

MENCIK E.

Geology and petrology of the area between Planice and Nepomuk, in Echemis. p.49
(Prague, Vol. 18, 1951) Czechoslovakia

S6: Monthly List of East European Accessions, Vol. 2, #8, Library of Congress,
August 1953, Incl.

MENCIK, E.

Pesl, V. Lithologic development of the Godula Beds in the basin of the Msta-
vice River. p. 127.
SBORNÍK, ČDDEJ GEOLÓGICKY, Prague, Vol. 21, 1954 (published 1955).

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 5, No. 6 June 1956,
Uncl.

MENCIK, I.

Pesl, V. Stratigraphic and tectonic conditions of the Sub-Silesian nappe on the Novy Jicin sheet (4160). p. 149.
SEBRNIK, ODDIL GEOLOGICKY, Prague, Vol. 21, 1954 (published 1955).

S): Monthly List of East European Accessions, (EEAL), LC, Vol. 5, No. 6 June 1956,
Uncl.

LENOSTK, E.; PEST, V.

"The Upper Cretaceous layers in the western part of the valley north of the
Magura Flysch."

p. 301 (Prace, Vol. 30, no. 5, 1958, Praha, Czechoslovakia)

Monthly Index of East European Accessions (EEAI) 43, Vol. 7, no. 7,
September 1958

~~MENCIK, E.~~ Mencik, E.

Outlook for finding petroleum and natural gas deposits in the eastern part of Moravian and Silesian Beskyd Mountains and in the area at the foot of these mountains. Prace ust naft 18:30-31 '61.

MENCIK, Eduard; PESL, Vaclav

The characteristics of main dislocations in the Magura flysh.
Cas mineral geol 8 no.1:29-38 Ja '63.

DIABAC, Mikulas; NEBOCK, Eduard

Geological structure of the eastern part of the basement of the western part of the outer Carpathians in the subcarpathian territory. Průmyslová geologie 1951, 1952, 1953.

PESL, Vaclav; MENCIK, Eduard; HANZLIKOVA, Eva

Pre-Magura series south of Jablunkov, Moravian-Silesian
Beskid Mountains. Vest Ust geol 39 no.3:189-199 My '64.

1. Central Geological Institute, Prague; Ceskoslovenske
naftove doly, Brno.

CA

General Y. K. Kozlov
Chemistry - 2

Osmometric and viscometric determination of the molecular weight of polybutyl methacrylate. Zdeněk Menčík (Research Inst. Plastics, Pardubice, Czech.). *Chem. Listy* 46, 407-10 (1952).—Osmometric measurements at 25° of dil. acetone solns. of polybutyl methacrylate (I) resulted in calcn. of thermodynamic const. $\mu = 0.488$. Viscometric measurements at 25° of CHCl₃ solns. of I gave $K = 0.437 \times 10^{-4}$, and $a = 0.80$, in a modified Staudinger equation $[\eta] = KM^a$. M. Hudlický

MENCIK, Z.

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G E R M .

CH
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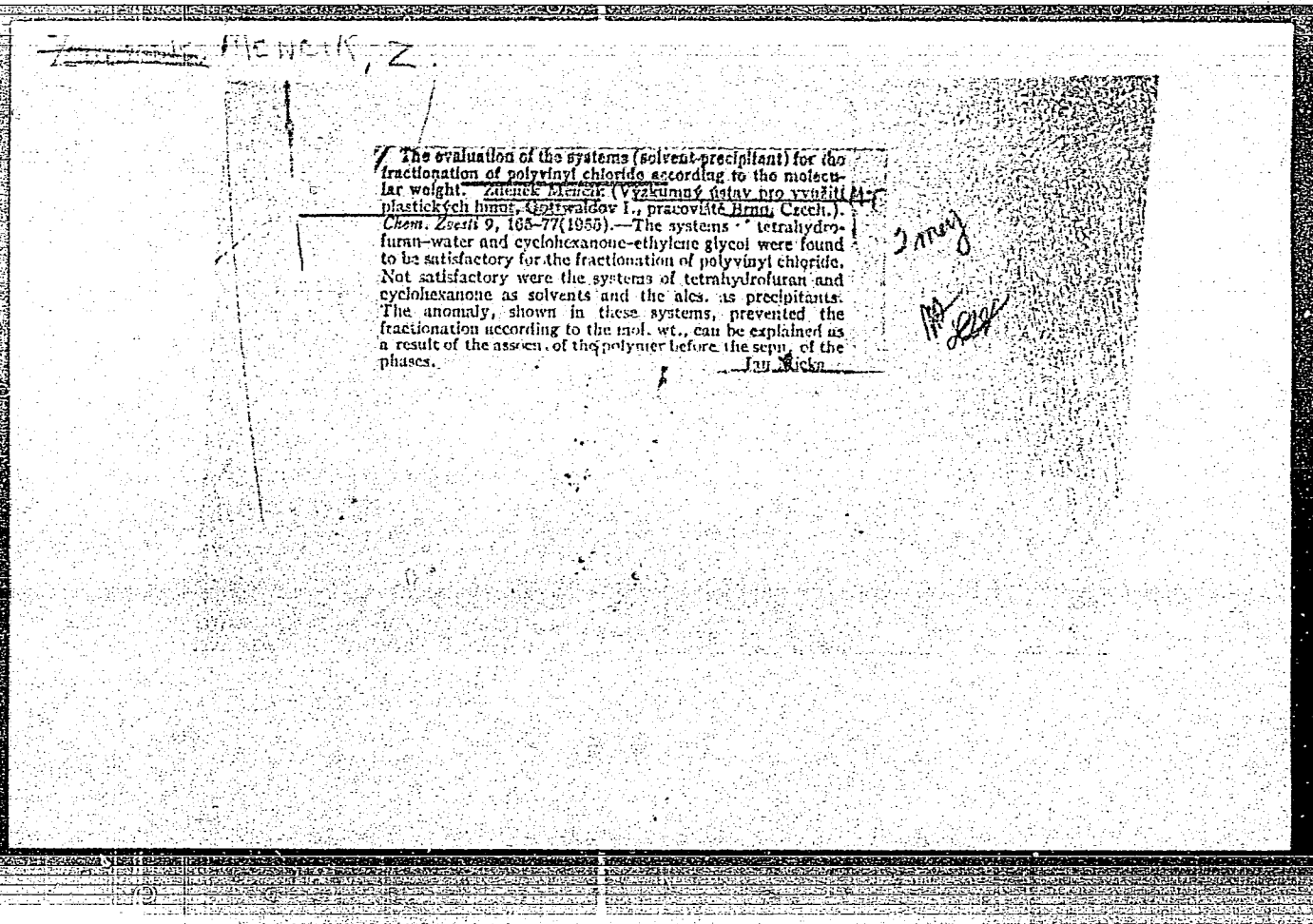
✓ The concentration dependence of the viscosity number of polyvinyl chloride at very low concentrations. Zdeněk Mencik and Jilina Láulková (Forschungslab. Plaste, Göttingen I, Arbeitsstelle, Brno, Czech.). *Makromol. Chem.* 12, 119-21 (1954). -- Batzer (C.A. 48, 67834) attributed the nonlinear behavior at low concns. of η_{sp}/c as a function of the concn., c , to branching of polyvinyl chloride. η_{sp} is the specific viscosity. Ubbelohde viscometers were used to make measurements on 2 samples of this polymer down to concns. of 0.03 g./100 ml. in cyclohexanone and tetrahydrofuran. One of the samples of polyvinyl chloride was known to be branched, the other unbranched. Both gave straight-line plots of η_{sp}/c vs. concn. However, k' in the Huggins equation, $\eta_{sp}/c = [\eta] + k'[\eta]^2$, is 0.51 for the branched polymer and only 0.33 for the unbranched. Such a behavior of k' had been found for other branched polymers (cf. Cragg and Manson, C.A. 47, 12874). $[\eta]$ is the intrinsic viscosity. The unusual results of Batzer are attributed to the fact that measurements were made down to concns. that were too low for accuracy. Hershel Markovitz.

(Handwritten scribble)

MenciKová, E.

CZECH

The effect of Myon on kidney function. E. Neubauer, Z. Kovátsová, and E. MenciKová (Interná klin., Košice, Czech.). *Časopis lékařů českých* 93, 677-81(1954)(in Slovakian).—The influence of Myon (I) (a prepn. contg. nucleic acid and choline) on the kidney function was studied in 8 cases of hypertensive disease. Insulin and 4-aminohippuric acid clearances were measured. The decrease of blood pressure on intermuscular administration of I was variable, insignificant, and transitory. Plasma flow through kidneys decreases, filtration fraction and renal resistance increases, diuresis falls gradually. It is concluded that the therapy of hypertension by means of I lacks rational basis. I. M. H.



The evaluation of the systems (solvent-precipitant) for the fractionation of polyvinyl chloride according to the molecular weight. *Zašnek Měnič (výzkumný ústav pro využití plastických hmot, Brno, Czechia).* *Chem. Zvesti 9, 168-77(1955).*—The systems tetrahydrofuran-water and cyclohexanone-ethylene glycol were found to be satisfactory for the fractionation of polyvinyl chloride. Not satisfactory were the systems of tetrahydrofuran and cyclohexanone as solvents and the aces. as precipitants. The anomaly, shown in these systems, prevented the fractionation according to the mol. wt., can be explained as a result of the assoc. of the polymer before the sepn. of the phases.

May
[Signature]

Mencik, Zdenek

MT Fractionation anomalies in the light of polymer association. Zdenek Mencik (Research Inst. Plastics, Gottwaldov I, Section Brno, Czechoslovakia). *J. Polymer Sci.* 17, 147-51 (1956).
By using fractions of polyvinyl chloride obtained from the solvent-nonsolvent system, tetrahydrofuran (I)-H₂O, the initial pptn. was studied in the systems I-amyl alc. and cyclohexane-BuOH. Contrary to normal behavior the vol. fraction of nonsolvent added that first produces a haze, γ' , was not linear but showed a min. when plotted against the reciprocal of the intrinsic viscosity in the solvent. This effect is attributed to polymer assocn. before phase sepn. occurs, and an equation fitting the data is given relating γ' to the mol. wt. and to the no. of polymer mols. associating in kinetically independent clusters. P. G.

MT

MENCIK, Z

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~~Preparation of dilute polyvinyl chloride solutions in cyclohexanone for viscometry. Z. Mencik and J. Lani-
 ková (Výzkumný ústav využití plastických hmot, Brno, Czech.). Chem. Listy 49, 1388-400(1955).—The process of dissolving polyvinyl chloride in cyclohexanone is not completed on disappearance of the solid phase; the last structural aggregates must be destroyed by heating for 30 min. at 80°. The viscosity of samples prepd. in this manner was const. over a period of 20 days, whereas the viscosity of the solns. prepd. at room temp. decreased slowly to reach a value higher than that obtained with the samples prepd. by dissolving at 80°. M. Hudlický~~

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MENCIK, ZDENEK

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Smay

✓ Viscometric constants of polyvinyl chloride in cyclohexanone. Zdeněk Menčík (Výzkumný ústav plastických hmot, Brno, Czech.). Časop. Listy 49, 1898-1905 (1955). CH

The mol. wts. (19,000-150,000) of 32 fractions of polyvinyl chloride (PVC) were detd. osmometrically in tetrahydrofuran at 25°. The sources of errors are discussed. For PVC in cyclohexanone at 25° the following values of viscometric consts. are proposed: $K = 2.04 \times 10^{-4}$, $a = 0.56$ [C.A. 35, 3876].
E. Erdős

HA
WLET

MENCIK, Z.

✓ 1957. Preparation of dilute polyvinyl chloride solutions in cyclohexanone for viscometry. 2.
MENCIK and J. LADIKOVA. Coll. Czech. Chem. Commun., 1956, 21, No. 1, 257-9; Rev. curr. Lit. Pámt. Čel. Varn., 1957, 30, 90. Cf. Rubb. Abs., 1956, abs. 2347. An English translation now appears. 333H21.91651

1957

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MENCIK

MENCIK, Z.

✓ Viscosimetric constants of poly(vinyl chloride) in cyclohexane.
Mencik, Z. Collection: Czech. Chem. Commun. 21, 617-23 (1956) (in English). - See C.A. 50, 859i.
R.J.C.

PM

POLAK, Frant.; MENCIK, Zd.

Comparison of hypotensive effects of reserpine, antihistaminics and phthalazine derivatives in hypertensive syndrome. Cas. lek. cesk. 95 no.28-29:788 13 July 56.

1. Interni oddeleni nemocnice tanvoad, primar MUDr. Fr. Polak.
(HYPERTENSION, therapy,
antihistaminics, phthalazine deriv. & reserpine, comparison
(Cz))
(ANTI-HISTAMINICS, therapeutic use,
hypertension, comparison with phthalazine deriv. &
reserpine (Cz))
(SYMPATHOLYTICS, therapeutic use,
phthalazine deriv. in hypertension, comparison with anti-
histaminics & reserpine (Cz))
(RAUWOLFIA ALKALOIDS, therapeutic use,
reserpine in hypertension, comparison with phthalazine
deriv. & antihistaminics (Cz))

Mencik, Z.

The viscometric study of poly(vinyl chloride) solutions. Zdeněk Mencik (Vyzkumný ústav Makromol. Chem., Brno, Czechoslovakia). *Chem. zvesti* 11, 83-3 (1957) (German summary).
 The relation of osmotic pressure to viscosity in solns. of pure poly(vinyl chloride) P.V.C. (Buna-Werke, Schkopau) (I) in cyclohexanone at temps. of 15°, 40°, 63.5°, and 81° and concns. of 0.2-1.5 g./100 ml. was studied. The kinetic correction and the correction for the gravity were applied. The relation found does not correspond to the values expected from Fikentscher's equation (C.A. 26, 6414) and the values so derived depend on concn. and temp. Hence, Fikentscher's equation is not recommended for evaluation of a mol. wt. of polymer in I.

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EAST GERMANY/Pharmacology and Toxicology. Analgesics

Abstr Jour : Ref Zhur - Biol., No 10, 1958, No 47159

Author : Polak F., Masck Ot., Mencik Zd.

Inst : -

Title : The Analgesic Action of Magnesium Sulfate in the Painful,
Non-Inflammatory Diseases of the Motor Apparatus

Orig Pub : Z. ges. innere Med., 1957, 12, No 20, 952-953

Abstract : No abstract

Card : 1/1

13

MENCIK, Z.: Lanikova, J.

"Degradation of vinylidene chloride and vinyl chloride copolymers in cyclohexanone solution. In English.

p. 879 (Collection of Czechoslovak Chemical Communications; Sbornik Československých Khimicheskikh Rabot) Vol. 22, no. 3, June 1957
Prague, Czechoslovakia

SO: Monthly Index of East European Accessions (EEAI) LC. Vol. 7, no. 4,
April 1958

MENCIK, Z.

"Molecular weight distribution in ϵ -cap-ro lactam polymers. In English."

p.1249 (Sbornik Chekhoslovatskikh Khimicheskikh Rabot, Vol. 22, no. 4,
Aug. 1957, Praha, Czechoslovakia)

Monthly Index of East European Accession (EEAI) LC, Vol. 7, No. 5, August 1958

MENCIK, ZDENEK

CZECHOSLOVAKIA/Chemistry of High Molecular Substances.

I

Abs Jour : Ref Zhur - Khimiya, No 7, 1958, 23719

Author : Zdenek Mencik, Jirina Lanikova

Inst :

Title : Degradation of Vinylidene Chloride-Vinyl Chloride Copolymer in Cyclohexanone Solution.

Orig Pub : Chem. listy, 1957, 51, No 2, 229-232

Abstract : The degradation of vinylidene chloride-vinyl chloride copolymer in cyclohexanone solution is caused by peroxide substances forming spontaneously, if cyclohexane was aging in air. It was shown by measurements of viscosity that an addition of benzoyl peroxide accelerated the degradation, and additions of benzoquinone inhibit it. The inhibiting efficiency decreases in the series benzoquinone, picric acid, hydroquinone, pyrocatechin, resorcin.

Card 1/1

MENCIR, 2 DEWEK

Molecular-weight distribution in ϵ -caprolactam polymers.
 Zbornik radova Vojnogigijenski i farmakološki fakultet, Beograd.
~~Chem. Abstr.~~ *Chem. Abstr.* 51, 333-4 (1957).—An expression was
 derived for the mol.-wt. distribution in the last stage of the
 hydrolytic polymerization of ϵ -caprolactam which is char-
 acterized by the equil. in the polymerization, depolymeriza-
 tion, and transesterification reactions; the result is identical
 with the distribution designated by Flory (*J. Polym. Sci.* 44, 375-84)
 as the most probable. E. Kofas

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MENCIK, Z.

Chem

High-temperature viscometer. Zdeněk Menčík. *Chem. průmysl* 8, No. 1, 24-5 (1958).—In order to measure the viscosity of polymer solns. up to 160°, a modified Ubbelohde viscometer was constructed. The app. was used in air and in an inert atm.; all operations were carried out in the bath at elevated temps. Horizontal capillaries were used to decrease the kinetic energy correction. B. M. F.

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R

MENCIK, Z.

TECHNOLOGY

PERIODICAL: CHEMICKY PRŮMYSL, VOL. 8, no. 12, Dec. 1958

Mencik, Z. A simple and reliable osmometer. p. 641.

Monthly List of East European Accessions (EEAI), LC, Vol. 8, no. 5,
May 1959, Unclass.

Distr: 4E2c(j) 9

The poly(vinyl chloride)-solvent interaction. Z. Menčík
 (Výzkumný ústav makromolekulární chem., Brno, Czech.)
 Collection Czechoslov. Chem. Commun. 24, 3291-6(1959).
 The μ -values of poly(vinyl chloride) were detd. osmometri-
 cally in tetrahydrofuran at 25° ($\mu = 0.291$), in cyclohexa-
 none at 25° ($\mu = 0.176$) and in cyclopentanone (at 25° $\mu =$
 0.253; at 40° $\mu = 0.259$); the concn. range was 0.3-1.6
 g./100 ml. and a PVC fraction was used with mol. wt.
 136,000. From the results the partial molal heat of soln. of
 cyclopentanone in the system cyclopentanone-poly(vinyl
 chloride) was computed: in the equation $\Delta H_1 = B\phi_1^2$, where
 ϕ_1 is the vol. fraction of the polymer, the const. $B = -55$
 cal.

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E. Kodas

MENCIK, Z

Distr: 4E2c(j)/4E3b

Viscosimetric properties of branched poly(vinyl chloride).
 Z. Mencik (Výzkumný ústav makromolekulární chem.,
 Brno, Czech.). *Collection Czechoslov. Chem. Commun.* 24,
 3793-6(1959).—From the viscosimetric behavior of poly-
 (vinyl chloride) samples with an artificially branched struc-
 ture, it follows that the Huggins' const. h' in the equation
 $(\eta - \eta_0)/c_0 = [\eta] + [\eta]^2 h' c$ increases with increasing com-
 plexity of the polymer structure. E. Brás

CPD

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 1-9-9 (NB)
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S/190/60/002/011/007/027
B004/B060

AUTHOR: Mendik, Z.
 TITLE: Some Remarks on the Crystal Structure of Polyacrylonitrile
 PERIODICAL: Vysokomolekulyarnyye soyedineniya 1960 Vol. 2, No. 11
 pp. 1635 - 1638

TEXT: The author discusses data available in the literature according to which polyacrylonitrile has a hexagon crystal X ray pictures of the polymer film oriented in the heated state gave the following equatorial reflections:

Table of Diffraction Points of Polyacrylonitrile

Intensity	d, A	hk0 ¹⁾	Intensity	d, A	hk0 ¹⁾
very very strong	5.19	210	very very weak	2.25	800
very very weak	3.67	410	very weak	1.93	330 9.0
very strong	3.04	020	very very weak	1.7	10 0 630
medium	2.91	220	very very weak	1.59	730 11.0
very weak	2.67	610			
weak	2.55	420			

Card 1/3

Some Remarks on the Crystal Structure of
Polyacrylonitrile

S/190/60/002/011/007/027
B004/B060

Based on the model: $a = 18.1 \text{ \AA}$, $b = 6.12 \text{ \AA}$, $c = 5.00 \text{ \AA}$ (fiber axis)
The soft radiation caused by fluorescence was eliminated in vacuum by filtration, in order to locate the very weak reflections. A precise determination of the crystal structure was not possible, because the CN groups are disordered and therefore give blurred reflections. At any rate, the results obtained contradict a hexagonal structure, since 1) the density calculated for the hexagonal system (1.13 g/cm^3) deviates markedly from the experimental value (1.18 g/cm^3); 2) equatorial reflections were found that do not fit into the hexagonal structure; 3) the chain exhibits a symmetry with two monomeric links. Basing on his results, the author arrives at an orthorhombic structure of the elementary cell with the parameters $a = 18.1 \text{ \AA}$, $b = 6.12 \text{ \AA}$, $c = 5.00 \text{ \AA}$, which contains four polymer chains (each with two monomeric groups). There are figure, table and 7 non-Soviet references.

Card 2/3

Some Remarks on the Crystal Structure of
Polyacrylonitrile

S/190/60/002/011/007/027
B004/B060

ASSOCIATION: Nauchno-issledovatel'skiy institut makromolekulyarnoy khimii,
Brno, Chekhoslovakiya (Scientific Research Institute of
Macromolecular Chemistry, Brno, Czechoslovakia)

SUBMITTED: April 25, 1960

Card 3/3

88246

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Z/009/61/000/001/004/006
E112/E153

AUTHOR: Menčík, Zdeněk

TITLE: Contribution to the Problem of Crystalline Structure of Polyvinyl Chloride

PERIODICAL: Chemický Průmysl, 1961, No.1, pp.41-43

TEXT: The present paper is in connection with some recent work which reported an increase of rigidity of PVC on the addition of small amounts of plasticizer. (Increase of rigidity is associated with an increase of crystallinity). Different views about the crystalline or amorphous structure of plasticized PVC were expressed in the literature. It was held that unplasticized PVC displayed regions of crystallinity. Other work (Turner et al., Ind.Eng.Chem. 41, 701-703, 1949) demonstrated clearly that PVC retained its crystalline structure during plastification. The relative amounts of crystalline and amorphous polymer in the plasticized compositions were, however, not established. The present author has studied swelling phenomena of PVC (linear and cross-linked) in different plasticizers, the results of which added further proof to the crystalline nature of plasticized PVC.

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E112/E153

Contribution to the Problem of Crystalline Structure of Polyvinyl Chloride

The problem was reinvestigated in more detail by means of X-ray diffraction studies: unplasticized, linear or cross-linked PVC showed partial crystallinity at normal temperatures. Diffraction patterns of the oriented polymer showed reflexes in the zero layer 5.35 Å (intense), 4.78 Å (medium) and 3.73 Å (weak). An overlapping reflex, 3.58 Å (medium) is apparent on the first, and reflex 2.22 Å (weak) on the second layer line. The more intense diffraction lines were also detected in the diffraction patterns of the unoriented PVC. It was not possible to estimate the amount of crystallinity of the unplasticized PVC with any degree of accuracy. The author believes, however, that the crystalline regions comprise a large fraction of the total composition. X-ray diffraction studies were then undertaken with samples of PVC (cross-linked), swelled in dibutyl phthalate, using 0, 10.6, 39.4, 72.0, and 72.5% of the latter. Results are presented in the form of graphs, using the diffraction pattern of NaCl for calibration. Diffraction lines are correlated with maximum swelling ratios and Card 2/6

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E112/E153

Contribution to the Problem of Crystalline Structure of Polyvinyl Chloride

temperature. (Equilibrium of swelling is the expression of the weight ratio of swelled polymer to dry polymer). Results indicated that fractions of crystallinity remained only with samples which were plasticized with plasticizers in which PVC (cross-linked) swelled to an equilibrium swelling ratio lower than 3. These included: epoxy soya-bean oils, butyl-acetyl-ricinoleate, dioctyl sebacate, dioctyl adipate, dioctyl phthalate, and the butyl ester of epoxy soya-bean oil. Plasticizers in which the cross-linked polymer swelled to a higher swelling ratio caused a disappearance of crystallinity and these included: dibutyl phthalate, dimethylcyclohexyl adipate, ditetrahydrofurfuryl adipate. Other series of experiments included diffraction patterns of linear PVC, plasticized with the above listed plasticizer, using a constant weight ratio 1:2 of plasticizer:polymer. Diffraction patterns substantiated the existence of a polycrystalline structure in plasticized PVC.

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E112/E153

Contribution to the Problem of Crystalline Structure of
Polyvinyl Chloride

In the accompanying graph diffraction patterns were registered
photometrically (blackening) as functions of the Bragg angle.

There are 1 figure, 2 tables and 5 references: 4 English and
1 German.

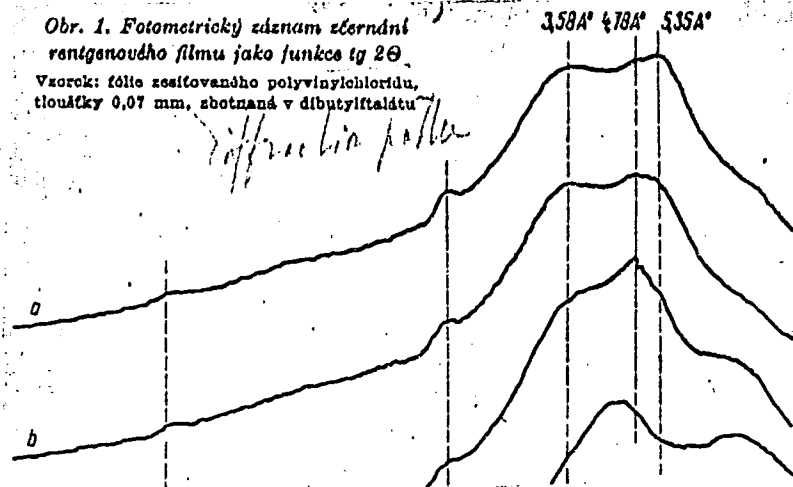
ASSOCIATION: Výzkumný ústav makromolekulární chemie, Brno
(Research Institute for Macromolecular Chemistry)

SUBMITTED: July 24, 1960

Card 4/6

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Contribution to the Problem... Z/009/61/000/001/004/006
E112/E153



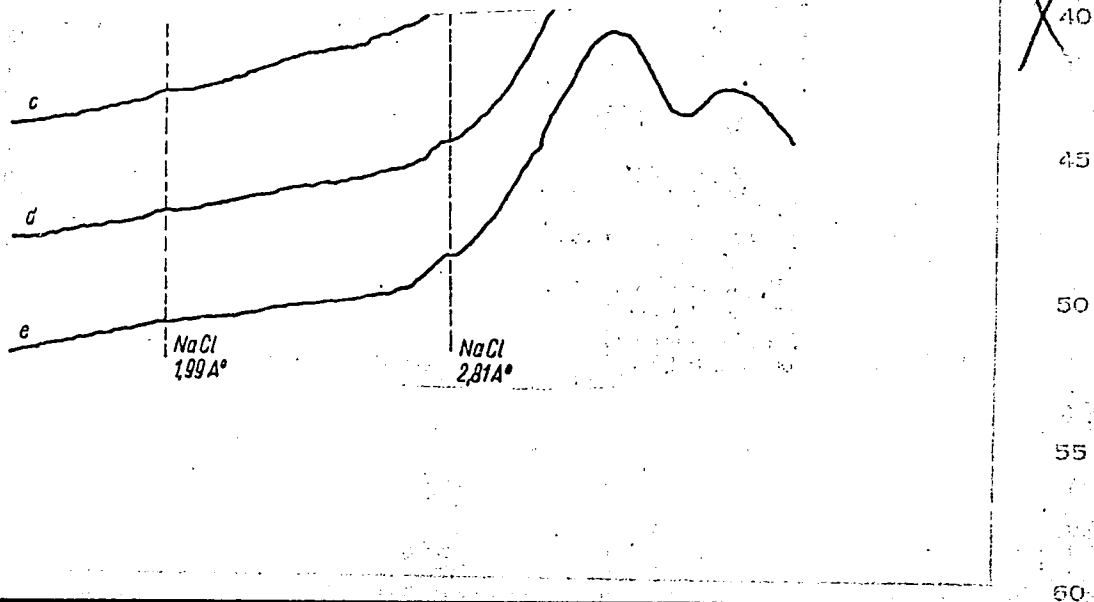
Card 5/6

Fig.1

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Contribution to the Problem....

Z/009/61/000/001/004/006
E112/E153



Card 6/6

Z/009/61/000/003/002/002
E112/E253

AUTHOR: Menčík, Zdeněk

TITLE: Thermal Expansion of the Crystal Lattice of
Polypropylene

PERIODICAL: Chemický průmysl, 1961, No. 3, pp. 160-161

TEXT: Polypropylene crystallizes in the monoclinic system with $a = 6.69 \text{ \AA}$, $b = 20.98 \text{ \AA}$, $c = 6.504 \text{ \AA}$ and $\beta = 99^\circ 30'$ at room temperature. The thermal expansion coefficients of commercial polypropylene were already described in the literature, but no data are available about the expansion of lattice spacing with increased temperature. The present paper submits a study of temperature effects on the above parameters over a range from 21-156°C. The method consisted in the investigation of x-ray diffraction patterns at various temperatures. The sample was placed on an aluminium block, thermostatically controlled by means of a heating element and thermocouple. An additional thermocouple used for temperature reading was placed in the immediate vicinity of the sample. Results showed that temperature dependence of the parameters of the monoclinic elementary cell of

Card 1/3

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E112/E253

Thermal Expansion of the Crystal Lattice of Polypropylene

oriented polypropylene was negligible. It was established, by measuring the spacing between 022 and $0\bar{2}\bar{2}$ that the identity period of c (axis of the fibre) was practically unaffected by heat. It was not possible to establish under the given experimental conditions the values for β with sufficient accuracy. Estimation based on calculating the diffraction planes $1\bar{1}\bar{1}$ indicated that temperature dependence was smaller than the experimental error. Instead of calculating parameter a , values for its rectangular projection, a' , were computed. Temperature dependence of the unit cells (with the exception of β) are expressed by the following formulae: $a' = 6.602 + 6.74 \cdot 10^{-4} \cdot (t-21) \text{ \AA}$, $b = 20.97 + 4.78 \cdot 10^{-5} (t-21) \text{ \AA}$, $c = 6.504 \text{ \AA}$. The temperature dependence of the specific volumes of crystalline polypropylene has been computed from the above given relationships as follows: $v_t = 1.0726 \pm 3.58 \cdot 10^{-4} (t-21)$. This coefficient of expansion was found to be in agreement with figures quoted by the firm Montecatini and also by J. H. Griffith and B. G. Ranby (Ref. 2: J. Polymer Sci. 38, 107, 1959), and slightly lower than quoted by F. Danusso, G. Moraglio

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E112/E253

Thermal Expansion of the Crystal Lattice of Polypropylene
and G. Natta (Ref. 3: Ind.plast.mod. 10, 40, 1958). There are
1 figure and 3 references: 1 Czech and 2 non-Czech.

ASSOCIATION: Výzkumný ústav makromolekulární chemie, Brno
(Research Institute of Macromolecular Chemistry,
Brno)

SUBMITTED: October 21, 1960

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Card 3/3

MENCIK, Zdenek

Determining the fraction composition of polypropylene by extraction methods. Chem prum 12 no.9:518-520 S '62.

1. Vyzkumny ustav makromolekularni chemie, Brno.

MENCIK, Zdenek

Sorption phenomena and the structure of amorphous polypropylene fraction. Chem prum 13 no.3:153-155 Mr '63.

1. Vyzkumny ustav makromolekularni chemie, Brno.

MENCIK, Zdenek

Determination of the percentage of polypropylene crystallization
by the X-ray method. Chem prum 13 no.6:321-325 Ja '63.

1. Vyzkumny ustav makromolekularni chemie, Brno.

MENCIK, Zdenek

Thermal dilatation of polyformaldehyde crystal lattices. Chem
prum 14 no.12:655 D '64

1. Research Institute of Macromolecular Chemistry, Brno.

MENCIK, Zdenek

Effect of the physical state of polypropylene on its extract-
-ableness.. Chem zvesti 14 no.10:549-550 0 '64.

1. Research Institute of Macromolecular Chemistry, Brno.

MENCIKOVA, E., Dr.

Listeriosis in newborn. Cesk. epidem. mikrob. imun. 5 no.5:
225-228 Sept 56.

1. Ustav pro lékařskou mikrobiologii a imunologii Karlovy university,
predn. prof. Dr. Patocka.
(LISTERIA, infect.
in newborn, diag. (Cz))
(INFANT, NEWBORN, dis.
listeriosis, diag. (Cz))

MENCIKOVA, E.

8722. Human histriosis. P. Pateška, L. Hloucal, and E. Mencišková. *Schweiz. med. Wschr.*, 1958, 88, 808-811 (Inst. f. bakteriell. Mikrobiol. und Immunol. der Karls-univ. in Prag, Czechoslovakia). --A report of 37 cases of histriosis in children, with particular reference to the serological findings. (German) G. W. CAMPBELL

MENCIKOVA, EVA

KOURA, Karel; MENCIKOVA, Eva; VYBORNA, Marie

Contribution to etiology of infectious mononucleosis. Cas. lek. cesk.
97 no.1:6-10 3 Jan 58.

1. Infekcni klinika Praha 8, Bulovka, prednosta prof. Dr. J. Prochazka.
Mikrobiologicky ustav lecarske fakulty KU v Praze, prednosta prof.
Dr F. Patocka. Infekcni oddel. Thomayerovy nemocnice Praha-Krc, prednosta
prim. Dr M. Vyborna. K. K. Praha-Bulovka, infekcni klinika.
(INFECTIOUS MONONUCLEOSIS, etiol. & pathogen.
role of Listeria monocytogenes (Cz))
(LISTERIA
monocytogenes, role in etiol. of infect. mononucleosis (Cz))

FRIEDMANN, Bedrich; MENCIKOVA, Eva; BROUSIL, Jindrich

Experimental contribution to the problem of the aggressivity of auto-
antibodies against red blood cells. Cas.lek.cesk 100 no.17:525-529
28 Ap '61.

1. I interni klinika KU v Praze, prednosta prof. dr. V. Hoenig. Ustav
pro lékařskou mikrobiologii a imunologii KU v Praze, prednosta prof.
dr. F. Patocka. Biofyzikalni ustav lekarske fakulty KU v Praze, prednosta
doc. dr. Z. Dienstbier.

(ANTIGEN-ANTIBODY REACTIONS) (ERYTHROCYTES)

BRACHFELDOVA, J.; HORNYCHOVA, H.; MENCIKOVA, E.; SKALOVA, L.;
NEUGEBAUEROVA, L.

Listeria infection in newborn infants. Cesk. pediat. 18 no.10:
896-901 0 '63.

1. II detska klinika fakulty detskeho lekarstvi KU v Praze,
prednosta prof. dr. J. Houstek, DrSc. Ustav lekarske mikro-
biologie a imunologie v Praze, prednosta prof. dr. F. Patocka
KHES Stredooceskeho kraje v Praze, reditalka MUDr. M. Rejskova.
(INFANT, NEWBORN, DISEASES) (LISTERIA INFECTIONS)
(COMMUNICABLE DISEASE CONTROL)

CZECHOSLOVAKIA

ENGELSMANN, F.; HAJEK, F.; HLOUHOVA, B.; KENCIKOVA, H.; Psychiatric Research Institute (Výzkumny Ustav Psychiatricky), Prague. ①

"Time Samples of a Day of Psychiatric Patients."

Prague, Ceskoslovenska Psychiatrie, Vol 62, No 3, Jun 66, pp 168 - 175

Abstract /Authors' English summary modified: In the period 1962 to 1964 the authors investigated the activities of hospitalized patients between 6 a.m. and 10 p.m. The patients spend most of their time in complete inactivity; the rehabilitation treatment occupies only a very small part of the day. On the basis of the study the authors were able to prepare a better program for the daily routine treatment of the patients. 3 Tables, 9 Czech references. (Manuscript received 2 Apr 65).

1/1

21

37446

S/190/62/004/005/023/026
B145/B101

15 8090

AUTHORS: Mejzlik, J., Menčíkova, J., Machaček, Z.

TITLE: Anionic polymerization of formaldehyde. II

PERIODICAL: Vysokomolekulyarnyye soyedineniya, v. 4, no. 5, 1962, 769-775

TEXT: In continuation of a previous paper (Vysokomolek. soyed., 3, 1421, 1961), the authors studied the polymerization of saturated formaldehyde solutions in diethyl ether at -52°C . The molecular weight of the polymers was determined from viscosity measurements in the solvent mixture tetrachloro ethane - phenol (3 : 1) at 90°C . The time dependence of the formaldehyde concentration shows that the order of reaction is higher as referred to the monomer and increases during the reaction. Therefore, only the initial rates in the first 2 min, reaction of second order were taken into consideration. The molecular weight changes very little up to a 40-60% conversion, and then decreases. Tetrabutyl ammonium laurate (TBAL), dibutyl amine (DBA), and tributyl amine (TBA) were used to study the effect of catalysts. With TBAL, the reaction was of the order of 0.8 as referred to the catalyst (the catalytic effect increased after TBAL had

Card 1/3

S/190/62/004/005/023/026
B145/B101

Anionic polymerization of ...

been stored for some time), and with DBA and TBA it was of the order of 1. Only a small portion of the catalyst is required for initiation. The ratio between the catalytic efficiencies (reaction rate/catalyst concentration) of TBAL, LBA, and DBA was 4.5 : 3.5 : 1.0. The molecular weight is independent of the type and concentration of catalyst. The dependence of the reaction rate and molecular weight on the concentration of the monomer was studied in the presence of DBA and TBAL. In the first case, the order of reaction was found to be 1.7 and 2.6, depending on the impurity concentration, and in the second, it was 2.4. The molecular weight is directly proportional to the monomer concentration. The relative chain-transfer constant C_M^0 was determined according to C. H. Bamford et al.

(see below) and found to be less than 0.05 g/dl. On the other hand, the numerical polymerization coefficient P_n is proportional to $[Fd]/[HX]$ (Fd = formaldehyde, HX = acid impurity), and the molecular weight is inversely proportional to the concentration of impurities. The ratio between the concentrations of impurities in formaldehyde and ether was found to be 13. There are 8 figures and 2 tables. The most important English-language references are: H. Mark, A. V. Tobolsky, Physical Chemistry of High Polymeric Systems, New York, 1950, p. 416; C. H. Bamford

Card 2/3

Anionic polymerization of ...

S/190/62/004/005/023/026
B145/B101

et al., The kinetics of vinyl polymerisation by radical mechanisms, London, 1958, p. 232.

ASSOCIATION: Institute of Macromolecular Chemistry, Brno, ^vČSSR

SUBMITTED: September 30, 1961

Card 3/3

37447

S/190/62/004/005/024/026
B101/B144

15 8 1962
AUTHORS: Menčikova, J., Mejzlik, J., Machaček, Z.

TITLE: Anionic polymerization of formaldehyde. III

PERIODICAL: Vysokomolekulyarnyye soyedineniya, v. 4, no. 5, 1962, 776-782

TEXT: The effect of typical impurities of formaldehyde and diethyl ether used as a solvent on the polymerization rate and molecular weight of the polymer was studied in anionic polymerization of formaldehyde. Dibutyl amine or tetrabutyl ammonium laurate were used as catalysts. These impurities fall into four classes: (1) impurities which react neither with the catalyst nor with the active center of polymerization and are therefore ineffective (e.g., CO and O₂); (2) impurities which reduce the molecular weight, but hardly affect the polymerization rate (e.g., H₂O, CH₃OH). They react with formaldehyde to form anions of almost the same basicity as that of the growing anions. Their effect does not depend on the type of catalyst used; (3) impurities which reduce both the molecular weight and the polymerization rate (e.g., HCOOH, CH₃COOH, and CO₂). Their

Card 1/2

Anionic polymerization of ...

S/190/62/004/005/024/026
B101/B144

effect does not depend on the type of catalyst used, and form less basic anions which stop growing; (4) impurities which reduce, not the molecular weight, but only the polymerization rate (e.g., HCl). An equivalent amount of catalyst is passivated. The following relations were found experimentally: $H_2O : CH_3OH : CO_2 : CH_3COOH : HCOOH = 1 : 3.1 : 21.5 : 21.9 : 23.8$ for the effect on the molecular weight, and $CH_3COOH : HCOOH : CO_2 = 1 : 6.2 : 13.8$ for the effect on the polymerization rate. The activation energy of polymerization in the presence of tetrabutyl ammonium laurate was measured at $-58.5 - -34.9^\circ C$ and found to be 4.1 kcal/mole. The apparent activation energy of the increase in molecular weight is -2.7 kcal/mole. There are 9 figures.

ASSOCIATION: Institute of Macromolecular Chemistry, Brno, CSSR
(Institute of Macromolecular Chemistry, Brno, Czechoslovakia)

SUBMITTED: September 30, 1961

Card 2/2

I 17207-63

EWP(j)/BDS ASD Pc-4 RM

Z/0009/63/000/008/0433/0436

ACCESSION NR: AP3005973

AUTHOR: Machacek, Zdenek; Mencikova, Jitka

TITLE: Polymerization of formaldehyde in an anhydrous medium catalyzed by halogen anions

SOURCE: Chemicky prumysl, No. 8, 1963, 433-436

TOPIC TAGS: Formaldehyde polymerization, catalysis, quaternary ammonium salt, Li salt, iodide, bromide, chloride

ABSTRACT: Formaldehyde monomer is easily polymerized by both acid and basic catalysts. For polymers of high molecular weights basic catalysts are generally used, mainly quaternary ammonium salts. The authors found previously that tetrabutylammonium laurate has excellent catalytic influence on formaldehyde polymerization; the study described deals with properties of quaternary salts derived from strong inorganic acids HCl, HBr, HI. Tetrabutylammonium chloride, bromide and iodide solutions in diethyl ether at -60°C were studied. Lithium salts of the same acids were also studied in similar conditions. Iodides show the highest catalytic activity, followed by bromides; chlorides are the least active; Li salts have a higher activity than the corresponding tetrabutylammonium salts. The

Card 1/2

L 17207-63

ACCESSION NR: AP3005973

transfer effect of carbon dioxide and formic acid is twice as high with Li salts as with quaternary bases. It was not possible to determine whether this is a specific property of the Li ion, or due to the properties of the transfer agent. "We thank Comrade Macicek for having synthesized the quaternary ammonium salts, and Engineer K. Otto for having determined for us the concentrations of LiBr and LiI in diethyl ether solutions." Orig. art. has 5 figures and 3 tables.

ASSOCIATION: Vyzkumny ustav makromolekularni chemie, Brno (Research Institute of Macromolecular Chemistry)

SUBMITTED: 05 Dec 62

DATE ACQ: 27 Aug 63

ENCL: 00

SUB CODE: CH

NO REF SOV: 000

OTHER: 006

Card 2/2

MENCL, E.

MENCL, E. Hydrobiology of slow filtration. p.146.

Vol. 11, no. 3, 1956, BIOLOGIA, BRATISLAVA, CZECHOSLOVAKIA.

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 5, No. 10,
OCT. 1956.

MEICL, J.

Soviet methods of the static solutions of pressure water tunnels; p. 314.
VODNI HOSPODARSTVI. Czechoslovakia, No. 7, July 1959.

Monthly List of East European Accessions (SIA1), LC. Vol. 8, No. 9, Sep 1959
Uncl.

MENCL J. Brisni tyfus na Morave Typhoid fever in Moravia Lekarske Listy, Brno (Czechoslovakia) 1947, 2/23 (527-531, 550-552) Graphs 3

During 1933-1944 a yearly average of 837 cases of typhoid fever were diagnosed with 70 deaths (morbidity 30 per 100,000 inhabitants, mortality 2.6). The year 1943 was an exception, the morbidity rising to 1,126 and the mortality to 116/ In 1954 there were 4,031 cases with 384 deaths, and in 1946 1,719 cases with 148 deaths. A series of epidemics is also mentioned due to infection of milk. In one case the carrier, a milkmaid, caused 18 cases of the disease in 14 years. In another case the dairy caused an epidemic among suppliers by infecting the cans in which skimmed milk was returned. A cheese packer also caused an epidemic. The commonest cause, however, is infected in milk. The infection has also been transmitted by buttermilk, curd and cheese; no cases transmitted by butter have been observed. Efficient pasteurization of all dairy products should be made obligatory.

Kolda-Prague

SO: Medical Microbiology and Hygiene, Section IV, Vol. I, #1-6

Menci J. Z Hygienickeho ustavu v Brne. Brieni tyfus na Morave Typhoid fever in Moravia
Lekarske listy, Brno 1949, 4/21 (517-521)

A statistical survey of 510 patients, infected by *S. typhosa* with or without symptoms and detected in a 16-year period in Moravia. A spontaneous cure of long-standing cases is possible. In combating carriers the best results were obtained with small doses of magnesium sulphate for long periods.

Bloch - Amsterdam (XX, 6, 4)

So: Medical Microbiology & Hygiene Section IV, Vol. 3, No. 7-12

MENCL, J. Brisni tyfus na Morave Typhoid fever in Moravia Lekarske listy, brno 1950,
572 (29-31)

SO: Medical Microbiology and Hygiene, Section IV, Vol 3, No 1-6

MENCL, J.

SAXL, O.; ELGROVA, M.; ~~MENCL, J.~~

Methemoglobinemia in infants. Cas. lek. cesk. 96 no.14:
433-436 4 Apr 57.

1. Int. odd. Kraj. detske nemocnice v Brne, prednosta doc.

Dr. O. Saxl.

(METHEMOGLOBINEMIA, in inf. & child
(Cz))

BEZDEK, M.; MENCL, J.

Oxidative extraction separation of ruthenium from the solutions of its compounds. Coll Cz Chem 30 no.3:711-723 Mr '65.

1. Institut für Kernforschung, Tschechoslowakische Akademie der Wissenschaften, Rez near Prague. Submitted February 10, 1964.

MENCL, Jiri, doc. inz.

Modern principles of high-speed water tunnel driving. *Vodni*
hosp 15 no.4:179-182 '65.

1. Slovak Higher School of Technology, Bratislava.

MENCL, Milan

Engineer

DECEASED
c. '62

1963/
/4

MENCL, Vojtech

MENCL, Vojtech

Staviteľstvi tunelove. Vojtech Mencl [a] Jiri Mencl. [Vyd. 2. prepracovane]
Praha, Statni pedagogicke nakl., 1953. (Ucebni texty vysokych skol) [Tunnel Construction.
Vol. 1. bibl., diagrs.]

SO: Monthly List of East European Accessions, Library of Congress, Vol. 3, No. 4,
April 1954. Unclassified.

Mencl, V.

Stability of railroad and highway embankments built on the banks of reservoirs behind dams. p. 176. INZENYRSKE STAVBY. (Ministerstvo stavebnictvi) Praha. Vol. 4, no. 4, Apr. 1956.

Source: EEAL LC Vol. 5, No. 10 Oct. 1956

MENCL, V., prof. inz. dr. DrSc.

Eightieth birthday of Josef Kral. Inz stavby 13 no.3:134 Mr '65.

CZECHOSLOVAKIA/Chemical Technology - Chemical Products and H-26
Their Application. Carbohydrates and Refinement.

Abs Jour : Ref Zhur - Khimiya, No 8, 1958, 26705
Author : Ciz Karel, Filipczak Igor, Mencl Zdenek, Valter Vladimir
Inst : -
Title : Decolorizing Ionites. II. Experiment Station for the
Study of Decolorizing Ionites.
Orig Pub : Listy cukrovarn., 1957, 73, No 9, 209-213

Abstract : Description of experimental ion-exchanger units at
beet-sugar and refining plants; at the former the
columns are of rubber-lined iron, at the latter --
of Simax glass. Pilot-plant tests were conducted with
Wofatit E, Contranol M291 and Czech-manufactured Ionex
la and 5a.
Communication I see RZhkhim, 1958, 12734.

Card 1/1

COUNTRY : Czechoslovakia

H-26

ABS. JOUR. : RZhkhim., No. 1959, No. 72855

AUTHOR : Mencl, Z.; Valter, V.; Dusabova, A.
INST. :
TITLE : Decolorizing Ion-exchangers. IV. Laboratory
Studies of Change in Absorption Capacity
Depending on Number of Cycles
ORIG. PUB. : Listy cukrovarn., 1958, 74, No 9, 193-196

ABSTRACT : Investigation, under dynamic and static con-
ditions, of decrease in decolorization capacity of ion-ex-
changers Wofatit E, and Czechoslovak mark A-1 and A-5. Into
a glass tube, 17 mm in diameter, heated by an ultrathermostat
were charged approximately 100 g ion-exchanger; regenerated
with 10 volumes 1% solution of HCl, washed with water,
treated with 6 volumes of 1.5% $MnCl_2$, and washed with water
until free from traces of chlorine. Then, at 90° and within
2 hours, 20 volumes (on the basis of the volume of ion-ex-
changer) of a solution of molasses, having a coloration of
22.5-23° Stammer, were passed through the ion-exchanger.
During the passage of the solution samples were taken and

CARD: 1/3

81

CZECHOSLOVAKIA

MENCLOVA, J.

No affiliation given

Bratislava, Farmaceuticky obzor, No 10 [October] 1966, pp 469-70

"From the Subcommittee for the Founding and Adaptation of Pharmacies
of the Center for the Development of Pharmacy (Rozvojeve Lekarnicke
Stredisko)."

MENCIWA, VIASTA

Strucny Zemepis SSSR (Short Geography of SSSR) Praha, Vesmir, 1947. 208 p. illus.,
maps. "Literatura": p. (211)

N/5
621.01
.M51

KOSZTYUK, G.Sz. [Kostyuk, G.S.]; MENCINSZKAJA, N.A. [Menchinskaya, N.A.]; SZMIRNOV, A.A. [Smirnov, A.A.]

Current tasks of the school and psychological problems of teaching. *Magy pszichol szemle* 21 no.3:359-371 '64.

1. Institute of Psychology, Kiev (for Kosztyuk).
2. Institute of Psychology of the Academy of Educational Sciences of the R.S.F.S.R., Moscow (for Mencinszkaja and Szmirnov).

MENCZEL, Gy.

HUNGARY/Analytical Chemistry - Analysis of Inorganic Substances. E-2

Abs Jour : Ref Zhur - Khimiya, No 2, 1959, 4350

Author : Menczel, Gy.

Inst :

Title : The Qualitative X-Ray Analysis of Boehmite-Hydrargillite Mixtures.

Orig Publ : Magyar Kem Folyoirat, 64, No 4, 143-148 (1958) (in Hungarian with a German Summary)

Abstract : A photographic x-ray diffraction method is described for the analysis of boehmite-hydrargillite mixtures. The theoretical principles on which the method is based are briefly described. The procedure used in the analysis is outlined and the results from the experiments (in graphic and in table form) are presented. The principal sources of errors and methods for their elimination are pointed out.
-- L. Smirnov

Card 1/1

- 30 -

Remarks on a paper of Pal Medgyessy: "A Mechanical Functional Synthesizer." Mat kut kozl MTA 4 no.2:149-154 '59 (EPAI 9:3)

1. Department of Physics No.1., Eotvos Lorand University, Budapest.
(Functions) (Crystals) (Fouvier series)
(Electrons)

MENCZEL, Gyorgy

~~Application~~ of the X-ray diffraction method in chemical analysis.
Supplement Analitikai Közlemenyek 7 no.1:125-130 '61.

1. Eotvos Lorand Tudományegyetem Kísérleti Fizikai I. Tanszék,
Budapest.

MENCZEL, Gyorgy

"Handbook on the analysis of polycrystal substances by roentgen diffraction" by L.I. Mirkin. Reviewed by Gyorgy Menczel. Magy fiz folyoir 10 no.1:71 '62.

1. Eotvos Lorand Tudomanyegyetem Kiserleti Fizikai Tanszek, Budapest.

44/15-68
ACC NR: AT6025194

SOURCE CODE: HU/2502/65/046/003/0191/0193

AUTHOR: Csordas, Laszlo; Monczel, GyorgyORG: Institute of Experimental Physics, Eotvos Lorand University, BudapestTITLE: Space group and lattice parameters of some phenylhydrazones derivatives of monosaccharides

SOURCE: Academia scientiarum hungaricae. Acta chemica, v. 46, no. 3, 1965, 191-193

TOPIC TAGS: hydrazine derivative, carbohydrate, crystal lattice parameter, x ray study

ABSTRACT: X-ray studies were conducted to establish the space group and lattice parameters of O-tetraacetyl-D-glucose-2,4-phenylhydrazone, O-triacetyl-D-xylose-2,4-phenylhydrazone, and O-triacetyl-D-xylose-2,4-phenylhydrazone. Laue groups of mmm , $2/m$, and $P2_1$, respectively, were assigned to these compounds. The crystals are orthorhombic, monoclinic, and monoclinic, respectively. The authors thank Doctor A. Foti, Scientific Assistant, Department of Chemical Technology, who made the substances available. Orig. art. has: 1 figure. [Orig. art. in German.] [JPRS: 34,165]

SUB CODE: 07, 20 / SUBM DATE: 01Jun65 / ORIG REF: 003 / OTH REF: 001

Card 1/1 *mjs*

0916 0559

Phosphorescence of the silver iodide sublimated phosphor
 pair N. V. Shalimova and N. S. Mendlikov (P. N. Lebedev
 Inst. Acad. Sci. U.S.S.R., Moscow). *Doklady Akad. Nauk S.S.S.R.* 82, 375-8 (1952); cf. C.A. 45
 1564a. — The green luminescence of AgI, due to excess Ag
 atoms, has been attributed to the transition $2p \rightarrow 4p$, — i.e. $5s^2 4p^6$
 with increasing content of excess Ag; a doublet splitting
 of the $4p$ level occurs under the action of which is perturbed
 by the host lattice, the symmetry of which is lowered
 through the large excess of Ag atoms. Films of AgI, ex-
 posed with 3650 Å, showed violet luminescence, which
 faded rapidly with increasing temp., going over into a
 green luminescence, more slowly quenched with rising temp.
 — violet irradiation decreases strongly the intensity of
 the violet, and increases the red luminescence. On more
 prolonged irradiation, the red emission disappears, and the
 absorption becomes colored as a result of formation of colloidal
 particles. Films can be prepd. which show only the green
 emission, and some films show violet emission with a green
 or blue-green shade. Sublimation of AgI in an iodine
 atmosphere gives nonluminescent films, with an absorption max.
 at 3000 Å. If such films are heated, iodine is removed,
 and the films become luminescent owing to accumulation of
 excess Ag; such films have a narrow absorption band at
 3550 Å., absent in nonluminescent AgI. This initial ab-
 sorption band is particularly distinct at liquid-air temp.
 At low temps., the long-wave absorption max. is shifted to
 shorter waves by about 50 Å., and its half width decreases;
 the reverse effects are observed with rising temp. Films
 with violet luminescence (going over into red with increasing
 temp.) show two long-wave absorption maxima, at 4330
 and 4295 Å. The emission spectrum, photographed be-
 tween -150° and -50° , shows several bands, 4120, 4720,
 5240, 5400, and 6400 Å. The changes of the excess
 spectrum are detd. by changes of the concn. of the excess
 Ag atoms. Coagulated Ag absorbs only in ultraviolet irradi-
 ation or by sublimation. In AgBr and AgCl both the absorp-
 tion and the emission bands are considerably broader than in
 AgI. The effect of the host lattice structure on the absorp-
 tion and emission of AgI was demonstrated by condensing
 AgI, prepd. by slow pptn., i.e. essentially hexagonal, on sur-
 faces kept at different temps.; films showing dark-violet
 luminescence absorb at about 4240 Å, whereas films with
 light-violet emission absorb at about 4150 Å. The dark-violet
 emission corresponds to hexagonal, and the light-violet to
 cubic AgI.

3

MENDLIKOV, N. S.

CR

MENDAKOV, N. S.

FD-626

USSR/Physics - Photoluminescence

Card 1/1 : Pub. 146-16/18

Author : Shalimova, K. V. and Mendakov, N. S.

Title : Photoluminescence of the halide salts of copper

Periodical : Zhur. eksp. i teor. fiz. 26, 248-253, February 1954

Abstract : The authors study absorption spectra and luminescence of halide salts of copper. It is shown that the luminosity of these salts is related to the surplus of copper above the stoichiometric composition. The data obtained on the spectra support the supposition that the absorption and radiation of these salts is provoked by the passages of an electron between the energy levels of a surplus copper atom which interacts with the field of a phosphor lattice.

Institution : Siberian Physicotechnical Institute, Tomsk State University

Submitted : April 28, 53

MEYDANOV, N.

"Investigations of the Photoluminescence of Copper Halide and Silver Halide Sublimate-Phosphors." Cand Phys-Math Sci, Kazakh State University S. M. Kirov; Physicotechnical Institute V. V. Kuybyshev, Tomsk State U., Alma-Ata, 1955. (KL, No 9, Feb 55)

SO: Sum. No. 631, 26 Aug 55 - Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (14)

65969

SOV/58-59-4-9315

24.3500

Translation from: Referativnyy Zhurnal Fizika, 1959, Nr 4, pp 272 - 273 (USSR)

AUTHORS: Mendakov, N., Kosareva, L.S.TITLE: Photoluminescence²¹ of CuBr-Cu Sublimate-Phosphor²¹PERIODICAL: Uch. zap. Kazakhsk. un-ta, 1957, Vol 30, pp 48 - 50

ABSTRACT: A CuBr-Cu sublimate-phosphor was prepared by the method of multiple vacuum distillation of a CuBr salt on to the walls of a quartz test tube. In the process a part of the CuBr molecules broke up and the liberated Br was removed by evacuation. In this manner a stoichiometric excess of copper was separated out in the CuBr film. At +20°C the sublimated CuBr-Cu films do not fluoresce under ultraviolet light ($\lambda = 3,650 \text{ \AA}$). At -183°C they give rise to a bright violet luminescence which changes into red and gradually dies down with increasing temperature. The emission spectrum consists of a single band with a maximum at 6,520 Å and an abruptly cut-off long-wave edge. Phosphorescence is not observed. Oxygen has no appreciable effect on the luminescence of the film. The formation of the CuBr-Cu sublimate-phosphor is optically characterized by the emergence of absorption bands with $\lambda_{\text{max}} = 3,900 \text{ \AA}$ and 4,120 Å

Card 1/2

65969

Photoluminescence of CuBr-Cu Sublimate-Phosphor

SOV/58-59-4-9315

at the long-wave edge of the fundamental absorption band of the base substance. These absorption bands are ascribed to a stoichiometric excess of the Cu atoms which form in the sublimated CuBr film. To verify this hypothesis special experiments were carried out in sublimating CuBr in a Br atmosphere. When this was done, the fluorescence of the film as well as the corresponding absorption bands actually did disappear. The observed absorption bands at 3,900 Å and 4,120 Å are due to electron transition from the normal $1s^2s_{1/2}$ level to the upper $3p^2p_{3/2, 1/2}$ and lower $2p^2p_{3/2, 1/2}$ excited levels of the Cu atom. ✓

A.I. Laysaar

Card 2/2

MENDEL, B. N.

"Biological Characteristics of Species of the Family Fusarium Causing Diseases and Wilting of Clover in the Northwestern Zone of the USSR, and the Basis of the Agrotechnical Measures Designed to Fight Them." Cand Agr Sci, All-Union Sci Res Inst of Plant Protection, Leningrad, 1953. (RZhBiol, No 1, Sep 54)

SO: Sum 432, 29 Mar 55

4 7020-65 ENT(1)/K/BEC(b)-2 IJP(c)/BSD/AFWL/AFETR/AEDC(a)/AS(mp)-2/ASD(a)-5/
SSD/ESD(t)/RAEM(t) 03

ACCESSION NR: AP4045285

8/0057/64/034/009/1709/1711

AUTHOR: Verkin, B. I.; Dmitrenko, I. M.; Dmitriyev, V. M.;
Churilov, G. Ye.; Mende, F. F.

TITLE: Three-centimeter superconducting resonant cavity B

SOURCE: Zhurnal tekhnicheskoy fiziki, v. 34, no. 9, 1964, 1709-1711

TOPIC TAGS: resonant cavity, superconducting cavity, superconductivity, superconducting lead, lead, lead resonant cavity, microwave cavity, high-Q cavity, particle accelerator

ABSTRACT: A superconducting resonant cavity operating in the E_{012} mode has been investigated as a high-Q element applicable to the process of interaction between charged particles and the electromagnetic field. The cylindrical cavity, 35 mm high and 45 mm in diameter, was fabricated by simple machining of technical grade C-0 brand lead. No special surface finishing was necessary. The coupling to the measuring circuit was designed to ensure the best approximation of the readings to the true internal Q-factor of the cavity. The latter, obtained by measuring the attenuation decrement, reached $5 \cdot 10^6$ at 4.2 K.

Card 1/2

L 7020-65
ACCESSION NR: AP4645285

The authors anticipate the use of these simple devices as microwave frequency stabilizers, for precise measurements of ϵ and μ at helium temperatures, in resonance wavemeters, filters, frequency standards, etc., and in the construction of small and economical continuous-wave accelerators. Orig. art. has: 2 formulas and 1 figure.

ASSOCIATION: Fizikotekhnichesky institut nizkikh temperatur AN UkrSSR
Khar'kov (Physicotechnical Institute of Low Temperatures, AN UkrSSR)

SUBMITTED: 13Feb64 ATD PRESS: 3108 ENCL: 00
SUB CODE: EC, EM NO REF SOV: 004 OTHER: 002

Card 2/2

ACC NR: APT002555 (A,N) SOURCE CODE: UR/0413/66/000/023/0036/0036

INVENTOR: Mende, F.F.; Dmitriyev, V.M.; Khristenko, Ye.V.; Borodavko, Yu.M.

ORG: none

TITLE: Method of obtaining stable frequency from a nonstable uhf oscillator. Class 21, No. 189029 [announced by Physico-technical Institute of Low Temperatures, AN UkrSSR (Fiziko-tekhnichekiy institut nizkikh temperatur AN UkrSSR)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 23, 1966, 36

TOPIC TAGS: uhf oscillator, frequency stability, AMPLITUDE MODULATION

ABSTRACT:

To simplify the stabilization system used to obtain a highly stable frequency from a nonstable uhf oscillator which utilizes a superconductive resonator, it is proposed that the oscillator signal be amplified by an amplitude

Card 1/2

UDC: 621.373

ACC NR: AP7002555

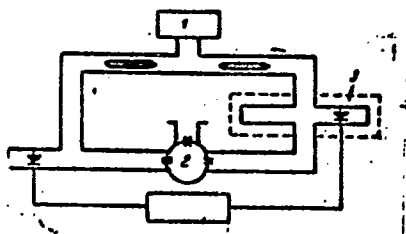


Fig. 1. Stabilization system

1 - Uhf oscillator; 2 - superconductive resonator; 3 - amplitude modulator.

modulator such as a waveguide twin T-joint with a detector, which is supplied with a difference signal of the oscillator carrier frequency and of the side frequency. The latter is obtained as a result of amplitude modulation of the oscillator carrier frequency and is separated with the help of the above-mentioned resonator. [JP]

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