

Ramotowski, T.

1160 The Structure of Titanium-Copper and Titanium-Tungsten Alloys. W. Trzciński, T. Berak, E. Nowak, and T. Ramotowski, *Henry Brucher, Alhambra, Calif.; Translation* (From *Rozniki Chemii*, v. 23, no. 4, 1951, p. 510-517.)

Results of an investigation based on microscopic and X-ray studies. 4 ref.

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ROMOTOWSKI, T.

met (3)

Metallurgical Abst.
Vol. 21 Apr. 1954
Properties of Alloys

Copper-Titanium System. W. Trzebiatowski, G. Berak, and T. Romotowski (*Roczn. Chem.*, 1953, 27, 426-437).—[In Polish]. The existence of five intermetallic compounds (Cu_2Ti , Cu_3Ti , Cu_4Ti , $CuTi$, and $CuTi_2$) was established by metallographic, thermal, and X-ray analysis of Cu-Ti alloys in the range 0-75 at.-% Ti. Cu_2Ti , $CuTi$, and $CuTi_2$ melt congruently at 805°, 932°, and 1014° C., resp. Cu_3Ti and Cu_4Ti are formed by peritectic reactions at 892° and 935° C. Cu_2Ti decomposes at 872° C. into $Cu_3Ti + CuTi$; Cu_3Ti at 885° C. into $CuTi + Cu_4Ti$. The solubility of Ti in Cu is 6.5 at.-% at 870° C., 2.4 at.-% at 600° C., and 1.3 at.-% at 300° C. Three eutectics exist at 24 at.-% Ti (805°), 29 at.-% Ti (880°), and 70 at.-% Ti (1009° C.). The details of the phase diagram are discussed and compared with the results of other investigators (e.g. Karlsson, *J. Inst. Metals*, 1931, 79, 391; *M.A.*, 18, 784).—S. K. L.

ROMOTOWSKI, T.

Journal of Applied Chemistry
April 1954
Industrial Inorganic Chemistry

Copper-titanium system. W. Trzebiatowski, J. Berak, and T. Romotowski (*Roczn. Chem.*, 1953, 27, 426-437).—A Cu-Ti phase diagram is constructed on the basis of thermal, microscopical, and X-ray analysis of alloys in the range 0 to 75 at.-% Ti. The results obtained by all three methods are concordant and prove the existence of five intermetallic compounds and of three eutectic mixtures. Discovery of a new compound Cu_3Ti , and the fact that Cu₃Ti crystallises congruently removes the main difficulties other investigators (N. Karlsson, *J. Inst. Metals*, 1951, 79, 391; A. Jonkainen *et al.*, *J. Metals*, 1952, 4, 766) had in reconciling the results of different methods of analysis. S. K. LACHOWICZ.

RAMOTOWSKI, WITOLD

RAMOTOWSKI, Witold (Warszawa, ul. Smocza 3 m. 9.)

Elimination of various muscles in the development of scoliosis.
Chir. narz. ruchu 22 no.2:125-130 1957.

1. Z Kliniki Ortopedycznej A. M. w Warszawie Kierownik: prof. dr
A. Gruca.

(SCOLIOSIS, etiol. & pathogen.

misc. dysfunct., determ. by mechanical models (Pol))

(MUSCLES, physiol.

dysfunct. in etiopathogen. of scoliosis, mechanical
models (Pol))

1357. GEOCHEMISTRY OF THE CARBONIFEROUS AND PERMIAN DEPOSITS
OF THE CHISTOPOL REGION OF TATARIA. Romov, A.B., Vladimirova,
M.E., Polevaya, N.I. and Sterik, E.E. (Compt. rend. acad. sci.
U.R.S.S., 1946, 49, 662-664).

SOV/124-57-9-10562

Translation from: Referativnyy zhurnal, Mekhanika, 1957, Nr 9, p 100 (USSR)

AUTHOR: Romov, A. I.

TITLE: On the Basic Factors in Pressure Change and the Mechanism of Vertical Motions (Ob osnovnykh faktorakh izmeneniya davleniya i mekhanizme vertikal'nykh dvizheniy)

PERIODICAL: Tr. Ukr. n. -i. gidrometeorol. in-ta, 1956, Nr 5, pp 70-85

ABSTRACT: A "pressure-tendency equation" is derived for an individual layer and an analysis is made of the separate factors of this equation. The influence of the factors identified upon pressure change and upon the mechanism of vertical motions is studied.

V. P. Sadokov

Card 1/1

ROMOV, A.I.

Orographic evolution of cyclones moving over the Carpathian Mountains
into the Ukraine. Trudy Ukr. NIGMI no.5:86-117 '56. (MLRA 10:9)
(Cyclones)

ROMOV, A.I.

~~_____~~
Effect of the Carpathian Mountains on precipitations over the
Ukrainian territory. Trudy Ukr. NIGMI no.5:118-125 '56. (MLRA 10:9)
(Ukraine--Precipitation)
(Carpathian Mountains--Precipitation)

ROMOV, A.I. Cand Phys-Math Sci -- (diss) "Orographic evolution of
cyclons moving ^{across} ~~over~~ the Carpathian ~~mountains~~ to the Ukrainian ^e ~~land~~, "
~~territory~~". Mos, 1957. 14 pp 20 cm. (Main Administration of the
Hydrometeorological ~~office~~ ^{Service under the Council of Ministers USSR,}
Central Inst of ^{Forecasts} ~~Prognoses~~). 100 copies. (KL, 23-57, 108).

10

ROMOV, A.I.

Analyzing pressure changes and vertical motions at various altitudes
of the atmosphere with consideration of the orographic effect.

Trudy Ukr.NIGMI no.7:3-14 '57.

(MIRA 11:4)

(Atmosphere)

124-58-9-10099

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 9, p 96 (USSR)

AUTHOR: Romov, A. I.

TITLE: Accounting for the Character of the Air Flow in the Analysis and Forecasting of Orographic Influences on Clouds and Precipitation (Ob uchete kharaktera vozdušnogo potoka pri analize i prognoze vliyaniya gor na oblaka i osadki)

PERIODICAL: Tr. Ukr. n. -i gidrometeorol. in-ta, 1957, Nr 7, pp 60-66

ABSTRACT: Bibliographic entry

1. Clouds--Geophysical factors
2. Precipitation--Geophysical factors
3. Mountains--Meteorological effects

Card 1/1

Romov, A. I.

AUTHOR: Ponomarenko, I. N. 50-58-3-21/22

TITLE: Scientific Seminar for Operational Sections of the Hydrometeorological Service (Nauchnyy seminar v operativnykh podrazdeleniyakh gidrometeorologicheskoy sluzhby)

PERIODICAL: Meteorologiya i Gidrologiya, 1958, Nr 3, pp. 69-70 (USSR)

ABSTRACT: The arrangement of scientific seminars in the technical subdivisions of the hydrometeorological service - weather bureaus, hydrometeorological bureaus etc., is of special importance for the direct contact between the collaborators of research stations and experts which occupy themselves with the practical work of the hydrometeorological care of national economy. From October 22 to 24, 1957 such a seminar was held in the hydrometeorological bureau in L'vov in the presence of representatives of the L'vov State University and the meteorological service of the L'vov Railroad Office. Six lectures were held. I. N. Ponomarenko, in his lecture characterized the scientific research works which have been performed in the division for the synoptical investigations and forecasts within the entire period of the existence of

Card 1/2

50-58-3-21/22

Scientific Seminar for Operational Sections of the
Hydrometeorological Service

the Ukrainian Scientific Research Institute for Hydro-
meteorology, I. V. Koshelenko, N. M. Gavrilenko and N. M.
Volevakha in their lectures dealt with perfected forecasts
on fog and low clouds, on deterioration of the sight in
snow-storms and snow-falls, and on precipitations of various
phase states (in the cold half-year). A. I. Romov in his
lecture treated peculiarities of the influence of the
Carpathians upon the modification of the atmospheric pressure
on both sides of the mountain range and the gradual develop-
ment of orographic precipitations by the displacement of the
south cyclones. N. I. Astakhova reported on scientific
research works for the **perfecting** of long term weather
forecasts which were performed in the Central Institute for
Weather in the Geophysical Main Observatory in the Arctic
Institute and in the **Kazakh** Scientific Research Institute for
Hydrometeorology. The participants in the seminar were uni-
animous on the expediency and the usefulness of such seminars.

1. Meteorology--USSR 2. Weather forecasting--USSR

Card 2/2

ROMOV, A.I.

Studying the specific features of the effect of dynamic
and thermal factors on pressure variations and vertical
motions. Trudy UkrNIGMI no.11:93-142 '59.

(MIRA 13:3)

(Cyclones)

ROMOV, A.I.

Boundary geopotential values in problems of numerical solution of
the vorticity equation. Trudy UkrNIGMI no.17:31-39 '59.

(MIRA 13:12)

(Weather forecasting)

hh594

S/169/62/000/012/055/095
D228/D307

3,5000

AUTHOR:

Romov, A.I.

TITLE:

Numerical forecasting of wind in the free atmosphere
by means of electronic digital computers

PERIODICAL:

Referativnyy zhurnal, Geofizika, no. 12, 1962, 52,
abstract 12B340 (In collection: Materialy Sovesh-
chaniya Koordinats. komis. po chisl. metodam prog-
noza, I., Gidrometeoizdat, 1961, 71-87)

TEXT:

The fundamentals of the method are as follows:
Three-dimensional equations for dh_u/dt and dh_v/dt are constructed
by means of Euler equations for an ideal liquid, as well as by means
of the equations of continuity, statics, and heat inflow. The
structure of the left-hand sides of the derived equations and of the
boundary conditions coincides with that of the known Buleyev-Marchuk
equations for geopotential changes. The right-hand sides of the
equations contain only the wind components and their coordinate der-
ivatives (the right-hand sides of the Buleyev-Marchuk equations con-

Card 1/2

Numerical forecasting ...

S/169/62/000/012/055/095
D228/D307

tained derivatives of the geopotential). The solution of the obtained equations with respect to

$$\frac{d_h u}{dt} = \frac{\partial u}{\partial t} + u \frac{\partial u}{\partial x} + v \frac{\partial u}{\partial y}$$

and

$$\frac{d_h v}{dt} = \frac{\partial v}{\partial t} + u \frac{\partial v}{\partial x} + v \frac{\partial v}{\partial y}$$

allows one to go over readily to local derivatives and then to construct future fields with time steps. Specific calculations are made for the average level. In this case the derived three-dimensional equations degenerate into two-dimensional Poisson equations. As is customary in numerical forecasting methods, a zero congruence of the sought quantities, averaged with respect to a circle of 1000 km in radius, is taken as the boundary condition. The calculations were made on 'Ural' and 'Kiyev' computers.

[Abstractor's note: Complete translation]

Card 2/2

ROMOV, A.I.

The frontal zone and mesometeorological processes.
Geofiz. i astron. no.8:95-98 '65.

(MIRA 19:1)

1. Ukrainskiy nauchno-issledovatel'skiy gidrometeorolo-
gicheskiy institut.

ACC NR: AP6022215 SOURCE CODE: UR/0362/66/002/006/0561/0575

AUTHOR: Romov, A. I.

ORG: Ukrainian Scientific-Research Institute for Hydrometeorology (Ukrainskiy nauchno-issledovatel'skiy gidrometeorologichnyy institut)

TITLE: Vertical motion in atmospheric fronts

SOURCE: AN SSSR. Izvestiya. Fizika atmosfery i okeana, v. 2, no. 6, 1966, 561-575

TOPIC TAGS: weather forecasting, atmospheric front, cloud formation forecasting, atmospheric front forecasting

ABSTRACT: Vertical motions present considerable practical interest for the analysis and prognosis of frontal weather. This paper considers the use of vertical motion theory in the problems of front dynamics. The approach utilizes numerical, computer-processed solutions for well-identified frontal models based upon improved quasigeostrophic vertical motion equations based upon I.A. Kibel's theory of expansion along the small parameter. These equations, treated in the first chapter, consider simultaneously two important frontal zone factors: the convective component of the horizontal acceleration, and the spacial non-uniformity of the stability parameter. In addition, they assess the contributions of friction and of the turbulent heat transfer in the free atmosphere - to the development of vertical motions. In the second chapter, the two-dimensional problem of vertical motion is numerically solved on a computer, and the results of the numerical experiments analyzed. Front models generated by changes

Card 1/2

UDC 551.515.8:551.558.2

ACC NR: AP6022215

of certain parameters of the temperature and pressure fields are discussed. Numerical experiments utilizing front models have shown the adequacy of the quasigeostrophic approximation used. The computations allow an explanation of cloudiness structure and precipitation zone features, and other peculiarities of the warm and cold fronts. The importance of such frontal parameters and frontal zone parameters as changes along the normal to the front of the normal wind component and horizontal temperature gradient has been established. Author thanks A.M. Pirnach and D. Ye. Stepurko for aid in the calculations. Orig. art. has 7 figures and 34 formulas.

SUB CODE: 04/ SUBM DATE: 27Nov65/ ORIG REF: 006

Card 2/2

ROMOV, A.I., kand. fiz.-matem. nauk

Mesostructure of frontal precipitation. Meteor. i gidrol. no.6:19-23
Je '65. (MIRA 18:5)

1. Ukrainskiy nauchno-issledovatel'skiy gidrometeorologicheskiy in-
stitut.

ROMOV, A.I.; FISHMAN, Yu.S.; RYBAK, V.I.

Numerical wind forecasting and calculation of geostrophic
deviations according to the mean level system. Trudy

UkrNIGMI no.43:3-16 '64.

(MIRA 18:4)

ROMOV, A.I.

Influence of mountain ridges on air currents. Trudy UkrNIGMI no.43;
80-94 '64. (MIRA 18:4)

41927

S/194/62/000/009/009/100
D222/D309

AUTHOR: Romov, A. I.

TITLE: Numerical prognosis of wind in the free atmosphere
with an electronic digital computer

PERIODICAL: Referativnyy zhurnal, Avtomatika i radioelektronika,
no. 9, 1962, abstract 9-1-142 ye (In collection: Ma-
terialy Soveshchaniya Koordinats. komis. po chisl.
metodam prognoza, L., Gidrometeoizdat, 1961, 71-87)

TEXT: The practice of numerical pressure prediction has shown the
existence of certain systematic errors in prognosis which are pe-
culiar to the methods in which the vortex equations are used. In
order to increase the accuracy of the numerical solution, the equa-
tion of horizontal movement must be transformed. The initial sys-
tem of equations in numerical wind prognosis consists of two mo-
tion equations corresponding to the horizontal coordinate axes, an
equation of quasi-statistical approximation to the heat flow, and
equations of continuity, described in spherical coordinates in a

Card 1/2

USPENSKIY, B.D., doktor fiz.-mat. nauk, prof.; BELOUSOV, S.L., kand. fiz.-mat. nauk; PYATYGINA, K.V.; YUDIN, M.I.; MERTSALOV, A.N., kand. fiz.-mat. nauk; DAVYDOVA, O.A.; KUFYANSKAYA, A.P.; PETRICHENKO, I.A.; MORSKOV, G.I.; TOMASHEVICH, L.V.; SAMOYLOV, A.I.; ORLOVA, Ye.I.; DZHORDZHIO, V.A.; PETRENKO, N.V.; DUBOVYY, A.S.; ROMOV, A.I.; PETROSYANTS, M.A.; GLAZOVAYA, T.F.; BATYAYEVA, T.F.; BEL'SKAYA, N.N.; CHISTYAKOV, A.D.; GANDIN, L.S.; BURTSEV, A.I.; MERTSALOV, A.N.; BAGROVYY, N.A.; BELOV, P.N.; ZVEREV, A.S., retsenzent; SIDENKO, G.V., red.; DUBENTSOV, V.R., kand. fiz.-mat. nauk, nauchn. red.; SAGATOVSKIY, N.V., red.; BUGAYEV, V.A., doktor geogr. nauk, prof., red.; ROGOVSKAYA, Ye.G., red.

[Manual on short-range weather forecasts] Rukovodstvo po kratkosrochnym prognozam pogody. Leningrad, Gidrometeoizdat. Pt.1. Izd.2., perer. i dop. 1964. 519 p. (MIRA 18:1)

1. Moscow. Tsentral'nyy institut prognozov.

L 24470-65 EWT(1)/FCC GW

ACCESSION NR: AT5000701

8/2599/64/000/043/0003/0016

13
11
B+

AUTHOR: Romov, A. I.; Fishman, Yu. S.; Ry*bak, V. I.

TITLE: Numerical wind forecast and computation of divergence from the geostrophic wind at the mean level

SOURCE: Kiyev. Ukrainskiy nauchno-issledovatel'skiy gidrometeorologicheskii institut. Trudy, no. 43, 1964. Voprosy sinopticheskoy i dinamicheskoy meteorologii (Problems in synoptic and dynamic meteorology), 3-16

TOPIC TAGS: weather forecasting, wind, geostrophic wind, numerical weather forecasting, cyclone, atmospheric pressure, anticyclone

ABSTRACT: This paper presents an analysis of the results of wind forecasting and divergence from the geostrophic wind at the mean level. The paper begins with the geostrophic wind at the mean level. The paper begins with the principal equations and presentation of the computation model, followed by examples of computations and some results of testing of the prognostic model. The principal original contribution is an analysis of computed maps of wind divergence from the geostrophic. The maps clearly show a pattern in the direction of the vectors of wind divergence in pressure formations. Above both cyclonic and anticyclonic

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L 24470-65

ACCESSION NR: AT50000701

regions the ageostrophic wind blows clockwise; the vector field of divergences forms an anticyclonic vortex. This is noticeable not only over well-developed cyclones, but also over pressure formations with weak pressure gradients. Thus, in cyclones, the vectors of the geostrophic and ageostrophic velocities are generally directly in opposite directions and the resultant wind velocity is less than the geostrophic velocity. The resultant (real) vorticity in a cyclone is less than its geostrophic approximation. In anticyclones and high-pressure ridges, on the other hand, the geostrophic and ageostrophic wind components have approximately identical directions and therefore the real wind is greater than the geostrophic wind. Allowance for the ageostrophic wind in the free atmosphere should be made in synoptic practice, such as in preparing a forecast or obtaining wind information aloft using pressure field data. The authors also describe the automation of the output and analysis of forecasting results using the display on the screen of a cathode-ray tube; the apparatus involved has apparently been described earlier (Rybak, V. I., Shishonok, I. N., *Avtomatizatsiya i priborostroyeniye*, No. 1, 1963). The working surface of the screen is 170 mm²; output of information is more than 15,000 points per second. This makes it possible to obtain the results in the form of a photographic map of the predicted wind. Orig. art. has: 32 formulas, 5 figures and 4 tables.

Card 2/3

L 24470-65

ACCESSION NR: AT5000701

ASSOCIATION: Ukrainskiy nauchno-issledovatel'skiy gidrometeorologicheskiy institut, Kiev (Ukrainian hydrometeorological scientific research institute)

SUBMITTED: 00

ENCL: 00

SUB CODE: ES

NO REF SOV: 014

OTHER: 003

Card 3/3

AYZENBERG, M.M.; KAGANER, M.S.; ROMOV, A.I.

Some problems in the formation of flash floods in the Ukrainian
Carpathians. Trudy UkrNIGMI no.30:72-93 '61. (MIRA 15:1)
(Carpathian Mountains--Floods)

41:52
S/044/62/000/009/042/069
A060/A000

3.5000

AUTHOR: Romov, A.I.

TITLE: Numerical wind forecasting in the free atmosphere with the aid of electronic digital computers

PERIODICAL: Referativnyy zhurnal, Matematika, no. 9, 1962, 25 - 26, abstract 9V128 (In collection "Materialy Soveshchaniya Koordinats. komis. po chisl. metodam prognoza". Leningrad, Gidrometeoizdat, 1961, 71 - 87)

TEXT: A scheme is set forth for the numerical solution of the equations of atmospheric dynamics for the forecasting of the horizontal components u and v of wind velocity. In one of its simpler versions the problem reduces to the integration with respect to time t of the following system of nonlinear partial differential equations:

$$\frac{\partial u}{\partial t} = -u \frac{\partial u}{\partial x} - v \frac{\partial u}{\partial y} + \xi, \tag{1}$$

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Numerical wind forecasting in the free

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$$\frac{\partial v}{\partial t} = -v \frac{\partial v}{\partial x} - v \frac{\partial v}{\partial y} + \eta, \quad (2)$$

$$\Delta \xi = \frac{\partial}{\partial x} \left[\left(\frac{\partial u}{\partial x} \right)^2 + \left(\frac{\partial v}{\partial y} \right)^2 + 2 \frac{\partial u}{\partial y} \frac{\partial v}{\partial x} \right] + \frac{\partial l}{\partial y} \frac{\partial v}{\partial y} + \frac{\partial l}{\partial x} \frac{\partial u}{\partial y}, \quad (3)$$

$$\Delta \eta = \frac{\partial}{\partial y} \left[\left(\frac{\partial u}{\partial x} \right)^2 + \left(\frac{\partial v}{\partial y} \right)^2 + 2 \frac{\partial u}{\partial y} \frac{\partial v}{\partial x} \right] - \frac{\partial l}{\partial y} \frac{\partial v}{\partial x} - \frac{\partial l}{\partial x} \frac{\partial u}{\partial x}, \quad (4)$$

where $\Delta = \frac{\partial^2}{\partial x^2} + \frac{\partial^2}{\partial y^2}$; $l(x, y)$ is a known function of the variables x, y .

The problem is solved for a rectangular region. A quadratic grid of points is introduced. The derivatives with respect to the variables x, y are replaced by finite difference equations. From the values of the functions u and v at the points of the grid given at the initial instant t , the values of $\xi(x, y)$ and $\eta(x, y)$ for the interior points of the region are determined by the use of (3) and (4). For this purpose the Poisson equation is solved, written down locally for the neighborhood of each point. Thereupon the values of $\frac{\partial u}{\partial t}$ and $\frac{\partial v}{\partial t}$ are

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Numerical wind forecasting in the free ...

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A060/A000

determined from (1) and (2). Then the values of u and v at the instant $t + \delta t$ are found by Euler's method. To forecast for 24 hours it is necessary to carry out 24 steps with the interval δt equal to 1 hour. An example is cited of forecasting the wind field calculated according to this program on the computer "Kiyev". One forecast requires about 5 million machine operations; the computing time on the "Kiyev" computer is 8 minutes. The generalization of the above problem to the case of a three-dimensional region is considered.

S.L. Belousov

[Abstracter's note: Complete translation]

Card 3/3

L 19390-66 EWT(1)/FCC GW/GS

ACCESSION NR: AT5008056

S/0000/64/000/000/0120/0131 11

AUTHOR: Romov, A. J.; Fishman, Yu. S.

TITLE: Ageostrophic deviations and their calculation in numerical forecast of wind

SOURCE: Simpozium po chislennym metodam prognoza pogody. Moscow, 1963. Trudy. Leningrad, Gidrometeoizdat, 1964, 120-131

TOPIC TAGS: meteorology, forecasting, model ageostrophic wind

ABSTRACT: This paper is devoted to an investigation of one of the variants of the ageostrophic model which makes it possible to predict wind from its initial field by computing the ageostrophic deviations and by using the equations of horizontal motion in their "semiprimitive" form as the forecast equations. A spatial four-level scheme and two variants of the mean-level scheme of forecasting wind are worked out. Charts for deviations of wind from geostrophic computed by various methods for the 500 mb level are analyzed. The ageostrophic field is closely associated with the nature of baric formations; the conclusions on its connection with evolution of the synoptic situation are provisional. Orig. art. has: 5 figures, 22 equations.

Card 1/2

I. 19390-66

ACCESSION NR: AT5008056

ASSOCIATION: none

SUBMITTED: 06Oct64

ENCL: 00

SUB CODE: ES

NO REF SOV: 007

OTHER: 000

LJC
Card 2/2

ROMOV, G. B.

5(2) PHASE I BOOK EXPLOITATION SOV/1916

Vassoyuznoye soveshchaniye po khimii bora, 1955

Bor; trudy Konferentsii po khimii bora i yego soyedineniy (Boron; Transactions of the Conference on the Chemistry of Boron and Its Compounds) Moscow, Goskhimizdat, 1958. 189 p. Kravata ulp inserted. 2,400 copies printed.

Ed.: G.P. Luchinskii; Tech. Ed.: M.S. Kariye.

PURPOSE: This book is intended for chemists, as well as for industrial personnel working with boron and its compounds.

COVERAGE: This collection contains 24 studies on the chemistry, crystalline structure, physicochemical properties, and solubility of boron and its compounds. Twenty-two of the studies were presented at the All-Union Conference on Boron Chemistry held at the Nauchno-Issledovatel'skiy fiziko-khimiicheskiy institut im. L. Ya. Karpova (Scientific Research Physicochemical Institute im. L. Ya. Karpov) in

~~December 1955.~~ Two of these articles deal with the thermo-

chemistry of boron. The two articles "boron" production are being published for the first time. The studies are well illustrated and accompanied by bibliographies.

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Boron; Transactions of the Conference (Cont.) SOV/1916

Polyak, A.M., Ye. M. Pinyavakaya, G.B. Romov, M.I. Korlova, and L.I. Deryatovskaya. Boric Acid Production by the Decomposition of Inderskiye Borates With Mixtures of Nitric and Sulfuric Acids 135

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DERESHKEVICH, Yu.V., inzh.; YEVSEYEV, A.V., inzh.; RCMOV, I.V.,
inzh.; TRUBACHEV, I.A., inzh.; BYKOVA, M.F., inzh.,
nauchn. red.

[Safety engineering instructions for carrying out anti-
corrosion operations] Instruktivnye ukazaniia po tekhnike
bezopasnosti pri proizvodstve antikorroziinykh rabot. Mo-
skva, Stroiizdat, 1965. 85 p. (MIRA 18:6)

1. Russia (1923- U.S.S.R.) Glavnoye upravleniye teplotekh-
nicheskikh i termoizolyatsionnykh rabot.

ALEKSEYEV, S.M.; ANTIPIN, V.A.; ARTAMONOV, V.S.; BALALAYEV, G.A.,
inzh.; VOLODIN, V.Ye.; GOL'DENBERG, N.L.; GORINA, B.S.;
GOFEN, D.A.; GRISHIN, M.Ye.; DERESHKEVICH, Yu.V.;
DORONENKOV, I.M.; KLINOV, I.Ya., doktor tekhn. nauk, prof.;
LEYRIKH, V.E.; LUTONIN, N.V.; MOLOKANOV, A.V., dots.;
NOGIN, A.Ya.; PAKHOMOV, N.M.; PROTOSAVITSKAYA, Ye.A.;
ROMOV, I.V.; CHAPLITSKIY, L.A.; TSEYTLIN, A.G.; STRAV'YE, P.K.;
KOSHCHANSKIY, N.A., doktor tekhn. nauk, prof., red.;
PEREVALYUK, M.V., red. izd-va; TEMKINA, Ye.L., tekhn. red.

[Corrosion protection in the construction of industrial
buildings] Zashchita ot korrozii v promyshlennom stroitel'
stve. Moskva, Gosstroizdat, 1963. 406 p. (MIRA 16:12)

(Corrosion and anticorrosives)
(Industrial buildings)

ROMOV, Isay Vladimirovich; FATENOVSKAYA, M.I., red.; YAKHONTOVA,
T.D., tekhn. red.

[Safety manual for workers engaged in the application of anticorrosive coatings; applicators of lining and rubber coatings and painters] Pamiatka po tekhnike bezopasnosti dlia rabochikh pri proizvodstve antikorroziinykh rabot; futerovshchiki, gummirovshchiki, maliary. Izd.2., dop. Moskva, Gosstroizdat, 1963. 29 p. (MIRA 16:10)
(Protective coatings--Safety measures)

ROKOV, I.V.; CHEKHOVSKAYA, T.P., red.izd-va; BRUSINA, L.M., tekhn.
red.

[Guide to safety measures for workers handling anticorrosive materials (lining and rubberizing)] Pamiatka po tekhnike bezopasnosti dlia rabochikh pri proizvodstve antikorroziinykh rabot (futerovshchiki, gummirovshchiki). Moskva, Gos. izd-vo lit-ry po stroit., arkhit. i stroit. materialam, 1961. 24 p.
(MIRA 15:3)

(Building--Safety measures)
(Corrosion and anticorrosives)

BELYAKOV, I. (gorod Kopeysk, Chelyabinskaya oblast').

Fruitful work. Kinomekhanik no.5:8-9 My '53.

(MLBA 6:6)

(Romov, Pavel Vasil'evich)

1ST AND 2ND ORDERS 3RD AND 4TH ORDERS

PROCESSES AND PROPERTIES INDEX

CA 16

Citric acid. Ya. Romanov. *Patkhovskiy Prom.* 1, No. 1.
28(1941).—Fermentation citric acid is produced in Russia by means of a specially cultured organism for which conditions of prophylaxis and sanitation have been developed. Production of *oxalic acid* by a fermentation method is a recent development. Julian F. Smith

ASB-35A METALLURGICAL LITERATURE CLASSIFICATION

COMMON ELEMENTS

PERIODICALS

1ST AND 2ND ORDERS

3RD AND 4TH ORDERS

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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L 19755-65 EPA(s)-2/EWT(m)/EWP(t)/EWP(b) Pt-10 IJP(c)/AEDC(b)/SSD/SSD(c)/AFWL/
ASD(a)-5/RAEM(i)/RAEM(j)/ESD(gs)/ESD(t) JD/JG/MLK S/0000/64/000/000/0085/0087
ACCESSION NR: AT5000424

AUTHOR: Lazebnaya, G.V., Romova, M.G., Chuchuyeva, R.

TITLE: Increasing the sensitivity of the flame-photometric determination of rubidium in cesium salts

SOURCE: Sibirskoye soveshchaniye po spektroskopii. 1st, Kemerovo, 1962. Spektroskopiya; metody* i primeneniye (Spectroscopy; methods and application). Doklady* soveshchaniya. Moscow, Izd-vo Nauka, 1964, 85-87

TOPIC TAGS: spectroscopy, flame photometry, rubidium determination

ABSTRACT: Using flame photometry, the authors determined rubidium in high-purity cesium chloride and cesium nitrate. The emission intensity of rubidium in the flame was increased 60-70% by the addition of 10 vol. % ethyl alcohol to the cesium salt solution; this made it possible to determine 0.001-0.0008% rubidium in the dry cesium salt. The behavior of the analytical lines of rubidium at 7800-7948 Å upon the addition of sodium chloride and ethyl alcohol was analyzed. On the basis of this study, the determination of rubidium was carried out by using the 7800 Å line. The method was checked by introducing known amounts of rubidium. The sensitivity achieved, $0.8-1 \times 10^{-3}$, is not the maximum attainable value. The authors suggest the use of certain

Card 1/2

L 19755-65

ACCESSION NR: AT5000424

instruments which will raise the sensitivity still further. Orig. art. has: 2 figures and
1 table. 0

ASSOCIATION: none

SUBMITTED: 09 May64 ENCL: 00 SUB CODE: GC

NO REF SOV: 002 OTHER: 004

Card 2/2

L 31350-65 EWT(m)/EWP(j)/T/EWP(t)/EWP(b) Pc-4 IJP(c)/SSD(a);AFED(t) JD/JG/RM

ACCESSION NR: AP4044808

S/0078/64/009/009/2126/2128 22

AUTHORS: Osipov, O.A.; Romova, M.G. 7 B

TITLE: Complex compounds of lanthanum and neodymium chlorides with dicarboxylic acid esters

SOURCE: Zhurnal neorganicheskoy khimii, v. 9, no. 9, 1964, 2126-2128

TOPIC TAGS: lanthanum diethyloxalate complex, lanthanum diethylmalonate complex, lanthanum diethylsuccinate complex, neodymium diethyloxalate complex, neodymium diethylmalonate complex, lanthanum diethyl-

~~lanthanum and neodymium chloride containing complex~~

ABSTRACT: Molecular compounds of lanthanum and neodymium chlorides with diethyloxalate, malonate and succinate were synthesized by shaking the anhydrous chlorides with excess esters in sealed ampoules, washing the product in benzene and drying in a desiccator. The lanthanum complexes were white and the neodymium were lilac-colored crystalline materials soluble in alcohol but insoluble in other organic solvents. Complexes of the general formulae $2\text{MeCl}_3 \cdot \text{ester}$ and $\text{MeCl}_3 \cdot \text{ester}$ were formed with the oxalate and malonate; the 2:1

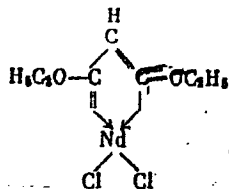
Card 1/2

L 31350-65

ACCESSION NR: AP4044808

0

succinate complex was probably not formed. IR spectra of the compounds were examined in the 100-1800 cm^{-1} range. In the 2:1 complexes both C=O groups were coordinated with the metal, while in the 1:1 complexes only one C=O participated in the donor acceptor bond and the other C=O was free. A chelate of neodymium chloride with the diethylmalonate was synthesized and the following probable formula was proposed:



ASSOCIATION: None

SUBMITTED: 12Jun63

ENCL: 00

SUB CODE: IC, OC

NR REF SOV: 003

OTHER: 005

Card

2/2

L 41727-66 EWT(m)/EWP(j)/EWP(t)/ETI IJP(c) JD/JG/RM

ACC NR: AP6020371

SOURCE CODE: UR/0078/66/011/003/0536/0539

AUTHOR: Romova, M. G.; Osipov, O. A.; Isayeva, L. K.

ORG: none

TITLE: Coordination compounds of rare earth chlorides with esters of dicarboxylic acids

SOURCE: Zhurnal neorganicheskoy khimii, v. 11, no. 3, 1966, 536-539

TOPIC TAGS: praseodymium compound, samarium compound, gadolinium compound, dysprosium compound, lanthanum compound, neodymium compound, dicarboxylic acid, electron donor

ABSTRACT: Continuing their study of the electron-acceptor properties of rare earth halides, the authors investigated the interaction of praseodymium, samarium, gadolinium, and dysprosium chlorides with diethyl oxalate, malonate, and succinate, and the interaction of lanthanum and neodymium chlorides with diethyl adipate, maleate, and phthalate. The structure of the complexes thus obtained (which could not be isolated in the pure form) was studied by comparing the IR spectra of the pure ligands and complexes. It was found that the formation of complexes of the composition 2:1 causes the disappearance of the band corresponding to the stretching vibrations of the free carbonyl group and to the appearance of a strong band in the longer wave region which can be assigned to the vibrations of the diester carbonyl groups

Card 1/2

UDC: 546.65:131:541.49

L 41727-66

ACC NR: AF6020371

coordinated with the rare earth chloride molecule. Spectra of compounds of the composition 1:1 showed a band corresponding to the stretching vibrations of the free carbonyl group, and a strong band in the low-frequency range which can be assigned to the vibrations of the carbonyl group coordinated with the metal chloride. The relative stability of the donor-acceptor interaction in the lanthanide series under consideration was evaluated by comparing the shifts of stretching vibration frequencies of the carbonyl group in complex compounds of the same ester with different metals: for example, in complex compounds of succinate with chlorides of La, Pr, Nd, Sm, Gd, and Dy, these shifts increase from La to Dy. Orig. art. has: 3 tables.

SUB CODE: 07/ SUBM DATE: 04Jul64/ ORIG REF: 005/ OTH REF: 006

Card 2/2 af

ROMOVACEK, Jiri

Commemorating the 60th birthday of Professor Rudolf Riedl.
Chem prum 13 no.9:477 S '63.

ROMOVACEK, J.; BENES, M.

Removal of small quantities of hydrogen sulfide from
gases by zinc compounds. Paliva 45 no.1:19-22 Ja '65.

1. Chair of Coke and Gas Industry of the Higher School of
Chemical Engineering, Prague.

TYMAN, Vl.; ROMOVACEK, J., doc., inz., C.Sc.

A fast method of determining the volatile sulfur in coal. Pavliva 43
no.2:37-42 F '63.

1. Hornicky ustav, Ceskoslovenska akademie ved, Praha (for Tyman).

ROMOVACEK, J., doc., inz., ScC.

"Short handbook of fuel and heat engineering" by W. Gumz.
Reviewed by J. Romovacek. Paliva 43 no.5:157 My '63.

S/081/63/000/001/049/061
B144/B186

AUTHOR: Romováček, Jiří

TITLE: Method of producing carbon disulfide from nonpurified benzene

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 1, 1963, 395, abstract 1N61 (Czechosl. patent 101140, September 15, 1961)

TEXT: The method of obtaining concentrated CS₂ from the most highly volatile fraction of nonpurified C₆H₆, which makes 1-3% of the latter, is distinguished by the following procedures: washing this fraction with water acidified with 1% H₂SO₄ to remove acetonitrile and acetone forming an azeotrope with CS₂, converting cyclopentadiene by thermal polymerization into dicyclopentadiene, separating the aqueous layer and drying the topmost layer with CaCl₂, distilling, and purifying the fraction recovered, which contains ~70% CS₂ by volume, from unsaturated hydrocarbons by

Card 1/2

Method of producing carbon ...

3/081/63/000/001/049/061
B144/B186

polymerization in the presence of slimes containing AlCl_3 (wastes of ethylbenzene or alkyl sulfonate industry), whereby to 1 liter CS_2 concentrate with bromine number 50, 65-70 g AlCl_3 slime is added; when the polymerization is completed, the mixture is distilled, washed with 1% Na_2CO_3 solution, dried, and a raffinate containing 85% CS_2 by volume (92% by weight) is obtained. On washing with acidified water 89% acetonitrile is separated (its distribution coefficient between water and the organic phase is 3.9). Composition of the slime from the alkyl sulfonate industry: 20-25% AlCl_3 , 30-33% C_6H_6 , 40-45% polycondensate. The volumetric CS_2 : slime ratio is 5 : 1. [Abstracter's note: Complete translation.]

Card 2/2

CZ/8-52(82)-10-11/39

AUTHOR: Romováček, Jiří

TITLE: Volumetric Determination of Carbon Disulphide.
(Odměrné stanovení sirouhlíku)

PERIODICAL: Chemické Listy, 1958, Vol.52(82), Nr 10, pp 1912 - 1915
(Czechoslovakia)

ABSTRACT: Carbon disulphide was determined on the basis of alkali-metric titration of dialkyldithiocarbamic acid in a mixture of pyridine, isopropyl alcohol and water (in the ratio of 2:2:1) by potentiometric or visual indication. Thymolphthalein was used as indicator. This method of analysis is specially suitable for determining the purity of carbon disulphide. Morpholine and diethanolamine were the most suitable secondary amines for preparing the dialkyldithiocarbamic acid. The reaction between dialkylamine and carbon disulphide only takes place when sodium hydroxide is added; the latter neutralises the formed acid. A mirror galvanometer Titroskop was used for the potentiometric curves. The graph in Fig.2 shows the course of the potentiometric titration. Only 10 minutes are required for this determination; the method is accurate and sensitive, and

Card 1/2

CZ/8-52(82)-10-11/39

Volumetric Determination of Carbon Disulphide

can be applied for samples having a high content of carbon disulphide. Strongly coloured samples can be titrated potentiometrically. There are 2 Figures, 1 Table and 33 References: 17 English, 3 German, 6 Czech, 2 Soviet, 1 Swiss, 1 French and 3 Italian.

ASSOCIATION: Katedra koksárenství a plynárenství, Vysoká škola chemicko-technologická, Praha (Department for Coke & Gas, Institute for Chemical Technology, Prague)

SUBMITTED: 16th December, 1957

Card 2/2

ROMOVACEK, JIRI

file ✓ Composition of low-temperature brown-coal tar. III. 3
Azulenes. Stanislav Landa, Jiri Romováček, and Hana Romováčková (Tech. Univ., Prague). *Chem. Listy* 50, 1984-8(1956); cf. *C.A.* 50, 7428s. Rectification of the neutral portion of middle oil yielded 2 blue fractions, b₁ 142-7° and 159-81°, contg. azulene and 2-methylazulene (I) which were extd. with H₃PO₄ and identified as adducts with C₆H₅(NO₂) and by spectra. Countercurrent extn. of the neutral portion with concd. H₃PO₄ followed by chromatography on Al₂O₃ yielded an azulene concentrate contg. I, dimethylazulene substituted in 2, 4, 6, or 8, and a mixt. of higher methylated azulenes. L. J. Urbánek

CZECHOSLOVAKIA/Chemical Technology - Chemical Products and H.
Their Application - Treatment of Solid Mineral Fuels.

Abs Jour : Ref Zhur - Khimiya, No 9, 1958, 30097

Author : Landa, S., Romovacek, J., Romovackova, H.

Inst : -

Title : The Composition of Primary Brown-Coal Resins. III.
Azulenes.

Orig Pub : Chem Listy, 50, No 12, 1964-1968 (1956) (in Czech)

Abstract : Extraction of the fraction boiling between 142 and 147°/47 mm, obtained by steam distillation from the neutral fraction of the middle oil fraction of primary brown-coal bitumens, with 85% phosphoric acid followed by chromatography on Al₂O₃, purification by passage through trinitrobenzoate, and distillation yields azulene; the 159-161°/47 mm fraction when treated by the above-outlined procedure yields 2-methylazulene. A similar procedure (but without the steam-distillation

Card 1/2

CZECHOSLOVAKIA / Chemical Technology, Chemical Products and Application, Part 3. - H
Treatment of Solid Combustible Minerals.

Abs Jour: Ref Zhur-Khimiya, No 18, 1958, 62179.

Author : S. Landa, J. Romovacek, H.H. Romovackova.

Inst : Not given.

Title : Composition of Initial Brown Coal Tar.

Orig Pub: Sb. chekhosl. khim. rabot, 1957, 22, No 3,
1023 - 1028.

Abstract: See RZhKhim, 30097.

Card 1/1

71

ROMOVACHEK, I. [Romovacek, I.]; SHIMANEK, I. [Simanek, I.]

Bitumens and coking properties of hard coal. *Khim i industriia*
36 no.10:368-371 '64.

1. Higher School of Chemical Technology, Prague. Submitted June
15, 1964.

CZECHOSLOVAKIA/Chemical Technology. Chemical Products H
and Their Uses. Part III. Chemical
Processing of Natural Gases and Petro-
leum. Motor and Rocket Fuels. Lubri-
cants.

Abs Jour : Ref Zhur-Khimiya, No 15, 1958, 51584

Author : Romovacek, J., Bednar, J.

Inst : -

Title : Determination of Mercaptans in Liquid and
Gaseous Hydrocarbon Mixtures.

Orig Pub : Paliva, 1958, 33, No 1, 9-12

Abstract : A comparison of methods used for the deter-
mination of mercaptans (M) in liquid and
gaseous products has shown that amperome-
tric method (3) is preferable to colori-
metry (1) or potentiometry (2) methods

Card : 1/3

CZECHOSLOVAKIA/Chemical Technology. Chemical Products and Their Uses. Part III. Chemical Processing of Natural Gas and Petroleum. Motor and Rocket Fuels. Lubricants. H

Abs Jour : Ref Zhur-Khiniya, No 15, 1958, 51584

as far as the sensitivity, reproducibility and speed of testing are concerned. A method of analysis, checked by determination of M in benzene, was proposed which could be used when CS₂ is present in the sample. Carbon sulfide usually distorts the results obtained by methods (2) and (3). The method consists of treatment of a benzene sample with a 0.01 n solution of AgNO₃, followed by blowing of nitrogen through the solution in order to eliminate

Card : 2/3

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CZECHOSLOVAKIA/Chemical Technology. Chemical Products H
and Their Uses. Part III. Chemical
Processing of Natural Gas and Petro-
leum. Motor and Rocket Fuels. Lubri-
cants.

Abs Jour : Ref Zhur-Khimiya, No 15, 1958, 51584

CS₂. Finally, the excess of AgNO₃ is ti-
trated with 0.01 n solution of n-dodecyl-
mercaptan in isopropyl alcohol. -- K.
Zaremba

Card : 3/3

ROMOVACEK, Jiri

Acquisition of carbon disulfide from light distillate of benzene. Sbor pal vod VSChT Vol. 5:199-225 '61 [publ. '62].

1. Katedra koksarenstvi a plynarenstvi, Vysoka skola chemicko-technologicka, Praha.

ROMOVACEK, Jiri; BENES, Milos; KUBAT, Jaroslav

Comparison of absorption qualities of various oils for benzene absorption from coke oven gas. Sbor pal vod VSChT Vol. 5:227-250 '61 [publ, '62].

1. Katedra koksarenstvi a plynarenstvi, Vysoka skola chemicko-technologicka, Praha.

Country : CZECHOSLOVAKIA E
Category : Analytical Chemistry. Analysis of Organic Substances
Abs. Jour : Ref Zhur - Khim., No 5, 1959, No. 15113
Author : Romovacek, J.; Simanek, J.; Nedomelel, F.
Institut. : -
Title : Determination of the Total Content of Sulfur in Volatile Liquids
Orig. Pub. : Paliva, 1958, 38, No 4, 113-116
Abstract : A method is described for the determination of S in volatile organic compounds by means of combustion of the sample in an O₂ atmosphere (25-30 atm.) and for titration, by complexometric or conductometric methods, of the SO₄⁻² ions formed in the process. About 0.3 g. (1-1.5 ml.) of the sample is introduced by an injector into a capsule prepared from a polyamide resin; the capsule is wrapped with Fe wire and burned in a calorimetric bomb in the presence of 50

Card: 1/4

Country : CZECHOSLOVAKIA
Category : Analytical Chemistry. Analysis of Organic
Substances
Abs. Jour : Ref Zhur - Khim., No 5, 1959, No. 15113
Author :
Institut. :
Title :
Orig. Pub. :
Abstract : ml. of a 3% solution of H_2O_2 . The solution ob-
Cont'd : tained is boiled to remove CO_2 and then supple-
mented with water up to 1,000 ml. (solution A).
To 10-20 ml. of solution A, the following addi-
tives are mixed in: 0.1 n. $BaCl_2$ solution (in
such quantity that, after $BaSO_4$ precipitation,
about a 5 ml. excess of it will remain), 10 ml.
of 0.01 n. $MgCl_2$ solution, 0.2 g. of KCN (for
binding Fe^{+3}), 5 ml. of a buffer solution (5.35)

Cards: 2/4

E - 29

Country : CZECHOSLOVAKIA E
Category : Analytical Chemistry. Analysis of Organic Substances
Abs. Jour : Ref Zhur - Khim., No 5, 1959, No. 15113
Author :
Institut. :
Title :
Orig Pub. :
Abstract : g. of NH_4Cl and 40 ml. of a concentrated solu-
Cont'd tion of NH_4OH in 100 ml.) to obtain a mixture with a pH of about 10, and then water to make up 100 ml. Titration is effected with a 0.05 n. solution of complexon*III in the presence of 0.3 ml. of indicator solution (0.05 g. of eriochrome black in 10 ml. of methanol). The analysis lasts 30 minutes. During conductometric determination, 20 ml. of solution A are titrated with a 0.1 n. $\text{Ba}(\text{OH})_2$ solution in the pre-
* $\sqrt{\text{major complex-forming agent}}$
Card: 3/4

ROMOVACEK, J.

TECHNOLOGY

Periodical: PALIVA. Vol. 38, no. 9, Sept. 1958

ROMOVACEK, J. Problems and study of the utilization of fuel in the USSR from the point of view of power technology, p. 313.

Monthly List of East European Accessions (EEAI) LC, Vol. 8, no. 3
March 1959 Unclass.

CZECHOSLOVAKIA/Chemical Technology - Chemical Products and Their H.
Application - Treatment of Solid Mineral Fuels,

Abs Jour : Ref Zhur - Khimiya, No 9, 1958, 30099

Author : Riedl, R. and Romovacek, J.

Inst : -

Title : Investigation of the Purification of Benzene (CSN 66
2110)

Orig Pub : Paliva, 37, No 5, 170 (1957) (in Czech)

Abstract : The results from an investigation of the effect of tem-
perature (over the range 15-45°) and of agitation rate
(over the range 210-300 rpm) on the degree of purifica-
tion of benzene when the latter is washed with 96%
H₂SO₄ for 5 min are reported.
The relationships found are presented in graphic form.

Card 1/1

RCMOVACEK, J.; RIEDL, R.

Criticism of the refining test for benzene; Czechoslovak standard 66 2110. p. 170.
((Paliva, Vol. 37, No. 5, May 1957, Praha, Czechoslovakia)

SO: Monthly List of East European Accessions (EEAL) KC, Vol. 6, No. 8, Aug 1957. Uncl.

ROMOVACEK, J.

CZECH

Isolation of azulene and 2-methylazulene from brown coal tar. S. Landa, J. Romováček, and H. Romováčková (Vysoká škola chem., Prague). *Chem. Listy* 48, 917C (1954).—Two azulenes were found during the rectification of brown coal tar: a lower boiling azulene, m. 97.5° [$C_{11}H_8$ (NO_2)₂ compd., m. 167.5–8.5°] visible absorption max. at 698, 662, 653, 605, 580, 558, 530 m μ ; and ultraviolet max. at 341–2, 325–30, 296–7, 281–2, 273–6, 238–40 m μ ; and higher boiling 2-methylazulene, m. 40° (approx.) [$C_{11}H_8$ (NO_2)₂ compd., m. 140–1°] visible spectrum max. at 744, 704, 672, 650, 634, 613, 592, 580, 568, and 562 m μ .
M. Hudlický

BOMOVACEK, J.

Effect of temperature on quality of toluene. R. Riedl and J. BOMOVACEK (*Brigitte*, 1956, 27, 85-90). The deterioration of rectified nitration toluene during storage is due to oxidation which is stimulated by peroxides formed from olefin or diolefin impurities, or by SO₂. The acid treatment should be carried out at low temp. with intimate contact, SO₂ must be completely washed out by alkali, and the rectification must ensure complete separation of the end fraction of high b.p. The product should be stored at low temp. in an inert atm. Hydrogenation is preferable to refining by acid treatment.

Chem

A. R. PEARSON

PM

CZECHOSLOVAKIA / Analytical Chemistry. Inorganic Analysis. E

Abs Jour : Ref Zhur - Khimiya, No 23, 1959, No. 81984
Author : Romovacek, Jiri
Inst : ~~NOT~~ given
Title : Titrimetric Determination of Carbon Disulfide
Orig Pub : Collect. Czechosl. Chem. Communs., 1959, 24,
No 2, 604-608

Abstract : A new method for the determination of CS₂, based on the alkalimetric titration of dialkyldithiocarbamic acid formed in the reaction between CS₂ with a secondary amine, has been developed. The titration is performed in a pyridine, isopropyl alcohol, and water (2 : 2 : 1) medium, employing a potentiometric or a visual end-point; in the second case, 1% thymolphthalein solution in pyridine is used as the indicator.

Card 1/3

CZECHOSLOVAKIA / Analytical Chemistry. Inorganic Analysis. E
Abs Jour : Ref Zhur - Khimiya, No 23, 1959, No. 81984

Best results are obtained when an excess of NaOH is added, and this is titrated with an HCl solution. Three secondary amines were tested: morpholine, diethanolamine, and piperidine; the first two amines give satisfactory results with both methods of end-point detection, whereas in the case of piperidine a slow color transition of the visual indicator is observed, and a poor potentiometric titration curve is obtained. In comparison with known methods the new method is considerably faster (10 minutes) and is applicable to industrial control. In the application of the method to the analysis of the first fraction from the distillation of benzene (containing 8-24% CS₂)

Card 2/3

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CZECHOSLOVAKIA / Analytical Chemistry. Inorganic Analysis. E

Abs Jour : Ref Zhur - Khimiya, No 23, 1959, No. 81984

and to the estimation of the purity of CS₂,
good results were obtained. -- Jiri Vanecek

Card 3/3

Effect of temperature on quality of toluene. R. Riedl and J. Rotnováček (Revue Chim. 1956, 05, 82)

ROMOVACEK, J.

1410. COMPOSITION OF LOW TEMPERATURE BROWN COAL TAR. III. AZULENES.

Landa, S., Romovacek, J. and Romovackova, H. (Chem. Listy (Chem. Pap., Prague), 1956, vol. 50, 1964-1968; abstr. in Chem. Abstr., 1957, vol. 51, 3965). Rectification of the neutral portion of middle oil yielded two blue fractions, b.p. 142-147° and 159-161°, containing azulene and 2-methylazulene (I) which were extended with phosphoric acid and identified as adducts with trinitrobenzene and by spectra. Chemical shift values of the neutral azulene and 2-methylazulene in CDCl₃ solution were determined by NMR. The structure of azulene is confirmed by the results of the mass spectrometry. The structure of 2-methylazulene is confirmed by the results of the mass spectrometry and by the results of the infrared spectroscopy.

C.A.

RENOVACEK, J.

"New equipment for production of gas as fuel for coke furnaces."
Paliva, Praha, Vol 3/, No 5, May 1954, p. 132

SO: Eastern European Accessions List, Vol 3, No 10, Oct 1954, Lib. of Congress

ROMOVACEK, J.

"New Method of Dehydrating Tar." p. 106, Praha, Vol. 34, no. 4, Apr. 1954.

SO: East European Accessions List, Vol. 3, No. 9, September 1954, Lib. of Congress

ROMOVACEK, J.

"Development of Equipment for Gasification of Pulverized Coal According to the Koppers-Totzek System and its Application in Practice,"
P. 222, (PALIVA, Vol. 34, No. 8, Aug. 1954, Praha, Czechoslovakia)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 3, No. 12,
Dec. 1954, Uncl.

Romovacek, Jiri

CZECH

Composition of low-temperature brown-coal tar. - 1.
 Paraffins. Stanislav Landa, Jiri Romovacek, and Hana Romovackova. (Vysoka skola chem. technol., Prague).
 Chem. Listy 49, 313-16(1955). - Low-temp. brown-coal tar was washed with 3% NaOH, with 5% H₂SO₄, and steam-distd. to give 20% of an oil; d₄ 0.8972, n_D²⁰ 1.493, m. -42°. The oil was distd. on a 64 TP column, and fractions having low refractive indexes were cooled with Dry Ice after being dil'd. with 1.5 vol. Me₂CO. In this way, the following paraffins were isolated (m.p., b.p., d₄, d₂₀, n_D²⁰, n_D²⁵): decane, -29.6°, b_m 173°, 0.7293, 0.7261, 1.4130, 1.4102; undecane, -26.7°, b_m 127°, 0.7400, 0.7363, 1.4190, 1.4161; dodecane, -12.25°, b_m 215°, 0.7519, 0.7488, 1.4218, 1.4190; tridecane, -7.2°, b_m 141°, 0.7599, 0.7560, 1.4280, 1.4255; tetradecane, 5.25°, b_m 159.8°, 0.7674, 0.7641, 1.4315, 1.4306; pentadecane, 9.1°, b_m 172°, 0.7740, 0.7708, 1.4335, 1.4314. Isolation of dodecane (fraction 119.4-21.7° at 47 mm.) required chromatography to remove the admitt. of naphthalene. Infrared spectra of the hydrocarbons are given. M. Hudlicky

ROMOVACEK, J.; LANDA, S.; ROMOVACKOVA, H.

"Isolation of Azulene and 2-methylazulene from A Brown-coal Tar; A Preliminary Communication", P. 917, (CHEMICKÉ LISTY, Vol. 48, No. 6, June 1954, Praha, Czech.)

SO: Monthly List of East European Accessions (EEAL) IC, Vol. 4, No. 3, March 1955, Uncl.

ROMOVACEK, J.

"Use of Preheated Air for Generators Incorporated into Furnaces in Gas Works." p. 164,
Praha, Vol. 34, no. 6, June 1954.

SO: East European Accessions List, Vol. 3, No. 9, September 1954, Lib. of Congress

ROMOVACEK, J., inz., C.Sc

Notes on thermal balance and its effect. Paliva 42 no.1:16-17
Ja '62.

1. Katedra koksarenstvi a plynarenstvi, Vysoka skola chemicko-
technologicka, Praha.

ROMOVACEK, Jiri; BENES, Milos

Chromatographic separation of mixtures of hydrocarbons with carbon disulfide. Sbor pal ved VSChT 4 no.1:55-72 '60.

(EEAI 10:9)

1. Katedra koksarenstvi a plynarenstvi, Vysoka skola chemicko-technologiccka, Praha.

(Chromatography) (Hydrocarbons) (Carbon disulfide)

ROMOVACEK, Jiri; HOLUB, Ales

Determination of mercaptanic sulfur in liquid fuels. Sbor pal rod
VSChT 4 no.1:73-84 '60. (EEAI 10:9)

1. Katedra koksarenstvi a plynarenstvi, Vysoka skola chemicko-
technologicka, Praha.

(Mercapto compounds) (Liquid fuels) (Sulfur)

27

Volumetric determination of carbon disulfide. [111]
 Ramováček (Vysoká škola chem. technol., Prague).
 Chem. listy 52, 1912-18 (1958).—A very fast method is de-
 scribed based on the reaction between CS₂ and a dialkyl-
 amine yielding dialkyldithiocarbamic acid which is titrated
 with NaOH soln. with visual or potentiometric indication.
 Add a sample contg. 0.5-17 meq. CS₂ to a mixt. of 75 ml.
 pyridine-iso-PrOH-H₂O (2:2:1), 25 ml. 0.5N morpholine

lor (HOCH₂CH₂NH) in pyridine, and 5 drops 1% thymol-
 phthalein in pyridine, add dropwise slowly 0.5N NaOH
 soln. until the appearance of blue color and another 2-5
 ml. 0.5N NaOH. Titrate the excess of 0.5N NaOH with
 0.5N HCl with efficient stirring. Subtract the amt. of
 NaOH consumed by the blank. One ml. 0.5N NaOH cor-
 responds to 38 mg. CS₂. The mean error is $\delta = \pm 0.10$.
 L. J. Urbánek

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ROMOVACHEK, I.

Separation of carbon disulfide from the head fraction. Koks i
khim. no.3:36-41 '62. (MIRA 15:3)

1. Prazhskaya vysshaya khimiko-tekhnologicheskaya shkola.
(Carbon disulfide) (Benzene)

ROČVAGLOVA, M.; LANDA, S.; ROČVACEK, J.

"Isolation of Azulene and 2-methylazulene from A Brown-coal Tar; A Preliminary Communication", P. 917, (CHEMICKÉ LISTY, Vol. 48, No. 6, June 1954, Praha, Czech.)

SC: Monthly List of East European Accessions (EEAL), LC, Vol. 4, No. 3, March 1955, Encl.

ROMOVACKOVA, H.

✓ 3709. DETERMINATION OF OXYGEN IN COAL AND A PROPOSAL FOR CONVERSION TO
A DRY ASH-FREE BASIS. Romovackova, H. and Kessler, H.F. (Paliva (Fuel,
in: *Chem.*), Dec. 1955, vol. 35, 351-358). A number of coals were successfully
subjected to a method for the determination of oxygen based on reducing the
products of pyrolysis in an incandescent layer of coal and oxidizing them to
carbon dioxide, which is then determined by weighing. A new method for
converting the result to a dry ash-free basis was compared with existing methods
and was found to be applicable to other elements in the fuel also. (L).

Romováček, Hana

CZECH

Composition of low-temperature brown-coal tar. J. Paraffins. Stanislav Landa, Jiří Romováček, and Hana Romováčková (Vysoká škola chem. technol., Prague). Chem. Listy 49, 313-16(1955).—Low-temp. brown-coal tar was washed with 3% NaOH, with 5% H₂SO₄, and steam-distd. to give 20% of an oil, d₄ 0.8972, n_D²⁰ 1.493, m. -42°. The oil was distd. on a 54 TP column, and fractions having low refractive indexes were cooled with Dry Ice after being dilld. with 1.5 vol. Me₂CO. In this way, the following paraffins were isolated (m.p., b.p., d₄, n_D²⁰): decane, -29.6°, b₇₆₀ 173°, 0.7288, 0.7281, 1.4130, 1.4102; undecane, -26.7°, b₇₆₀ 127°, 0.7400, 0.7363, 1.4190, 1.4161; dodecane, -12.25°, b₇₆₀ 215°, 0.7519, 0.7488, 1.4218, 1.4190; tridecane, -7.3°, b₇₆₀ 141°, 0.7599, 0.7560, 1.4280, 1.4256; tetradecane, 5.25°, b₇₆₀ 159.8°, 0.7674, 0.7641, 1.4315, 1.4306; pentadecane, 9.1°, b₇₆₀ 172°, 0.7740, 0.7708, 1.4335, 1.4314. Isolation of dodecane (fraction 119.4-21.7° at 47 mm.) required chromatography to remove the admixt. of naphthalene. Infrared spectra of the hydrocarbons are given. M. Hudlický

ROMOVACKOVA, H.

✓ Direct oxygen determination in coal. H. Romovackova
and F. M. Kessler. *Papier 35, 351-6(1955)*. A method of
direct O detn., app., and calcul. are given. The app. con-
sists of a N-purification train with pure Cu heated to 500°
and an O- to CO-conversion train with acetylene soot
heated to 1125° in Si tube and absorber with Mg chlorite.
The O is converted according to $I_2O_5 + 5 CO = 5 CO_2 + I_2$
and the formed CO_2 is gravimetrically detd. J. L.

ROMOVÁČKOVÁ, H.

✓ On the Determination of Oxygen and Combustible Material in Coal. H. Romováčková and F. M. Kessler. (Palina, 1966, 85, (12), 361-364). [In Czech]. Oxygen was determined directly by the reduction of pyrolytic products on a layer of carbon, and their subsequent re-oxidation to carbon dioxide. The latter is then determined gravimetrically. The method was tested successfully in the case of a number of coals. A new, rapid, method for calculating the oxygen content of coals from this data is developed. The method is shown to be applicable also to the evaluation of the content of other elements, and to be superior to those in current use. — P. 7.

*Fuels
Material* 2

ROMOVÁČEK, H.

CZECH

Isolation of azulene and 2-methylazulene from brown coal tar. S. Landa, J. Romováček, and H. Romováčková (Vysoká škola, chem., Prague). *Chem. Listy* 48: 977c (1954). Two azulenes were found during the rectification of brown coal tar: a lower boiling azulene, m. 97.5° [*Calc.* (NO_2) compd., m. 187.5-8.5°] visible absorption max. at 698, 682, 633, 608, 580, 568, 530 m μ ; and ultraviolet max. at 341-2, 328-30, 296-7, 281-2, 273-8, 238-40 m μ ; and higher boiling 2-methylazulene, m. 40° (approx.) [*Calc.* (NO_2) compd., m. 140-1°], visible spectrum max. at 744, 704, 673, 660, 634, 613, 592, 580, 568, and 562 m μ .

M. Hudlický

ROMOVÁČKOVÁ, HANA

✓ Composition of low-temperature brown-coal tar. III.
Azulenes: Stanislav Landa, Jiří Romováček, and Hana Romováčková (Tech. Univ., Prague). *Chem. Listy* 50, 1904-8 (1955); cf. *C.A.* 50, 7428e. — Rectification of the neutral portion of middle oil yielded 2 blue fractions, b₁ 142-7° and 159-61°, contg. azulene and 2-methylazulene (I) which were extd. with H₃PO₄ and identified as adducts with C₆H₅(NO₂)₂ and by spectra. Countercurrent extn. of the neutral portion with concd. H₃PO₄ followed by chromatography on Al₂O₃ yielded an azulene concentrate contg. I, dimethylazulene substituted in 2, 4, 6, or 8, and a mixt. of higher methylated azulenes. L. J. Urbánek

REMOVÁČKOVÁ, H.

V 1410. COMPOSITION OF LOW TEMPERATURE BROWN COAL TAR. III. AZULENES.
Landa, S., Remováček, J. and Remováčková, H. (Chem. Listy (Chem. Pap.,
Prague), 1956, vol. 50, 1964-1968; abstr. in Chem. Abstr., 1957, vol. 51,
5255). Fractionation of the neutral portion of pitch oil yielded two blue
compounds, the 147- and 150- μ components, and a red-orange azulene
component. The 147- μ component was identified as 1,2,3,4-tetrahydro-
1,2,3,4-tetrahydronaphthalene by spectral and chemical methods. The
150- μ component was identified as azulene by spectral and chemical methods.
The azulene component was further identified as azulene by an
X-ray diffraction study. The azulene component was further identified
as azulene by an X-ray diffraction study. The azulene component was
further identified as azulene by an X-ray diffraction study.

ROMOVACKOVA, H.; HUBACEK, J.

"Proposal for a Czechoslovak Standard for Determining Hydrogen and Carbon In Solid Fuels", P. 193, (PALIVA, Vol. 34, No. 7, July 1954, Praha, Czechoslovakia)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 3, No. 12, Dec. 1954, Uncl.

ROMOVACKOVA, H.; HUBACEK, J.

"Symbol of Cooperation Between Science and Practice", P. 195, (PALIVA,
Vol. 34, No. 7, July 1954, Praha, Czechoslovakia)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 3, No. 12,
Dec. 1954, Uncl.

ROMOVACKOVA, H. H.

CZECHOSLOVAKIA/Chemical Technology - Chemical Products and Their Application - Treatment of Solid Mineral Fuels. H.

Abs Jour : Ref Zhur - Khimiya, No 9, 1958, 30097

Author : Landa, S., Romovacek, J., Romovackova, H. H.

Inst : -
Title : The Composition of Primary Brown-Coal Resins. III. Azulenes.

Orig Pub : Chem Listy, 50, No 12, 1964-1968 (1956) (in Czech)

Abstract : Extraction of the fraction boiling between 142 and 147°/47 mm, obtained by steam distillation from the neutral fraction of the middle oil fraction of primary brown-coal bitumens, with 85% phosphoric acid followed by chromatography on Al₂O₃, purification by passage through trinitrobenzoate, and distillation yields azulene; the 159-161°/47 mm fraction when treated by the above-outlined procedure yields 2-methylazulene. A similar procedure (but without the steam-distillation

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