *p*-sulfo deriv.; *p*-$O_2NC_6H_4N_2Cl$ also cleaves a 4-sulfo group and gives an azo dye identical with that from the *p*-sulfo acid. Heating with acids leads to ready loss of the 4-sulfo group. The $NaNO_2$ reaction with the Ba salts of the above acids is quant. and may be used as a basis for their analytical estn.

G. M. Kosolapoff

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Sulfonation reaction. XV. Sulfonation of 1-phenyl-3-methyl-5-pyrazolone and the influence of reaction conditions on the yield of sulfonation products and their mutual transformations. I. S. Ioffe and Z. Va. Khavin. *J. Gen. Chem.* (U.S.S.R.) 17, 528-37(1947)(in Russian).—It was shown in part XIV (*C.A.* 42, 9033a) that sulfonation of 1-phenyl-3-methyl-5-pyrazolone (I) can be made to yield 3 products, depending on conditions: the 4-sulfo (II), the 1-*p*-sulfophenyl (III), and the 4-sulfo-1-*p*-sulfophenyl (IV) deriv. Since this was in contradiction with Mollenhoff's results (*Ber.* 23, 1941(1892)) a new series of expts. were carried out showing that M.'s isolation of only III was due to hydrolysis of the sulfo group in the 4-position during quenching of his reaction mixt. with ice without adequate provision for cooling. Sulfonation in oleum leads to IV by 2 routes: formation of II and III which then undergo further sulfonation; II is formed predominantly and is subject to fairly rapid sulfonation even at low temps.

Sulfonation with H_2SO_4 leads to III through a complex series of steps: the primary products are similar to those produced by oleum; these lead to the formation of IV in later stages of the reaction as well as to accumulation of III through hydrolysis of II by H_2O, III being stable to such hydrolysis. IV then substantially lowers the 4-sulfo group by similar hydrolysis and the over-all reaction is the formation of III. I (10 g.) added with external cooling to 30 g. 20% oleum in small portions and allowed to stand 7-10 days at 10-15° and hydrolyzed by pouring slowly into 100 g. externally cooled ice, followed by neutralization with $BaCO_3$, gave 65% of the Ba salt (V) of II; the mother liquor on further treatment with EtOH gave 17% IV (as the Ba salt (VI)) and a small amt. of V. However, when 10 g. I in 50 g. 20% oleum was heated to 100° 1.5-2 hrs., cooled, and the soln. divided into (a) which was rapidly poured into 100 cc. H_2O (without cooling), allowed to cool, and yielded 85% III, and (b) which was carefully poured on 100 g. ice with external cooling; the soln. remained clear and, after neutralization by $BaCO_3$, filtration of the $BaSO_4$ and addn. of EtOH with HCl, giving 0.[illegible] (decompn.). III, m. 2[illegible] quinoline (III), m. 2[illegible] (decompn.), is also obtained in 95% yield when 10 g. II is refluxed with 50 cc. HCl in 11. H_2O 6 hrs. The Ag salt of III refluxed with MeI in MeOH 4 hrs. gives 8.5% II, light yellow needles, m. 123-5°. Slow addn. of 41 g. III to 150 cc. $POCl_3$ at 80°, refluxing the mixt. 1.5 hrs., and pouring it into 700 cc. concd. NH_4OH and ice give 95% 5-chloro-6-methoxy-8-nitroquinoline (IV), m. 203.5-5°. Heating 4.77 g. IV with $CH_2(OH)CH_2ONa$ in $(CH_2OH)_2$ give 5-(2-hydroxyethoxy)-6-methoxy-8-nitroquinoline (V), bright yellow solid, m. 122-3° (Ac deriv. m. 70-1°). V is also obtained in 32% yield by heating 2.4 g. IV in 90 cc. $(CH_2OH)_2$ with 0.60 g. 85% KOH in 10 cc. H_2O at 165°. Reduction of 7.1 g. V in abs. EtOH with PtO_2 at 40 lb. in 35 min. gives 81% 5-(2-hydroxyethoxy)-6-methoxy-8-aminoquinoline (VI), m. 103-4° (picrate m. 174-6°). An intimate mixt. of 9.51 g. VI and 12.9 g. $H_2NCH_2(CH_2)_3CH_2Br$ is heated 13 hrs. at 115-25° and 2 hrs. at 125-35° in a N atm., giving 5-[8-(6-diethylaminohexylamino)-6-methoxyquinolyloxy]ethanol, unstable yellow oil, b. [illegible] 130-60°. Heating 2 g. II with 30 cc. concd. HCl in a sealed tube 6 hrs. at 150° gives 1.1 g. 5,6-dihydroxy-8-nitroquinoline HCl, m. 233-5° (sealed tube, decompn.). Nitration of 17 g. m-ClC_6H_4NHAc in 20 cc. Ac_2O and 9 g. AcOH at 0° to −5° with 10 g. HNO_3 (d. 1.52) in 9 cc. AcOH gives 60% 2-nitro-5-chloroacetanilide, m. 117-18°, saponif. with MeONa in MeOH to 90% 2,5-$(NO_2)ClC_6H_3NH_2$, m. 127.5-8°, which is converted into 5-chloro-8-nitroquinoline (VII) according to Fourneau, *et al.* (*C.A.* 24, 5300). Treatment of 3 g. VII with 3 g. MeONa in MeOH 6 hrs. at 55-60° and overnight at room temp. gives 85% 5-methoxy-8-nitroquinoline (VIII), yellow crystals, m. 110.5-20°. Refluxing 1 g. VIII with 50 cc. H_2O and 3 cc. concd. HCl gives 83% 5-hydroxy-8-nitroquinoline (IX), compact orange crystals, m. 261° (decompn.). IX is also formed in 45% yield by refluxing VII with KOH in EtOH and H_2O [illegible] yield, m. 111-11.5°). Heating [illegible]

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1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

3RD AND 4TH ORDERS

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Hydroxyfuchsone dyes. VII. Monomethoxybenzaurin. I. S. Ioffe. *Zhur. Obshchei Khim.* (J. Gen. Chem.) 19, 911-16(1949); cf. *C.A.* 43, 5772b. PhOH (47 g.) and 310 g. guaiacol added in molten state to 53 g. BzH and satd. with cooling with HCl, followed by standing in closed vessel 5 days and steam distn., gave an orange resin, which on extn. with hot C_6H_6 (300 ml.), filtration, and diln. with 200 ml. cold benzene gave 80 g. *3-methoxy-4,4'-dihydroxytriphenylmethane*, m. 160-8° (from C_6H_6), coloring violet in air; the *di-Ac deriv.*, m. 101-2° (from dil. EtOH). The product (30 g.) in 150 ml. AmOAc treated with 100 ml. AmOAc satd. with HCl, then with 30 g. AmONO, cooled, let stand overnight, shaken with satd. NaOAc soln. and H_2O, then with 10% $NaHSO_3$, followed by diln. of the bisulfite ext. by 500 ml. 20% NaCl, filtration with charcoal, and addn. of 200 ml. 15% HCl, gave *methoxybenzaurin-HCl*, bronze-red crystals, which after washing with NaCl soln., followed by suspension in H_2O and addn. of 50 ml. satd. NaOAc, gave the *methoxybenzaurin hydrate*, orange-red flakes (70%), m. 60-80°, sol. in EtOH and AcOH with orange color, sol. in alkalies with violet color; evapn. of AcOH soln. of the hydrate *in vacuo* at 70-80° yields the *anhydro form*, red-bronze clusters, m. 158-60° (darkening at 150°) (from xylene). The main product of condensation of 1 mole BzH, 1 mole PhOH, and 1 mole guaiacol with dry HCl was *4,4'-dihydroxytriphenylmethane*, m. 160-1°. **VIII. New data on fuchsone and 3-methoxyfuchsone.** I. S. Ioffe and Z. Ya. Khavin. *Ibid.* 917-28. Molten PhOH (80 g.) spread and chilled over the walls of a long-necked flask was treated with 48 g. Ph_3CCl_3 and the flask was slowly rotated until a uniform mixt. formed; this was kept 15 hrs. and divided into halves; steam distn. of the 1st half, followed by extn. of residue with 5% NaOH and Et_2O, followed by addn. of excess 5% NH_4Cl to the aq. layer gave crude *4-hydroxytriphenylcarbinol* (I), which after drying was rubbed with 6 parts cold EtOH leaving behind insol. *4,4'-dihydroxy analog* (22%), while addn. of NH_4OH to EtOH soln., followed by H_2O, gave 64% I, m. 158-60° (after leaching with benzene); the 2nd half of the reaction mixt. stirred with 60 ml. satd. warm $NaHSO_3$ and extd. with C_6H_6 gave a mass of the bisulfite deriv., which, after washing with C_6H_6 and Et_2O, was obtained in 95% yield; this (41 g.) stirred with 100-50 ml. concd. HCl, let stand overnight, and treated with ice gave a red ppt. of *hydrate of the fuchsone*, which on stirring with much H_2O gave 86% yellow I. The dihydroxy deriv. (by-product, above) forms not only in the reaction proper but also during the steam distn. of the mixt. I (25 g.) in 125 ml. AcOH boiled 2 hrs. and concd. under 90° *in vacuo* gave on warming with Et_2O 85% yellow *fuchsone*, m. 160-3° (crude), m. 165-7° (from C_6H_6-Et_2O); an 83% yield results when the bisulfite deriv. is

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boiled 4 hrs. with AcOH as above. The bisulfite deriv. is obtained by shaking an alc. soln. of the fuchsone with warm satd. $NaHSO_3$ soln. and diln. to 50% with hot H_2O (I does not undergo this reaction); it is also obtained on addn. of $NaHSO_3$ soln. to AcOH soln. of fuchsone or I; either I or fuchsone in excess cold concd. HCl yields the brown *HCl salt*, which with satd. $NaHSO_3$ soln. (enough to neutralize residual acid) also gives the same bisulfite deriv. Warm alc. soln. of fuchsone is decolorized by a few drops of aq. NH_4OH and on diln. gives I; the same results on boiling with N NaOH and diln. with NH_4Cl soln., or on boiling with 40% AcOH, or on soln. in concd. HCl and diln. Cooled HCl soln. of fuchsone-HCl is rapidly hydrolyzed by ice yielding voluminous *red fuchsone hydrate*, m. 59-62°, which on long standing in water yields I; the hydrate is stable only in acid media. Ph_3CCl (192 g.) and 240 g. guaiacol let stand 3 weeks gave a red mass which was divided in halves: the 1st half was steam distd., powd., and extd. with N NaOH and the soln. treated with CO_2 giving 64% *4-hydroxy-3-methoxytriphenylcarbinol* (II), m. 158-9° (from C_6H_6); the 2nd half was stirred on a steam bath with excess satd. $NaHSO_3$ soln., shaken with warm H_2O and benzene, and the bisulfite deriv. (80%) was ground with concd. HCl and the red soln. of 3-methoxyfuchsone-HCl was hydrolyzed by ice after 24 hrs. giving voluminous *red hydrate*, which on stirring with H_2O gave 78% *yellow* II, m. 116-18°, pure m. 157-9° (colorless) (from C_6H_6). II (25 g.) boiled 4-5 hrs. with 150 ml. AcOH and evapd. *in vacuo* gave on extn. with warm Et_2O 87% *3-methoxyfuchsone*, m. 180-3°; the same was obtained in 89% yield by boiling the bisulfite deriv. with AcOH, evapn., washing with Et_2O, and extn. with hot C_6H_6; the bisulfite deriv. forms under the same conditions as that of fuchsone itself and forms a tetrahydrate. The carbinol deriv. of 3-methoxyfuchsone: action of NH_4OH or alkali on fuchsone give colorless II, m. 157-9°, while boiling 3-methoxyfuchsone with 60% AcOH yields *yellow carbinol deriv.*, m. 147°, and hydrolysis of 3-methoxyfuchsone-HCl gives *yellow hydrate*, m. 116-18°, on standing, while the immediate hydrolysis product is a deep-pink solid. Benzhydrol (30 g.), 45 g. PhOH, and 10 ml. AcOH satd. in the cold with HCl and kept several days, steam distd., and treated with C_6H_6 gave *4-hydroxytriphenylmethane* (73%), m. 108-10° (from dil. AcOH); *Ac deriv.*, m. 82-4°. A similar reaction with 100 g. guaiacol gave 49% *4-hydroxy-3-methoxytriphenylmethane*, m. 103-5° (from C_6H_6); *Ac deriv.* m. 116-18° (from EtOH). G. M. Kosolapoff

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KHAVIN, Z. YA.

Ioffe, I. S. & Khavin, Z. Ya. - "Interaction of methylenic bases of the thiazole series with alkyl halides." (p. 145)

SO: Journal of General Chemistry, (Zhurnal Obshchei Khimii), 1950, Vol. 20, No. 1

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23

Hydroxyfuchsone dyes. X. So-called tautomerism of hydroxytriarylcarbinols. I. S. Ioffe and Z. Ya. Khavin (Naval Med. Acad., Leningrad). Zhur. Obshchey Khim. (J. Gen. Chem.) 20, 158-70(1950); cf. C.A. 43, 9451b. Crit. examn. of exptl. data indicates that Gomberg's school is in error in its defense of "desmotropy" of hydroxytriarylcarbinols (C.A. 7, 3507; 10, 52, 53). Heating such compds. as 3-methoxy-4-hydroxytriphenylcarbinol to 75° in porcelain boats in glass app. gave loss of 1 H_2O only in 50 hrs. from the colored form, while the colorless form lost but 0.6% of its wt.; however, continued heating gave continued wt. loss and formation of sublimable decompn. products; in addn. the "dehydrated" product on treatment with $NaHSO_3$ soln. gave a ppt. of the initial carbinol, while authentic 3-methoxyfuchsone gave a colorless soln. Spectroscopic data of Gomberg and Anderson (C.A. 23, 3487) indicate that the so-called "desmotropes" are probably mixts. of colorless carbinols with fuchsones. Although crystn. of 4-hydroxytriphenylcarbinol and 3-methoxy-4-hydroxytriphenylcarbinol from AcOH of various concns. (40, 60, 80%) gives products of different colors and m.pts., quant. colorimetry of their solns. in C_6H_6 merely indicates different amts. of admixture (0.1-1.1%) of corresponding fuchsone to the carbinol, and not individually different substances. This is supported by isolation of similar materials upon crystn. of fuchsones from dil. AcOH of the same concns., i.e. hydration of fuchsones occurring in this case gives mixts. similar to those obtained by dehydration of the carbinols, both reactions being feasible in dil. AcOH. Treatment of such products from 4-hydroxytriphenylcarbinol with dry C_6H_6 suffices to separate the fuchsone impurity; similar sepn. is possible by treatment with $NaHSO_3$ soln., when the fuchsones dissolve in the form of adducts, while the carbinols are unchanged.

G. M. Kosolapoff

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1

USSR/ Chemistry - Condensation products

Card 1/1 : Pub. 151 - 26/37

Authors : Ioffe, I. S., and Khavin, Z. Ya.

Title : Investigation of quinones. Part 6.-Condensation of p-benzquinone with alpha-amino acids

Periodical : Zhur. ob. khim. 24/3, 521-527, Mar 1954

Investigations showed that the reaction of p-benzquinone with alpha-amino [illegible]

Institution : .....

Submitted : July 28, 1953

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1

[illegible]

Card 1/1 : Pub. 151 - 27/37

Authors : Ioffe, I. S., and Khavin, Z. Ya.

Title : Investigation of quinones. Part 7.-Reaction of chlorine derivatives of p-benzoquinone with glycine esters

Periodical : Zhur. ob. khim. 24/3, 527-532, Mar 1954

Abstract : The reaction of chloroquinones with amines and with non-substituted [illegible] was investigated. The [illegible] quinone derivative [illegible] to amino-groups in [illegible] each other is described. The mechanisms and tendencies of [illegible] chloroquinone reaction and its [illegible] the number of [illegible] used. Ten references: 5-German; 4-French and 1-USSR (1881-1954).

Institution : .....

Submitted : July 28, 1953

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1

Card [illegible]

[illegible] : [illegible]ffe, [illegible]; Filippova, N. [illegible]; and [illegible]

Title : Investigation of quinones. Part 8.- Condensation of p-benzoquinone with sulfanilamides.

Periodical : Zhur. Ob. Khim. 24, Ed. 4, [illegible], April [illegible]

[illegible] : Report describes the derivation [illegible] quinone, disulfathiazoloquinone and disulfapyrimi[illegible] sulfanilamidoquinone and monosulfapyridin [illegible] sulfanilamidoquinones monosulfanilamidoquinones [illegible] and acetic acid. During storage [illegible] during [illegible] sulfanilamide [illegible] substances, probably, [illegible] since [illegible]; [illegible] German since [illegible]

Institution :

Submitted : July 28, 1953

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1

LAZAREV, N.V., zasl. deyatel' nauki, professor, redaktor; MUSAKIN, A.P., redaktor; KHAVIN, Z.Ya., redaktor; KLIMINA, Ye.V., tekhnicheskiy redaktor; EHLIKH, Ye.Ya., tekhnicheskiy redaktor; LEVIN, Sh.S., tekhnicheskiy redaktor.

[Industrial toxicology] Vrednye veshchestva v promyshlennosti. Part 1. [Organic substances] Organicheskie veshchestva. 1954. 810 p. Part 2. [Inorganic and simple organic compounds] Neorganicheskie i elementorganicheskie soedineniia. 1954. 582 p. Izd. 3-e, perer. i dop. Leningrad, Gos. nauchno-tekhn. izd-vo khim. lit-ry. [Microfilm]
(Industrial toxicology) (MLRA 7:11)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1

BARG, E.I.; KHAVIN, Z.Ya., redaktor; USHAKOV, S.N., professor, redaktor; KLIMINA, Ye.V., tekhnicheskiy redaktor; ERLIKH, Ye.Ya., tekhnicheskiy redaktor.

[Technology of synthetic plastic materials] Tekhnologiia sinteticheskikh plasticheskikh mass. Pod red. S.N.Ushakova. Leningrad, Gos. nauchno-tekhn. izd-vo khim. lit-ry, 1954. 656 p. [Microfilm] (MIRA 8:1)

1. Chlen-korrespondent Akademii nauk SSSR(for Ushakov).
(Plastic materials)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1

CHEGODAYEV, D.D.; CHERESHKEVICH, L.V., redaktor; KHAVIN, Z.Ya., redaktor; ERLIKH, Ye.Ya., tekhnicheskiy redaktor

[Fluoroplastic] Ftoroplasty. Pod red. L.V.Chereshkevicha. Leningrad, Gos. nauchno-tekhn. izd-vo khim. lit-ry, 1956. 85 p. (MLRA 10:2)
(Plastics) (Ethylene)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1

IOFFE, Isaak Solomonovich; KHAVIN, Z.Ya., redaktor; ERLIKH, Ye.Ya., tekhnicheskiy redaktor

[Organic chemistry] Organicheskaia khimiia. Izd-vo khim. lit-ry, 1956. 438 p. (MLRA 9:7)
(Chemistry, Organic)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1

ZONIS, Semen Aleksandrovich; MAZUROV, Sergey Mikhaylovich; KHAVIN, Z.Ya., redaktor; ERLIKH, Ye.Ya., tekhnicheskiy redaktor

[Lecture experiments and demonstration materials in organic chemistry] Lektsionnye opyty i demonstratsionnye materialy po organicheskoi khimii. Pod red. B.N.Dolgova. Leningrad, Gos.nauchno-tekhn. izd-vo khim. lit-ry, 1956. 508 p. (MLRA 9:8)

(Chemistry, Organic--Experiments)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1

TEMNIKOVA, Tat'yana Ivanovna; KHAVIN, Z.Ya., red.; SHUR, Ye.I., red.; EHLIKH, Ye.Ya., tekhn.red.

[Theoretical fundamentals of organic chemistry] Kurs teoreticheskikh osnov organicheskoi khimii. Leningrad, Gos.nauchno-tekhn.izd-vo khim.lit-ry, 1959. 808 p. (MIRA 12:8)
(Chemistry, Organic)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1

TEMNIKOVA, Tat'yana Ivanovna; KHAVIN, Z.Ya., red.; SHUR, Ye.I., red.; ERLIKH, Ye.Ya., tekhn. red.; FOMKINA, T.A., tekhn. red.

[Course in the theoretical principles of organic chemistry] Kurs teoreticheskikh osnov organicheskoi khimii. Izd.2., perer. i dop. Leningrad, Goskhimizdat, 1962. 948 p. (MIRA 16:1)

(Chemistry, Organic)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1

ABRAMOVA, N.A., nauchn. sotr.; VOYEVODSKIY, A.S., nauchn. sotr.; GINZBURG, O.F., doktor khim. nauk; YERSHOVA, Ye.TS., kand. khim. nauk; KOLYCHEV, V.B., nauchn. sotr.; MAR'YANOVSKAYA, K.Yu., nauchn. sotr.; MAZEL', R.L., nauchn. sotr.; MEL'NIKOVA, N.S., nauchn. sotr.; PLATUNOVA, N.B., nauchn. sotr.; REMOZOV, A.L., kand. khim. nauk; UTOCHKIN, V.V., nauchn. sotr.; KHAVIN, Z.Ya., kand. khim. nauk; EFROS, L.S., doktor khim. nauk; NIKOL'SKIY, B.P., glav. red.; RABINOVICH, V.A., kand. khim. nauk, zam. glav. red.; GRIGOROV, O.N., doktor khim. nauk, red.; POZIN, M.Ye., doktor tekhn. nauk, red.; PORAY-KOSHITS, B.A., doktor khim. nauk, red.; RACHINSKIY, F.Yu., kand.khim. nauk, red.; ROMANKOV, P.G., doktor tekhn. nauk, red.; FRIDRIKHSBERG, D.A., kand. khim. nauk, red.; ZONIS, S.A., red.; LEVIN, S.S., tekhn. red.; ERLIKH, Ye.Ya., tekhn. red.

[Handbook of chemistry] Spravochnik khimika. 2. izd., perer. i dop. Leningrad, Goskhimizdat. Vol.2. [Basic properties of inorganic and organic compounds] Osnovnye svoistva neorganicheskikh i organicheskikh soedinenii. 1963. 1167 p. (MIRA 17:3)

1. Chlen-korrespondent AN SSSR (for Nikol'skiy).

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1

PISARENKO, Aleksandr Pavlovich, prof.; KHAVIN, Zakhariy Yakovlevich, dots.; STUKOVNIN, E.D., red.

[Course in organic chemistry] Kurs organicheskoi khimii. Moskva, Vysshaia shkola, 1964. 530 p. (MIRA 18:1)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1

RACHINSKIY, Foma Yur'yevich; SLAVACHEVSKAYA, Nina Mikhaylovna;
KHAVIN, Z.Ya., red.

[Chemistry of amino thiols and of some of their derivatives]
Khimiia aminotiolov i nekotorykh ikh proizvodnykh. Moskva,
Khimiia, 1965. 295 p. (MIRA 19:1)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1

KNAVINA, E. E.

5593 KNAVINA, E. E. avtomatizatsiya proizvodstva obuvnykh kremov(opyt arteli moskhimob yed inaniye). m., koiz, 1954. 18s. s ill 21 sm. (tsentr. sovet promysl. kooperatsii sssr. tekhn. upr. obmen proizvod-tekhn. opytom. inform. listok. 57) 1,000 ekz. bespl.-avt. ukazany v kontse tekvsta.-(54-14633zh)

SO: Knizhnaya Letopis', Vo,. 1, 1955

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1

KHAVINA, E. S.

"Isolation of Actinophages From the Soil".
Tr. In-ta Mikrobiol. AN SSSR, Vol. No, 3, pp 224-229, 1954.

A weight portion of soil was added to a liquid medium (10 mg meat power, 20 g glucose, one g chalk, one liter tap water Ph 6.8 - 7.0) and kept on a shaker for 2 days. The filtrate of the mixture was applied drop by drop to the fresh surface colony of an experimental culture of actinomyces. The presence of actinophage in the filtrate was ascertained by the appearance after the 3d day on the actionomyces culture of negative colonies or of rarely expressed defects in the development of the micella in the places where the drops of filtrate had been placed. Among the isolated actinophages, which lyse the actinomyces groups actinomyces globisporus, Act. griseus, Proact. albus, Act. coelicolor, both monovalent and polyvalent actinophages were encountered. (RZhBiol, No. 10, 1955)

SO: Sum No 884, 9 Apr 1956

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1

KHAVINA, E.S., RAUTENSHTEYN, Ya.I.

Actinophages of Actinmyces olivaceus and lysogenesis among cultures of this species [with summary in English]. Mikrobiologiia 27 no.4:441-447 Jl-Ag '58 (MIRA 11:9)

1. Institut mikrobiologii AN SSSR.
(STREPTOMYCES,
olivaceus phages & lysogenicity of its cultures (Rus))
(BACTERIOPHAGE,
of Streptomyces olivaceus (Rus))

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1

KHAVINA, E.S.; RAUTENSHTEYN, Ya.I.

Effect of pH of the medium on the isolation of actinophages from Podzol soils. Mikrobiologiia 28 no.5:736-742 S-O '59.

(MIRA 13:2)

1. Institut mikrobiologii AN SSSR.
(SOIL microbiol.)
(ACTINOMYCES)
(BACTERIOPHAGE)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1

KHAVINA, E. S.

Cand Biol Sci - (diss) "Actinophage in the soil and in lysogenic crops." Moscow, 1961. 20 pp; (Moscow Order of Lenin and Labor Red Banner State Univ imeni M. V. Lomonosov, Biology-Soils Faculty); 120 copies; price not given; (KL, 10-61 sup, 211)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1

RAUTENSHTEYN, Ya.I.; KHAVINA, E.S.

Actinophages in cultures of the Actinomyces lavendulae group and lysogeny among actinomycetes of this group. Izv. AN SSSR. Ser. biol. no.2:289-298 Mr-Ap '61. (MIRA 14:3)

1. Microbiological Institute, Academy of Sciences of the U.S.S.R., Moscow.
(ACTINOMYCES) (BACTERIOPHAGE)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1

KHAVINA, E.S.; RAUTENSHTEYN, Ya.I.; ASEM KHUSEYN.

Lysogenesis among the cultures of the Actinomyces viridochromogenes group. Mikrobiologiia 32 no.3:471-478 My-Je'63 (MIRA 17:3)

1. Institut mikrobiologii AN SSSR i Biologo-pochvennyy fakul'tet Moskovskogo gosudarstvennogo universiteta imeni Lomonosova.

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1

KHAVINA, E.S.; RAUTENSHTEYN, Ya.I.

Bacteriophage against cultures of bacteria from the genus Caulobacter. Dokl. AN SSSR 153 no.1:197-199 N '63. (MIRA 17:1)

1. Institut mikrobiologii AN SSSR. Predstavleno akademikom A.A. Imshenetskim.

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1

RAUTENSHTEYN, Ya.I.; KHAVINA, E.S.; ZVYAGINTSEVA, I.S.; SKRYABIN, G.K.

Bacteriophage of the steroid dehydrating culture of Mycobacterium globiforme (strain 193). Izv. AN SSSR. Ser. biol. 31 no.1:141-145 Ja-F '66. (MIRA 19:1)

1. Institut mikrobiologii AN SSSR. Submitted July 10, 1965.

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1

ZEMSKOV, P.I., inzh.; YAKUSHINA, Ye.N., inzh.; KHARCHENKO, Ye.N., inzh.; KHAVINA, R.B., inzh.

Engine pinions made from high-strength cast iron. Mashinostroenie no.2:12-14 Mr-Ap '65. (MIRA 18:6)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1

ZEMSKOV, P.I., kand.tekhn.nauk; KHAVINA, R.B., inzh.; DEGTYAREVA, O.F., inzh.; YAKUSHINA, Ye.N., inzh.; KHARCHENKO, Ye.N., inzh.; ANISHCHENKO, V.V., inzh.

Capron pinions for motor-vehicle engines. Mashinostroenie no.6:42-44 N-D '65. (MIRA 18:12)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1

ZEMSKOV, P.I., dotsent; YAKUSHINA, Ye.N., inzh.; KHARCHENKO, Ye.N., inzh.; KHAVINA, R.B., inzh.; DEGTYAREVA, O.F., inzh.

Cermet piston rings. Izv. vys. ucheb. zav.; mashinostr. no. 10: 123-128 '65 (MIRA 19:1)

1. Submitted April 17, 1964.

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1

ACC NR: AP7006679 (A) SOURCE CODE: UR/0145/66/000/010/0121/0126

AUTHOR: Zemskov, P. I. (Lecturer); Zubenko, I. F. (Lecturer); Khavina, R. B. (Engineer); Yakushina, Ye. N. (Engineer); Degtyareva, O. F. (Engineer); Kharchenko, Ye. N. (Engineer)

ORG: Kharkov Institute of Communal Economy (Khar'kovskiy institut kommunal'nogo khozyaystva)

TITLE: Use of diffusion chrome plating to increase the durability of components

SOURCE: IVUZ. Mashinostroyeniye, no. 10, 1966, 121-126

TOPIC TAGS: metal diffusion plating, chromium plating, durability, antifriction metal

ABSTRACT: The authors study the antifriction properties and durability of components diffusion-plated with chromium. The specimens were put into iron containers with various chrome plating mixtures and the containers were then placed in a furnace where they were heated at 1075-1100°C for 6-8 hours. The chromium-containing medium was chromium oxide and ferrochrome. Four plating mixtures were used with the following compositions (in %): 1. FeCr--50, Al_2O_3--45, NH_4Cl--5; 2. Cr_2O_3--80, C--6, NH_4Cl--4, Al_2O_3--10; 3. Cr_2O_3--80, Ba_2Co_3--4, C--6, Al_2O_3--6, NH_4Cl--4; 4. FeCl--45, Al_2O_3--6, Cr_2O_3--45, NH_4Cl--4. Analysis showed that the surface layer in all cases contains 70-75% chromium and 6-8% aluminum. The depth of diffusion chrome plating for cast

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ACC NR: AP7006679

iron depends on plating time up to 8-10 hours and then remains constant. Hardness also increases with holding time. It was found that knurling followed by chrome plating is preferable to porous chrome plating for improving oil adhesion on surfaces subjected to friction. The durability of components with chrome-plated knurled surfaces may be increased by treatment in a solid carbonizer of the following composition (in %) carbon--50, Na_2CO_3--20, Fe (filings)--30. The treatment consists of holding for 5 hours at 900°C. Tinned and sulfidized surfaces show the best running-in properties with coefficients of friction of 0.0500 and 0.0550. Parkerized specimens have slightly higher coefficients of friction--0.0670-0.0680. Chrome plating mixtures of the second and third compositions gave the best results with respect to wear. Orig. art. has: 2 figures, 1 table.

SUB CODE: 11/ SUBM DATE: 6Apr65/ ORIG REF: 005

Card 2/2

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1

KHAVINA, S.

Falsification of the Marxist theory of national income ("National income of the U.S.S.R. Theoretical problems and statistical description" [in French] by Jean Ives Calvez. Reviewed by S. Khavina) Vop.ekon. no.3:130-135 Mr '59. (MIRA 12:5)

(Income) (Calvez, Jean Ives)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1

KHAVINA, S.

Bankruptcy of the bourgeois criticism of the program of the CPSU.
Vop.ekon. no.7:99-108 Jl '62. (MIRA 15:7)
(Russia--Economic policy)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1

KHAVINA, S.

The false theory of the similarity of the two systems. Vop. ekon. no.6:73-86 Je '63. (MIRA 16:6)
(Communism) (Capitalism)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1

SHAVIROCH, S. YA.

Maxima and Minima

Maximum-minimum problems of the theory of analytic functions., Uch. zap. Mosk. un., no. 148,1951.

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

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1

KHAVINSON, S. Ya.

Surfaces, Representation of

Extremal properties of functions mapping a domain on a multi-sheeted circle, Dokl. AN SSSR 88, No. 6, 1953.

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

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1

KHAVINSON, S. YA.

USSR/Mathematics - Nonlinear Problems 11 Sep 53

"Certain Nonlinear Extremal Problems for Bounded Analytical Functions," S. Ya. Khavinson, Yeletsk State Teachers' Inst

DAN SSSR, Vol 92, No 2, pp 243-245

Establishes by way of 4 theorems that functions which reflect a region onto a many-branched circle serve as solutions of many nonlinear extremal problems in the class of bounded functions. Considers an n-connected finite region G bounded by n closed analytical contours. Thanks Prof A. I. Markushevich. Cites the related work of I. I. Privalov,

269T82

Granichnyye Svoystva Analiticheskikh Funktsiy (Boundary Properties of Analytical Functions), 1950. Presented by Acad A. N. Kolmogorov 10 Jul 53.

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1

KHAVINSON S. YA.

44-1-362

TRANSLATION FROM: Referativnyy Zhurnal, Matematika, 1957, Nr 1, p. 60 (USSR)

AUTHOR: Khavinson, S. Ya.

TITLE: On the Problem of Caratheodory-Feier for the Analytic Functions in Finite Connected Regions (O probleme Karateodori-Feyyer dlya analiticheskikh funktsiy v konechnosvyaznykh oblastyakh)

PERIODICAL: Uch. zap. Vladimirsk. gos. ped. in-ta, 1955, Nr 2, pp. 43-50

ABSTRACT: The author investigates a finite n-connected region G, bounded by regular analytic contours $\gamma_1, \gamma_2, \ldots, \gamma_n$, where $\Gamma = \sum_{i=1}^{n} \gamma_i$; if $\omega(x)$ is a given function on Γ, is analytic in every γ_i, and does not coincide with any of the boundary values of functions of a class E_1, then there exists in the problem of the determination of $\sup_{z \in G} |\int_\Gamma f(x)\omega(x)dx|, \|f(z)\| < 1$ where f(z) is an analytic function one-valued in G, a single extremal function $f^*(z)$, where either $f^*(z) \equiv e^{i\alpha}$ or $f^*(z)$ maps G into m-valent unit circle ($m \leq n$). Let $\omega_1(x), \ldots, \omega_n(x)$ be given functions on G which are

Card 1/2

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On the Problem of Caratheodory-Feier (Cont.)

analytic in every γ_i, with none of the linear combinations coinciding with any γ_i with a boundary function of the class E_1; if $l_k(f) = \int_\Gamma f(x)\omega_k(x)dx = C_k, \ (k = 1, 2, \ldots, m)$ (1)

then, of all analytical functions bounded in G, the function which maps G into a many-times-covered circle shows the least deviation from zero in G. Thus the author generalizes the problem of Caratheodory-Feier and Pick in two directions: instead of a circle, he investigates the n-connected region G, and instead of assigning values to functions and their first derivatives at points in the region G, he takes more general functionals (1).

Ya. L. Geronimus

Card 2/2

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Havinson, S. Ya. Extremal problems [illegible] of analytic functions in finitely [illegible]
Mat. Sb. N.S. 36(78) [illegible]
The work is concerned with [illegible]
valued in a domain G of the [illegible]
finite number of simple [illegible]
functions f(z) are of class [illegible]
[illegible] if [illegible] is bound[illegible]
near the outer boundary of [illegible]
boundary components. They [illegible]
class E_p and such that [illegible]
integral is taken along the [illegible]
An introduction [illegible]
[illegible] investigat[illegible]
[illegible] sums [illegible]
[illegible] bounded [illegible]
The first chapter [illegible]
[illegible] proof properties [illegible]
functions bounded in [illegible]
[illegible] means of [illegible]
[illegible]

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KHAVINSON, S.Ya.

Uniqueness of the polynomial of the best approximation in the metric for space L_1. Dokl.AN SSSR 105 no.6:1159-1161 D '55. (MIRA 9:4)

1.Vladimirskiy gosudarstvennyy pedagogicheskiy institut.Predstavlene akademikom A.N.Kolmogorovym.
(Approximate computation)(Polynomials)(Spaces, Generalized)

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1

KHAVINSON, S. YA.

Call Nr: AF 1108825

Transactions of the Third All-union Mathematical Congress, Moscow, Jun-Jul '56, Trudy '56, V. 1, Sect. Rpts., Izdatel'stvo AN SSSR, Moscow, 1956, 237 pp.

Khavinson, S. Ya. (Moscow). P. L. Chebyshev's Systems and the Uniqueness of the Best Polynomial Approximation in the Metrics of L_1 Space ..110

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1

Khavinson, S.Ya.

TUMARKIN, G.TS.; KHAVINSON, S.Ya.

Erasure of features of analytic functions of a certain class (class D). Usp.mat.nauk 12 no.4:193-199 Jl-Ag '57. (MIRA 10:10)
(Functions, Analytic)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1

AUTHOR: Khavinson, S.Ya. SOV/140-58-3-30/34

TITLE: On the Radii of Schlichtness, Radialness and Convexity of a Class of Analytic Functions in Multiply Connected Domains (O radiusakh odnolistnosti, zvezdoobraznosti i vypuklosti odnogo klassa analiticheskikh funktsiy v mnogosvyaznykh oblastyakh)

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy Matematika, 1958, Nr 3, pp 233-240 (USSR)

ABSTRACT: The paper partially overlaps with a recent publication of the author and Tumarkin. Considering the radii of schlichtness etc. of the classes D_q the author obtains an improvement of a result of Nehari [Ref 4]. It is shown that among the functions $f(z)$, $|f(z)| \leq 1$, $f'(a)=A$ only those possess a smallest schlichtness radius which map the domain G onto an m-fold covered unit circle, $n \leq m \leq n+2$. A result of Alenitsyn is generalized too. There are 9 references, 5 of which are Soviet, 2 German, 1 American, and 1 French.

ASSOCIATION: Moskovskiy inzhenerno-stroitel'nyy institut (Moscow Institute for Civil Engineers)

Card 1/2

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On the Radii of Schlichtness, Radialness and Convexity of a Class of Analytic Functions in Multiply Connected Domains SOV/140-58-3-30/34

SUBMITTED: November 25, 1957

Card 2/2

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1

Khavinson, S. Ya.

AUTHOR: TUMARKIN, G.Ts., KHAVINSON, S.Ya. 42-1-6/13

TITLE: On the Definition of the Analytic Function Class E_p in Multiply Connected Domains (K opredeleniyu analiticheskikh funktsiy klassa E_p v mnogosvyaznykh oblastyakh)

PERIODICAL: Uspekhi Matematicheskikh Nauk, 1958, Vol.13, Nr.1, pp.201-206 (USSR)

ABSTRACT: Let G be an n-tuply connected domain with the boundary $\Gamma = \sum_{k=1}^{n} \gamma_k$, where none of the components γ_k degenerates in a point. Let Γ^i be the boundary of G^i, $G^i \subset G$. Let $z = \varphi(w)$ denote the conformal mapping of G onto a canonic circular domain K.

Definition: A function f(z) analytic in G belongs to the class $E_p(G)$ with $p > 0$ if there exists a sequence $\{\Gamma^i\}$ such that for $i \to \infty$ the domain $G^i \to G$ and

$$\overline{\lim_{i \to \infty}} \int_{\Gamma^i} |f(z)|^p |dz| < \infty .$$

Card 1/2 Theorem: In order that $f(z) \in E_p(G)$ it is necessary and

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On the Definition of the Analytic Function Class E_p in Multiply connected Domains 42-1-6/13

sufficient that the function $|f[\varphi(w)]|^p |\varphi'(w)|$ subharmonic in K has a harmonic majorant in K.

Theorem: In the domain G, for all classes E_p there exists a universal (i.e. for all $f(z) \in E_p(G)$ common) analytic sequence of contours $\{\Gamma^i\}$ which converges to Γ and for which

$$\int_{\Gamma^i} |f(z)|^p |dz| < C(f) \qquad (i=1,2,3,\ldots).$$

5 Soviet and 3 foreign references are quoted.

SUBMITTED: 3 December 1956
AVAILABLE: Library of Congress
Card 2/2 1. Analytic functions 2. Conformal mapping 3. Harmonics

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1

KHAVINSON, S. Ya.

TUMARKIN, G.TS.; KHAVINSON, S.Ya.

Classes of analytic functions in multiply connected domains and representable by using Cauchy's and Green's formulas. Usp.mat.nauk 13 no.2:215-221 Mr-Ap '58. (MIRA 11:4)
(Functions, Analytic)

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1

Khavinson, S. Ya.

TUMARKIN, G.TS.; KHAVINSON, S.Ya.

Expansion theorem for class E_p analytic functions in multiply connected domains. Usp.mat.nauk 13 no.2:223-228 Mr-Ap '58. (MIRA 11:4)

(Functions, Analytic)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1

AUTHOR: Khavinson, S.Ya. 38-22-2-5/8

TITLE: On the Uniqueness of the Function of Best Approximation in the Metric of the Space L_1 (O yedinstvennosti funktsii nailuchshego priblizheniya v metrike prostranstva L_1)

PERIODICAL: Izvestiya Akademii nauk SSSR, Seriya Matematicheskaya, 1958, Vol 22, Nr 2, pp 243-270 (USSR)

ABSTRACT: Well-known results of Jackson [Ref 2] and Kreyn [Ref 3] are extended to the case in which the approximated function possesses discontinuities of certain kind. A theorem analogous to the theorem of Haar [Ref 4] is proved in L_1. The connection of the uniqueness of best approximations in L_1 with the Chebyshev-polynomials is investigated. A special paragraph deals with the approximation of complex-valued functions. The author applies the methods of Kreyn. 18 theorems are proved on the whole. Without proof the main results were already formerly announced by the author [Ref 5,6]. There are 12 references, 8 of which are Soviet, 1 Polish, 1 American, 1 German, and 1 French.

Card 1/2

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1

On the Uniqueness of the Function of Best Approximation in the Metric of the Space L_1 38-22-2-5/8

PRESENTED: by A.N. Kolmogorov, Academician

SUBMITTED: December 12, 1956

AVAILABLE: Library of Congress

1. Topology—Analytic functions

Card 2/2

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1

AUTHOR: Tumarkin, G.Ts. and Khavinson, S.Ya. SOV/38-22-3-5/9

TITLE: Analytic Functions in Multiply Connected Domains of the Class of V.I.Smirnov (Class S) (Analiticheskiye funktsii v mnogosvyaznykh oblastyakh klassa V.I. Smirnova (klassa S))

PERIODICAL: Izvestiya Akademii nauk SSSR, Seriya matematicheskaya, 1958, Vol 22, Nr 3, pp 379-386 (USSR)

ABSTRACT: A. According to Smirnov [Ref 1] a finite simply connected domain G belongs to the class S, if $\ln|\varphi'(w)|$, where $\varphi(w)$ is the conformal mapping of the circle $|w|<1$ onto G, is representable by the Poisson integral :

$$\ln|\varphi'(re^{i\alpha})| = \frac{1}{2\pi}\int_0^{2\pi} \frac{1-r^2}{1+r^2-2r\cos(\theta-\alpha)} \ln|\varphi'(e^{i\theta})|\,d\theta .$$

B. If G is n-fold connected, then $G \in S$ is usually defined [Ref 3-5] by the condition that $G_i \in S$ for all i, where G_i is the simply connected domain which contains G and which is bounded by the component γ_i of the boundary Γ of G.

C. On the other hand A can be also applied for the definition,

Card 1/2

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Analytic Functions in Multiply Connected Domains of the Class of V.I. Smirnov (Class S) SOV/38-22-3-5/9

if the mapping onto the circle is replaced by the mapping onto a circular canonical domain and if the Poisson formula is replaced by the Green formula.
The authors show that the definitions B and C are equivalent and simultaneously prove some properties of the analytic functions in multiply connected domains.
There are 12 references, 6 of which are Soviet, 3 French, and 3 American.

PRESENTED: V.I.Smirnov, Academician

SUBMITTED: February 27, 1957

1. Conformal mapping 2. Analytic functions

Card 2/2

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1

AUTHOR: Tumarkin, G.Ts. and Khavinson, S.Ya. SOV/38-22-4-5/6

TITLE: On the Existence of Unique Analytic Functions With Given Absolute Value of the Boundary Values in Multiply Connected Domains (O sushchestvovanii v mnogosvyaznykh oblastyakh odnoznachnykh analiticheskikh funktsiy s zadannym modulem granichnykh znacheniy)

PERIODICAL: Izvestiya Akademii nauk SSSR, Seriya matematicheskaya, 1958, Vol 22, Nr 4, pp 543-562 (USSR)

ABSTRACT: § 1. Fundamental theorem : Let $F(z)$ be a multivalent analytic function with unique absolute value, which possesses no branch points in the n-fold connected domain G. Then there exists a set of at most $n - 1$ points $z_1, \ldots, z_m$, $m \leq n - 1$, with the property that

$$F^*(z) = F(z) \exp\left\{- \sum_{k=1}^{m} \left[g(z,z_k) - i\, h(z,z_k)\right]\right\}$$

is unique in G. Here $g(z,z_k)$ is the Green function of G with pole in z_k and $h(z,z_k)$ is the conjugate of $g(z,z_k)$.

§ 2 and 3. Proof with the aid of a special extremum problem.

Card 1/2

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1

On the Existence of Unique Analytic Functions With Given Absolute Value of the Boundary Values in Multiply Connected Domains SOV/38-22-4-5/6

§ 4. Construction of analytic functions, the absolute value of which is identic with a given function almost everywhere on the rectifiable boundary. § 5. Representation of meromorphic functions with bounded characteristic as a quotient of two bounded functions. § 6. Generalization of the non-rectifiable case.

There are 26 references, 12 of which are Soviet, 3 Finnish, 7 American, 2 French, 1 English, and 1 Turkish.

PRESENTED: by V.I. Smirnov, Academician

SUBMITTED: April 8, 1957

1. Functions 2. Mathematics

Card 2/2

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1

KHAVINSON, S.YA.

TUMARKIN, G.TS.; KHAVINSON, S.Ya. (Moscow).

Representability conditions of harmonic functions by Green's formula in a multiply connected domain. Mat. sbor. 44 no.2:225-234 F '58. (Harmonic functions) (MIRA 11:5)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721910019-1"