

BELLAVIN, G. V.

"The Influence of the Geographic Position of Water Supply Reservoirs on Their Ichthyofauna," report delivered at a meeting of the Dept. of Physical Geography, Moscow Affil., AU Geographic Society. Iz. vses. Geog. Obshch. No.6, 1954

BELLAVIN, G.V.

Reservoirs. Geog. v shkole 18 no.3:5-10 My-Je '55. (MLRA 8:9)
(Reservoirs)

SOV/49-59-2-18/25

AUTHORS: Timofeyev, A. N., Bellavin, O. V.

TITLE: On the Gravimetric and Magnetometric Intersection of the
Tagil -Magnitogorsk Sinclination in the Urals (O
gravimetriceskom i magnetometriceskom peresechenii
Tagil'sko-Magnitogorskogo sinklinoriya Urala)

PERIODICAL: Izvestiya Akademii nauk SSSR, Seriya geofizicheskaya,
1959, Nr 2, pp 311-315 (USSR)

ABSTRACT: Due to the linear distribution of the main geo-tectonic
structure of the Urals, the geophysical investigations are
greatly facilitated, which was shown by the positive results
of the regional gravimetric and magnetometric work carried out
in 1956 by the Urals Geological Institute Branch of the
Academy of Sciences USSR in the rayon of N. Tagil. The
determination of the gravity forces at a depth of 1 km was
performed by the gravimeter GH-3 and the vertical components
of the magnetic field with the magnetometer M-2. The anomal-
ies of gravity were calculated with the Bouguer correction
and the actual density of rocks were determined (Table on p
313 shows the number of observations and the density of 9

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On the Gravimetric and Magnetometric Intersection of the Tagil -
Magnitogorsk Sinclination in the Urals

kinds of rock). The results are illustrated in Fig.1, where the anomalies of gravity and the geological anomalies cross-section of the N. Tagil ray are shown in the top graph, while the geophysical cross-section is given in the lower diagram (1 - gabbro-amphibolite, 2 - compound formation of carbon-siliceous, mica-quartz, and silica-shale, 3 - gabbro, 4 - effusive rocks, 5 - quartz and metamorphic layer, 6 - pyroxenite, 7 - calculated anomaly of gravity, 8 - gneiss-hornblendite, 9 - diorite, 10 - anomaly of a gravity Δg with Bouguer reduction, as measured with a gravimeter, 11 - Δg Bouguer anomaly, pendulum determined, 12 - granite-gneiss, 13 - serpentinite, 14 - horizontal gradient of the gravity, V_{zx} , 15 - bearings, 16 - carbon-graphitous, silica-quartzous and green shale, 17 - syenite, 18 - anomaly of the vertical component ΔZ of the magnetic field). The results of the calculation of the gravity force of the upper half-space are shown in Fig 2, from which it can be seen that the local anomalies disappear at 10 km high. A similar calculation shows that the anomalies of the vertical component of the magnetic field, based on the observations of previous years, do not reach 3 to 4 km high. Also, they

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On the Gravimetric and Magnetometric Intersection of the Tagil -
Magnitogorsk Sinclination in the Urals

cannot be relied upon when the deep rooted rocks are investigated, due to the reflection of a part of the magnetic field. The analysis of the data obtained from the experiments shows that the Tagil-Magnitogorsk sinclination is characterized by the positive anomalies which reflect the geological structure sufficiently accurately. The most precise results were obtained for the gabbro-peridotite formations protruding on to the surface. In general, the local investigations of gravitational anomalies of the Urals could contribute to the full determination of their structure. There are 2 figures, 1 table and 2 Soviet references.

ASSOCIATION: Akademiya nauk SSSR, Gorno-geologicheskii institut
(Mining-Geological Institute, Academy of Sciences USSR)

SUBMITTED: December 12, 1957.

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BELLAVIN, O.V.

Some problems of the geology of the Sverdlovsk synclinorium based on gravimetry data. Trudy Inst.geofiz.UFAN SSSR no.3:25-30 '65.

Using geophysical prospecting methods in the geological study of mica-bearing regions in the Urals. Ibid.:35-41

(MIRA 18:8)

BELLAVINA, I.A. (Sverdlovsk 55, Vostochnaya ul., d.166-a, kv.55)

Use of cuffs from carbon tissue and cellulose filter or film for the isolation of an injured tendon; experimental study. Ortop., travm. i protez. 26 no.1:48-52 Ja '65.

(MIRA 18:5)

z kliniki gospital'noy khirurgii (zav. - chlen-korrespondent AMN SSSR prof. A.T. Lidskiy) lachebnogo fakul'teta Sverdlovskogo meditsinskogo instituta.

BELLAVINA, I.A. (Sverdlovsk 55, Vostochnaya ul., d.166-a, kv.55)

Bone grafting with buried lamellar transplant in the treatment of fractures of the tubular bones. Ortop., travm. i protez. 26 no.2:64 F '65. (MIRA 18:5)

1. Iz kliniki gospiatal'noy khirurgii lechebnogo fakul'teta (zav. kafedroy - chlen-korrespondent AMN SSSR prof. A.T.Lidskiy) Sverdlovskogo meditsinskogo instituta.

BELLA, Matej

Preparing for winter operation. Letecky obzor 6 no.12:385
D '62.

BELIE, M.I.

Optical reflection of PbTe, SbTe, and their solid solutions. Fiz.
vost. teia 7 no.2:606-609 F '65. (MIRA 34:3)

1. Fiziko-tekhnicheskij Institut imeni A.F.Ioffe AN SSSR, Leningrad.

BELLE, M.L.; CASANOVA, N.A.

Optical reflection of GaTe single crystals in the spectral region
of 240-1200 m μ . Opt. i spektr. 18 no.4:730 Ap '65.

(MIRA 18:8)

GROSS, Ye.F.; BELLE, M.L.

Internal photoeffect and the structure of basic absorption margins in
crystals. Zhur.tekh.fiz. 25 no.5:948-949 My '55. (MIRA 8:7)
(Crystallography) (Photoelectricity)

BELLE, M.L.

Optical reflection of PbS and PbSe single crystals in the region
6 μ 1.5 ev. Fiz. tver. tela 5 no.11:3282-3284 N '63.

(MIRA 16:12)

1. Fiziko-tehnicheskij institut imeni A.F.Ioffe AN SSSR, Leningrad.

L 38613-68 EWT(1)/EWT(m)/EPF(c)/EWG(m)/EEC(t)/EWP(t)/EWP(b) P1-4 IJP(c)
ACCESSION NR: AP5005307 S/O181/65/007/002/0606/0609
RDW/JD/WW/GG

AUTHOR: Belle, M. L.

TITLE: Optical reflection of PbSe, PbTe, and the series of their solid solutions

SOURCE: Fizika tverdogo tela, v. 7, no. 2, 1965, 606-609

TOPIC TAGS: lead¹ compound, solid solution, optical reflection, reflection spectrum,

ABSTRACT: The purpose of the investigation was to clarify the character of the shift of the main maxima of the reflection spectrum of the single crystals PbSe and PbTe, and the series of solid solutions of these crystals ($PbSe_xTe_{1-x}$), with variation of the percentage composition of the components. An attempt was also made to analyze in greater detail the available data on these reflection spectra in view of most recent information on the structure of the energy bands of the crystals of this group. The method of obtaining the solid solutions was that of Ye. I. Delagins and N. Kh. Abrikosov (DAN SSSR v. 111, 193, 1964). The reflections were measured on polished (100) surfaces and surfaces of the solid solutions, and also

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L 38613-65

ACCESSION NR: AP5005307

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author earlier (PTT v. 5, 3282, 1963). The results have shown that one of the maxima has a shift which is not monotonic. To explain this phenomenon, it is proposed that the symmetry of the transition may change for some intermediate solid solutions near $x = 0.5$. A similar effect was observed by others in solid solutions of germanium and silicon, and can be interpreted in analogy with those solid solutions. In conclusion the author is deeply grateful to Ye. A. Levinskaya and Ye. A. Martynov for supplying the samples of solid solutions, to Ye. A. Martynov for assistance in the results, and to Dr. S. G. Zhurav for interest in the work.

Orig. art. has: 3 figures.

ASSOCIATION: Fiziko-tehnicheskiy institut im. A. F. Ioffe AN SSSR, Leningrad
 (Physicotechnical Institute, AN SSSR)

SUBMITTED: 03Aug64

ERCL: 00

SUB CODE: CP, SS

NS REF SOV: 004

OTHER: 011

L 61664-65 ENT(1)/ENT(m)/ENG(m)/I/ENP(t)/ECC(b)-2/ESP(b)/ENA(c) P1-4 IJP(c)

ACCESSION NR: AP5011137 RDH/JD/GG UR/0051/65/018/G04/0730/0730

535.312

AUTHORS: Belle, M. L.; Gasanova, N. A.

TITLE: Optical reflection from GaTe single crystals in the 240--1200 nm region

41
B

SOURCE: Optika i spektroskopiya, v. 18, no. 4, 1965, 730

TOPIC TAGS: optical reflection, single crystal, gallium telluride, absorption spectrum, reflection spectrum, fine structure, inter-band transition

ABSTRACT: The authors investigated the optical reflection from single crystals of GaTe in the ultraviolet, visible, and near infrared regions. The reflection was measured because the absorption spectrum of single-crystal samples by transmission techniques calls for the preparation of extremely thin samples, which is quite difficult. The measurements were made with an NS-4 spectrophotometer with quartz optics. A method of twofold re-

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L 61664-65

ACCESSION NR: AP5011137

Reflection was used to bring out the assumed structure of the spectrum. The reflection coefficient was measured from a natural (cleaved) surface, using the p-component of polarization of the incident radiation. The principal reflection maximum was found at 385 nm, with another reflection peak observed at 290 nm. The reflection in the visible region at the absorption edge has the usual dispersion form, indicating that the refractive index is much larger than 1. The finer details of the reflection spectrum were observed by making the measurements at liquid nitrogen temperature. Comparison of the data obtained and reflection with the existing data on optical absorption shows that the drop in the reflection band corresponds to the maximum of the absorption line observed at the edge of natural absorption. Since the structure of the energy bands of GaTe has not yet been investigated, it is impossible to relate the observed structure of reflection spectrum with any specific transitions between bands. Original article has: 1 figure.

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L 61664-65

ACCESSION NR: AP5011137

ASSOCIATION: None

SUBMITTED: 04Sep64

ENCL: 00 SUB CODE: OP, SS

NR REF SOV: 000

OTHER: 003

Card

3/3

L 6509-66 EWT(1)/EWT(m)/T/EWP(t)/EWP(b)/EWA(c) IJP(c) JD/GG
ACCESSION NR: AP5019425 UR/0020/65/163/003/0606/0608

AUTHOR: Belle, M. I.; Valov, Yu. A.; Goryunova, A. N.; Zlatkin, L. B.; Imenkov, A. N.; Kozlov, M. M.; Tsarenkov, B. V.

TITLE: Optical and photoelectric properties of single-crystal ZnSiP₂

SOURCE: AN SSSR. Doklady, v. 163, no. 3, 1965, 606-608

TOPIC TAGS: optical property, photoelectric property, zinc compound optic material, forbidden band, light polarization, absorption edge, temperature dependence

ABSTRACT: In view of the lack of published data on this compound, the authors have studied the photoelectric and optical properties of n-type single crystals obtained from the gas phase by the method of gas-transport reactions. The spectral sensitivity of the photoconductivity was measured at 77 and 300K using a setup comprising a tungsten incandescent lamp, a light interrupter, a monochromator (IKS-21), amplifier (V2-6), synchronous detector, and electronic potentiometer (EPP-09). The absorption spectrum was measured with the spectrograph and a camera at 300, 77, and 4.2K. In addition, the authors investigated the influence of polarization of the incident light on both the optical and photoelectrical properties. Photoconductivity was observed at incident photon energies 0.5--2.5 ev. At 300K the photoconductivity has a highly peaked maximum at 2.14 ev, and also maxima at 0.8 and 1.0

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L 6509-66
ACCESSION NR: AP5019425

ev, attributed to impurities. At 77K the maxima shift to 2.19, 1.04, and 0.84 respectively. The spectral photoconductivity curve exhibited also some kinks due to transitions of the electrons from the valence to the conduction band. Polarization began to affect the photoconductivity only above 2 ev, when the photoconductivity became highly sensitive to the direction of the electric vector. This may be due to anisotropy of the crystal. Not all crystals showed a sharp absorption edge, a fact attributed to the number of crystal defects. Where a sharp absorption edge was observed, it showed a dependence on the temperature and on the polarization. The maxima of the photoconductivity and the start of the strong optical absorption were very close to each other, and the sharpness of the absorption edge suggests the presence of direct interband transitions in $ZnSiP_2$. The forbidden band is estimated at 2.13 ev at 300K and between 2.2 and 2.25 ev at 77K. Two absorption bands are observed at 2.23 and 2.27 ev at 77 and 4.2K, and their origin is not clear. This report was presented by L. A. Artsimovich. Orig. art. has: 2 figures and 1 table.

ASSOCIATION: Fiziko-tehnicheskii institut im. A. F. Ioffe Akademii nauk SSSR
(Physicotechnical Institute, Academy of Sciences SSSR)

SUBMITTED: 17Nov64

ENCL: 00

SUB CODE: OP, SS

NR REF SOV: 002

OTHER: 001

Card 2/2

L 01050-67 EWT(1)/EWT(m)/T/EWP(t)/ETI IJP(c) JD

ACC NR: AP6030961 SOURCE CODE: UR/0181/66/008/009/2623/2627

52
51B

AUTHOR: Belle, M. L.; Alferov, Zh. I.; Grigor'yeva, V. S.; Kradinova, L. V.; Prochukhan, V. D.

ORG: Physicotechnical Institute im. A. F. Ioffe AN SSSR, Leningrad (Fiziko-
tehnicheskoy institut AN SSSR)

TITLE: Optical reflection of gallium phosphide and gallium arsenide and their solid solutions

SOURCE: Fizika tverdogo tela, v. 8, no. 9, 1966, 2623-2627

TOPIC TAGS: gallium arsenide, gallium, optical reflection, gallium phosphide, doublet structure, ultraviolet region structure, spin orbital, splitting

ABSTRACT: An analysis is made of the optical reflection of GaP, GaAs, and their solid solutions in the 2.0—5.0 ev region at 100 and 290K. A doublet structure was detected in the ultraviolet region of the spectrum, which shifts linearly with changes in composition. Satisfactory agreement in the distance between double components and corresponding values, determined from infrared absorption, make it possible to ascribe this doublet to the spin-orbital splitting of the valency band at the

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L 01050-67

ACC NR: AP6030961

point, the corresponding transition in this case being $\Gamma_{15} \rightarrow \Gamma_{15}(E_0)$ -- the transition from the upper valency band to the second conductivity band. For GaAs we then have $E_0 = 4.46$ ev, $\Delta_0 = 0.32$ ev, and for GaP, $E_0 = 4.68$ ev, $\Delta_0 = 0.125$ ev (T = 290K). The shift in the doublet $\Lambda_3 \rightarrow \Lambda_1$ occurs linearly with a break. The doublet structure, which becomes less distinct as the content of GaP increases, is observed as far as the composition $\text{GaP}_{0.7}\text{As}_{0.3}$. Apparently, corresponding transitions occur at various points of the Λ -branch for GaP and GaAs (direction [111] in the Brillouin zone). The author thanks Ye. F. Gross for his interest in this work. Orig. art. has: 1 table, and 3 figures. [Authors' abstract] [SP]

SUB CODE: 20/ SUBM DATE: 17Jan66/ ORIG REF: 001/ OTH REF: 009/

awm

Card 2/2

L 38891-66 EWT(1)/EWT(m)/T/EWP(t)/ETI IJP(c) AT/JD/JG

ACC NR: AP6018558

SOURCE CODE: UR/0181/66/008/006/1903/1906

AUTHOR: Belle, M. L.

ORG: Physicotechnical Institute im. A. F. Ioffe, AN SSSR, Leningrad (Fiziko-
tekhnicheskiiy institut AN SSSR)

TITLE: Influence of temperature and alloying on the conduction-band edge for certain
semiconductors of the AIIIbV group (n-type)

SOURCE: Fizika tverdogo tela, v. 8, no. 6, 1966, 1903-1906

TOPIC TAGS: semiconductor conductivity, temperature dependence, spin orbit interaction,
conduction band, valence band, Brillouin zone, forbidden band, exciton, impurity level

ABSTRACT: The authors investigated the influence of the temperature and alloying on
the position and form of the reflection doublet $\Lambda_3 + \Lambda_1$, corresponding to the transi-
tion between the split spin-orbit interaction of the valence band and the conduction
band in the [111] direction of the Brillouin zone in InAs and GaAs n-type crystals.
The various crystals had different impurity densities and different types of impuri-
ties. The measurements were made at 100 and 290K. The results show that with in-
creasing impurity concentration, the doublet as a whole shifts toward smaller energies,
thus evidencing a narrowing of the forbidden band. For the most strongly doped samples,
the shift amounted to ~0.025 ev for InAs and ~0.06 ev for GaAs. A similar shift was
observed earlier for InSb, Ge, and Si. In the case of InAs it is observed that in the
investigated region of concentrations there is no isolated impurity level near the
minimum of the conduction band, in spite of the fact that theory at first glance might

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L 38891-66

ACC NR: AF6018558

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call for the presence of such a level. The absence of the impurity level is attributed to a large Debye screening and to the finite probability of the transition of the electron from such a level to a lower minimum of the conduction band. The values of the spin-orbit splitting were found to be 0.22 ± 0.01 and 0.27 ± 0.01 eV for GaAs and InAs respectively. The asymmetrical form of the reflection bands, appearing at 100K, indicate that exciton states may exist near the L-minimum of the conduction band. The vanishing of the asymmetry with increasing degree of doping makes it possible to estimate the value of the binding energy of the L-exciton at approximately 0.08 eV for InAs and 0.05 eV in the case of GaAs. The author thanks Ye. F. Gross for interest in the work and M. I. Klinger for help in the discussion of the results. Orig. art. has: 4 figures.

SUB CODE: 20/ SUBM DATE: 18Dec65/ ORIG REF: 001/ OTH REF: 011

Card

MICP

BELE, T.S.; GORBUNKOV, V.M.; ROZENBERG, L.D.

Calculating the amplification factor of a sound wave falling
obliquely on a parabolic mirror. Akust.zhur. 8 no.3:273-280 '62.
(MIRA 15:11)

1. Akusticheskiy institut AN SSSR, Moskva.
(Sound waves)

L 10806-66 EWI(m)/T LJP(c)

ACC NR: AP5027306

SOURCE CODE: UR/0241/65/010/010/0067/0073

45
B

AUTHOR: Belle, Yr. S.; Kostikov, Yu. I.; Shamov, V. P.; Shapiro, E. L.

ORG: Leningrad Scientific Research Institute of Radiation Hygiene,
Ministry of Health, RSFSR Leningradskiy Nauchno-issledovatskiy
institut radiatsionnoy gigieny Ministerstva zdravookhraneniya RSFSR

55

TITLE: Radiometric properties of the large liquid scintillation counter
BZhSS-1

19.55

SOURCE: Meditsinskaya radiologiya, v. 10, no. 10, 1965, 67-73

TOPIC TAGS: scintillation counter, gamma counter, scintillation spec-
trometer, radiation instrument, radiobiologic instrumentation, experi-
ment animal/BzhSS-1 scintillation counter

ABSTRACT: The article describes the counter and illustrates it in a
figure. Its 4π dimension and large measuring volume permits consider-
able amplification of the criterion of radiometric quality,
n^c/n background. It is particularly suitable for measuring low gamma
radiation in experimental animals up to a large rabbit and other objects
of similar size. A procedure for finding the optimal differential
registration channel is given. The instrument has spectrometric semi-

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UDC: 612.014.482:621.387.4

L 10806-66

ACC NR: AP5027306

resolution equal to 39 and 21% for Cs^{137} and K^{40} respectively and thus does not allow analysis of complex gamma radiation spectra. Activities of $5 \cdot 10^{-11}$ to $5 \cdot 10^{-3}$ curies can be measured. Isosensitivity of the larger part of the measuring volume is shown to be high and is seen particularly upon moving the source. The configuration of the object hardly influences the measuring results. Increased specimen volume will lead to self-absorption and attenuation of initial gamma irradiation producing a slight drop in the count. This is shown on aqueous phantoms. For those up to 0.5 liter this does not depend on radiation energy and amounts only to a few percent. This counter has been used for radiobiologic and radiation protection studies and has been found highly reliable. Reproducibility was increased 10-20 times compared to radiochemical methods, and the number of measured objects reached 6000 per year. Its use for prevital radioactivity determination in experimental animals afforded studies of isotope metabolism in the organism. Orig. art. has: 10 figures.

SUB CODE: 06, 07/ SUBM DATE: 05Jan 65/ ORIG REF: 001/ OTH REF: 002

Card ¹ 2/2

ACC NR: AP6013490

UR/0120/66/000/002/0041/0043

AUTHOR: Belle, Yu.S.; Shchedrin, D.A.; Zlobin, L.I.

ORG: NII of Radiation Hygiene, Leningrad (NII radiatsionnoy gigiyeny)

TITLE: Dependence of gamma spectrometer resolving power upon the nonuniformity of the photocathode sensitivity, and choice of the spectrometric regime for the photomultiplier FEU-43

SOURCE: Pribory i tekhnika eksperimenta, no.2, 1966, 41-43

TOPIC TAGS: gamma spectrometer, gamma spectrometer resolving power, photocathode, photomultiplier / FEU-43 photomultiplier, photomultiplier adjustment method, multichannel analyser / AMA-4S multichannel analyzer

ABSTRACT: A technique for the measurement of the photoelectric sensitivity distribution on the surface of the photocathode, and an optimum adjustment method for the photoelectric multiplier FEU-43, forming part of a gamma ray spectrometer system is discussed. A NaI(Tl) miniature crystal illuminator is arranged to scan the photosensitive surface of the photocathode while illuminating it by light flashes generated by alpha particles from Pu²³⁹. A histogram of sensitivity values is obtained by sorting the photocathode output voltages using a multichannel analyser, the AMA-4S. The histogram can be influenced by adjusting the divider regime of the FEU-43. It was found that the

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UDC: 621.383.533

ACC NR: AP6013490

optimum resolving regime for the spectrometer results by tuning for the maximum signal amplitude of the impulse in the area of least photoelectric sensitivity. This proposition is substantiated by a table of resolving data. Orig. art. has 3 figures and 1 table.

SUB CODE: 20,09/ SUBM DATE: 28Dec64/ ORIG REF: 003/ OTH REF: 001

Card 2/2

BELLE, Yu.S.; KOSTIKOV, Yu.I.; SHAMOV, V.P.; SHAPIRO, E.L.

Radiometric properties of the large liquid scintillation
counter BZhSS-1. Med. rad. 10 no.10:67-73 O '65.

(MIRA 18:12)

1. Leningradskiy nauchno-issledovatel'skiy institut
radiatsionnoy gigiyeny Ministerstva zdravookhraneniya RSFSR.
Submitted January 5, 1965.

SPIRIN, V.D.; BELLE, Yu.S.; CFIMINA, V.F.

Measuring the radon concentration in water by γ -radiation.
Med. rad. 10 no. 12:11-13 D '65 (MIRA 19:1)

1. Leningradskiy nauchno-issledovatel'skiy institut radiatsionnoy
gigiyeny.

L 24442-66 BYT(m)/EWA(h)

ACC NR: AP6007816

SOURCE CODE: UR/0120/66/000/001/0094/0097

AUTHOR: Belle, Yu. S.

32
B

ORG: Leningrad Scientific Research Institute of Radiation Hygiene (Leningradskiy nauchno-issledovatel'skiy institut radiatsionnoy gigiyeny)

TITLE: A method for determining the stability of radiometric instruments

19

SOURCE: Pribory i tekhnika eksperimenta, no. 1, 1966, 94-97

TOPIC TAGS: radiometry, potentiometer, multichannel analyzer

ABSTRACT: The author describes an installation which uses an EPP-09 potentiometer for automatically recording the successive times necessary for accumulation of a given number of pulses in the form of a diagram which gives a graphic means for judging the stability of radiometric equipment. The recording instrument is based on a device similar to the converter in the AMA-4S multichannel analyzer (see figure). Pulses from blocking generator 1 are fed to a nine-digit converter register consisting of flip-flops 2 with RP-64 relay windings 3 connected in the anode circuits. These relays are used for switching resistors with values which follow a binary law with a high degree of accuracy (0.1%). These resistors are separated into two groups which are interconnected in such a way that the voltage from the left group is attenuated by a factor of 2^4 before reaching the output of the system. The voltage from the out-

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UDC: 539.16.08

2

L 24442-66

ACC NR: AP6007816

seconds to 21.8 minutes depending on the connection of preliminary scaling flip-flops
4. The output pulse from the scaler of the radiometric device (e. g. PS-10000) operates the scanning flip-flops. The time required for accumulation of 100, 1000 or 10,000 pulses is recorded in the form of straight lines on the tape for any pulse count rate from 5 to 10,000 ppm. The scale of the recording is adjusted by changing the sweep time and the scaling factor of the PS-10000. Examples of recordings are given. These charts may be used for evaluating the effect of various factors (supply voltage, temperature, etc.) on the stability of radiometric equipment. Examples are given illustrating the use of this instrument for alignment of a large liquid scintillation counter. Orig. art. has: 4 figures, 2 formulas.

SUB CODE: 09,17/

SUBM DATE: 28Dec64/

ORIG REF: 003/

OTH REF: 001

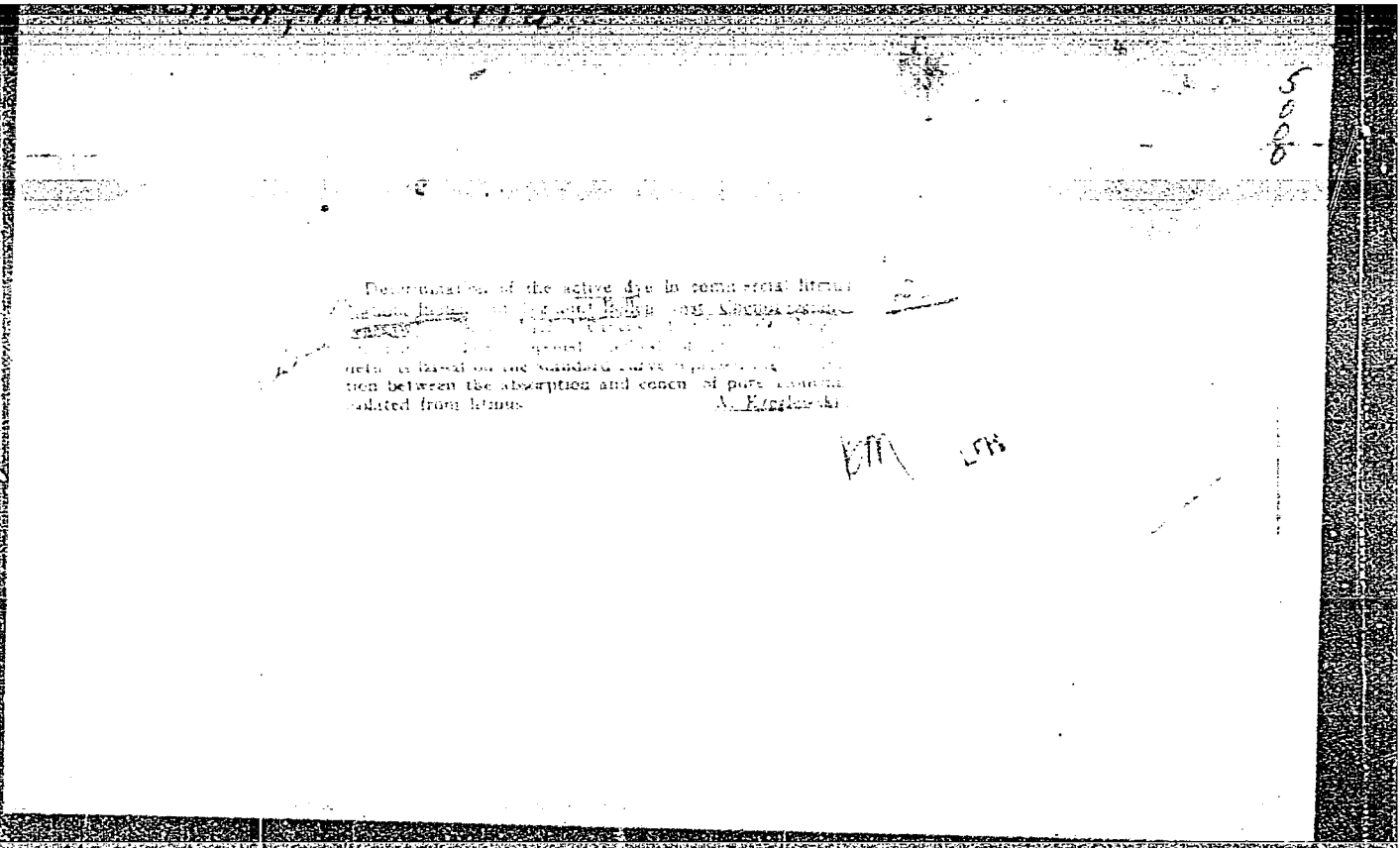
Card 3/3 dda

BELLEN, N.

Determination of phthalic anhydride in crude phthalic anhydride. M. Straziński, Z. Bellen, and N. Bellen. *Przemysł Chemiczny* 9, 243 (1934) (English summary). Calc. (CO)₂ (I) was detd. in the presence of such impurities as (-CHCOH), PhCOH, substances which do not ppt. with alc. KOH, and compts. sol. in alc. and alc.-Et₂O mixt. Dissolve 0.13-0.25 g. of sample in 25 ml. alc., treat with 0.5N alc. KOH, heat 15 min. in a water bath at 70-80°, cool 20 min. to room temp., add 15 ml. Et₂O, neutralize after 10 min. with Me(CH₂)₂CH:CH(CH₃)COH in the presence of phenolphthalein. filter, wash 5 times with 8 ml. alc.-Et₂O mixt., and dry 2 hrs. at 100°. Weigh the resulting KHC₈H₄O₄, dissolve in 14 H₂O, and to the soln. add 1 ml. concd. H₂SO₄, 20 ml. 0.1N KMnO₄ soln., and after 3 min. 0.5 g. KI. Titrate the liberated I with 0.1N Na₂S₂O₃. The method is more accurate than any other method described so far.

Gene A. Woyny

AL 61



POLAND/Chemical Technology. Chemical Products and Their Applications. Industrial Organic Synthesis. H

Abs Jour : Ref Zhur-Khimiya, No 6, 1959, 20398

Author : Bellon, Natalia

Inst : _____

Title : Determination of p-Acetylamino benzenesulfonyl Chloride in a Technical Product.

Orig Pub : Chem. analit., 1957, 2, No 5, 463-465

Abstract : A description of methods for determining p-ClO₂SC₆H₄NHCOCH₃ (I) in a technical product is absent in the literature. A method was developed, based on a method for determining pure sulfochlorides (II) (Drahowzal, F., Klamann, D., Monatshft. f. Chemie, 1951,

Card : 1/4

14-65-

POLAND/Chemical Technology. Chemical Products
and Their Applications. Industrial
Organic Synthesis.

H

Abs Jour : Ref Zhur-Khimiya, No 6, 1959, 20398

The contents are mixed well; after the sample dissolves, 50 ml of distilled water are added, mixed again, 10 ml of NH_4OH (1:1) are added and 25 ml of 0.1 n AgNO_3 are titrated out. After the addition of 10 ml $(\text{C}_2\text{H}_5)_2\text{O}$ and 1 ml of a saturated solution of $\text{Fe}(\text{NH}_4)(\text{SO}_4)_2 \cdot 12\text{H}_2\text{O}$ (IV), a solution of 0.1 n is titrated out by a solution of NH_4SCN before the first change of color. In case of difficulty in reading, a potentiometric titration is used. To determine Cl^- , 0.5 g of a sample is weighed, 50 ml of $(\text{C}_2\text{H}_5)_2\text{O}$ is added, mixed well, 50 ml of

Card : 3/4

H-66

DELLEN, N.

Determination of 5-acetamido-1,3,4-thiadiazole-2-sulfonyl chloride in the technical product. Natalia Belch and Maria Szelagowska. *Chem. Anal. (Warsaw)* 9: 1-4 (1960) (English summary).—A method for detg. 5-acetamido-1,3,4-thiadiazole-2-sulfonyl chloride (1) in the tech. product (cf. Drahowzal and Klamann, *C.A.* 45, 10134d) is described. To det. Cl⁻ ion and Cl in the sulfonyl chloride group, add 2 ml. freshly distd. C₆H₆N and 2 drops distd. water to 0.5 g. powd. I. After soln. add 60 ml. distd. water and 10 ml. HNO₃ (1:1). Stir, add 10 ml. Et₂O, and titrate potentiometrically with 0.1N AgNO₃. To det. Cl present in the technical product, add 60 ml. Et₂O and 60 ml. distd. water to 0.5 g. powd. I. Stir vigorously for 2 min. Add 10 ml. HNO₃ (1:1) and titrate with 0.1N AgNO₃.

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2 May
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Simultaneous determination of crotonaldehyde and acetaldehyde in technical crotonaldehyde. Zygmunt Belen and Natalia Belen (Zaklad Analityczny Inst. Chemii Ogolnej, Warsaw). *Chem. Anal. (Warsaw)* 4, 19-24 (1959) (English summary).—A method for simultaneously detg. crotonaldehyde (I) and AcH in technical crotonaldehyde (cf. Wearn, et al., *C.A.* 43, 1988a and Sjöström, *C.A.* 48, 13542z) is described. *Determination of I in the technical product.* Diss. 0.5 g. sample with H₂O to 100 ml. To 10 ml. of the soln. add 25 ml. 0.1N KBrO₃, 10 ml. 10% KBr, and 6 ml. concd. HCl. Shake and leave on ice-water bath for 3 min. Add 10 ml. 10% KI and titrate with 0.1N Na₂S₂O₃. Error of detn. was about ±1%. *Determination of AcH in the technical crotonaldehyde.* Dissolve a sample contg. 0.3-0.5 g. I and not above 0.15 g. AcH in 20 ml.

distd. H₂O. Add 25 ml. 10% NaHSO₃. Heat at 75° for 4 hrs. Cool to room temp., add 30 ml. 1M NaHSO₃, distill off AcH to a receiver contg. 40 ml. neutral 2% NH₄OH.HCl soln. Stop distn. after collecting about 0.5 vol. of liquid. Titrate with 0.2N NaOH. The method is suitable in serial industrial analyses. Z. Kurtyka—

29

BELLEN, Natalia; BELLEN, Zygmunt

Determination of ammonia in the presence of volatile amines.
Chem anal 5 no.3:461-469 '60. (EEAI 10:8)

1. Zaklad Analityczny im. M. Struszyńskiego, Instytut Chemii
Ogólnej, Warszawa.
(Ammonia) (Amines)

BELLEN, Natalia; BELLEN, Zygmunt

Determination of primary and secondary aliphatic amines by their
condensation with carbon disulfide. Chem anal 6 no.1:63-67 '61.
(REAI 10:7)

1. Struszynski Analytical Laboratory, Institute of General Chemistry,
Warsaw.

(Aliphatic compounds) (Carbon disulfide) (Amines)

POLAND

BELLEN, Natalia; BELLEN, Zygmunt; LADA, Zygmunt.

Department of Analytical Chemistry, Institute of General Chemistry
(Zakład Analityczny im. M. Struszynskiego, Instytut Chemii Ogólnej),
Warsaw - (for all).

Warsaw, Chemia analityczna, No 6, November-December 1965, pp 1205-1209.

"The control of the ethylenediamine production. Part 2; Determination
of ammonia in presence of ethylenediamine and polyethyleneamines."

Struszyński M., Bellen Z., Bellen N. Determination of Phthalic Anhydride in Crude Phthalic Anhydride.

„Oznaczanie bezwodnika ftalowego w surowym bezwodniku ftalowym”. Przemysł Chemiczny, No. 5, 1953, pp. 242—245, 2 tabs.

A titrimetric method has been worked out of determining phthalic anhydride in the presence of such impurities as maleic and benzoic acid and of substances which do not precipitate with alcoholic potassium hydroxide, and also in the presence of compounds soluble in alcohol-ether mixtures. This method is more exact and more universal than any other method so far described in literature, and can be applied in serial determinations.

M-204

BELLEN, Z.

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V^o Determination of quinoline acid in crude acid. M.
 Struzavski, and Z. L. L. (Inst. Chem., Warsaw).
 Przemysl Chem. 4: 477-478 (1953) (English summary).
 Quinoline acid (I) can be detd. gravimetrically as bitartrate
 compd. with Cu. To a 60-ml. flask with 0.25 g. crude I,
 add 10 ml. 15% H₂SO₄ and heat (not higher than 70°)
 until dissolved. Add 5 ml. 5% CuSO₄, heat 2 hrs. at 70°
 on the steam bath, keep 12 hrs. at room temp., filter, and
 wash with several ml. of alc. Dry the residue 3 hrs. at
 105-110°.

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Gene A. Wozny

Bellen, Z.

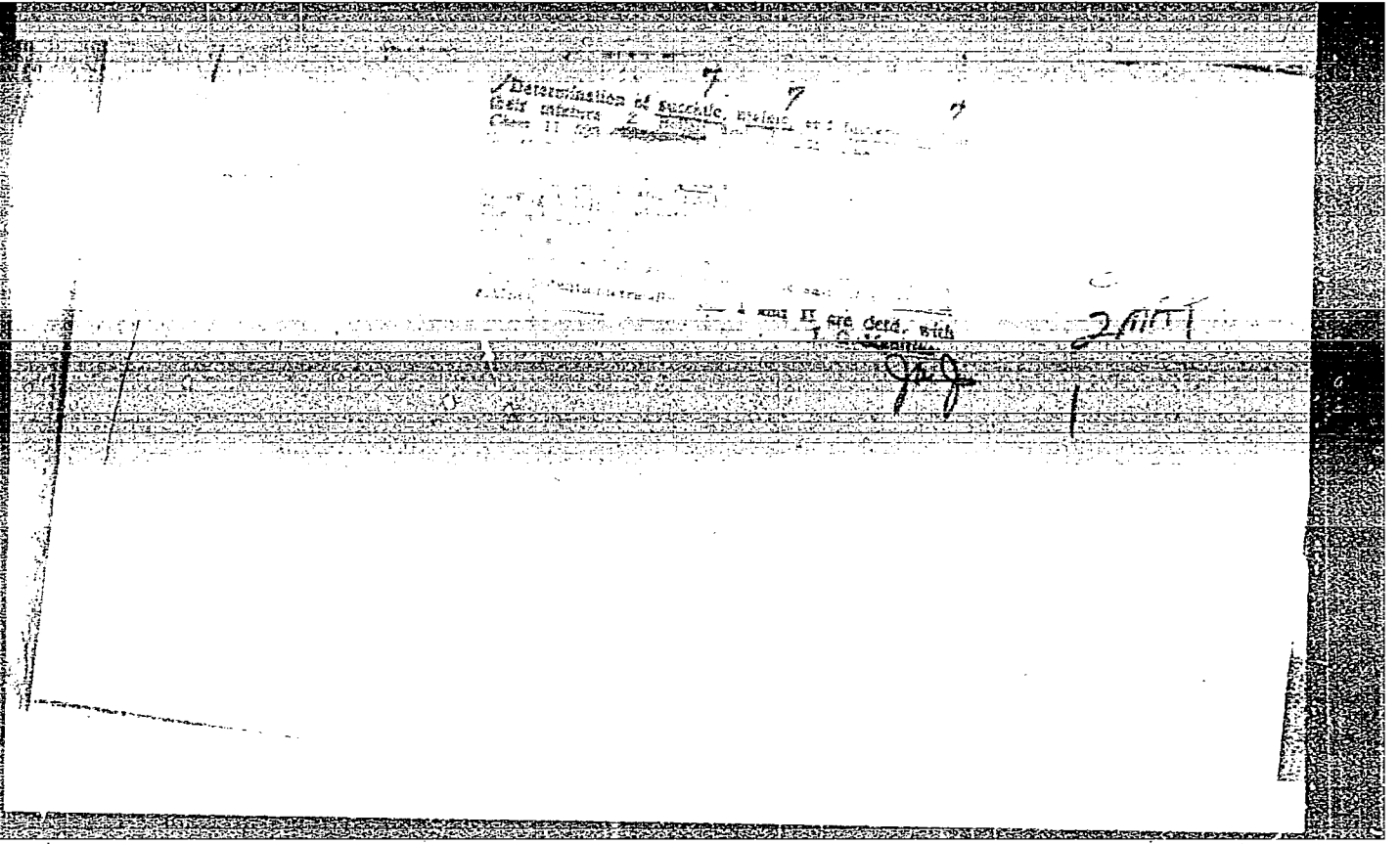
1144 347.401.4.04 : 547.462.3 : 543.8
Bellen Z., Sękowska B. Simultaneous Determination of Succinic, Maleic
and Fumaric Acids.

„Oznaczenie kwasu bursztynowego, maleinowego i fumarowego obok
siebie”. Przemysł Chemiczny. No. 9, 1955, pp. 523—526, 3 figs., 4 tabs.

The method of simultaneous determination of succinic, maleic and
fumaric acids consists in potentiometric determination of the total
amount of the three acids by titration of their sodium salts with per-
chloric acid in the medium of acetic acid, and in determining maleic
and fumaric acids by the polarographic method.

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1900. Determination of the active principle in commercial litmus. N. Bellen and Z. Bellen (Anal. Dept. Chem. Inst. Warsaw). *Chem. Abstr.*, Warsaw, 1946, 1 (1), 82-83. — Purified aroclitmin, prepared from ordinary litmus by the method described, was used to establish the optimum conditions and the coefficient of absorption in the colorimetric determination of the substance in crude litmus. *Procedure*—Weigh into a 100-ml standard flask enough

Chem *ly*

of the finely ground sample to provide 0.01 to 0.03 g of aroclitmin, add 10 ml of water and mix. Add 4-6 ml of 0.1 N NaOH and make up to volume with 0.2 M sodium tetraborate. Allow to stand for 5 min. and filter. Reject the first 20 ml of the filtrate, and measure the extinction of the remainder at 600 m μ .

K. F. BRONKH

AM *any*

1476. Determination of volatile aliphatic amines
in the presence of ammonia in non-volatile prepara-
tions. Z. Physik. (Anal. Dept. Chem. Inst. Warsaw).
Chem. Abstr. Warsaw, 1906, 1 (1), 11-15. The
procedure is based on that developed by Weber and
Wilson (J. Biol. Chem., 1910, 35, 325), in which
yellow mercuric oxide is used for absorbing am-
monia. In the present method the absorption is
carried out under enclosed conditions and this
makes it possible to attain an accuracy of $\pm 1\%$
on amounts up to 1.5%, calculated as dimethyl-
amine. The amines and ammonia are distilled in
the usual way from an alkaline solution into a 500-ml
bottle and the distillate is treated with alkali and
yellow mercuric oxide. The mixture is shaken for
1 hr. and set aside overnight. The bottle is then
closed with a rubber stopper carrying a short glass
inlet-tube and a tube that dips into the test mixture
and is connected to a stoppered sintered-glass filter
funnel, whose stem passes through a rubber bung
into a flask containing dil. HCl. By evacuating
the flask, the soda from the bottle is sucked into the
filter funnel, and then into the flask with no possi-
bility of losing vapours of volatile amines. The
method was found to be satisfactory for the deter-
mination of volatile aliphatic amines in hexamine.
K. F. SPURK

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POLAND / Analytical Chemistry. Analysis of Organic Substances.

Abs Jour : Ref Zhur - Khim., No 7, 1958; No 21238

Author : Bellen, Mrochkovskaya

Inst : Not given

Title : Determination of 2-di-(N-acetylsulfenyl)-aminothiazole in a Technical Product.

Orig Pub : Chem. analit., 1956, 1, No. 4, 320-330

Abstract : A volumetric method was developed for the determination of 2-di-(N-acetylsulfenyl)-aminothiazole, so called prontil (I) based on potentiometric titration with an NaOH acetyl-sulfathiazole (II) solution, forming on the heating of I with NH₃. The best results are obtained on titration of an aqueous solution of NaOH of the test sample, dissolved in a mixture of acetone and water (4:1), with the application of HgCl- and Sb-electrodes. The determination of an equivalent

Card 1/2

POLAND/Analytical Chemistry. Analysis of Organic
Compounds.

E

Abs Jour; Ref Zhur-Khimiya, No 21, 1958, 70631.

Author : Bellen, Senkovskaya.

Inst :

Title : The Determination of the Diethylester of Monoethyl-
malonic Acid and the Diethylester of Diethylmalonic
Acid in Technical Diethylester of Diethylmalonic
Acid in the Presence of Each Other.

Orig Pub: Chem anal., 1957, 2, No 1, 35-43.

Abstract: A method was developed for the determination of
diethyl esters of malonic (I), monoethyl malonic
(II), and diethyl malonic acid (III) in technical
III. Three determinations are given (separate
sample weights of the test substance): 1) a volu-

Card : 1/2

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Simultaneous determination of formaldehyde and polyoxy-
methylene. Z. Bellen (Chem. Inst., Varsovie, Poland),
Chem. anal. 40, 230-2 (1938).—Det. the aldehyde sepd.
from the sample by condensation with dimedone in a soln.
buffered to pH 8 followed by a titration of the formed
dimedone-HCHO complex. The sum of the free and bound
aldehyde in the polymer is obtained by oxidation with I in
an alk. medium and back-titration of the excess I with
Na₂S₂O₃. K. G. Stone.

BELLEN, Z.

Simultaneous determination of formaldehyde and paraformaldehyde. p. 13.

CHAMIA ANALITYCZNA. (Komisja Analityczna Polskiej Akademii Nauk i Naczelna Organizacja Techniczna) Warszawa, Poland. Vol. 4, No. 1/2, 1959.

Monthly List of East European Accessions (EEAI) LC, Vol. 8, August 1959.
Uncl.

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2 May
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Simultaneous determination of crotonaldehyde and acetaldehyde in technical crotonaldehyde. Zygmunt Bellen and Natalia Bellen (Zakład Analityczny Instytut Chemii Organicznej, Warsaw). *Chem. Anal. (Warsaw)* 4, 10-24(1959) (English summary).—A method for simultaneously detg. crotonaldehyde (I) and AcH in technical crotonaldehyde (cf. Weira, *et al.*, *C.A.* 43, 1638a and Sjöström, *C.A.* 48, 13642g) is described. *Determination of I in the technical product.* Dil. 0.5 g. sample with H₂O to 100 ml. To 10 ml. of the soln. add 25 ml. 0.1N KBrO₃, 10 ml. 10% KBr, and 8 ml. concd. HCl. Shake and leave on ice-water bath for 3 min. Add 10 ml. 10% KI and titrate with 0.1N Na₂S₂O₃. Error of detn. was about ±1%. *Determination of AcH in the technical crotonaldehyde.* Dissolve a sample contg. 0.3-0.5 g. I and not above 0.16 g. AcH in 20 ml.

distd. H₂O. Add 25 ml. 10% NaHSO₃. Heat at 75° for 4 hrs. Cool to room temp., add 30 ml. M NaHSO₃, distill off AcH to a receiver contg. 40 ml. neutral 2% NH₄OH-HCl soln. Stop distn. after collecting about 0.5 vol. of liquid. Titrate with 0.3N NaOH. The method is suitable in serial industrial analyses. Z. Kurtyka

27.

BELLEN, Z.;SEKOWSKA, B.

Determination of aldehydes by the argentometric method. 1. Determination of formaldehyde in technical urotropine. p. 25.

CHAMIA ANALITYCZNA. (Komisja Analityczna Polskiej Akademii Nauk i Naczelna Organizacja Techniczna) Warszawa, Poland. Vol. 4, No. 1/2, 1959.

Monthly List of East European Accessions (EEAI) LC, Vol. 8, August 1959.
Uncl.

BELLEN, Z.; SZELAGOWSKA, M.

Analytic checking of 2-sulfonamide-5 acetylamine-1,3,4-thiadiazol synthesis.p.29.

CHAMIA ANALITYCZNA. (Komisja Analityczna Polskiej Akademii Nauk i Naczelna Organizacja Techniczna) Warszawa, Poland. Vol. 4, No. 1/2, 1959.

Monthly List of East European Accessions (EEAI) LC, Vol. 8, August 1959.
Uncl.

HELLEN, Zygmunt

Methods of determining aldehydes with the help of oxidation by silver (I) oxide. Chem anal 4 no.4:675-683 '59. (EBAI 9:6)

1. Zakład Analityczny Instytutu Chemii Ogólnej, Warszawa.
(Aldehydes) (Oxidation) (Silver oxides)

ACHMATOWICZ, Osman; BELLEN, Zygmunt

On the steroidal constituents of nuphar luteum. Roczniki chemii 34
no.1:93-102 '60. (KEAI 10:9)

1. Department of Organic Chemistry, University, Warsaw and Organic
Chemistry Laboratory, Polish Academy of Science, Warsaw.

(Steroids) (Nuphar)

BELLEN, Natalia; BELLEN, Zygmunt

Determination of ammonia in the presence of volatile amines.
Chem anal 5 no.3:461-469 '60. (EEAI 10:8)

1. Zakład Analityczny im. M. Struszyńskiego, Instytut Chemii
Ogólnej, Warszawa.
(Ammonia) (Amines)

BELLEN, Natalia; BELLEN, Zygmunt

Determination of primary and secondary aliphatic amines by their condensation with carbon disulfide. Chem anal 6 no.1:63-67 '61.
(EEAI 10:7)

1. Struszynski Analytical Laboratory, Institute of General Chemistry, Warsaw.

(Aliphatic compounds) (Carbon disulfide) (Amines)

BELLEN, Zygmunt; SEKOWSKA, Barbara

Simultaneous determination of acetaldehyde and paraldehyde. Chem
anal 6 no.1:69-74 '61. (EEAI 10:7)

1. Struszynski Analytical Laboratory, Institute of General Chemistry,
Warsaw.

(Acetaldehyde) (Paraldehyde)

BELLEN, Zygmunt; KOCHEL, Irena

Determination of small amounts of acetaldehyde in some organic solvents. Chem anal 6 no.2:195-199 '61. (EEAI 10:9)

1. Struszynski Analytical Department, Institute of General Chemistry, Warsaw.

(Acetaldehyde) (Solvents) (Organic compounds)

BELLEN, Zygmunt; SEKOWSKA, Barbara

Argentometric determination of acetaldehyde in the presence of
acetone. Chem anal 6 no.2:201-206 '61. (EEAI 10:9)

1. Struszynski Analytical Department, Institute of General Chemistry,
Warsaw.

(Acetaldehyde) (Acetone) (Argentometry)

ACHMATOWICZ, Osman; BELLEN, Zygmunt

Alkaloids of Nuphar luteum (L.) SM. Pt.2. Rocznik chemii 36
no.12:1815-1825 '63.

1. Department of Organic Chemistry, University, Warsaw, and
Institute of Organic Chemistry, Polish Academy of Sciences,
Warsaw.

Bellen, Zygmunt

POLAND

BELLEN, Natalia; BELLEN, Zygmunt; LADA, Zygmunt.

Department of Analytical Chemistry, Institute of General Chemistry
(Zaklad Analityczny im. M. Strussynskiego, Instytut Chemii Ogolnej),
Warsaw - (for all).

Warsaw, Chemia analityczna, No 6, November-December 1965, pp 1209-1209.

"The control of the ethylenediamine production. Part 2: Determination
of ammonia in presence of ethylenediamine and polyethylenesamines."

POLAND

BELLEN, Natalia, mgr; BELLEN, Zygmunt, dr; LADA, Zygmunt, mgr inż.

Analytical Department, M. Strussynski Institute of General
Chemistry (Zaklad Analityczny im. M. Strussynskiego Instytutu
Chemii Ogolnej), Warsaw - (for all)

Warsaw, Chemia analityczna, No 2, March-April 1966, pp 273-278

"The control of ethylenediamine production. Part 5: Semimicro
method of determination of ethylenediamine, diethylenetriamine,
triethylenetetramine in a mixture."

BELLENDIR, E. N.

Changes in the vascularization of the bone during streptomycin therapy and surgical treatment of tuberculous osteitis in an experiment. Ortop., travm. i protez. no.3:48-52 '62.

(MIRA 15:6)

1. Iz Leningradskogo nauchno-issledovatel'skogo instituta khirurgicheskogo tuberkuleza (dir. - prof. D. K. Khokhlov, nauchnyy rukovoditel' - deystvitel'nyy chlen AMN SSSR prof. P. G. Kornev). Adres avtora: Leningrad K-21, Institutskaya, d. 6, Leningradskiy institut khirurgicheskogo tuberkuleza i kostno-sustavnykh zabolevaniy.

~~(BONES - TUBERCULOSIS) (STREPTOMYCIN)~~
~~(BONES - BLOOD SUPPLY)~~

BELLENDIR, E. N., aspirant

Changes in vascularization in experimental osteoarticular tuberculosis. Probl. tub. 40 no.4:76-83 '62. (MIRA 15:6)

1. Iz Leningradskogo nauchno-issledovatel'skogo instituta khirurgicheskogo tuberkuleza (dir. - prof. D. K. Khokhlov), nauchnyy rukovoditel' - deystvitel'nyy chlen AMN SSSR prof. P. G. Kornev.

(BONES—TUBERCULOSIS) (JOINTS—TUBERCULOSIS)

BELLENDIR, E.N., kand.med.nauk (Leningrad K-156, Svetlancvskaya ul. d.5)

Bone grafting to fill the postoperative cavity in Albright's syndrome. Ortop., travm. i protez. 25 no.12x61 0 '64.

(MIRA 19x1)

1. Iz Leningradskogo instituta khirurgicheskogo tuberkuleza (direktor - prof.D.K.Khokhlov; nauchnyy rukovoditel' - deyatvitel'nyy chlen AMN SSSR prof.P.G.Kornev). Submitted January 10, 1964.

BELLENDIR, E.N., kand.med.nauk (Leningrad K-220, Grazhdanskiy prospekt,
d.15, korpus 8, kv.189)

Characteristics of the revascularization of spongiuous bone
auto- and homotransplants. Ortop., travm. i protez. 26
no.12:41-47 D '65.

(MIRA 19:1)

1. Iz Leningradskogo instituta khirurgicheskogo tuberkuleza
(direktor - prof.D.K.Khokhlov; nauchnyy rukovoditel' - deystvi-
tel'nyy chlen AMN SSSR prof.P.G.Kornev). Submitted August 30,
1965.

BELLER, N. N., Engr

"The Development of the Techniques of Preparing and Utilizing Drilling
Muds in Devonian Formations Under the Complex Conditions of the Eastern Oil
Fields." Cand Tech Sci, Moscow (Order of the Labor Red Banner) Petroleum
Inst imeni I. M. Gukbin, 23 Nov 54. (VM, 15 Nov 54)

Survey of Scientific and Technical Dissertations Defended by USSR Higher
Educational Institutions (11)

SO: Sum. No. 521, 2 Jun 55

BELLER, N.N.

Plugging-sand cement for cementing oil wells. Trudy Giprovo-
stoknefti no.1:277-284 '58. (MIRA 13:9)
(Oil well cementing)

BELLER, N.N.

Clay powder from local calcium clays. Trudy Giprovostoknefti
no.1:284-292 '58. (MIRA 13:9)
(Kuybyshev Province--Clay)
(Oil well drilling fluids)

BELLER, N.N.

Determining the quality of clays for the production of clay-base fluids. Trudy Giprovostoknefti no.1:299-304 '58. (MIRA 13:9)
(Clay) (Oil well drilling fluids)

BELLER, N. N.

Effect of pregnancy on reflexes originating with hemoreceptors
of the ovaries. *Biul. eksp. biol. i med.* 37 no.3:8-12 Mr '54.
(MIRA 7:6)

1. Voenno-morskaya meditsinskaya akademiya.
(PREGNANCY) (BLOOD—CIRCULATION)
(RESPIRATION)

BELLER, N. N., Cand Med Sci -- (diss) "Part of the nervous system in the regulation of the composition of the blood and the saturation of arterial blood by oxygen in conditions of hypoxia." Leningrad, 1957, 17 pp (Acadmy of Sciences USSR. Institute of Physiology in I. P. Pavlov), 100 copies (KL, 36-57, 107)

BELLER, N. N.

Role of interoceptors in the regulation of oxygen saturation of arterial blood. Part. 1. Role of the sinocarotid zones in regulation of oxygen saturation of arterial blood in hypoxia [with summary in English]. *Biul. eksp. biol. i med.* 43 no.6:12-18 Je '57. (MIRA 10:10)

1. Iz laboratorii obshchey fiziologii (zav. - deystvitel'nyy chlen AMN SSSR prof. V.N.Chernigovskiy) Instituta normal'noy i patologicheskoy fiziologii AMN SSSR (dir. - deystvitel'nyy chlen AMN SSSR prof. V.N.Chernigovskiy), Moskva i kafedry aviatsionnoy meditsiny Voenno-morskoy meditsinskoy akademii (nach. kafedry - dotsent A.A.Sergeyev), Leningrad. Predstavlena deystvitel'nyy chlenom AMN SSSR V.N. Chernigovskim.

(OXYGEN, in blood,
eff. of denervation of carotid sinus in exper. hypoxia
on saturation (Rus))

(CAROTID SINUS, physiology,
eff. of denervation on oxygen saturation of blood in
exper. hypoxia (Rus))

(ANOXIA, experimental,
eff. of denervation of carotid sinus on blood oxygen
saturation (Rus))

BELLER, N.N.

30-58 -4-36/44

AUTHOR: None Given

TITLE: Dissertations (Dissertatsii)
Department of Biological Sciences (Otdeleniye biologicheskikh nauk) July - December 1957 (Iyul' - Dekabr' 1957 g.)

PERIODICAL: Vestnik Akademii Nauk SSSR, 1958, Nr 4, pp.122-122(USSR)

ABSTRACT: d) for the degree of a Candidate of Medical Sciences:

N. N. Beller - Participation of the Nervous System in the Control of the Blood Content and the Saturation of the Arterial Blood with Oxygen under the Conditions of a Hypoxia (Uchastiye nervnoy sistemy v regulatsii sostava krovi i nasyshchenii arterial'noy krovi kislородом v usloviyakh gipoksii)

M. Ye. Lindeman - The Sucking Action of the Gall-Bladder in the Normal and Pathological State of the Cortex (Vsasyvatel'naya funktsiya zhelchnogo puzyrya pri normal'nom i patologicheskom sostoyanii kory golovnoy mozga)

L. G. Pervov - Investigation of the Higher Nerve Functions of Hysterics (Izucheniye vysshev nervnoy deyatel'nosti u bol'nykh

Card 1/3

Dissertations. Department of Biological Sciences. July - December 1957 30-58-4-36/44

isteriyey)

I. V. Sergeyeva - Susceptibility to Drinking of the Nutritive Center if the Higher Nerve Function is Injured (Pit'yevaya vzbudimost' pishchevogo tsentra pri narushenii vysshey nervnoy deyatel'nosti)

Imre Tomka - Investigation of the Development of Conditioned Connections on the Sound of Pronunciation in Early Childhood (Izucheniye razvitiya usloynykh svyazey ba zvuki rechi u detey rannogo vozrasta)

9) At the Institute of Plant Physiology imeni K. A. Timiryazev (Institut fiziologii rasteniy imeni K. A. Timiryazeva) the following dissertations were defended:

a) for the degree of Doctor of Biological Sciences:

A. N. Gusev - Some Rules of the Water Regime of the Plants (Nekotoryye zakonomernosti vodnogo rezhima rasteniy)

b) for the degree of Candidate of Biological Sciences:

Yu. G. Molotovskiy - On the Problem of the Physiologic Characteristics of Heat Resistivity of Some Cultivated Plants (K voprosu o fiziologicheskoy sushchnosti zharoustoychivosti

Card 2/3

Dissertations. Department of Biological Sciences. July - December 1957 30-58-4-36/44

nekotorykh kulturnykh rasteniy)

10) At the Soil Institute imeni V. V. Dokuchayev (Pochvenniy institut imeni V. V. Dokuchayeva) the following dissertations for the degree of the Doctor of Agricultural Sciences were defended:

S. N. Ivanov - Phosphate Regimes of the Peats and Meadow-Podsols of the Belorusskaya SSR (Fosfatnyy rezhim torfov i dernovo-podzolistykh pochv Belorusskoy SSR)

A. A. Nemchinov - Swampy Grounds in the North of the European Part of the USSR (Bolotnyye pochvy Yevropeyskogo Severa SSSR)

1. Biology—Bibliography 2. Bibliography—Biology

Card 3/3

USSR/Human and Animal Physiology. Respiration.

T

Abs Jour: Ref Zhur-Biol., No 20, 1958, 93280.

Author : Beller, N.H.

Inst :

Title : Significance of Interoceptors in Regulation of Oxygen Saturation of Arterial Blood. 2. Role of Spleen and Carotid Sinus Zones in Regulation of Oxygen Saturation of Arterial Blood in Hypoxia.

Orig Pub: Dzul. eksperim. biol. i med., 1958, 45, No 2, 42-46.

Abstract: In 44 experiments on cats with denervation of the carotid sinuses transitory hypoxia produced a more significant decrease in the oxygenation of blood than in normal animals, but denervation of the spleen brought about an unstable and less expressed disturbance of this

Card : 1/2

USSR/Human and Animal Physiology. Respiration.

T

Abs Jour: Ref Zhur-Biol., No 20, 1958, 93281.

Author : Beller, N.H.

Inst :

Title : Significance of Interoceptors in Regulation of Oxygen Saturation of Arterial Blood. 3. Influence of Denervation of Carotid Sinus Zones on Oxygen Saturation of Arterial Blood and on Volume of Pulmonary Ventilation.

Orig Pub: Byul. eksperim. biol. i med., 1958, 45, No 3, 45-48.

Abstract: In 33 experiments on cats and rabbits denervation of the carotid sinus zones brought about a reduction in the volume of pulmonary ventilation and the degree of O₂ saturation of the blood. Denervation of the spleen and cutting of the femoral nerves, and also irritation of the peritoneum, led only to temporary

Card : 1/2

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Is it practical to use hydrochloric baths in oil well cementing?
Neft. khoz. 38 no.11:30-33 N '60. (MIRA 14:4)
(Kuybyshev Province--Oil well cementing)

BELER, N.N.; KURSHANOVA, Z.I.; CHERNYSHEVA, I.M.

Obtaining a reagent for clay muds from sulfite-alcohol residue
by chlorination. Trudy KNII NP no.17:12-22 '62.

(MIRA 17:8)

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Antifoaming reagents for aqueous and cross-linked muds and a
method for testing them. Trudy KNII NP no.17:23-31 '62.
(MIRA 17:8)

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Yakushino oil field. Trudy KNII NP no.17:32-36 '62.
(MIRA 17:8)

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Controlling the parameters of cement slurries using surfactants
at low and high temperatures. Trudy KNII NP no.17:47-54 '62.
(MIRA 17:8)

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Evoked potentials of the limbic cerebral cortex in cats following stimulation of mesenteric nerves. Fiziol. zhur. 51 no.8:918-925 Ag '65. (MIRA 18:7)

1. Laboratoriya obshchey fiziologii Instituta fiziologii imeni Pavlova AN SSSR, Leningrad.

KICHINGIN, N.N., inzh.; BELLER, Ya.K., inzh.

Assembling an exhaust pipe with a tower 100 m. high. Prom.
strok. 43 no. 11:8-10 '65. (MIRA 18:12)

BELLERT, S.

The problem of the stability of closed-loop systems.

P. 165 (ARCHIWUM AUTOMATYKI I TELEMECHANIKI) Poland, Vol. 1, No. 3/4, 1956.

SO: Monthly Index of East European Accessions (ALEE) Vol. 6, No. 11, November 1957

Bellert, S.

✓ Bellert, S. On foundations of operational calculus,
Bull. Acad. Polon. Sci. Cl. III. 5 (1957), 855-858, 16
LXXIII-LXXIV. (Russian summary)
The author gives a formal description of the operational
calculus for various operators (differential, difference,
etc.). No discussion of justifications for the procedure is
given. J. L. B. Cooper (Cardiff) 2

S/194/62/000/005/130/157
D271/D308

AUTHOR: Bellert, S.
TITLE: Fourier integral and the investigation of electrical
four-terminal networks by the pulse method
PERIODICAL: Referativnyy zhurnal. Avtomatika i radioelektronika,
no. 5, 1962, abstract 5-7-39 n (Zesz. nauk. Politechn.
warsz. 1959, no. 42, 79-109)

TEXT: A pulse method based on the use of Fourier integrals is presented for the study of four-terminal networks. Mathematical theory of Fourier integrals is given. Fundamental concepts of the Fourier integral theory and of the pulse investigation of four-terminal networks are presented. Concepts of Fourier and Laplace transforms, frequency spectrum, pulse function, and transmission coefficient of quadrupoles are introduced. General relations are shown; ideal pulse filters are considered. The theory is explained on an example of a low-pass filter: 9 references. [Abstractor's note: Complete translation]. ✓

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BELLERT, S.

Computer four-pole synthesis based on the method of structural numbers. Archiw elektrotech 13 no.3:485-510 '64.

1. Division of Communication of the Technical University, Warsaw.

BELLERT, Stanislaw; GODWOD, Jerzy; KOWALSKI, Mieczyslaw

Teleconference equipment. Rozpr elektrotech 8 no.2:317-335 '62.

1. Katedra Teletransmisji Przewodowej Politechnika, Warszawa.

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Topological considerations and synthesis of linear networks
by the method of structural numbers. Archiw elektrotech 12
no.3:473-500 '63

1. Communication Department, Technical University, Warsaw.

S/044/62/000/002/006/092
C111/C222

AUTHOR: Bellert, Stanislaw

TITLE: Operational calculus in linear spaces

PERIODICAL: Referativnyy zhurnal, Matematika, no. 2, 1962, 9,
abstract 2B46 ("Rozpr. elektrotechn.", 1960, 6, no. 3,
169-212)

TEXT: A uniform representation of the operational method is given for questions of various kinds; for example, for the solution of differential and difference equations with constant coefficients, of Euler-type equations, of differential-difference equations, of Bernoulli equations and others. The suggested method is based on the fundamentals of functional analysis. The examples worked-out are intended to acquaint engineers and technicians with the practical applications of this method.

[Abstracter's note: Complete translation.]

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"The Origin and Development of Socialist Property in the Agriculture
of the Rumanian People's Republic";

dissertation for the degree of Candidate of Economic Sciences
(awarded by the Timiryazev Agricultural Academy, 1962)

(Izvestiya Timiryazevskoy Sel'skokhozyaystvennoy Akademii, Moscow, No. 2,
1963, pp 232-236)

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"A short course on agricultural statistics" by Petre Onica.
Pt. 1. Reviewed by N.Belli. Probleme econ 16 no.3:138-142 Mr '63.

BELLI, N., candidat in stiinta economice; SUFANA, N.

Calculation of the labor productivity on collective farms.
Probleme econ 16 no.7:106-118 JI '63.