32886

16.6100 16.6800

S/044/61/000/012/042/054
C111/C222

AUTHOR: Romanovskiy, I. V.

TITLE: On probability problems which lead to dynamic programming

PERIODICAL: Referativnyy zhurnal, Matematika, no. 12, 1961, 25, abstract 12V137. ("Tr. Vses. soveshchaniya po teorii veroyatnostey i matem. statistike, 1958", Yerevan, AN Arm SSR, 1960, 206-209)

TEXT: Given are two examples for the formulation of the equations of dynamic programming. One example requires the expression

$$\sum_{i=1}^{n}\left[\frac{x_i-a(i))^2}{\sigma(i)}+2\ln\sigma(i)\right]$$

over all sets $n_1, n_2, \ldots, n_k$ to be minimized ($a(i) = a_j$ and $\sigma(i) = \sigma_j$, if $n_1 + \ldots + n_{j-1} < i \leq n_1 + n_2 + \ldots + n_j$, where $j = 1,2,\ldots, k$; $\sum_{j=1}^{k} n_j = n$).

[Abstracter's note: Complete translation.]

Card 1/1

16(1),16(2)

AUTHOR: Romanovskiy, I.V.

05799
SOV/52-4-4-10/13

TITLE: On a Theorem of R. Bellman

PERIODICAL: Teoriya veroyatnostey i yeye primeneniya, 1959, Vol 4, Nr 4, pp 456-458 (USSR)

ABSTRACT: The author points out that in a theorem of Bellman [Ref 1,2] the dependence on n of the terms $\bar{q}, \vartheta, \vartheta_1$ introduced by him are not considered. Herewith the proof of Bellman is incorrect and the author proposes a new complete proof.
There are 2 non-Soviet references, of which 1 is American, and 1 Canadian.

SUBMITTED: June 2, 1959

Card 1/1

16(1),16(2) SOV/43-59-7-6/17

AUTHORS: Vorob'yev,N.N., and Romanovskiy,I.V.

TITLE: Games With Prohibited Situations (Igry s zapreshchennymi situatsiyami)

PERIODICAL: Vestnik Leningradskogo universiteta, Seriya matematiki, mekhaniki i astronomii, 1959, Nr 7(2), pp 50-54 (USSR)

ABSTRACT: The authors consider games with prohibited situations. It is stated that if such a game has more than one value, then the game always has to be repeated with the probability 1. A necessary but not sufficient criterion for the existence of several values is proposed. The results overlap with those of [Ref 3].
There are 3 American references.

SUBMITTED: December 3, 1958

Card 1/1

ROMANOVSKIY, I.V.

Derandomization of optimal strategies in antagonistic games with bluffing. Dokl. AN SSSR 157 no.5:1066-1068 Ag '64. (MIRA 17:9)

1. Leningradskiy gosudarstvennyy universitet im. Zhdanova. Predstavleno akademikom V.I. Smirnovym.

L 29141-65 EWT(d)/T/EWP(1) Pg-4 IJP(c)

ACCESSION NR: AP4043829 S/0020/64/157/005/1066/1068 23 22 B

AUTHORS: Romanovskiy, I.V.

TITLE: Derandomization of optimal strategies in antagonistic games with bluffing

SOURCE: AN SSSR. Doklady*, v. 157, no. 5, 1964, 1066-1068

TOPIC TAGS: game theory, games with bluffing, optimal strategies, behavior strategies

ABSTRACT: The literature contains many examples of antagonistic games in which the actions of an agent are known to the players to a greater or lesser degree, e.g., games with bluffing. The authors use behavior strategies to investigate the randomization introduced by an agent into 2-person games with nonrandom optimal strategies. Player I has a pure optimal strategy in the game consisting of an agent selecting a uniformly distributed $x \in [0,1]$, player I picking a pure strategy, and player II, who does not know x, picking a pure strategy, the payoff being a continuous function of x. Player II also has an optimal pure strategy when he knows x. Player II has

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L 29141-65

ACCESSION NR: AP4043829

an optimal pure strategy in the game consisting of player I picking a pure strategy r_i, the agent obtaining $f_i(x), x \in [0,1]$, and player II, who knows x, picking a pure strategy. The payoff does not depend on x. Orig. art. has: 7 formulas.

ASSOCIATION: Leningradskiy gosudarstvenny*y universitet im. A. A. Zhdanova (Leningrad State University)

SUBMITTED: 19Mar64 ENCL: 00

SUB CODE: MA NR REF SOV: 003 OTHER: 003

Card 2/2

KORBUT, A.A.; KANTOROVICH, L.V.

First All-Union Conference on Mathematics and Economics.
Usp. mat. nauk 15 no. 6:191-204 N-D '60. (MIRA 14:2)
(Mathematical statistics--Congresses)
(Economics--Congresses)

34778
S/052/61/006/004/003/005
C111/C222

16,4100

AUTHOR: Romanovskiy, I.V.

TITLE: Game-type random walks

PERIODICAL: Teoriya veroyatnostey i yeye primeneniye, v.6,, no.4,1961, 426-429

TEXT: The following game is considered : the first player has the capital r, the second has the capital R-r. They independently choose strategies i and j. The gains of the first player are a random variable ξ_{ij} which is added to his capital. The game is continued until one of the players has a capital ≤ 0 . The case $R = \infty$ is considered next. Finally, a random walk in a convex set D of the Euclidean E^n is examined, where one player may choose a row and the other a column of a given matrix $\| \xi_{ij} \|$, whereby the game is moved from the point $x \in D$ to the point $x + \xi_{ij}$. The game is continued as long as $x + \xi_{ij}$ is $\in D$. The game ends at the intersection of the boundary of D with the segment

Card 1/3

Game-type random walks

$\overline{x,\ x+\xi_{ij}}$, where each point x on the boundary of D corresponds to a given gain K(x) of the first player. Using the functional equation

$$\varphi(x) = \begin{cases} 0 & , \ x \leq 0, \\ \mathrm{Val}\,\| E\varphi(x+\xi_{ij})\| & , \ 0 < x < R, \\ 1 & , \ x \geqslant R \end{cases} \qquad (1)$$

in the first case, and

$$\varphi(x) = \begin{cases} \mathrm{Val}\,\| E_{\bar{\mu}_{ij}(\cdot|x)}\ \varphi(z)\|, & x \in D \\ K(x), & x \in S \end{cases} \qquad (5)$$

in the last case, where μ is the measure on the boundary of D, the uniqueness and determinability of these games are proven.

There is 1 figure, 1 Soviet-bloc and 4 non-Soviet-bloc references. The references to English-language publications read as follows :

Card 2/3

S/052/61/006/004/003/005
C111/C222

Game-type random walks

R. Bellmann, Decision making in the face of uncertainty.II. Naval Res. Log. Quart., 1 (1954), 323-332 ; R. Bellmann, Dinamicheskoye programmirvaniye (Dynamic programming) M., IL, 1960 ; J. Milnor and L. Shapley, On games of survival, Contributions to the Theory of Games, Vol. III, Princeton Univ. Press, 1957.

SUBMITTED: January 10, 1961

Card 3/3

ROMANOVSKIY, I.V. (Leningrad)

Minimax theorems for games with erroneously transmitted information.
Teor.veroiat.i ee prim. 7 no.1:89-95 '62. (MIRA 15:3)
(Game theory)

ROMANOVSKIY, I.V.

Solution for a game proposed by D. Blackwell. Vest. LGU 17 no.1: 164-166 '62. (MIRA 15:1)

(Games of strategy (Mathematics))

ROMANOVSKIY, I.V.

Equivalence of different formulations of the transportation problem. Usp.mat.nauk 17 no.3:193-195 My-Je '62. (MIRA 15:12)
(Linear programming)

ROMANOVSKIY, I.V.

Multidimensional game-type random walks. Vest.LGU 17 no.7:89-95 '62. (MIRA 15:5)
(Games of chance (Mathematics)) (Probabilities)

ROMANOVSKIY, I.V.

A few remarks on Bellman - Karusch functional transformations.
Vest. LGU 17 no.13:148-150 '62. (MIRA 15:7)
(Transformations (Mathematics))

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S/020/62/144/001/008/024
B112/B102

AUTHOR: Romanovskiy, I. V.

TITLE: Reduction of a game with complete memory to a matrix game

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 144, no. 1, 1962, 62-64

TEXT: A problem of determining optimum strategies is reduced to a problem of linear programming. The method is illustrated by the following example: The position tree is shown in Fig. 1, the information trees of game I and of game II in Fig. 2 and in Fig. 3, respectively. The quasi-strategy $\pi_1 = \{p_{w_1}\}$ of the game I satisfies the condition $p_a + p_b = p_c$, $p_d + p_e = p_f + p_g$, $p_c + p_d + p_e = 1$; the quasi-strategy $\pi_2 = \{q_{w_2}\}$ of the game II, the conditions $q_\alpha + q_\beta = q_\gamma + q_\delta$, $q_\alpha + q_\beta + q_\varepsilon + q_\zeta + q_\eta = 1$. Optimum quasi-strategies can be found by the determination of the $\min_{\Pi_2} \max_{\Pi_1} \pi_1 K \pi_2$ of the bilinear form

Card 1/ 4

Reduction of a game with ...

$\pi_1 K \pi_2 = \sum_{w_1 \in W_1} \sum_{w_2 \in W_2} K(w_1, w_2) p_{w_1} q_{w_2}$, where $K(w_1, w_2) = h_1(W)$ for

$W \in W(w_1) \cap W(w_2)$ and $K(w_1, w_2) = 0$ for $W(w_1) \cap W(w_2) = \Lambda$.

The matrix K and the sets $W(w_1)$ and $W(w_2)$ are represented in the following table.

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

PRESENTED: December 25, 1961, by V. I. Smirnov, Academician

SUBMITTED: December 8, 1961

ROMANOVSKIY, I.V.

Duration of a game of survival. Sib. mat. zhur. 4 no.4:862-869 Jl-Ag '63. (MIRA 16:9)

ROMANOVSKIY, I.V. (Leningrad)

Evaluation of final states in inventory processes. Teor. veroiat. i ee prim. 9 no.1:167-175 '64. (MIRA 17:4)

LINNIK, Yu.V.; ROMANOVSKIY, I.V.; SUDAKOV, V.N.

Nonrandomized homogeneous test in Behrens - Fisher's problem.
Dokl. AN SSSR 155 no.6:1262-1264 Ap '64. (MIRA 17:4)

1. Leningradskoye otdeleniye Matematicheskogo instituta im. V.A. Steklova AN SSSR. 2. Chlen-korrespondent AN SSSR (for Linnik).

ROMANOVSKIY, I.V.

Asymptotic behavior of recurrent relations of dynamic programming, and optimum stationary control. Dokl. AN SSSR 157 no.6:1303-1306 Ag '64. (MIRA 17:9)

1. Leningradskiy gosudarstvennyy universitet im. Zhdanova. Predstavleno akademikom A.N. Kolmogorovym.

L 36638-65 EWT(d) IJP(c)

ACCESSION NR: AP5001974 S/0020/64/159/006/1224/1227

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B

AUTHOR: Romanovskiy, I. V.

TITLE: Asymptotic behavior of dynamic programming processes with a continuous set of states

SOURCE: AN SSSR. Doklady, v. 159, no. 6, 1964, 1224-1227

TOPIC TAGS: dynamic programming, continuous set, control theory, cybernetics, von Neumann's problem

16

ABSTRACT: The paper is a continuation of author's previous work (Report at the VII All-Union Conference on probability theory and mathematical statistics. Tbilisi, 1963) which dealt with a finite number of states. A process is considered which is controlled at discrete moments of time $t = 0, 1, \ldots (T-1)$, the state of the process being characterized by a point of a convex closed set D in r-dimensional Euclidian space. At each step of the process a transition is possible from any state into any state y, leading to a gain ($\varkappa$-kappa) $K(x,y) \geq 0$. Additional gain $\varkappa(x)$ is obtained in point x at the end of the process. With known T(duration of

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L 35638-65

ACCESSION NR: AP5001974

control) and known original state x_0, it is required to find the sequence of states $x_1, x_2 \ldots x_T$ which yield the maximum of total gain $\sum_{t=0} K(x_t, x_{t+1}) + \varkappa(x_T)$. The functions $K(x, y)$ and $\varkappa(x)$ are continuous. The results show that the maximal growth in the von Neumann problem is realized in a one-step cycle. The average rate of growth in the dynamic problem approaches asymptotically the maximal rate of growth in the von Neumann problem. Orig. art. has: 8 equations.

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

SUBMITTED: 06Feb64 ENCL: 00 SUB CODE: MA, DP

NR REF SOV: 004 OTHER: 004

Card 2/2

L 09095-67 EWT(d) IJP(c)

ACC NR: AT7002339 SOURCE CODE: UR/2944/66/000/003/0113/0121

AUTHOR: Romanovskiy, I. V.

ORG: none

TITLE: Methods of simulating continuous random variables from quantities with a uniform distribution

SOURCE: Leningrad. Universitet. Kafedra vychislitel'noy matematiki i vychislitel'nyy tsentr. Metody vychisleniy, no. 3, 1966, 113-121

TOPIC TAGS: statistic distribution, electronic computer

ABSTRACT: The article considers questions of the simulation of continuous random variables on an electronic computer or, to be more precise, methods for obtaining random variables possessing a given distribution density from independent, uniformly distributed random variables. A description is given of the principal methods now used for the simulation of continuous random variables: viz., N. V. SMIRNOV's transform, probability models, and the von Neumann method. Several variants of the von Neumann method are described: viz., the generalized von Neumann method, the constant coordinate method, and the use of an arbitrary abscissa distribution. The article concludes with a description of methods based on probability models. Orig. art. has: 5 figures and 18 formulas.

SUB CODE: 12 / SUBM DATE: 08Apr63 / ORIG REF: 003 [JPRS: 38,163]

Card 1/1 nst

ROMANOVSKIY, I.V.

Use of the convexity of a pay-off function in the solution of a matrix game. Vest. LGU 20 no.13:161-163 '65. (MIRA 18:7)

ROMANOVSKIY, I.V. (Leningrad)

Existence of optimum stationary control in a Markov decision process. Teor. veroiat. i ee prim. 10 no.1:130-133 '65. (MIRA 18:3)

KANTOROVICH, L.V., akademik; ROMANOVSKIY, I.V.

Depreciation allowed for equipment under optimum conditions of use. Dokl. AN SSSR 162 no.5.1015-1018 Je '65. (MIRA 18:7)

1. Institut matematiki Sibirskogo otdeleniya AN SSSR i Leningradskiy gosudarstvennyy universitet im. A.A.Zhdanova.

L 55964-65 EWT(d)/T IJP(c)
ACCESSION NR: AP4034026 UR/0020/64/155/006/1262/1264

AUTHORS: Linnik, Yu. V. (Corresponding member); Romanovskiy, I. V.; Sudakov, V. N.

TITLE: Nonrandomized homogeneous test in the Berens-Fisher problem

SOURCE: AN SSSR. Doklady, v. 155, no. 6, 1964, 1262-1264

TOPIC TAGS: statistical analysis

ABSTRACT: The authors prove the following results. Theorem 1. For any level $\alpha \in (0,1)$ and pairs of sample sizes n_1, n_2 of different parity there exists a measurable nonrandomized similar test for the Berens-Fisher problem with critical zone defined by the values $\left|\frac{\bar{x}-\bar{y}}{s_1}\right|$ and $\frac{s_1}{s_2}$. Theorem 2. Suppose we are given a finite number K of pairs of sample sizes n_{1i}, n_{2i} $(i = 1,2,\ldots,K)$. Then there exists a measurable nonrandomized similar test $\varphi = \varphi\left(\left|\frac{\bar{x}-\bar{y}}{s_1}\right|, \frac{s_1}{s_2}\right)$ which is similar simultaneously for all these pairs of samples and has the prescribed level. Orig. art. has: 5 formulas.

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L 55964-65
ACCESSION NR: AP4034026

ASSOCIATION: Leningradskoye otdeleniye, Matematicheskogo instituta im. V. A. Steklova, Akademii nauk SSSR (Leningrad Division, Mathematical Institute, AN SSSR)

SUBMITTED: 03Feb64 ENCL: 00 SUB CODE: MA

NO REF SOV: 004 OTHER: 003

Card 2/2

ROMANOVSKIY, I.V.

Asymptotic behavior of dynamic programming processes with a continuous set of states. Dokl. AN SSSR 159 no.6:1224-1227 D '64 (MIRA 18:1)

1. Leningradskiy gosudarstvennyy universitet im. A.A. Zhdanova. Predstavleno akademikom V.I. Smirnovym.

ZHDANOV, Viktor Mikhaylovich; ROMANOVSKIY, I.V. [Romanovs'kyi, I.V.], [translator]

[Attack on infection; problem of the elimination of infectious diseases in the U.S.S.R.] Nastup na infektsii; problema likvidatsii infektsiinykh zakhvoriuvan' v SRSR. Kyiv, 1960. 36 p. (Tovarystvo dlia poshyrennia politychnykh i naukovykh znan' Ukrains'koi RSR. Ser.5, no.18). (MIRA 14:3)

1. Deystvitel'nyy chlen AMN SSSR; zamestitel' ministra zdravookhraneniya SSSR (for Zhdanov).
(COMMUNICABLE DISEASES--PREVENTION)

RYDNIK, Vitaliy Isaakovich; ROMANOVSKIY, I.V. [Romanovs'kyi, I.V.], [translator]

[In the world of ordinary miracles] U sviti prostykh chudes. Kyiv, 1961. 32 p. (Tovarystvo dlia poshyrennia politychnykh i naukovykh znan' Ukrains'koi RSR. Ser.5, no.23) (MIRA 14:4)

(Technological innovations)

KHARCHENKO, Pavel Fedorovich; GORELIK, L.Ye.[Horelik, L.IE.], doktor ekonom. nauk, prof., otv. red.; ROMANOVSKIY, I.V. [Romanovs'kyi, I.V.], red. izd-va; MATVIICHUK, O.O., tekhn. red.

[Economic efficiency of introducing new technological processes in founding] Ekonomichna efektyvnist' vprovadzhennia novykh tekhnologichnykh protsesiv u lyvarnomu vyrobnytstvi. Kyiv, Vyd-vo Akad. nauk URSR, 1961. 75 p. (MIRA 14:9)
(Founding--Technological innovations)

ROMANOVSKIY, L., prepodavatel'.

We train qualified builders. Prof.-tekh.obr. 11 no.9:30 D '54.
(Building trades) (MLRA 8:1)

LYULVINSKIY, A.I.; ROMANOVSKIY, L.B.; KOREN, L.N.; KUKURUZNYAK, I.S.; VIT', Ye.F.; KUDRINA, A.P.

Testing spinel bricks in the lining of converters with an oxygen blow. Izv. vys. ucheb. zav.; chern. met. 6 no.8: 161-163 '63. (MIRA 16:11)

1. Dnepropetrovskiy metallurgicheskiy institut.

LYUDVINSKIY, A.I.; ROMANOVSKIY, L.B.; KOREN, L.N.; MISHCHENKO, V.S.; FROLOVA, A.I.; KOTIK, P.L.; KHIL'KO, M.M.; MOLCHANOVA, M.I.; VINOGRADOV, N.M.; PYLAYEV, S.V.; BEYGUL, Ye.I.; ROKHLIN, N.A.; MASYUKOV, N.T.; BONDAR', V.I.

In the country's steelmaking plants. Metallurg 9 no.9: 16-19 S '64. (MIRA 17:10)

1. Saldinskiy metallurgicheskiy zavod (for Pylayev).
2. Zavod im. Dzerzhinskogo (for Beygul, Rokhlin).
3. Yenakiyevskiy metallurgicheskiy zavod (for Masyukov, Bondar').

KRIVITSKIY, A., podpolkovnik; ROMANOVSKIY, M., mayor.

Let's multiply the ranks of experts. Voen.-inzh. zhur. 101 no.4: 13-15 Ap '57. (MLRA 10:6)
(Moscow--Military art and science--Congresses)

ROMANOVSKIY, M. A.

MANGEL-WURZEL

Obtaining higher yields of feed beets. Sov. agron. 10 no. 7 (1952)

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

1. ROMANOVSKIY, M. A.,

2. USSR (600)

4. Legumes

7. Sowing perennial legumes with proso millet, Il No. 4, 1953.

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

ROMANOVSKIY, M.B.

18

"The influence of fine grinding of the furnace charge on the rate of glass fusion," by I. D. Tykachinskii and M. B. Romanovskii. *Steklo i Keram.* 13, No. 1, 6-11(1956).

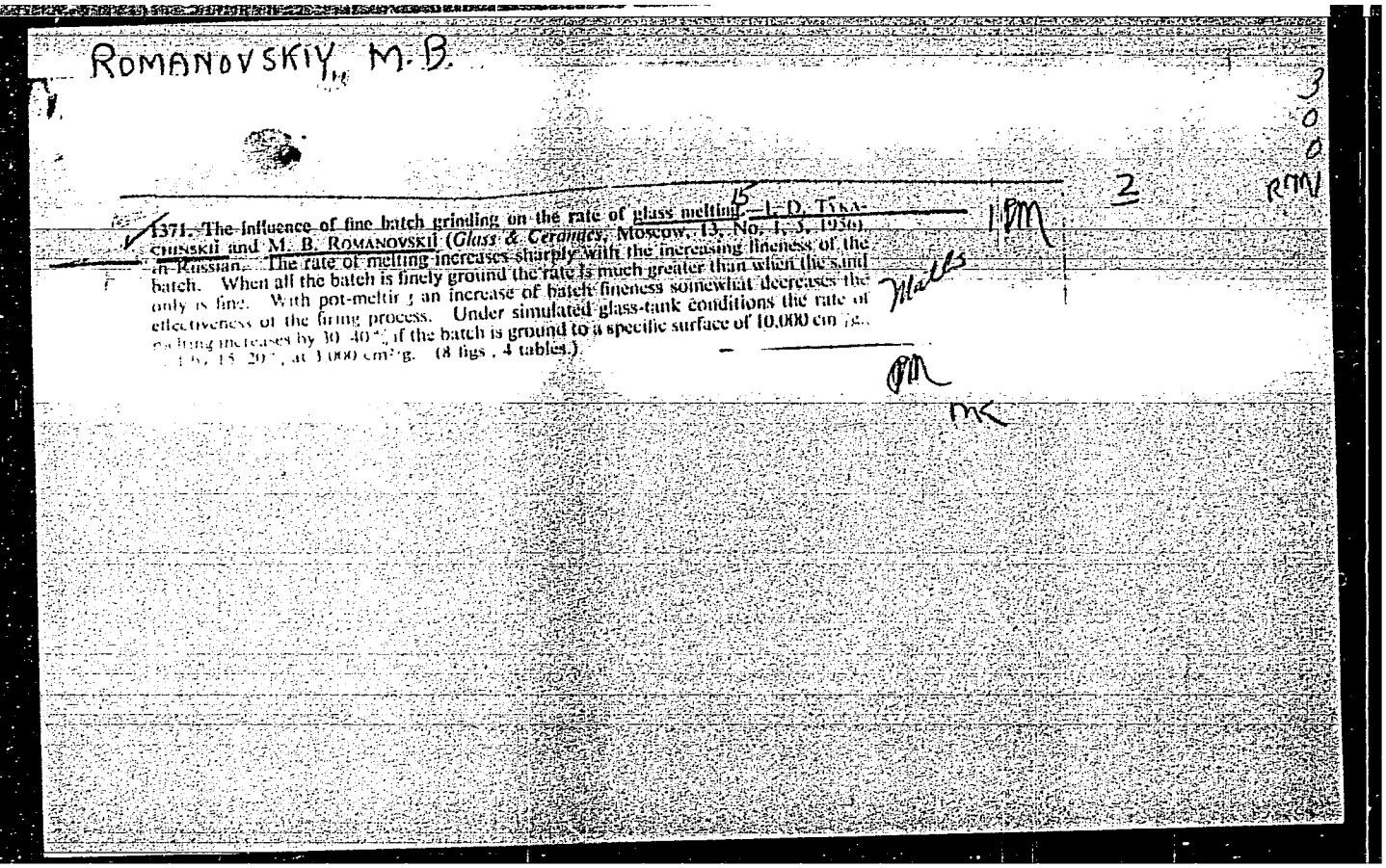
The influence of the fineness of grind of the raw glass mix on the rate of fusion was studied on a lime-soda charge (1) with an initial sp. surface of 610 sq. cm./g. Only the sand of No. 2 mix was pulverized, to bring the sp. surface of the whole to 3000. No. 3 was milled to a sp. surface of 3030 and No. 4 to 10,000. Under conditions approximating those of the tank furnace the solid mix was placed carefully on the surface of fused glass at the given temp. to a thickness of 100 mm. and the time required for fusion and clarification noted. At the temp. of 1420° the time in min. for complete fusion and elimination of bubbles for the 4 types was 85, 70, 72 and 57, resp.; at 1450° 60, 48, 45 and 35; at 1480° 38, 35, —, 27.

H. I. Olin

TYKACHINSKIY, I.D.; ROMANOVSKIY, M.B.

Effect of a finely ground batch on the speed of glass melting and refining processes. Stek.i ker. 13 no.1:5-11 Ja '56. (MLRA 9:3)

1.Vsesoyuznyy nauchno-issledovatel'skiy institut stekla.
(Glass manufacture)



ROMANOVSKIY, M.B.

1371. The influence of fine batch grinding on the rate of glass melting. I. D. TYKACHINSKII and M. B. ROMANOVSKII (*Glass & Ceramics*, Moscow, 13, No. 1, 3, 1956) in Russian. The rate of melting increases sharply with the increasing fineness of the batch. When all the batch is finely ground the rate is much greater than when (lie s and only is fine. With pot-meltir g an increase of batch fineness somewhat decreases the effectiveness of the firing process. Under simulated glass-tank conditions the rate of melting increases by 30–40% if the batch is ground to a specific surface of 10,000 cm²/g. (8 figs., 4 tables.)

15(2) SOV/72-59-4-4/21

AUTHORS: Tykachinskiy, I. D., Romanovskiy, M. B.

TITLE: On the Influence Exercised by Dolomite of Granulometric Composition on the Vitrification of the Aluminum-magnesium Layer (Vliyaniye granulometricheskogo sostava dolomita na stekloobrazovaniye alyumomagnezial'noy shikhty)

PERIODICAL: Steklo i keramika, 1959, Nr 4, pp 14 - 19 (USSR)

ABSTRACT: In the present paper the authors describe an experimental investigation of this problem. Two types of layers were used: a soda and a soda-sulphate layer as well as 4 dolomite fractions of the Ashcherinskoye deposit of a granular size of 0.22, 0.1, 0.05 and 0.02 mm (Fig 1). The rate of vitrification was determined according to A. P. Zak's method. As may be seen from the table and the figures 2 and 3 the granular size of the dolomite exercises a considerable influence on the duration of vitrification in the soda as well as in the soda-sulphate layer. In figures 4,5, and 6 the thermograms of the different layers are given and then discussed in detail. In figure 7 the curves of the weight losses in the heating of the layer are represented. It may be seen from

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the experimental results (Figs 4,5, and 6 and Table) that the process of silicate and glass formation at a temperature above 900° depends mainly on the granular size of the dolomite. Microsections of layer sinterings with coarse- and fine-grained dolomite were investigated (Figs 8 and 9). It may be seen from it that in the case of fine-grained dolomite the reaction between dolomite and quartz takes place more easily and more rapidly. Since 1958 dolomite is ground of a granular size of below 0.1 mm in the Gusevskiy Works imeni Dzerzhinskiy. There are 9 figures and 1 table.

PRANOVSKIY, V.B., Cand Tech Sci --"Effect of the degree of pulverization of furnace charge upon the process of glass founding." Mos, 1959. 17 pp with graphs (Min of Higher and Second ry Special Education. Mos Order of Lenin Chemico-Technological Inst im D.I. Mendeleyev) 120 copies (KL,37-59, 109)

47

ANTROPOV, G. M., BELYEV, V. A. and ROMANOVSKIY, M. K.

"The Behavior of Rapid Electrons in an Electron Model of a Trap with Magnetic Mirrors." (Work carried out in 1957); pp. 250-258.

"The Physics of Plasmas; Problems of Controlled Thermonuclear Reactions." Vol. III. 1958, published by Inst. Atomic Energy, Acad. Sci. USSR.
resp. ed. M. A. Leontovich, editorial work V. I. Kogan.

Available in Library.

L 29671-66 EWT(1)/ETC(f) IJP(c) AT SOURCE CODE: UR/3136/65/000/988/0001/0022
ACC NR: AT6012691 61

AUTHOR: Bortnikov, A. V.; Brevnov, N. N.; Zhukovskiy, V. G.; Romanovskiy, M. K. B+1

ORG: State Committee on Use of Atomic Energy SSSR, Institute of Atomic Energy im. I. V. Kurchatov, Moscow (Gosudarstvennyy komitet po ispol'zovaniyu atomnoy energii, Institut atomnoy energii)

TITLE: Investigation of plasma in the "AS" installation

SOURCE: Moscow. Institut atomnoy energii. Doklady, no. 988, 1965. Issledovaniye plazmy v ustanovke AS, 1-22

TOPIC TAGS: plasma research, plasma compression, plasma injection, plasmoid acceleration, plasma stability, cyclotron resonance, magnetic mirror

ABSTRACT: The authors describe the "AS" (adiabatic compression) apparatus for the study of a plasma produced by injection of fast ions. An axially-centered cylindrical plasmoid is detached from the injector by means of a pulsed magnetic mirror, is accelerated toward a stationary magnetic mirror, and is compressed by a time-increasing magnetic field of mirror configuration. The initial ion energy can reach 10 kev. The article contains a description of the installation (Fig. 1), the auxiliary apparatus, and the measurement details. Measurements were made of the density and potential of the plasma, the lifetimes of the fast ions, and the

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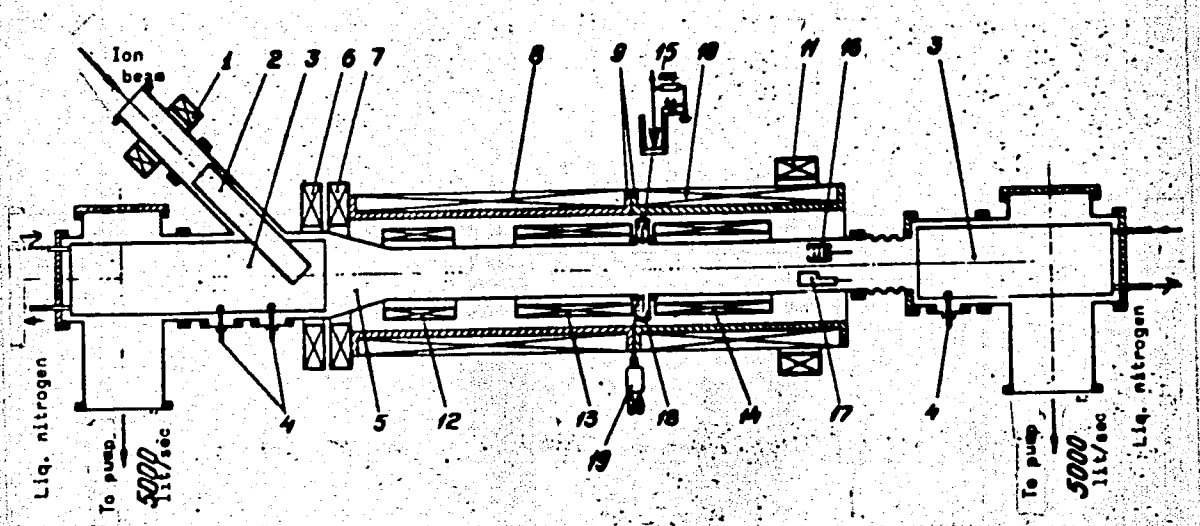
L 29671-66
ACC NR: AT6012691



Card 2/3

Fig. 1. Schematic diagram of "AS" installation. 1 - Magnetic lens, 2 - channel, 3 - azotite, 4 - titanium evaporators, 5 - chamber, 6,7,8,10,11 - stationary magnetic field coils, 9 - copper screen, 12 - detachment coil, 13,14 - compression coils, 15 - neutral particle detector, 16 - secondary ion energy spectrum analyzer, 17 - current receiver, 18 - rod probe, 19 - palladium leak valve.

onset and development of oscillations at the ion-cyclotron frequency. The initial plasma density was found to be proportional to the injection current and amounted to 10^{10} cm^{-3} fast ions at a current of 5 ma. In the absence of injection-current pulsations, the plasma potential did not exceed +30-40 v and was independent of the injection current or of the neutral-gas pressure. Cyclotron instability with an increment time of 20-30 μsec developed in the plasma after detachment from the sourse, lasted for about 100 μsec, after which it decreased exponentially, apparently as a result of self-stabilization. The lifetime of the fast ions depended only on the charge exchange with the neutron molecules. The development of cyclotron instability did not cause additional ion losses. The plasma decayed after compression with a characteristic time of 500 μsec. This is several times smaller than the charge exchange time, and the reason for this behavior is not yet clear. The experimental plasma lifetime of the fast ions increased approximately in proportion to the pressure. Orig. art. has: 11 figures and 8 formulas.

SUB CODE: 20/ SUBM DATE: 00/ ORIG REF: 005/ OTH REF: 005

L 45588-65 EWT(1)/EPF(n)-2/EWG(m)/EPA(w)-2 Pz-6/Po-4/Pab-10/Pi-4 IJP(c) 51
VW/DM/AT B

ACCESSION NR: AP5009119 S/0089/65/018/003/0256/0257

AUTHOR: Bortnikov, A. V.; Brevnov, N.N.; Zhukovskiy, V.G.; Romanovskiy, M.K. 21

TITLE: Adiabatic compression of a plasma with hot ions (Description of installation and first experiments)

SOURCE: Atomnaya energiya, v. 18, no. 3, 1965, 256-257

TOPIC TAGS: plasma compression, plasma ion, adiabatic compression, plasma injection, magnetic mirror

ABSTRACT: The adiabatic compression apparatus is intended for an investigation of the behavior of plasma with hot ions in a magnetic field that increases with time. A diagram of the installation is shown in Fig. 1 of the Enclosure. The plasma is produced by injecting atomic hydrogen ions with energy 10 keV (or molecular ions with energy 7 keV). The ions move in a homogeneous magnetic field around the axis of the installation almost perpendicular to the axis, are reflected by a magnetic mirror, and are trapped by azotite. The growing magnetic field detaches the ions from the channel and compresses them to a stationary magnetic mirror, after which further

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ACCESSION NR: AP5009119

radial and longitudinal plasma compression is produced by the compression coils. The stationary field is 2000 Oe, the maximum rising field and the field of the compression coil in the mirrors is 30 kOe, and the mirror ratio is 3. The ion current (1--5 mA) is injected in pulses whose duration can be varied from 1 to 500 msec. The initial gas pressure prior to injection of the ions is 10^{-8} mm Hg. Experiments are reported on the dependence of the ion charge exchange time on the flux of fast neutral atoms and on the dependence of the plasma potential on the amplitude of the ac component of the injection current. Orig. art. has: 3 figures.

ASSOCIATION: None

SUBMITTED: 13Aug64 ENCL: 01 SUB CODE: ME

NR REF SOV: 000 OTHER: 000

Card 2/3

ROMANOVSKIY, M. K., ANTROPOV, G. M. and BELYAYEV, V. A.

"The Behavior of Rapid Electrons in an Electron Model of a Trap with Magnetic Mirrors," (Work carried out in 1957), pp. 250-53

"The Physics of Plasmas; Problems of Controlled Thermonuclear Reactions," Vol. III, 1958, published by Inst. Atomic Energy, AS USSR

Available in Library

Romanovsky, M.R.

66702

24(2)/20 SOV/109-4-8-22/25

AUTHORS: Granovskiy, V.L., Luk'yanov, S.Yu., Spivak, G.V. and Sirotenko, I.G.

TITLE: Report on the Second All-Union Conference on Gas Electronics

PERIODICAL: Radiotekhnika i elektronika, 1959, Vol 4, Nr 8, pp 1339 - 1358 (USSR)

ABSTRACT: The conference was organised by the Ac.Sc.USSR, the Ministry of Higher Education and Moscow State University. T.B. Fogelson - "Methods of Reducing the Energy Lost in the Formation of a Breakdown".
L.I. Pivovar and V.I. Gordiyenko - "Microdischarges and pre-breakdown Currents Between Metal Electrodes in High Vacuum".
V.A. Simonov and G.P. Katukov - "Investigation of the Processes of Initiation and Development of a High-voltage Discharge in Vacuum".
E.M. Reykhrudel and G.V. Smirnitskaya - "The Character-istics of Ignition in High-vacuum in Magnetic Fields".
L.V. Tarasov et al. dealt with the transfer of the electrode material during the pre-breakdown stage in vacuum.
N.B. Rozanov et al. - "The Motion of Micro-particles of Substance During Electric Breakdown in Vacuum".
The third section dealt with the problems of electric sparks, corona and their practical applications. It was presided over by I.S. Stekol'nikov. The following papers were read:
V.I. Lavlov et al. - "Probe Investigation of the a.c. Corona Fields".
G.N. Aleksandrov - "Elementary Processes in the Ionisation Zone of Corona-type Conductors at Atmospheric Pressures".
E.A. Burmakin - "Appearance of a Corona Discharge in Hydrogen and Nitrogen"
P.N. Chistyakov et al. - "Some Properties of the Corona Discharge in Hydrogen in Coaxial, Cylindrical System".
A.S. Sobolev and B.N. Klyarfeld - "Appearance of Discharge Phenomena Between a Point and a Plane at Gas Pressures of 10^{-5} - 1.0 mm Hg".
Ya.Yu. Boyarchi et al. - "Methods of Unipolar Ionisation of Air By Means of Aero-Ionisers (see p 1335 of the Journal).
M.P. Vanyukov et al. - "The Spectra of the Radiation of a Spark Discharge in Inert Gases" (see p 1284 of the Journal).
M.P. Vanyukov and A.A. Mak - "Production of High Temperatures by Means of Spark Discharges".
V.A. Fershtakin - "Influence of the Magnetic Field of the Electric Discharge on the Dividing Surface of Two Media".
I.S. Stekol'nikov - "New Data From the Study of Long Sparks".
N.I. Syanov - "Properties of the Breakdown of Compressed Air in a Comparatively Uniform Field in the Presence of Localised Non-uniformities".
A.A. Vorob'yev et al. - "Pulse and Oscillographic Techniques for the Measurement of the Discharge Lags in Dielectrics" (see p 1357 of the Journal).
A paper by B.N. Zolotykh dealt with the problem of the basic theory of the electric erosion (see p 1330 of the Journal).
The fourth section was presided over by S.Yu. Luk'yanov and was concerned with the non-stationary and low-frequency discharges. The following papers were read:
I.G. Kereselidzhev and A.A. Labud - "The Nature of the Current Interruption During the Electric Explosion of a Metal Wire", "Propagation of Plasma From Local Pulse Sources".
V.A. Simonov - "Observation of an Electro-dynamically Compressed Arc By Means of an Electron-optical Converter".
Q.G. Tinofeyev et al. - "Observation of an Electro-dynamically Compressed Arc By Means of an Electron-optical Converter".
M.S. Ioffe and Ya.Ya. Yushmanov - "Investigation of the Radial Electric Field in an Ion Magnetron".
V.A. Belyayev and M.K. Romanovskiy - "Experiments with an Electron Model of a System with Magnetic Samples".
A.M. Andrianov et al. "Distribution of Magnetic and Electric Fields in Powerful Pulse Discharges".
G.N. Harding (England) - "Spectroscopic Determination of the Plasma Temperature in the "Zeta" Equipment" (see p 1326 of the Journal).
The paper by Harding aroused a lot of interest and Academician L.A. Artsimovich expressed the opinion that the electrons and ion temperatures in the "Zeta" should be of the same order; instead, according to Harding, the electron temperature is two order than that of the ions.

Card 7/15

ROMANOVSKIY, M. K.

21 (0), 24 (0)

AUTHOR: Tyagunov, G. A. SOV/89-7-2-18/24

TITLE: Scientific Conference of the MIFI (Nauchnaya konferentsiya MIFI)

PERIODICAL: Atomnaya energiya, 1959, Vol 7, Nr 2, pp 176-177 (USSR)

ABSTRACT: The yearly scientific meeting was held from 17 April to 15 May 1959 in the Moskovskiy inzhenerno-fizicheskiy institut (Moscow Physical Engineering Institute). More than 600 participants from 100 different institutes attended the 2 plenary and 18 sectional conferences. A total of 148 lectures were held. The following lectures are specially mentioned: M. K. Romanovskiy on the thermo-nuclear examinations, N. G. Basov on the physical foundations of molecular generators and amplifiers, A. I. Leypunskiy on the construction of a fast reactor, I. Ya. Pomeranchuk on the theory of the peripheral collision of mesons and nucleons, A. B. Migdal on superfluidity and momentum of inertia of the nuclei, A. S. Kompaneyets on the strong electromagnetic gravity wave, V. I. Gol'danskiy on levels which are excited within the nucleus shell and methods of comprehending them, I. L. Rozental' and L. A. Prokhorova on the analysis of the possible experiments for the determination of the measurements of the μ-mesons, V. I. Dianov-Klokov on the spectrum of liquid and

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crystalline hydrogen under pressure (8000-10000 atm) and an instrument for measuring the absorption curves, V. K. Lyapidevskiy and O. V. Glamazdina on new application possibilities of the diffusion chamber, A. V. Shal'nov on calculation methods for linear electron accelerators with migratory waves, P. A. Ryazin, A. B. Minervin and A. I. Zaboyev on new theories of the electron capture under betatron conditions of the acceleration, Ye. G. Pyatnov on optimum wave length for a generator, S. P. Lomnev and G. A. Tyagunov on magnetic focussing in a linear electron accelerator, O. A. Val'dner, P. A. Dmitrovskiy, D. M. Zorin, Yu. V. Mizin on the 3 mev linear accelerators of the MIFI, and V. V. Kuznetskiy, O. A. Val'dner, V. V. Kotov and V. N. Chesnokov on examination of the electron movement in the system of the elutron with consideration of the scattering fields, O. A. Krayev on impulse method for measuring the heat conduction capacity of liquids and the theory of this method, Ye. M. Khabakhpasheva, Yu. M. Il'in and D. A. Chirov on heat transmission to the eutectic Na-K which flows in a circular space, V. I. Petrovichev on heat transmission to circulating mercury, N. M. Royzin on special conditions when working with a flat triode in

the impulse technique, O. S. Poturayev on calculation methods and construction of an impulse transformer for instruments with semi-conductor elements, Ya. A. Khetagurov on a possibility judge the characteristics of magnetic recording of impulses, B. I. Kal'nin on the element system for a universal digital computor, V. S. Malov on multiple control of the parameters of technologic processes, P. I. Popov on analysis of several systems with which physical energy apparatus can be automatically started, Yu. I. Topcheyev on a method to examine the quality of a reactor control when the reactivity changes stepwise or linearily. G. A. Leont'yev and A. I. Yevstyukhin on examination of the iodine method of refining niobium and characteristics of the metal obtained, P. L. Gruzin and G. G. Ryabova on examination of the micro-distribution of carbon, tungsten, iron and other elements in zirconium and its alloys by use of auto-radiography, G. B. Fedorov on determination of the sublimation heat of zirconium and nickel by using radioactive indicators and G. B. Fedorov and A. N. Semenikhin on determination of the diffusion coefficients of chromium, nickel, iron and chromium nickel steels. The literature for all these lectures will be published by the MIFI in a symposium.

Card 3/3

YEREMYAN, A. V.; ROMANOVSKIY, M. M.

Dermatitis caused by para-animosalicylic acid. Vest. vener. Moskva, no.4:37-38 July-Aug 1951. (CLML 21:1)

1. Of Moscow Clinical Infectious Hospital (Director -- Honored Physician RSFSR N. G. Zaleskver) and of the Eye Clinic of First Order of Lenin Medical Institute (Director -- Prof. A. Ya. Samoylov, Corresponding Member of the Academy of Medical Sciences USSR).

ROMANOVSKIY, M. M.

ROMANOVSKIY, M. M. - "PASA in the Treatment of Tuberculosis of the Eye." Sub 22 Sep 52, First Moscow Order of Lenin Medical Inst. (Dissertation for the Degree of Candidate in Medical Sciences).

SO: Vechernaya Moskva January-December 1952

ROMANOVSKIY, M. M.; YEREMYAN, A. V.

Certain complications in PAS therapy. Vest. oft., Moskva 30 no. 5: 30-31 Sept-Oct. 1951. (CLML 21:3)

1. Of the Eye Clinic (Director — Prof. A. Ya. Samoylov), First Moscow Order of Lenin Medical Institute, and of the Moscow Clinical Infectious Diseases Hospital (Director -- Honored Physician RSFSR N. G. Zaleskver).

ROMANOVSKIY, M.M., kandidat meditsinskikh nauk (Moscow).

Glaucoma, its clinical aspect and pathogenesis. Fel'd.i akush. no.3:17-20 Mr '54. (MLRA 7:3)
(Glaucoma)

ROMANOVSKIY, M.M.

ROMANOVSKIY, M.M., kandidat meditsinskikh nauk (Moskva)

Glaucoma. Part 2: Diagnosis and therapy. Fel'd. i akush. no.7: 11-15 Jl '54. (MLRA 7:7)
(GLAUCOMA
*diag. & ther.)

ROMANOVSKIY, M. M.

PAS in the treatment of metastatic ocular tuberculosis.
Vest. oft., Moskva 30 no. 6:25-28 Nov-Dec 1951. (CLML 21:3)

1. Of the Eye Clinic, First Moscow Order of Lenin Medical Institute (Director — Prof. A. Ya. Samoylov, Corresponding Member of the Academy of Medical Sciences USSR).

ZAGORA, Edvard[Zagora, Edward], doktor med.; ZAKOL'SKIY, V.G.[translator]; ROMANOVSKIY, M.M.[translator]; DANTSIG, N.M., prof., red.; KHVATOVA, A.V., red.; GABERLAND, M.I., tekhn. red.

[Industrial opthalmology] Promyshlennaia oftal'mologiia. Pod red. N.M.Dantsiga. Moskva, Medgiz, 1961. 395 p. (MIRA 15:4)
(INDUSTRIAL OPTHALMOLOGY)

BUNIN, A.Ya., kandidat meditsinskikh nauk; ROMANOVSKIY, M.M., kandidat meditsinskikh nauk

[Modified tonometric dark-adaptation test in early diagnosis of glaucoma. Vest.oft. 69 no.5:19-22 S-O '56. (MIRA 9:12)

1. Iz despansernogo otdeleniya (zav. - kandidat meditsinskikh nauk M.M.Romanovskiy) Gosudarstvennogo nauchno-issledovatel'skoto instituta glaznykh bolezney imeni Gel'mgol'tsa (dir. - kandida meditsinskikh nauk A.V.Roslavtsev).
(GLAUCOMA, diag.
modified tonometric dark-adaptation test in early stages)

ROMANOVSKIY, M.M., kandidat meditsinskikh nauk

Green wind, yellow water and glaucoma. Zdorov'e 3 no.3:18-19 Mr '57 (MLRA 10:4)
(GLAUCOMA)

928. ROMANOVSKII M. M. Helmholtz Inst. of Dis. of the Eye, Moscow. *Gonioscopy in ophthalmological practice (Russian text) OFTAL. Z. 1956, 3 (172-174)

Examination of the anterior chamber of the eye was conducted with the help of Van Beuningen's gonioscope. A total of 58 patients with glaucoma and 20 healthy persons were examined. Closure of the angle of the anterior chamber was found in 2 patients (in eyes with absolute glaucoma) out of 25 cases of simple glaucoma. Of 33 patients with congestive glaucoma, in 3 the angle of the anterior chamber was almost blocked and in 6 it was very narrow. Heavy deposits of pigment in the region of Schwalbe's ring were observed in cases of congestive glaucoma. In the presence of a narrow or obliterated angle of the anterior chamber the intraocular pressure was labile. On the basis of his observations the author comes to the conclusion that the angle of the anterior chamber plays an essential part in the course of some forms of primary glaucoma. The author thinks that gonioscopy offers new possibilities in the individual choice of the site of operation for glaucoma, as well as in the assessment of the effectiveness of surgical interference. The importance of gonioscopy is pointed out in the diagnosis of new formations in the iris and ciliary body, as well as of foreign bodies in the angle of the anterior chamber.

Kulikova - Moscow

ROMANOVSKIY, M.M., kand.meditsinskikh nauk; KOZLOVA, L.P., mladshiy nauchnyy sotrudnik

Some urgent problems in control of glaucoma. Kaz. med. zhur. 41 no.3: 84-86 My-Je '60. (MIRA 13:9)

1. Iz dispansernogo otdeleniya instituta glaznykh bolezney im. Gel'mgol'tsa (direktor - A.V. Roslavtsev).
(GLAUCOMA)

YEFIMOV, Aleksandr Leonidovich; ROMANOVSKIY, M.V., redaktor; SOKOLOVA, N.N., tekhnicheskiy redaktor

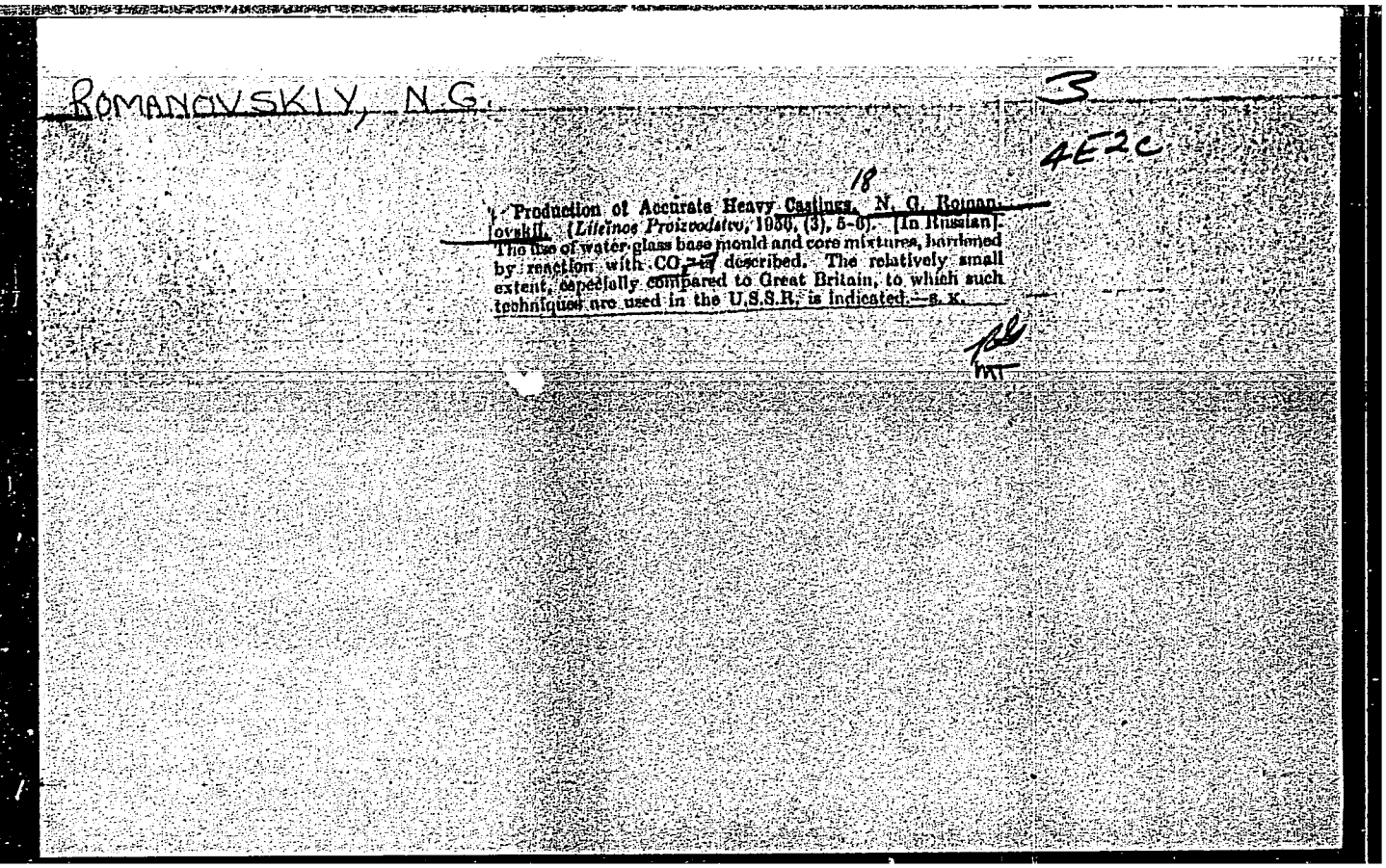
[Manual on the use of poisons for combating pests and diseases of plants] Spravochnik po primeneniiu uadov dlia bor'by s vrediteliami i bolezniami rastenii. Izd. 6-oe, perer. i dop. Moskva, Gos. izd-vo selkhoz. lit-ry, 1956. 431 p. (MLRA 9:8)
(Fungicides) (Insecticides)

ROMANOVSKIY, M.V.

REMEZOV, Nil Petrovich, prof.; ROMANOVSKIY, M.V., red.; SOKOLOVA, N.N., tekhn.red.

[Soil colloids and the absorptive power of soils] Pochvennye kolloidy i poglotitel'naia sposobnost' pochv. Moskva, Gos.izd-vo sel'khoz. lit-ry, 1957. 223 p. (MIRA 11:7)

1. Moskovskiy gosudarstvennyy universitet imeni M.V.Lomonosova (Soil physics)



ROMANOVSKIY, N.G.

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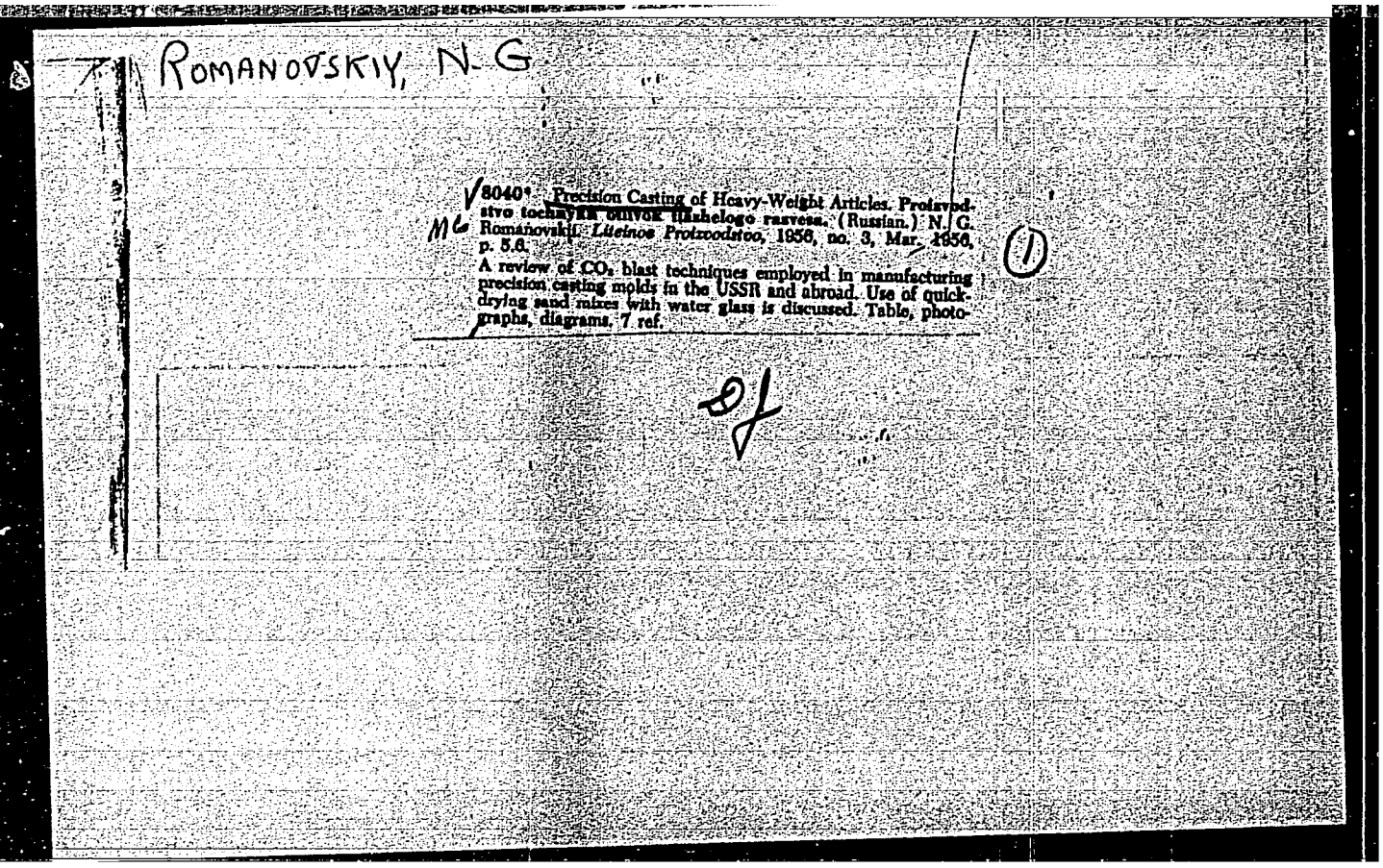
18

Production of Accurate Heavy Castings. N. G. Romanovskiy. (*Liteinoe Proizvodstvo*, 1950, (3), 5-6). [In Russian]. The use of water-glass base mould and core mixtures, hardened by reaction with CO_2 is described. The relatively small extent, especially compared to Great Britain, to which such techniques are used in the U.S.S.R. is indicated.—S. K.



ROMANOVSKIY, N.G.

80401. Precision Casting of Heavy-Weight Articles. Proizvod. stvo tochnykh otlivok tiazhelogo rasveza. (Russian.) N. G. Romanovskii. *Liteinoe Proizvodstvo*, 1956, no. 3, Mar., 1956, p. 5-6.

A review of CO_2 blast techniques employed in manufacturing precision casting molds in the USSR and abroad. Use of quick-drying sand mixes with water glass is discussed. Table, photographs, diagrams. 7 ref.

ROMANOVSKIY, N.G., inzhener.

Production of heavyweight precision castings. Lit.proizv. no.3: 5-6 Mr '56. (Sand, Foundry) (Die casting) (MLRA 9:7)

ROMANOVSKIY, N. N.

Methods of studying sediments having syngenetic perennial ice veins. Merzl. issl. no.1:11-20 '61. (MIRA 16:1)

(Frozen ground)

ROMANOVSKIY, N. N.

Observations of the formation of low hummock reliefs. Merzl. issl. no.1:106-111 '61. (MIRA 16:1)

(Yakutia—Landforms)

ROMANOVSKIY, N.N.

Forms of erosion of the shores of Bol'shoy Lyakhov Island. (MIRA 18:1)
Trudy AANII 224:54-66 '63

RAPOPORT, L. G.; ROMANOVSKIY, N. N.

Diatom flora in the sediments having syngenetic perennial ice veins. Merzl. issl. no.1:162-166 '61. (MIRA 16:1)

(Yakutia—Diatoms)

ROMANOVSKIY, N.N.

Temperature regime of small-thickness frozen formations underlain by water-bearing beds. Vest. Mosk. un. Ser. 4: Geol. 20 no.3:53-58 My-Je '65. (MIRA 18:7)

1. Kafedra merzlotovedeniya, Moskovskogo universiteta.

ROMANOVSKIY, N.N.

New method for establishing permafrost belts to control glaciation by using shelters. Merzl. issl. no.3:127-130 '63. (MIRA 17:6)

ROMANOVSKIY, N. N.

Thermokarst-erosional sinks in the northern part of the seaside lowlands of Yakutia and the New Siberian Islands. Merzl. issl. no.1:124-144 '61. (MIRA 16:1)

(Yakutia—Thermokarst)

ROMANOVSKIY, N. N.: Master Geolog-Mineralog Sci (diss) -- "Quaternary deposits of the island of Bol'shoy Lyakhovskiy and the northern part of the Yana-Indigirka lowland (stratigraphy and frost-facial analysis)". Moscow, 1959. 23 pp (Min Higher Educ USSR, Moscow Order of Lenin and Order of Labor Red Banner State U im M. V. Lomonosov, Geol Faculty), 110 copies (KL, No 10, 1959, 124)

ROMANOVSKIY, N.N.

Structure of the Yana-Indigirka maritime alluvial plain and its formation. Merzl.issl. no.2:129-138 '61. (MIRA 16:5)
(Yana Valley--Alluvial plains) (Indigirka Valley--Alluvial plains)

ROMANOVSKIY, N.N.

New data on the structure of Quaternary sedimentation on the Bolshoi Lyakhov island (New Siberian Islands). Nauch.dokl.vys. shkoly; geol.-geog.nauki no.2:243-248 '58. (MIRA 12:2)
(Lyakhov Islands--Rocks, Sedimentary)
(Physical geography)

KUDELIN, B.I., prof., otv. red.; GORDEYEV, D.I., prof., red.; MAKARENKO, F.A., doktor geol.-miner. nauk, red.; CHURINOV, M.V., doktor geol.-min. nauk, red.; GOLODKOVSKAYA, G.A., kand. geol.-min. nauk, red.; ROMANOVSKIY, N.N., red.; YERMAKOV, M.S., tekhn. red.

[Collected articles on hydrogeology and engineering geology] Sbornik statei po voprosam gidrogeologii i inzhenernoi geologii. Pod red. N.N.Romanovskogo. Moskva, Izd-vo Mosk. univ., 1962. 428 p. (MIRA 15:3)
(Water, Underground) (Engineering geology)

ROMANOVSKIY, N.N.

Frozen structure of cover rocks in Quaternary sediments. Nauch. dokl. vys. shkoly; geol.-geog. nauki no.3:185-189 '58.
(MIRA 12:1)

1.Moskovskiy universitet, geologicheskiy fakul'tet, kafedra merzlotovedeniya.
(Geology, Stratigraphic)
(Frozen ground)

ROMANOVSKIY, N.T., inzhener; CHERNUSHEVICH, V.A., inzhener.

New Chevrolet foundry in Tonawanda, U.S.A. Lit. proizv. no.8:8-14 Ag '56. (MLRA 9:10)

(United States--Automobiles--Engines)
(Founding)

GORELIK, Zalman Abramovich, kand.geologo-mineral.nauk; ROMANOVSKIY, Nikolay Tarasovich, kand.geograf.nauk; SHKLYAR, A.Kh., kand. geograf.nauk, nauchnyy red.; SHEVLAK, V.A., red.; VOROTYNSKAYA, S.A., tekhred.

[Natural resources of the White Russian S.S.R. and their utilization] Prirodnye bogatstva Belorusskoi SSR i ikh ispol'zovanie. Minsk, 1960. 37 p. (Obshchestvo po rasprostraneniiu politicheskikh i nauchnykh znanii Belorusskoi SSR, no.13). (MIRA 14:2)

(White Russia--Natural resources)

DEMENT'YEV, V.A., prof., red.; ROMANOVSKIY, N.T., dots.kand.geog.nauk,red.; MEL'NICHUK, S.M., dots., kand. geogr. nauk, red.; GES', N.,red.; LITVINSKAYA, T., red.

[Geography of White Russia] Geografiia Belorussii. Minsk, Vysshaia shkola, 1965. 379 p. (MIRA 18:12)

ROMANOVSKIY, N.T.; BUDAVEY, V.Yu.; GRANTSEVA, R.T.; ROZENOVA, M.I.

New standards for the amortization of foundry equipment. Lit. proizv. no.10:28-31 O '60. (MIRA 13:10)

(Foundries--Equipment and supplies)
(Founding--Accounting)

ROMANOVSKIY, N.T.

Origin and development of manufactures in White Russia. Trudy Geofaka BGU no.2:21-84 '58. (MIRA 13:5)
(White Russia--Manufactures)

MARTINKEVICH, F.S., kand.geograf.nauk; SOBOLEV, Ye.Ya., kand.geograf.nauk; BOL'SHAKOVA, V.P., kand.ekonom.nauk; LAPETA, D.D., kand.ekonom. nauk; GLADKIY, V.I., kand.geograf.nauk, starshiy prepodavatel'; ANICHENKO, G.V., kand.geograf.nauk; KOTT, G.Z.; TRUBILKO, N.P., kand.ekonom.nauk; KOROLENKO, I.K., kand.ekonom.nauk; GUTSEV, Ye.G., kand.geograf.nauk; CHERNENKO, V.A.; CHERNYSH, L.P.. Prinimali uchastiye: KOZLOVA, A.I.; KOVALEVSKIY, P.V.; MAZURENKO, R.V.; KUVEYSHA, Ye.I.; KRYLOVA, V.S.; SERZHINSKIY, I.I.; KURKINA, Z.A.; KALECHITS, T.A.. ROMANOVSKIY, N.T., red.; KOSTEVICH, K.R., red.; TURTSEVICH, L., red.izd-va; SIDENKO, N., tekhn.red.

[Distribution of the industry of White Russia for the processing of agricultural raw materials] Razmeshchenie promyshlennosti BSSR po pererabotke sel'skokhoziaistvennogo syr'ia. Minsk, 1959. 193 p. (MIRA 13:6)

1. Akademiya nauk BSSR, Minsk. Institut ekonomiki. 2. Zaveduyushchiy sektorom razmeshcheniya proizvodstva Instituta ekonomiki Akademii nauk BSSR (for Martinkevich). 3. Institut narodnogo khozyaystva im. V.V.Kuybysheva (for Gladkiy).

(White Russia--Industries, Location of)

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Analysis

Haupt, Otto. Zur Differentiation additiver Funktionen. Math. Nachr. 8, 93-97 (1952).

The differentiation of (finitely) additive set functions was studied by S. Kempisty [Fonctions d'intervalle non additives, Hermann, Paris, 1939; these Rev. 1, 207] and P. Romanovski [Mat. Sbornik N.S. 9(51), 67-120 (1941); these Rev. 2, 354]. The author now develops a generalization of this theory such that no topology (in the basic set) has to be assumed. A suitable system of axioms is given and some theorems (without proofs) are stated. A more detailed presentation, including the proofs, will be published in volume III of the second edition of Haupt-Aumann-Pauc, Differential- und Integralrechnung. *A. Rosenthal.*

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Romanovskiĭ, P. I.; and Ignat'ev, U. V. On a generalization of the idea of differential of higher order. Moskov. Oblast. Pedagog. Inst. Uč. Zap. Trudy Kafedr Mat. 21 (1954), 35–48. (Russian)

The authors first discuss inclusion relations between the classes of functions having right-hand nth order derivatives at a point x_0, of functions having limits of nth order right-hand difference quotients at x_0, and of functions admitting nth degree polynomial approximation at x_0.

Generalizing the last of the foregoing classes, relative to any system of functions $\varphi_i(h)$, $i=1, \cdots, n$, such that $\varphi_i(h)>0$ for $h>0$ and such that $\varphi_{i+1}(h)=o[\varphi_i(h)]$ as $h\to+0$, they consider the class of functions $F(x)$ admitting representations of the form

$$F(x_0+h)-F(x_0)=c_1\varphi_1+\cdots+c_n\varphi_n+o[\varphi_n],$$

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where the c_i are suitable constants depending on the particular function $F(x)$.

In a further generalization, n is replaced by a continuous parameter through the device of replacing the functions $\varphi_i(h)$ by a function $\varphi(h, t)$ such that $\varphi(h, t)>0$ for $h>0$, $t>0$ and such that, for constants $\alpha<\beta$, $\varphi(h, \alpha)=o[\varphi(h, \beta)]$ as $h\to+0$. They then consider the class of functions $F(x)$ admitting representations, through Lebesgue-Stieltjes integrals, of the form

$$F(x_0+h)-F(x_0)=\int_0^\alpha \varphi(h, t)\,\psi(t)+o[\varphi(h, \alpha)],$$

where $\psi(t)$ is a suitable function depending on the particular function $F(x)$.

The existence and certain properties, applications, and further extensions of these classes of functions are discussed. *E. F. Beckenbach* (Los Angeles, Calif.).

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