WOJCIECHOWSKI, E.;MIKOLAJCZYK, E.

Comparative studies on Rickettsia isolated in cases of epidemic and spo-
radic typhus. Med. dosw. mikrob. 5 no.1:103-112 1953.   (CLML 24:5)

1. Of the State Institute of Hygiene in Warsaw.

WOJCIECHOWSKI, M., MIKOLAJCZYK, M.

Sporadic typhoid fever. IV. Studies on etiology. Przegl.
epidem. 7 no. 3:187-194 1953.   CLML 25:5)

1. Of the State-Institute of Hygiene, Warsaw.

MIKOLAJCZYK, EDWARD

WOJCIECHOWSKI, Edmund; MIKOLAJCZYK, Edward

Effect of chloramphenicol on Rickettsia provazeki; comparison of
three preparations of chloromycetin. Med. dosw. mikrob. 6 no.3:
293-298 1954.

1. Z Panstwowego Zakladu Higieny w Warszawie.
    (CHLORAMPHENICOL, effects,
        on Rickettsia provazeki, comparison of various prep.)
    (RICKETTSIA PROWAZEKI, effect of drugs on,
        chloramphenicol, comparison of various prep.)

Mikolajczyk, Edward

KOSTRZEWSKI, Jan; MIKOLAJCZYK, Edward

Microbiological diagnosis of psittaccosis in man. Przegl. epidem.
8 no.1:43-45 1954.

1. Z Panstwowego Zakladu Higieny w Warszawie.
     (ORNITHOSIS, diagnosis,
        microbiol. technic)

WOJCIECHOWSKI, Edmund; LEWINSKA, Zofia; MIKOLAJCZYK, Edward; pomoc techn.
PRZYBYLA, Apolonia

Survival of Rickettsia prowazeki in organis of experimentally
infected rodents. Przegl. epidem., Warsz. 11 no.1:39-46 1957.

1. Z Zakladu Bakteriologii Panstwowego Zakladu Higieny w Warszawie.
(TYPHUS, experimental,
survival of Rickettsia in organs of infected rodents (Pol)

MIKOLAJCZYK, EDWARD

WOJCIECHOWSKI, Edmund; MIKOLAJCZYK, Edward; LEWINSKA, Zofia; pomoc techn.
PRZYBYLA, Apolonia

Antigenic activity of four strains of R. burneti. Przegl. epidem.,
Warsz. 11 no.1:47-58 1957.

1. Z Zakladu Bakteriologii Panstwowego Zakladu Higieny w Warszawe.
    (COXIELIA BURNETII, immunology,
            antigenic activity of 4 strains (Pol))

MIKOLAJCZYK, EDWARD

WOJCIECHOWSKI, Edmund; LEWINSKA, Zofia; MIKOLAJCZYK, Edward

Q fever serological survey of certain groups of the population
in Poland. Przegl. epidem., Warsz. 11 no.1:59-63 1957.

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        (Q FEVER, immunology,
                serol. reactions in Poland (Pol))

POLAND

WOJCIECHOWSKI, Edmund, MIKOLAJCZYK, Edward, and FRYGIN, Czes-
lawa; Department of Bacteriology (Zaklad Bakteriologii), PZH
[Panstwowy Zaklad Higieny, State Institute of Hygiene] in
Warsaw (Director: Prof. Dr. E. WOJCIECHOWSKI)

"Hemolytic Action of Typhus Rickettsiae on Erythrocytes of
Different Species."

Abstract: [Authors' English summary modified] Sensitivity of
erythrocytes of humans and nine animal species to hemolytic
action of toxic suspensions of R. prowazeki and R. mooseri
was investigated. All erythrocytes tested were hemolyzed by
the live organisms. As a rule, lysis was incomplete, most
intensive at $34°C$, reaching a peak after 3 hours at $37°$, with
no added effect on prolongation, and hemolysis barely dis-
cernible at $4°C$. Findings showed significant differences
between the various species and are reported in 3 tables and
2 figures. All six references Western.

1/1

POLAND

MIKOLAJCZYK, Edward, Department of Bacteriology (Zaklad
Bakteriologii), PZH [Panstwowy Zaklad Higieny, State Insti-
tute of Hygiene] in Warsaw (Director: Prof. Dr. E. WOJCIE-
CHOWSKI)

"Antigenic Activity of Rickettsia Burneti Strains Adapted
to Chick Embryos and White Mice."

Abstract: [Author's English summary] Three strains of R. bur-
neti were tested for their antigenic activity applying the com-
plement fixation (CF) test and cross absorption of CF -
antibodies. The standard strain Henzerling, an African strain
Bangui, and strain 755 isolated in Poland were used. The
Henzerling and 755 were submitted to 32-42 passages in chick
embryos and developed antigenic activity of phase 2, while
the Bangui showed no phase 2 properties even after 32 passages.
All strains showed reversion to phase 1 after a number of pas-
sages in white mice; they almost did not react in CF test
with phase 2 sera, but reacted well with phase 1 sera and
showed higher virulence in guinea pigs than the phase 2 vari-
1/2

WOJCIECHOWSKI, Edmund; MIKOLAJCZYK, Edward; FRYGIN, Czeslawa

Hemolytic effect of Rickettsia prowazekii and Rickettsia
mooseri on erythrocytes from different species. Med. dosw.
mikrobiol. 15 no.3:227-235 '63.

1. Z Zakladu Bakteriologii PZH w Warszawie Kierownik: prof.
dr E. Wojciechowski.
          (HEMOLYSIS)   (RICKETTSIA)   (RICKETTSIA PROWAZEKII)
                              (ERYTHROCYTES)

MIKOLAJCZYK, Edward; FRYGIN, Czeslawa; WOJCIECHOWSKI, Edmund

Thermal inactivation of toxic and hemolytic properties of Rickettsia typhi. Med. dosw. mikrobiol. 16 no.3:217-226 '64.

1. Z Zakladu Bakteriologii Panstwowego Zakladu Higieny w Warszawie (Kierownik: prof. dr.E.Wojciechowski).

FRYGIN, Czeslawa; WOJCIECHOWSKI, Edmund and MIKOLAJCZYK, Edward; Department
of Bacteriology, National Institute of Hygiene (Zaklad Bakteriologii
PZH) Head (Kierownik) Prof Dr E. WOJCIECHOWSKI, Warsaw.

"Effect of Some Antibiotics and PABA on Toxic Properties of Typhus Rickettsiae."

Abstract [English summary modified]: Incubation for one hour of suspensions
of Rickettsia prowazeki and R. mooseri with seven common antibiotics resulted
in loss of virulence for mice and in loss of hemolytic properties. Para-amino
benzoic acid had the same effect. Discussion. Table, 3 graphs; 3 Polish and
8 Western references.

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MIKOLAJCZYK, HENRYK

BER, Artur;MIKOLAJCZYK, Henryk

Studies on hyaluronidase-hyaluronic acid system; effect of hyaluronic acid on healing of experimental ulcer of the stomach in rats. Pat. polska 8 no.1:31-36 Jan-Mar 57.

1. Z Zakladu Endokrynologii A. M. w Lodzi Kierownik: prof. dr. A Ber. Adres autora: Loz, ul Tuwima 30/7.
        (PEPTIC ULCER, experimental,
            eff. of hyaluronic acid (Pol))
        (HYALURONIC ACID, effects,
            on exper. peptic ulcer (Pol))

BER, Artur; DRYZEK-MIKOLAJCZYK, Laurencja; MIKOLAJCZYK, Henryk

Studies on hyaluronidase-hyaluronic acid system. 5. Mechanism of growth in a concentrated form of certain staphylococcal strains in a bouillon with added hyaluronic acid. Med. dosw. mikrob. 11 no.3:283-292 1959.

1. Z Zakladu Endokrynologii A. M. w Lodzi B. kierownik: prof. dr A. Ber.

(STAPHYLOCOCCUS, culture) (HYALURONIC ACID, pharmacol.)

HER, Artur; DRYZEK-MIKOLAJCZYK, Laurencja; MIKOLAJCZYK, Henryk

Studies on hyaluronidase-hyaluronic acid system. 6. Mucopolysaccharide
nature of substances produced by certain strains of Staphylococcus
albus. Med. dosw. mikrob. 11 no.3:293-303 1959.

1. Z Zakladu Endokrynologii A. M. w Lodzi B. kierownik: prof. dr A. Be
(STAPHYLOCOCCUS, metab.) (MUCOPOLYSACCHARIDES, metab.)
(HYALURONIC ACID, pharmacol.)

BER, Artur; MIKOLAJCZYK, Henryk

A new method for the production of experimental ulcers of the stomach in rats. Report 1. Local injections of histamine. Pat. Polska 11 no.2:145-157 '60.

1. Z Zakladu Endokrynologii A.M. w Lodzi b Kierownik: Prof. dr Artur Ber.
        (PEPTIC ULCER exper)
        (HISTAMINE pharmacol)

BER, Artur; MIKOLAJCZYK, Henryk

A new method for the production of ulcers of the stomach in rats.
Report 2. Local injections of pepsin. Pat.polska 11 no.2:159-163
'60.

1. Z Zakladu Endokrynologii A.M. w Lodzi b. Kierownik: Prof. dr
Artur Ber.
        (PEPTIC ULCER exper)
        (PEPSINS exper)

BER, Artur; MIKOLAJCZEK, Henryk

A new method for the production of experimental ulcers of the
stomach in rats. Report 3. Local injections of sodium chloride.
Pat.polska 11 no.2:165-169 '60.

1. Z Zakladu Endokrynologii A.M. w Lodzi b. Kierownik: Prof. dr
Artur Ber.
         (PEPTIC ULCER exper)
         (SODIUM CHLORIDE pharmacol)

MIKOLAJCZYK, Henryk

On the problem of the infinite disk partially loaded on the
edge of a circular hole. Rozpr inz PAN 10 no.2:333-344 '62.

1. Politechnika, Gdansk.

MIKOLAJCZYK, Henryk

The effects of hormonal stimulation on connective tissue. Endokr.
pol. 13 no.5:595-602 '62.

1. Zaklad Endokrynologii AM w Lodzi Kierownik: prof. dr T. Pawlikowski.
(MUCOPOLYSACCHARIDES)   (ENDOCRINOLOGY)   (CONNECTIVE TISSUE)
(CORTICOTROPIN)   (CORTISONE)   (DEXAMETHASONE)

MIKOLAJCZYK, Henryk

The Grudziadz Chemical Industrial Plants have been looking for better production methods. Przem chem 41 no.4:222 Ap '62.

MIKOLAJCZYK, H.

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no.6:337 Je '62.

MIKOLAJCZYK, Henryk; ZIELENIEWSKI, Jerzy

Effect of STH, TSH, ACTH, FSH, DOCA, cortisone and high-
carbohydrate and high-protein diets on the urinary excretion
of acid nucopolysaccharides and 17-ketosteroids in 2 normal
males. Endokr. Pol. 14 no.6:581-586 N-D '63.

1. Zaklad Endokrynologii Akademii Medycznej w Lodzi (Kierownik:
Prof. dr T. Pawlikowski).

MIKOLAJCHYK, Henryk

Urinary output of 17-KS and microscopic changes in the
adrenal cortex of rats treated with heparin, histamine
or serotonin. Endokr. Pol. 16 no.4:347-358 Jl-Ag ' 65.

1. Kafedra i Zaklad Endokrynologii AM w Lodzi (Kierownik:
prof. dr. T. Pawlikowski).

MIKOLAJCHYK, Henryk; PAWLIKOWSKI, Tadeusz

Histologic changes in the adrenal cortex of hypophysectomized-
gonadectomized rats treated with fonadotrophins or adreno-
corticotrophin. Endokr. Pol. 16 no.4:359-369 Jl-Ag' 65

1. Katedra i Zaklad Endokrynologii AM w Lodzi (Kierownik:
prof. dr. T. Pawlikowski).

MIKOLAJCZYK, Henryk

The role of connective tissue in homeostasis. Endokr. pol.
14 no.3:261-298 '63.

1. Zaklad Endokrynologii AM w Lodzi Kierownik: prof. dr T.
Pawlikowski.
(CONNECTIVE TISSUE)   (HOMEOSTASIS)
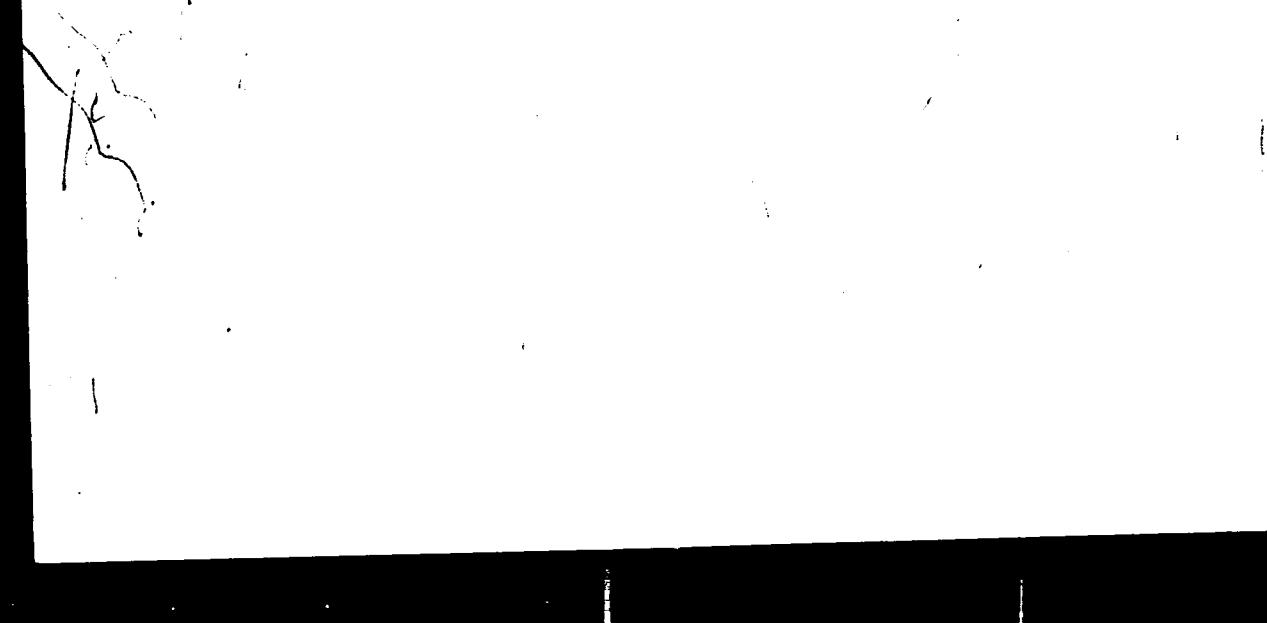
MIKOLAJCZYK, Jan

Genetic bases of the growing and seed production of lupins for fodder. Postepy nauk roln 8 no.1:3-19 '61.   (EEAI 10:8)

1. Zaklad Roslin Pastewnych Instytutu Uprawy, Nawozenia i Glebosnawstwa. Kierownik: prof. dr. S. Barbacki.
        (Lupines)   (Feeds)

SZCZEPSKI, Olech; WALCZAK, Mieczyslaw; MIKOLAJCZYK, Jolanta

Treatment of cryptorchism with gonadtropin. Endokr. pol. 13 no.5: 555-558 '62.

1. II Klinika Chorob Dzieciecych AM w Poznaniu (Poradnia Endokrynologic: Kierownik: prof. dr O. Szczepski Wojewodzka Przychodnia Higieny Szkolne; w Poznaniu.Dyrektor: dr med. A. Jankowiak Wojewodzka Przychodnia Specjalistyczna w Poznaniu.Dyrektor: dr med. J. Wojtczak.
          (CRYPTORCHISM)   (GONADOTROPINS CHORIONIC)

MICHALSKI, J.; MIKOLAJCZYK, M.; MLOTKOWSKA, B.; SKOWRONSKA, A.

Formation of tetraalkylthionopyrophosphates through isomerization
of their thiolo-isomers. Bul chim PAN 11 no.12:695-697 '63.

1. Department of Organic Chemistry, Technical University, Lodz
and Institute of Organic Synthesis, Polish Academy of Sciences.
Presented by J. Michalski.

POLAND

MIKOLAJCZYK, Marian, Dr inz.

Adiunkt, Dept. of Organic Synthesis, Polish Academy
of Sciences (Adiunkt Zakladu Syntezy Organicznej PAN),
Lodz

"Nucleophilic substitution using ambident anions."

POLAND

MIKOLAJCZYK, Marian, Dr inz.

Adiunkt, Dept. of Organic Synthesis, Polish Academy of Sciences
(Adiunkt Zakladu Syntezy Organicznej PAN), Lodz

"Reactions of some organophosphorous ambident anions."

BROCIEK, Stanislaw, mgr. inz.; MIKOLAJCZYK, Stanislaw, mgr.

Program of calculating the losses of active and passive power in networks by employing the Ural-2 machine. Energetyka Pol 17 no.12:Supplements.Biul inst energetyki 5 no.11/12:47-48   D'63.

MIKOLAJCZYK, Waldemar

Review of the Polish species of the genus Chrysozona
Meigen (Diptera, Tabanidae). Annales zool 21 no. 10
93-107 '63.

MIKOLAJCZYK, Wanda

Case of paragonimiasis. Polski tygod. lek. 11 no.25:1125-
1126 18 June 56.

1. Z IV Klin. Chor. Wewn. Akad. Med. w. Warsz., kier. prof.
dr. med. Z. Askanas. IV Klin. Chor. Wew. A.M. Warszawa,
Nowogrodzka 59.
        (TREMATODE INFECTIONS, case reports,
            paragonimiasis (Pol))

BORZYKO-CHODKIEWICZ, Kazimierz; MIKOLAJCZYK, Wanda; SADOWSKI, Zygmunt;
WALC, Jan

Osmotic characteristics of the urine as a measurement of con-
centration capacity of the kidney in certain pathological condi-
tions. Polskie arch.med.wewnetrz. 30 no.1:27-37 '60.

1. Z IV Kliniki Chorob Wewnetrznych A.M. w Warszawie. Kierownik:
prof.dr.med. Z. Askanas.
                    (KIDNEY FUNCTION TESTS)

MIKOLAJCZYK, Wanda; SADOWSKI, Zygmunt

Specific gravity and osmotic concentration of urine. Polskie arch.
med. wewn. 31 no.4:489-494 '61.

1. Z IV Kliniki Chorob Wewnetrznych AM w Warszawie Kierownik
Kliniki: prof. dr med. Z. Askanas.

(URINE chem)

MIKOLAJCZYK, Wanda; BOREYKO-CHODKIEWICZ, Kazimierz; SADOWSKI, Zygmunt

Comparative studies on the diagnostic value of daily endogenous crea-
tinine clearance and osmotic properties of urine in kidney and urinary
tract infections, hypertension and arteriosclerosis. Polskie arch.
med. wewn. 31 no.5:667-676 '61.

1. Z IV Kliniki Chorob Wewnetrznych AM w Warszawie Kierownik: prof.
dr med. Z. Askanas.

(URINARY TRACT INFECTIONS urine)
(HYPERTENSION urine)
(ARTERIOSCLEROSIS urine)

MIKOLAJCZYK, Wanda; SADOWSKI, Zygmunt

On the problem of the evaluation of kidney function tests. Pol. tyg.
lek. 17 no.28:1099-1101 9 Jl '62.

1. Z IV Kliniki Chorob Wewnetrznych AM w Warszawie; kierownik: prof.
dr med. Z. Askanas.
(KIDNEY FUNCTION TESTS)

SADOWSKI, Zygmunt; MIKOLAJCZYK, Wanda

Coomassie blue — clinical value and use in the measurement of the intravascular space. Pol. arch. med. wewnet. 34 no.11: 1443-1449 '64

1. Z IV Kliniki Chorob Wewnetrznych Akademii Medycznej w Warszawie (Kierownik: prof. dr. med. Z.Askanas).

MIKOLAJCZYK, Wanda; SADOWSKI, Zygmunt

Effect of therapy on the volume of circulating blood in patients
with circulatory insufficiency (stasis). Pol. arch. med. wewnet.
35 no.3:353—359 '65.

1. Z IV Kliniki Chorob Wewnetrznych Akademii Medycznej w War-
szawie (Kierownik: prof. dr. med. Z. Askanas).

BORYNIEC, Atanazy; KWAPINSKI, Jan; MIKOLAJCZYK, Wlodzimierz

Vinyl acetate grafting of polyacrylonitrile initiated by potassium persulfate. Polimery tworz wielk 9 no.3:92-94 Mr '64.

1. Department of Technology of Artificial Fibers, Technical University, Lodz.

HASIK, Jan; MIKOLAJCZYK, Zofia

Behavior of sugar, cholesterol and lipid content in the blood in patients with diabetes mellitus under the influence of short waves
Polski tygod.lek.15 no.22:817-820 30 My '60.

1. Z Instytutu Balneoklimatycznego w Poznaniu; dyrektor: doc. dr J.Jankowiak.
(MICROWAVES)
(DIABETES MELLITUS)
(CHOLESTEROL blood)
(LIPIDS blood)

MIKOLAJCZYK, Zofia

Development of interdependence of the dyestuff and textile
industries in the Lodz District. Przegl wlokien 17 no. 12:
427-431 D '63.

1. Department of Business Economics, University, Lodz.

POLAND

DZIERZYNSKI, Mieczyslaw, MIKOLAJCZYK, Zofia, ROZYNEK-LUKANOWSKA, Wanda, and STRABURZYNSKI, Gerard; Balneoclimatic Institute (Instytut Balneoklimatyczny) (Director: Prof. Dr. med. Jozef JANKOWIAK) and the Department of Physiology (Zaklad Fizjologii) of the AM [Akademia Medyczna, Medical Academy] (Director: Prof. Dr. med. Edward CZARNECKI), both in Poznan

"Spirographic Analysis of Breathing Curves of Asthmatic Patients Treated with Aerosols."

Abstract: [Authors' English summary] The investigation covered 61 patients with Asthma bronchiale cured by inhalations of Sigmamycine plus Ephedrine, and 2.5 per cent saline after Iwonicz. The spirographical analysis did not show any type of breathing-curve patterns specific to Asthma bronchiale or to this treatment. There are 15 references: One (1) Soviet, five (5) Polish, and nine (9) German.

1/1

POLAND

BARTKOWIAK, Kazimierz, KOZLOWSKI, Kazimierz, and MIKOLAJCZY-
KOWA, Jolanta; First (I) (Director: Prof. Dr. med. T. RAFIN-
SKI) and Second (II) (Director: Prof. Dr. med. O. SZCZEPSKI)
Clinic of Child Diseases (Clinika Chorob Dzieci), AM [Akade-
mia Medyczna, Medical Academy] in Poznan

"Acidophilic Granulomas and Their Resistance to Treatment."

Abstract: [Authors' English summary modified] Authors dis-
cuss the reticulo-endotheliomas, their etiology and patho-
genesis, and note similarity between the Hand-Schüller-
Christian and Abt-Letterer-Siwe diseases. Acidophilic gra-
nuloma, the mild form of this disease seldom observed in ge-
neral form are resistant to treatment and give poorer pro-
gnosis. They describe two observed cases. There are 33 re-
ferences: One (1) Soviet, 11 Polish, 2 Eastern Bloc, and 8
German.

1/1

18

BORYNIEC, Atanazy; KWAPINSKI, Jan; MIKOLAJCZYKOWA, Teresa;
PETRYCHA, Jadwiga

Copolyesters of phthalic acid. Polimery tworz wielk 9 no.3:
89-92 Mr '64.

1. Departmer' of Technology of Artificial Fibers, Technical
University, Lodz.

MIKOLAJEWSKI, Andrzej, mgr inz.; OCHMAŃSKI, Wieslaw, mgr inz.

Role of an electric laboratory in designing offices.
Wiad elektrotechn 31 no.10:234-235 O '63.

1. Biuro Projektow Budownictwa Komunalnego Stolica, Warszawa.

GRUDZINSKI, Stefan; MIKOLAJEWSKA, Halina; KOTELKO, Antoni

Studies on the process of hydrogenation of aminonitriles. VI.
Synthesis of 2-cyanoethylamines of carboxylic acids. Acta
Pol. pharm. 21 no.5:437-443 '64.

1. Z Zakladu Technologii Srodkow Leczniczych Akademii Me-
dycznej w Lodzi (Kierownik: doc. dr. A. Kotelko).

GRODZINSKI, Stefan; KOTELKO, ant ni, doc. dr.; MIKOLA SKA, B l ski;
STERILIA, Jozef; TRACZYNSKI, Tadeusz; ZAJACZFOWSKA, Barbara

Synthesis of hydrazinoamine compounds with possible antitubar-
cular properties. I. N-acyl-NH-(beta-cyanoethyl)-hydrazines.
Acta Pol. pharm. 21 no.5:445-450 '64.

1. Z Zakladu Technologii Srodkow Leczniczych Akademii Medicznej
w Lodzi (Kierownik: doc. dr. A. Kotelko).

MIKOLAJEWSKA, Halina; KOTELKO, Antoni

Studies on the hydrogenation of aminonitriles. Pt.8. Acta Pol.
pharm. 22 no.3:219-224 '65.

1. Z Katedry Technologii Srodkow Leczniczych Akademii Medycznej
w Lodzi (Kierownik: doc. dr. A. Kotelko).

MIKOLAJKOW, L.

Driving on summer routes.   Motor 11 no.28:7 15 Jl '62.

MIKOLAJKOW, Leszek, mgr inz.

Railway workers in the eyes of automobile drivers; railroad
crossings still dangerous. Motor 11 no.52:10 30 D '62.

L 41271-66

ACC NR: AP6018752   (A)   SOURCE CODE: PO/0076/66/000/001/0011/0016

AUTHOR: Mikolajkow, Leszek

ORG: None

TITLE: Soviet trucks

SOURCE: Motoryzacja, no. 1, 1966, 11-16

TOPIC TAGS: dump truck, general purpose truck, cargo truck, special purpose truck, industrial truck

ABSTRACT: The author reviews the development of truck manufacturing in the Soviet Union from 1924 to the present. Technical data are given for the most recent Soviet trucks in four classes: general-purpose, dump trucks, land rovers and tractors. Some representative examples are the 14,000 kg KrAZ-257 general-purpose truck with a 240 hp YaMZ-238 V-8 engine, the 27,000 kg BeLAZ-540 dump truck with a 360 hp YaMZ-240 V-12 engine and a maximum speed of 53 km/hr, the 2000 kg GAZ-66 land rover with a 115 hp GAZ-53 V-8 engine and a maximum speed of 80 km/hr, and the 18,000 kg MAZ-504 tractor with a 180 hp YaMZ-236 V-8 engine and a maximum speed of 75 km/hr. Orig. art. has: 13 figures, 1 table.

SUB CODE: 15/   SUBM DATE: none

Card   1/1   hs

MIKOLAJSKA, J.

"Some observations on the biology of Puccinia mirabilissima Peck"

p. 139 (Studia, Sectio D: Botanica, Vol. 2, no. 3/7, 1958, Torun, Poland)

MIKOLAJSKA, J.

"The appearance of a new parasite of sugar beet in Poland"

p. 143 (Studia, Sectio D: Botanica, Vol. 2, no. 3/7, 1958, Torun, Poland)

Monthly Index of East European Accessions (EEAI) LC, Vol. 8, No. 1, Jan. 59.

MIKOLAJSKA, J.

"Two-year long observations on the appearance of rust at the Nicolas Copernicus University Agricultural Experimental Station Koniczynka near Torun"

p. 153 (Studia. Sectio D: Botanica, Vol. 2, no. 3/7, 1958, Torun, Poland)

Monthly Index of East European Accessions (EEAI) LC, Vol. 8, No. 1, Jan. 59.

M:Holcfjska   Z

Mikol-iska. Z. Sur les transformations des systèmes
d'équations différentielles linéaires. Ann. Soc. Polon.
Math. 23, 272–278 (1930).   (1b

Among a large class of changes of dependent variables
only $x_i = \sum_{j=1}^{r} e^{\gamma_j t} a_{ij}, i = r$ transforms systems of differential
equations of the form $x_i' = \sum_{j=1}^{r} a_{ij}(x)x_j$ into ones of similar form.
                        F. M. Stewart (Providence, R. I.).

Source: Mathematical Reviews,   Vol *12* No. *9*.

MIKOLAJSKA, Z.

(*1*)

Mathematical Reviews
Vol. 15 No. 3
March 1954
Analysis

Mikolajska, Z. Sur les mouvements asymptotiques d'un
point matériel mobile dans le champ des forces repous-
santes. Bull. Acad. Polon. Sci. Cl. III. 1, 11–13 (1953).
L'equazione $\ddot{X} = F(t, X, \dot{X})$, fra vettori a n componenti,
ammette una famiglia di soluzioni decrescenti in senso largo
a partire da un certo istante in poi e dipendenti da n para-
metri essenziali, se $F(t, X, \dot{X})$ è continua, se le soluzioni
della $\ddot{X} = F$ sono individuate dai valori iniziali e se il pro-
dotto scalare di X e di F non è mai negativo.
                              G. *Scorza Dragoni* (Padova).

MIKCLAJSKA, Z.

"Asymptctic Propriety cf Integrations of a Differential Equation cf the Second Crder", P. 113, (PCLSKA AKADEMIA NAUK, Vol. , Nc. 3, 1954, Varsovie, Poland)

SO: Monthly List cf East European Accessicrs (EEAL), LC, Vcl. 4, No. 3, March 1955, Uncl.

MIKOLAISKA 2

I-FW

3

Mikolaiska, Z. Sur les transformations des systèmes d'équations différentielles linéaires aux coefficients variables. Ann. Polon. Math. 3 (1956), 142–146.
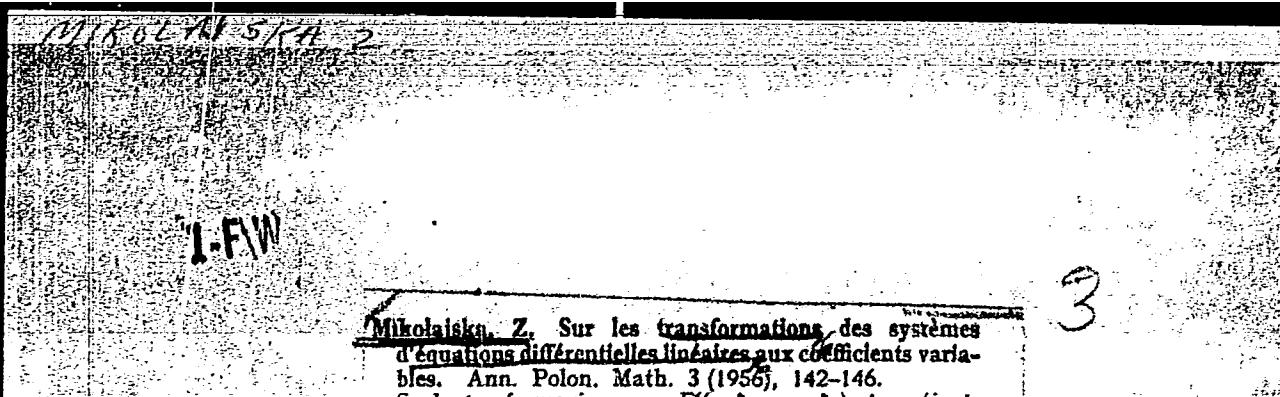
bles. Ann. Polon. Math. 3 (1956), 142–146.

Se la trasformazione $x_i = F^i(\tau, \xi_1, \cdots, \xi_n)$, $i = \tau$ ($i = 1$, $\cdots$, n) è ovunque invertibile nello spazio $(\tau, \xi_1, \cdots, \xi_n)$, le funzioni F^i riuscendovi continue insieme colle loro derivate parziali prime (di guisa che il loro determinante funzionale rispetto alle ξ è ovunque diverso da zero), e se la trasformazione inversa, applicata ad un sistema qualunque di equazioni differenziali ordinarie lineari tutte del primo ordine, porta ad un sistema dello stesso tipo, la trasformazione data è essa stessa lineare.

G. *Scorza-Dragoni* (Padova).

Mikolajska, Z. Sur un théorème de MM. N. Levinson et O. Smith relatif à l'équation différentielle des oscillations entretenues. Ann. Polon. Math. 4 (1957), 1-7.

The author presents a counterexample to a theorem of Levinson and Smith [Duke Math. J. 9 (1942), 382-403; MR 4, 42] regarding the uniqueness of the limit cycle of the equation (*) $\ddot{x}+f(x,\dot{x})\dot{x}+g(x)=0$. The counterexample exploits certain rather singular situations, especially the possibility of $\lambda(x,v)=v^2/2+\int_0^x g(s)ds=c$ ($v=\dot{x}$) being an integral (and hence a closed solution curve in the (x,v) plane) of (*) for some constant c, which Levinson and Smith tacitly assumed in their proof not to be the case. The Levinson and Smith uniqueness criterion (their Theorem II) can apparently be appropriately

qualified so as to yield a true theorem, but the author of the present paper has not indicated what the qualifications might be. (The reviewer believes the following would suffice: suppose it is known that a closed solution curve exists in the closed region R bounded by $\lambda(x,v)=c_0>0$ and $\lambda(x,v)=c_1>c_0$. Then, if for no $c \in [c_0,c_1]$ is $\lambda(x,v)=c$ an integral of (*) and if the criterion holds for all $c \in [c_0,c_1]$ (rather than all c), the closed solution curve is unique in R. The reviewer might point out that the condition (3.1) of Levinson and Smith, from which their criterion is developed, is correct (as a sufficient condition for stability), but their proof is not.) *C. E. Langenhop.*

MIKOLAJSKA, Z. (Krakow)

Remarks on the note of A.B.Turowicz on the approximation of the roots of positive numbers. Annales pol math 8 no.3:285-289 '60.

(EEAI 10:1)

(Roots, Numerical)

MIKOLAJSKA, Z. (Krakow)

Remark on the application of the method of differencial inequalities
on the theory of the equation $P(x)=0$ in an abstract space.
Annales Polonici mathem 11 no.3:229-236 '62.

MIKOLAJSKA, Z. (Krakow)

The asymptotic aspect of solutions of a differential equation
of retarded parameters. Annales Pol math 16 no.2:213-219 '65.

1. Submitted July 4, 1963.

Zhukovskin, A. (Moscow)

Remarks on the theory of ordinary differential equations with retarded
parameter. Uspekhi mat. nauk. 10 no.3:151-162 '55.

MIKOLAJSKA, Z. (Krakow)

Remark on bound solutions of a nonlinear differodifferential equation. Annales Pol math 40 no. 1;23-32 '64.

MIKOLAJSKA-SNIEZEK, Urszula

Some factors affecting the pyrene separation process. Koks 6 no.3:
95-100 My-Je '61.

1. Katedra Chemicznej Technologii Wegla, Politechnika Slaska,
Gliwice.

(Pyrene)

PRZYBYLSKI, Zygmunt, dr. inz., adiunkt, ... , Engineer, mgr. inz.,
st. asystent

Evaluation of grinding conditions for hardened workpieces.
Przegl mech 33 no.24:712-714 25 D 164.

1. Department of Technology of Metals and Physical Metallurgy,
Technical University, Poznan.

MIKOLAJSKI, J.

"The Bydgoszcz region and its grain production," Gospodaka Zbozowa, Warszawa, Vol 5, No 6, June 1954, p. 1

SO: Eastern European Accessions List, Vol 3, No 11, Nov 1954, L.C.

VISHNYAKOV, Yuliy [Nikolajevi, Julius] (Shchetsin)

Methods and problems of the geography of transportation. Izv.
Vses. geogr. ob-va 93 no.1:46-55 Ja-F '61.   (In A :)
          (Transportation)   (Geography, Economic)

MIKOLAJSKI, M.

"Problem of Specialized Instruction in Technical Documentation." Biuletyn Centr. P. 11 (PRZEGLAD TECHNICZNY, Vol. 75, No. 6, June 1954, Warszawa, Poland)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, No. 1, Jan. 1955 Uncl.

MIKOLAJSKI, M.   POLAND

"Activity of the Documentation Center of the Metallurgical Research Institute,"
by M. MIKOLAJSKI; Prace Instytutow Ministerstwa Hutnictwa, Gliwice, Nos. 2-4, 1955.

MIKOLAJTIS, J.

"Methods of Training Iron Ore Miners." p.16
"Present Units of Measure." p.20
(WIADOMOSCI HUTNICZE Vol. 10, no. 1, Jan. 1954 Stalinogrod, Poland)

SO: Monthly List of East European Accessions, LC, Vol. 3, no. 5, May 1954/Uncl.

MIKOLAJTIS, J.

MIKOLAJTIS, J.   Industrial classification of the bog iron ores and their
                 origin.   p.517 Vol. 4 no. 11, Nov. 1956 Warszawa Poland

SOURCE: East European Accessions List (EEAL) Vol. 6, No. 4   April 1957

MIKOLAS, Dusan

Suppressing noise in foundries by using new materials.
Slevarenstvi 10 no.7:265-266 Jl '62.

MIKOLAS, K., Inz.

Formation of inside threads. Strojirenstvi 14 no.2:597-601, 629 Ag '64.

1. Automobilove zavody National Enterprise, Mlada Boleslav, Plant Liberec.

L 10901-65   EWT(m)/EWA(d)/T-2/EWP(k)/EWP(b)/EWP(t)   PY-4   ASD(a)-5   JD/H
ACCESSION NR: AP4048736   Z/0032/64/044/008/0597/0601

AUTHOR: Miholda, K. (Engineer)

TITLE: Pressure shaping of inside threads

SOURCE: Strojirenstvi, v. 14, no. 8, 1964, 597-601 and bottom of 629

TOPIC TAGS: threading machine, industrial equipment

Abstract [Author's English summary, modified]: The history of the threading method is outlined with emphasis on the gradual improvement of the shaping taps. Several types of modern tools are

Card 1/2

L 10901-65
ACCESSION NR: AP4040736
ASSOCIATION: AZNP, Mlada Boleslav, zavod Liberec
SUBMITTED: 00   ENCL: 00   SUB CODE: IE

NO REF SOV: 001   OTHER: 001   JPRS

SUB CODE: IE

Card 2/2

Minolta, Karel, Inz.
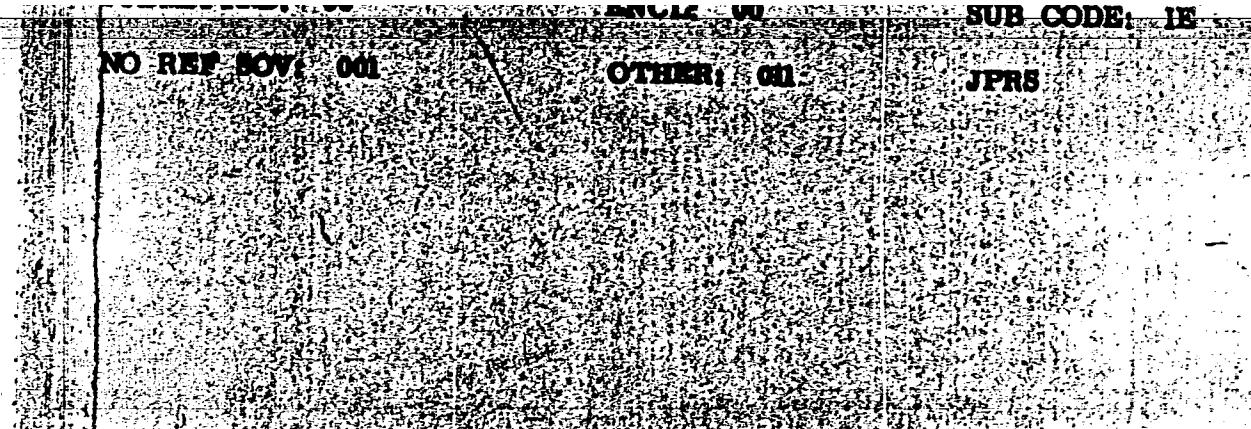
Shaping of female threads. Stroj vyr 12 no.10:743-745 O '64.

1. Automobilove zavody National Enterprise, Mlada Boleslav,
Plant Liberec.

VALTR, Jan; MIKOLAS, Milos, inz.

For better use of fixed capital in coal mining industry. Uhli
4 no.1:24-27 Ja '62.

1. Ministerstvo paliv a energetiky.

MIKOLAS, M.

Mikolás, Miklós. Farey series and their connection with the prime number problem I. Acta Univ. Szeged. Sect. Sci. Math. 13, 93–117 (1949).

Let ρ_x be the xth fraction of the Farey series of order $[x]$ and let $\Phi(x)$ be the number of fractions in the series. The author considers the asymptotic behavior (for $x \to \infty$) of sums of the type $\sum^{\Phi(x)} f(\rho_x)$, where $f(t)$ is a function defined on the interval $0 < t \leq 1$ (or at least on the rational points thereof). He proves the following theorems. (1) If $f(t)$ is (properly) Riemann-integrable in the interval $0 \leq t \leq 1$, then $\sum^{\Phi(x)} f(\rho_x) \sim \Phi(x) \int_0^1 f(t) dt$ [This is problem 189 of section II of Pólya and Szegő, Aufgaben und Lehrsätze aus der Analysis, v. 1, Springer, Berlin, 1925.] More generally, if $\lim_{t \to 0} [t^{-s} \sum^s_{k=1} f(k/\pi)]$ exists and has the value A, then $\sum^{\Phi(x)} f(\rho_x) \sim A\Phi(x) \sim 3\pi^{-2}x^2$. (2) If $f(t)$ has a bounded derivative in the interval $0 \leq t \leq 1$, then

$$\sum_1^{\Phi(x)} f(\rho_x) = \Phi(x) \int_0^1 f(t)dt + O(x \exp(-c(\log x)^\gamma)),$$

where c is a positive constant and γ is the same exponent that appears in the error term of the prime number theorem. With the same condition on $f(t)$ the Riemann hypothesis implies (*) $\sum^{\Phi(x)} f(\rho_x) = \Phi(x) \int_0^1 f(t) dt + O(x^{1+\epsilon})$. (3) Under various more stringent restrictions on the function $f(t)$, the relation (*) implies the Riemann hypothesis [cf. an earlier paper of the author, C. R. Acad. Sci. Paris 228, 633–636 (1949); these Rev. 10, 433].

P. T. Bateman.

MIKOLAS, MIKLOS

Mathematical Reviews
Vol. 14 No. 11
Dec. 1953
Analysis

*Mikolás. Miklós. A general integral formula. Comp-
tes Rendus du Premier Congrès des Mathématiciens
Hongrois, 27 Août-2 Septembre 1950, pp. 519-540.
Akadémiai Kiadó, Budapest, 1952. (Hungarian. Rus-
sian summary)

MIKOLAS, MIKLOS

Mathematical Reviews
Vol. 14 No. 11
Dec. 1953
Analysis

Mikolás, Miklós. Sur une extension de la formule d'Euler-Mac-Laurin, se rapportant à des intégrales curvilignes complexes. Comptes Rendus du Premier Congrès des Mathématiciens Hongrois, 27 Août–2 Septembre 1950, pp. 541–550. Akadémiai Kiadó, Budapest, 1952.

The following generalization of the Euler-Maclaurin formula is discussed. Let L be a simple rectifiable arc and $f(z)$ analytic in a domain containing L. We divide L by the points z_ν, $0 \leqq \nu \leqq n$. Then the functions $U_\lambda(z)$ can be determined in such a way that the following identity holds:

$$\sum_{k=1}^{n}(z_k - z_{k-1})f(z_k) = \int_L f(z)dz - \int_L U_r(z)f^{(r)}(z)dz$$

$$+ \sum_{\lambda=1}^{r} U_\lambda(z_n)[f^{(\lambda-1)}(z_n) - f^{(\lambda-1)}(z_0)].$$

Here

$$U_\lambda(z) = (z_n - z_0)^{\lambda-1}\sum_{k=1}^{n}(z_k - z_{k-1})B_\lambda\left(\frac{z_k - z}{z_n - z_0}\right) + G_{\lambda-1}(z).$$

where B_k is Bernoulli's polynomial and

$G_{\lambda-1}(z) = 0$ between z_0 and z_1;

$$G_{\lambda-1}(z) = \frac{1}{(\lambda-1)!}\sum_{k=1}^{\nu}(z_k - z_{k-1})(z_k - z)^{\lambda-1}$$

between z_ν and $z_{\nu+1}$, $1 \leqq \nu \leqq n-1$.

"The author proves various properties of the functions $U_\lambda(s)$ and investigates their asymptotic behavior when λ is fixed and the subdivision points become dense on L, or when the points are fixed and $\lambda \to \infty$.   *G. Szegö* (Stanford, Calif.).

MIKOLAS, MIKÓLOS

Mikolás, Miklós. Sur un produit infini. Acta Sci. Math.
Szeged 12, Leopoldo Fejér et Frederico Riesz LXX annos
natis dedicatus, Pars A, 68–72 (1950).
Generalizing the formula of Wallis,

$$(2^2/1 \cdot 3) \cdot (4^2/3 \cdot 5) \cdots = \pi/2,$$

the author investigates products of the type

$$(*) \quad P = \prod_{\nu=0}^{n} \left(\frac{a_\nu + a_{\nu+1} + \cdots + a_{\nu+p}}{p+1} \right)^{p+1} \Big/ a_\nu \cdot a_{\nu+1} \cdots a_{\nu+p},$$

$$p \geq 1,$$

where $\{a_\nu\}$ is an increasing sequence of positive numbers.
It is shown first that the infinite product (*) converges if
and only if the series $\sum_{\nu=0}^{\infty} ([a_{\nu+p}/a_\nu] - 1)^2$ converges. In
case $\{a_\nu\}$ is an arithmetic progression, with $a_\nu = \nu + \lambda$,
$\nu = 0, 1, \cdots, (\kappa, \lambda) = 1$, the author obtains two expressions,
according as p is even or odd, giving the value of P in
closed form; the formula of Wallis is included as a special
case. We note that one might extend the investigation of
the present paper by replacing the arithmetic and geometric
means in (*) by means of other orders.

E. F. Beckenbach (Los Angeles, Calif.).

Source: Mathematical Reviews,   Vol 12, No. 3 .

Mikolás, Miklós, Miklos

2

Mikolás, Miklós. An equivalence theorem concerning Farey series, Mat. Lapok **2**, 46–53 (1951). (Hungarian. Russian and English summaries)

Let $u(n)$ be the Moebius function, $\varphi(n)$ Euler's function, $M(x) = \sum_{n=1}^{x} u(n)$, $\Phi(x) = \sum_{n=1}^{x} \varphi(n)$, p_ν the νth Farey fraction of order ν. Littlewood proved that $M(x) = o(x^{\frac{1}{2}+\epsilon})$ is equivalent to the Riemann hypothesis and Franel proved that

$$N(x) = \sum_{\nu=1}^{\Phi(x)} \left(p_\nu - \frac{\nu}{\Phi(x)} \right)^2 = o(x^{-1+\epsilon})$$

is equivalent to the Riemann hypothesis. The author connects these theorems by the following result: Let $g(x)$ satisfy the following conditions: $g(x) > 0$, $g'(x) > 0$; further, there exists an $\eta > 0$ so that $g(x)/x^{1-\eta}$ decreases for x sufficiently large. Then

$$M(x) = O(x/g(x)) \quad \text{and} \quad N(x) = O(1/(g(x))^2)$$

are equivalent. Also $M(x) = o(x/g(x))$ and $N(x) = o(1/(g(x))^2)$ are equivalent. As a corollary the author obtains that $N(x) = o(1)$ is equivalent to the prime number theorem.

P. Erdős (Aberdeen).

Source: Mathematical Reviews,   Vol 13 No. 2

MIKOLÁS, MIKLOS

Mikolás, Miklós. *Farey series and their connection with the prime number problem.* II. Acta Sci. Math. Szeged 14, 5-21 (1951).

Let p_r be the rth (positive) fraction in the Farey series of order x and let $\Phi(x)$ be the number of fractions (not exceeding unity) in the series. Continuing the work of an earlier paper [Acta Univ. Szeged, Sect. Sci. Math. 13, 93–117 (1949); these Rev. 11, 545] the author proves the following theorems. (1) If $\psi(x)$ denotes the logarithm of the least common multiple of the positive integers not exceeding x, then $\sum_{r=1}^{\Phi(x)} \log p_r = -\Phi(x) + \frac{1}{2}\psi(x) + O(x \exp\{-c(\log x)^\gamma\})$, where c is a positive constant and γ is the same exponent that appears in the error term of the prime number theorem. (2) The Riemann hypothesis is true if and only if the relation $\sum_{r=1}^{\Phi(x)} \log p_r + \Phi(x) - \frac{1}{2}\psi(x) = O(x^{\frac{1}{2}+\epsilon})$ holds for any positive value of ϵ. [The author claims that this statement is still correct if $\psi(x)$ is replaced by x, but the reviewer does not understand how the Riemann hypothesis would follow from the validity of the relation $\sum_{r=1}^{\Phi(x)} \log p_r + \Phi(x) - \frac{1}{2}x = O(x^{\frac{1}{2}+\epsilon})$ for every positive ϵ]. (3) Asymptotic formulas exist for $\sum_{r=1}^{\Phi(x)} p_r^{-\lambda}$ as $x \to \infty$, λ being any fixed positive number. (4) If $\lambda > 1$, $B > 0$, and $f(t)$ is a non-negative decreasing function defined for $0 < t \le 1$, then $\sum_{r=1}^{\Phi(x)} f(p_r) \sim Bx^{\lambda+1}$ as $x \to \infty$ if and only if $f(t) \sim B\{(\lambda+1)\zeta(\lambda+1)/\zeta(\lambda)\} t^{-\lambda}$ as $t \to 0$.

P. T. Bateman (Urbana, Ill.)

MIKOLAS, MIKLOS

Mathematical Reviews
Vol. 14 No. 11
Dec. 1953
Analysis

Mikolás, Miklós. A general integral formula. Comptes Rendus du Premier Congrès des Mathématiciens Hongrois, 27 Août–2 Septembre 1950, pp. 519–540. Akadémiai Kiadó, Budapest, 1952. (Hungarian. Russian summary)

MIKOLAS, M·

Mathematical Reviews
Vol. 14 No. 10
Nov. 1953
Number Theory

6-23-54

LL

Mikolás, Miklós. Über summatorische Funktionen von Möbiusschem Charakter. C. R. Acad. Bulgare Sci. 4 (1951), no. 2-3, 9-12 (1953). (Russian summary)

It is well known that the Möbius μ function satisfies $M(x) = \sum_{k=1}^{x} \mu(k) = o(x)$, and $M(x) = o(x^{\frac{1}{2}+\epsilon})$ is equivalent to the Riemann hypothesis. The author says that $g(n)$ has Möbius characteristics if $\sum_{k=1}^{x} g(k) = o(x)$ and $\sum_{k=1}^{x} g(k) = o(x^{\frac{1}{2}+\epsilon})$ implies the Riemann hypothesis. In several recent papers the author investigated this property [these Rev. 11, 645; 13, 627]. In the present note he proves that if $h(n) = \sum_{d|n} g(d)$ is strongly multiplicative and $h(n) = O(n^{-1})$, then $g(n)$ has Möbius characteristics.   P. Erdős (South Bend, Ind.).

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MIKOLAS, Miklos

Mathematical Review.
June 1954
- Analysis

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LL

Mikolás, Miklós. Uber die Beziehung zwischen der Gammafunktion und den trigonometrischen Funktionen. Acta Math. Acad. Sci. Hungar. 4, 143–157 (1953). (Russian summary)

The principal result of this paper is the integral representation

$$\psi(s) = -\gamma - \frac{1}{2s} - \frac{\pi}{2}\cot(\pi s) - \frac{\pi}{2}\int_0^1 \tan\left(\frac{\pi t}{2}\right)\left(\frac{\sin \pi s t}{\sin \pi s} - t\right)dt$$

for the logarithmic derivative of the gamma function. This integral representation is valid for all non-integer values of s, and the integral is a (proper) Riemann integral. This result is applied to obtain integral representations of $\log \Gamma(s)$, of Euler's constant γ, of $\zeta(s+1, a)$, $\zeta(s+1)$; and also to obtain numerous relations involving $\zeta(s)$.   A. Erdélyi.

MIKLE, MIKOLAS, Miklos

3

Mikolás, Miklós. Über ein Fejérsches Problem bezüglich
unendlicher Produkte. Mat. Lapok 6 (1955), 198–209.
(Hungarian. Russian and German summaries)
The author evaluates the infinite product

$$\prod_{n=0}^{\infty} \frac{(A+nD+(\nu-1)d/2)^{\nu}}{(A+nD)(A+nD+d)\cdots(A+nD+\nu d-d)}$$

in terms of gamma functions [see E. T. Whittaker and
G. N. Watson, Modern analysis, 4th ed., Cambridge,
1927, § 12.13] and shows that an expression in terms of
elementary functions results if either $\delta = d/D$ is an integer
and $(\nu-1)\delta$ is even or $[2A+(\nu-1)d]/D$ is an integer
other than 0, −2, −4, ⋯.   *A. Erdélyi.*

1 - F/W

MIKOLAS, M.

Data on the theory of the gamma function, Riemann's zeta function, anf related functions. I. In German. p. 381.
Vol. 6, no. 3/4, 1955

so. EAST EUROPEAN ACCESSIONS LIST   Vol. 5, no. 7,   July 1956

Mikolás, Miklos

Mikolás, Miklós. On a class of infinite products whose
value can be expressed in closed form. Acta Sci. Math.
Szeged 16, 6‑62 (1955).

(The author continues his previous work [Acta Sci. Math.
Szeged 12, Part A, 68‑72 (1950); MR 12, 163] on the deter‑
mination of a wide class of infinite products, including the
Wallis product

$$\prod_{m=1}^{\infty} \frac{(2m)^2}{(2m-1)(2m+1)} = \frac{\pi}{2},$$

whose values can be expressed in finite form by means of
the elementary functions. He now considers the expression

$$(*) \qquad \prod_{n=1}^{\infty} \frac{(A+nD+\frac{1}{2}(v-1)d)}{(A+nD)\cdots(A+nD+(v-1)d)}$$

for fixed non-vanishing complex numbers d, A, D, and for a
fixed positive integer v. It is shown that $(*)$ converges if and
only if none of the numbers $(A+\mu d)/D$ $(\mu=0,1,\cdots,v-1$
and $\mu=\frac{1}{2}(v-1))$ is zero or a negative integer. If the product
converges, it has the value

$$\left(\frac{a}{v} \frac{1}{B} R\right)$$

$$\left(\frac{A+(r-1)d}{2D}\right)^{-r}\prod_{n=0}^{r-1}\Gamma\left(\frac{A+nd}{D}\right)$$

In some cases it is possible to reduce the value to an expression not involving the gamma function. Thus for $A=1$, $d=D=2$, and $r=2$ we obtain the Wallis product; and for $A=d=D=1$ and $r=2$ we have

$$\prod_{m=1}^{\infty}\frac{(m+\frac{1}{2})^2}{m(m+1)}=\frac{4}{\pi}$$

E. F. Beckenbach (Los Angeles, Calif.)

MIKOLAS, M.

Everywhere continuous and nowhere differentiable functions. p. 353.
(KOZLEMENYEI, Vol. 6, no. 3/4, 1956. Budapest, Hungary)

SO: Monthly List of East European Accessions (EEAI) LC, Vol. 6, no. 9, Sep. 1957. Uncl.

MIKOLAS, MIKLOS

Mikolás, Miklós. Construction des familles de fonctions partout continues non dérivables. Acta Sci. Math. Szeged 17 (1956), 49–62.

The author derives new sufficient conditions under which $f(x) = \sum_{k=0}^{\infty} c_k \varphi(\nu_k(x))$ is continuous and nowhere differentiable (c.n.d.). These conditions are of the following type. $\varphi(x)$ is convex (or concave) on segments, or $\varphi(x)$ satisfies a Lipschitz condition; the ν_k are integers and the c_k and ν_k satisfy certain limit conditions. The theorems contain most of the known examples as special cases and improve many known results. For instance, the author finds that Weierstrass' function $\sum c^k \cos \nu^k x$ is c.n.d. under the conditions $\nu > 1$, $\nu c \geq 1 + \frac{1}{2}\pi$, which are weaker than the known conditions.

A. Heyting (Amsterdam).

1-FW

MIKOLAS, Miklós

2

Mikolás, Miklós. Mellinsche Transformation und Orthogonalität bei $\zeta(s, u)$. Verallgemeinerung der Riemannschen Funktionalgleichung von $\zeta(s)$. Acta Sci. Math. Szeged 17 (1956), 143–164.

Hurwitz's function $\zeta(s, u) = \sum_{n=0}^{\infty} (u+n)^{-s}$ $(\Re(s) > 1, u > 0)$ can be continued into the whole s-plane as a meromorphic function with one simple pole at $s = 1$. Put

$\zeta(s, u) = \zeta(s, v)$, where $v \equiv u \pmod 1$, $0 < v \leq 1$. The Mellin transform

$$\mathfrak{M}(s, z) = \int_0^\infty u^{z-1} \zeta(s, u) du, \quad \max(0, \Re(s)) < \Re(z) < 1,$$

is proved to satisfy the relation

$\mathfrak{M}(1-s, z) = \mathfrak{M}(1-z, s) =$

$$= 2(2\pi)^{-s-z} \Gamma(s) \Gamma(z) \cos \frac{\pi(s-z)}{2} \zeta(s+z),$$

which for $\Re(s) \geq 1$, $z \to +0$, becomes the functional equation of the Riemann ζ-function. In the opposite direction,

$\zeta(1-s, u) - u^{s-1} =$

$$\frac{1}{2\pi i} \int_{a-i\infty}^{a+i\infty} u^{-z} \cdot 2(2\pi)^{-s-z} \Gamma(s) \Gamma(z) \cos \frac{\pi(s-z)}{2} \zeta(s+z) dz$$

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Mikolás, Miklós

if $0<u<1$, $0<\Re(s)<1$, $0<u<\max(\Re(s), 1-\Re(s))$. The author proves further integral formulae; e.g.,

$$\int_0^1 \zeta(s, u)\zeta(s, u)du =$$

$$(2\pi)^{s+s-2}\Gamma(1-s)\Gamma(1-s)\cos\frac{\pi(s-s)}{2}\zeta(2-s-s)$$

if $\max(0, \Re(s)) + \max(0, \Re(s)) < 1$,

$$\int_0^1 |\zeta(s, u)|^2 du = 2(2\pi)^{2\sigma-1}\cosh \pi\tau \cdot |\Gamma(1-s)|^2\zeta(2-2\sigma)$$

$$(s=\sigma+\tau i, \sigma<\tfrac{1}{2});$$

and he announces more general identities which appear in the paper reviewed below,   K. Mahler (Manchester).

Mellin's Transformation and Orthogonality of $\zeta(s, u)$. Generalization of the Riemann Functional Equation of the Zeta Function