I 42621-6 [illegible] IJP(c) JD/JG

ACC NR: AP6028715 (N) SOURCE CODE: UR/0185/66/011/008/0922/0923

AUTHOR: Papirov, I. I.; Smyrnov, Yu. M.; Tykhyns'kyy, H. P.; Finkel', V. O. 35 B

ORG: Physicotechnical Institute, AN URSR, Kharkiv (Fizyko-tekhnichnyy instytut AN URSR)

TITLE: Solubility of cerium in beryllium 21 21

SOURCE: Ukrayins'kyy fizychnyy zhurnal, v. 11, no. 8, 1966, 922-923

TOPIC TAGS: ~~beryllium cerium alloy, beryllium cerium solid solution,~~ SOLUBILITY, LATTICE PARAMETER, BERYLLIUM ALLOY, CERIUM CONTAINING ALLOY

ABSTRACT: An attempt has been made to determine the solubility of cerium in beryllium by measuring the lattice parameters of a beryllium alloy containing 0.35% cerium over

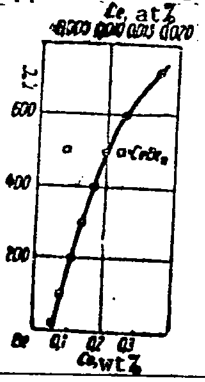


Fig. 1. Solubility of cerium in beryllium versus temperature

Card 1/2

Card 2/2

L 55158-65 JD/GG EWT(l)/EWT(m)/T/EWP(t)/EEC(b)-2/EWP(b)/EWA(c) Pi-4 IJP(c)
ACCESSION NR AM5006622 BOOK EXPLOITATION UR/
548.0

40
B+1

Palatnik, Lev Samoylovich; Papirov, Igor' Isaakovich

18

Oriented crystallization (Orientirovannaya kristallizatsiya), Moscow, Izd-vo
"Metallurgiya", 1964, 407 p. illus., biblio. Errata slip inserted. 2,830
copies printed.

TOPIC TAGS: crystal orientation, crystal structure, 21 crystal growth, metal crystallization, ionization, metal, semiconductor device, election microscopy

PURPOSE AND COVERAGE: The book is devoted to problems of oriented crystallization,
i. e., epitaxy - the oriented growth of crystalline substances and endotaxy - the
oriented selection within crystalline bodies which results from phase transform-
ations. This is the first attempt to make inferences from the large volume of
separate materials concerned with the various aspects of oriented crystallization
which has accumulated in Soviet and foreign periodical literature. The mechanism
of the process of oriented crystallization is considered with the help of both
general laws and numerous hypotheses which have been attempted to explain it.
Much attention is given to the application of oriented crystallization in the
investigation of the structure of crystalline surfaces, in rapid-solving electron
microscopy, in the growth of monocrystals, in the preparation of semiconductor

Card 1/3

L 55158-65

ACCESSION NR AM5006622

compounds, and in the study of structural changes in metals and alloys. The book is intended for a wide circle of engineers and scientific personnel - metallurgists and physicists concerned with problems of crustallization, the physics of thin plates, electron microscopy and defraction. The book can also be used by students and candidates specializing in the area of solid state physics and the physics and chemistry of surface phenomena.

TABLE OF CONTENTS (abridged):

Introduction -- 5
Ch. I. Methods of producing and investigating oriented accumulations -- 14
Ch. II. Epitaxy of ionized crystals -- 64
Ch. III. Epitaxy of metals -- 106
Ch. IV. Some other types of epitaxy -- 135
Ch. V. Epitaxy in the chemical growth of layers -- 169
Ch. VI. Some laws of epitaxy -- 204
Ch. VII. Phenominological hypotheses of epitaxy -- 250
Ch. VIII. Oriented separations -- endotaxy -- 317
Ch. IX. Applications of oriented crystallization -- 366

Card 2/3

L 55158-65
ACCESSION NR AM5006622

SUBMITTED: 20Aug64

NO REF SOV: 048

SUB CODE: SS, MM

OTHER: 094

0

Card 3/3

PALATNIK, Lev Samoylovich; PAPIROV, Igor' Isaakovich; LEMMLEYN, G.G., prof., retsenzent; CHERNOV, A.A., kand. fiz.-mat. nauk, retsenzent; MAL'TSEV, M.V., prof., retsenzent; CHISTYAKOV, Yu.D., dots., kand. tekhn. nauk, nauchn.red.

[Oriented crystallization] Orientirovannaia kristallizatsiia. Moskva, Metallurgiia, 1964. 407 p. (MIRA 17:12)

IVANOV, Viktor Yevgen'yevich; PAPIROV, Igor' Isaakovich; TIKHINSKIY, Gennadiy Filippovich; AMONENKO, Vasiliy Maksimovich

[Pure and ultrapure metals; preparation by the method of distillation in vacuum] Chistye i sverkhchistye metally; poluchenie metodom distilliatsii v vakuume. Moskva, Metallurgiia, 1965. 263 p. (MIRA 18:12)

L 25563-66 EWT(m)/EWP(t) IJP(c) JD/JW

ACC NR: AM6004741 Monograph UR/' 32 B+1

Ivanov, Viktor YEvgen'yevich; Papirov, Igor' Isaakovich; Tikhinskiy, Gennadiy Filippovich; Amonenko, Vasiliy Maksimovich

Pure and superpure metals; production by the method of distillation in a vacuum (Chistyye i sverkhchistyye metally; polucheniye metodom distillyatskii v vakuume) [Moscow], Izd-vo "Metallurgiya", 1965. 263 p. illus., biblio. 3,100 copies printed

TOPIC TAGS: vacuum distillation, metal vapor deposition, metallurgic process

PURPOSE AND COVERAGE: The book presents the theoretical principles of the separation of metals by evaporation, calculations of different binary metallic systems, and a discussion of the advantages and shortcomings of the method of obtaining pure metals by distillation in vacuum. The apparatus used to distill metals and the technology of its construction are described. The results of laboratory tests on purification of various metals by distillation, the parameters of the apparatus, the operating conditions for the processes, and also commercial installations for vacuum distillations are considered in detail. The book is designed for engineering metallurgists and scientific workers in metal physics and physical chemistry; in addition, it can be used as a text by senior students in metallurgical high institutions of learning.

TABLE OF CONTENTS [abridged]:

Introduction - - 5

Card 1/2 UDC: 669.015.4

L 25563-66

ACC NR: AM6004741

0

Ch. I. Theoretical principles of distillation of metals in vacuum - - 13
Ch. II. Technical vacuum distillation of metals - - 104
Ch. III. Vacuum distillation of metals - - 130
Appendices - - 241
Literature - - 252

SUB CODE: 11, 14/ SUBM DATE: 12Jul65/ ORIG REF: 168/ OTH REF: 231

Card 2/2 FW

0

COUNTRY : Rumania

CATEGORY : Plant Diseases. Cultivated Plants.

ABS. JOUR. : RZhBiol., No. 2, 1959, No. 11208

AUTHOR : Baltatu, Gh., Papis, Gr., Moleavin, Ve., Mardare, C.,*)

INST. : Khusnoui School of Wine Making.

TITLE : Results of Combatting the Mildew of Grape Plants with the Aid of the Preparations T_3 and T_5 in the Summer of 1955.

ORIG. PUB. : Anuarul lucrar. stiint. Inst. agron. Iasi. Bucuresti, 1957, 131-140

ABSTRACT : The results of three-year tests have shown that the fungicidal effect of the preparations T_3 (thiodine) and T_5 is of short duration. They are easily washed off by rains and are decomposed under the influence of the sun and air. They are not suitable for the control of mildew. The work was carried out at the School of Wine Making in Khusnchi.

CARD: 1/1

*) Posdirca, Gh.

PAPISHVILI, V.I., inzhener.

Improving a 127 m. rotary kiln. Tsement 21 no.1:8-9 Ja '55. (MIRA 8:4)
(Kilns, Rotary)

KARGIN, V.A., akademik; KABANOV, V.A.; ZUBOB, V.P.; PAPISOV, I.M.

Polymerization of acetone. Dokl. AN SSSR 134 no.5:1098-1099 O '60. (MIRA 13:10)

1. Moskovskiy gosudarstvennyy universitet im. M.V.Lomonosova.
(Acetone) (Polymerization)

84828

S/020/60/134/005/014/023
B016/B054

15.8000 2209 only

AUTHORS: Kargin, B. A., Academician, Kabanov, V. A., Zubov, V. P. and Papisov, I. M.

TITLE: Polymerization 7 of Acetone 7

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol. 134, No. 5, pp. 1098-1099

TEXT: On the basis of an approximate estimation of the thermal effect of the polymerization of carbonyl compounds, for instance of acetaldehyde or acetone, the authors find that this polymerization is impossible in the homogeneous liquid phase. The picture is, however, considerably changed if the transition from a monomeric liquid to a system of arranged monomer molecules is effected in the initial state, i.e. if the entropy of the initial system is much reduced. One method of molecular arrangement is freezing. Here, the entropy of the system is reduced during crystallization by the quantity of the melting entropy. This reduction in entropy gives rise to a reduction of the negative polymerization entropy, which, at sufficiently low temperatures, may even change its sign. In this case a

Card 1/3

84828

Polymerization of Acetone S/020/60/134/005/014/023
B016/B054

polymerization accompanied by a negative thermal effect would be possible Guided by such considerations, the authors attempted the polymerization of acetone on the double bond C=O by their method (Refs. 5-7). The experiments were carried out in an apparatus and by methods of Refs. 5,6. The initiator used was metallic magnesium whose vapors were slowly condensed in vacuo together with vapors of carefully dried acetone on a surface cooled with liquid nitrogen. The ratio acetone : magnesium was about 200 : 1. A vitrified molecular layer of an acetone-magnesium mixture was precipitated as a condensate on the cooled wall. With growing thickness of this layer, the temperature of the surface of this vitreous layer finally reaches a value at which a spontaneous process of coordinate? regrouping of monomer molecules is setting in. In the absence of initiation centers, this process would lead to a crystallization of the monomeric glass. An instantaneous polymerization sets in, however, due to the mobility of particles originating in the phase transition "disorder - order". The same phenomenon is observed in a gradual temperature increase of the wall used for the condensation. This leads to the formation of the acetone polymer, an elastic white substance which is soluble in its own monomer. Polyacetone is very unstable at room temperature, and decomposes into

X

Card 2/3

Polymerization of Acetone

S/020/60/134/005/014/023
B016/B054

acetone, e.g. when ground between the fingers. The most stable polymer samples "exist" without oxygen and moisture for a maximum of 10-12 h. However, traces of vinyl acetate increased the stability of the polymer to a certain extent. Qualitative considerations on the formation mechanism of a polymer chain in an arranged system of monomer molecules have recently been made by N. N. Semenov (Ref. 8). It appears that stabilization of polyacetone could be achieved by blocking the active ends of growing polymer chains. This indicates that substances not polymerizing under the usual conditions, might polymerize if a preliminary regular arrangement of molecules of a monomer were achieved, e.g., by a solidification crystallization, as in the case described above. There are 8 references: 5 Soviet and 3 French

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Moscow State University imeni M. V. Lomonosov)

SUBMITTED: July 23, 1960

Card 3/3

KARGIN, V.A., akademik; KABANOV, V.A.; ZUBOV, V.P.; PAPISOV, I.M.;
KUROCHKINA, G.I.

Polycondensation of acetone and other carbonyl-containing compounds.
Dokl. AN SSSR 140 no.1:122-124 S-O '61. (MIRA 14:9)
(Carbonyl compounds) (Condensation products (Chemistry))

KARGIN, B.A.; KABANOV, V.A.; ZUBOV, V.P.; PAPISOV, I.M.

Initiation of low temperature polymerization in systems obtained by the molecular beam method. Vysokom.soed. 3 no.3:426-434 Mr '61. (MIRA 14:6)

1. Moskovskiy gosudarstvennyy universitet imeni M.V.Lomonosova.
(Polymerization) (Molecular beams)

27878

S/020/61/140/001/015/024
B103/B101

15 8050

AUTHORS: Kargin, V. A., Academician, Kabanov, V. A., Zubov, V. P., Papisov, I. M., and Kurochkina, G. I.

TITLE: Polycondensation of acetone and other carbonyl-containing compounds

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 140, no. 1, 1961, 122-124

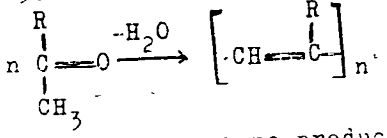
TEXT: The authors produced highly stable high-molecular polyvinylenes on the basis of ketones and aldehydes (acetone; 1,1',1"-trifluoro acetone; acetophenone; acetaldehyde, and others). These substances were subjected to polycondensation in the presence of comparatively large amounts of dehydrating catalysts such as $ZnCl_2$, $BeCl_2$ or $TiCl_4$ which are capable of forming complex compounds with molecules of monomers. The order of monomer molecules in such complexes permits extensive polycondensation processes. In previous papers, the authors showed (Vysokomolek. soyed, 1, 265 (1959; 1, 1859 (1959); 3, 426 (1961); Internat. Symposium on Macromolecular Chemistry, Section 2, M., 1960 p. 453; V. A. Kabanov, Dissertation for the degree of candidate, M., 1960) that the ordered

Card 1/4

27878
S/020/61/140/001/015/024
B103/B101

Polycondensation of acetone ...

position of the monomer molecules may lead to very high, often explosive polymerization rates of solid monomers, even at very low temperatures. S. M. Skuratov's data (A. V. Volokhina, G. I. Kudryavtsev, S. M. Skuratov, A. K. Bonetskaya, Internat. Symposium on Macromolecular Chemistry, Section 2, M. 765, 1960, p. 465) indicate that this order must have an effect also upon polycondensation. The authors achieved the polycondensation by heating the reactant mixtures in sealed glass ampuls or in an autoclave with exclusion of atmospheric oxygen to temperatures from 70 to 250°C. This reaction can be represented in a general form by the equation:



$$n\,\overset{\displaystyle R}{\underset{\displaystyle CH_3}{C}}{=}O \xrightarrow{-H_2O} \left[-CH{=}\overset{\displaystyle R}{C}-\right]_n.$$

In this reaction, acetaldehyde produces polyacetylene, acetone produces polymethyl acetylene, acetophenone produces polyphenyl acetylene, and so on. The polymers obtained are dark-brown or black powders with increased heat resistance characteristic of high-molecular, polyconjugate systems. They display semiconductor properties and characteristic epr spectra. The solubility of polymers in organic solvents, such as acetone or benzene, depends on the degree of polycon-

Card 2/4

densation; they are soluble at low degrees but unsoluble at high degrees. The degree of polycondensation and the yield of solid polymers rise with increasing amount of catalyst, temperature, and reaction time. The structure of polyvinylenes is confirmed by infrared spectra. The spectrum of polymethyl acetylene (obtained from acetone in the presence of $ZnCl_2$) has many features in common with that of polyacetonitrile which, according to its structure, is related with polymethyl acetylene. A wide, intensive band at 1593 cm^{-1} corresponds to the absorption by the system of conjugate C=C bonds. The bands at 1352 and 1380 cm^{-1} may be ascribed to symmetric deformation vibrations of CH_3 groups. The band at 960 cm^{-1} corresponds to nonplanar C-H vibrations in the principal chain. An extensive polycondensation of carbonyl-containing monomers can be obtained by previous ordering of monomer molecules in complexes with metal halides unsaturated with respect to coordination which simultaneously play the part of dehydrating catalysts. Thus, various heat-resistant polyvinylenes of a considerable molecular weight can be produced. There are 1 figure, 1 table, and 11 Soviet references.

[illegible]/61/141/002/018/027
[illegible]/B147

53830 209

AUTHORS: Kargin, [illegible] V. A., Papisov, I. M., and Zubov, V. P.

TITLE. Role of phase tr[illegible] [illegible]merization processes of solid monomers

PERIODICAL: Akademiya nauk SSSR Doklady, v. 141, no. 2, 1961, 389-3[illegible]

TEXT: The problem of rapid polymerization in solid state at low tempera
tures is discussed. A 0.03 mm thick layer of acrylonitrile (melting point
83°C) and magnesium (100 : 1) was condensed in vacuo onto a glass plate
which was placed at the face of a copper cylinder cooled with liquid N₂.
The condensate was a crystal[illegible] film. After N₂ was removed the copper
cylinder was slowly heated ([illegible]). Temperature was measured with
thermocouples and the thermogram [illegible] was recorded by an ЭПП-09
(EPP-09) electronic potentiometer. Samples activated with Mg underwent
explosive polymerization either at [illegible] or at -135°C. The degree of
conversion was 100%. At these temperatures, the thermogram of non
activated acrylonitrile shows exothermic effects. The effect observed [illegible]

Card 1/[illegible]

30704

Role of phase transitions ...

S/020/61/141/002/016/02
B101/B147

-160°C is ascribed to the crystallization of monomer glass on reaching Tamman temperature. The effect observable at -135°C, and the reason why polymerization starts once at -160° and once at -135°C, are still unexplained. At -135°C a secondary, additional orientation of the resulting microcrystalline substance might take place. The two transitions are irreversible. In methylmethacrylate and Mg condensed onto a glass sphere which was cooled to -75°C (apparatus described in Vysokomolek. soyed., 1, 265 (1959)), the polymerization process in polarized light could be observed due to birefringence of the crystals. At this temperature, the molecules could already migrate and add to the forming crystallization nuclei. Spherolites were formed. The characteristic Maltese cross could clearly be seen. In this system, slow polymerization took place. It began at the edges of the spherolites and in fissures. Shifting of the crystal - polymer interface could be observed with the aid of birefringence which vanished during polymerization. Contrary to N. N. Semenov's hypothesis (Khimiya i tekhnologiya polimerov, no. 7-8, 196 (1960)) that rapid polymerization takes place preferably in ideal crystals, experimental data showed that this effect occurs in defect crystals while ideal crystals polymerise slowly. Lattice defects are

Card 2/3

KARGIN, V.A., akademik; KABANOV, V.A.; PAPISOV, I.M.; ZUBOV, V.P.

Role of phase transitions in the polymerization of monomers in the solid state. Dokl. AN SSSR 141 no.2:389-392 N '61. (MIRA 14:11)

1. Moskovskiy gosudarstvennyy universitet im. M.V.Lomonosova.
(Polymerization)

89992

15 8114
11 2210

S/190/61/003/003/007/014
B101/B204

AUTHORS: Kargin, V. A., Kabanov, V. A., Zubov, V. P., Papisov, I. M.

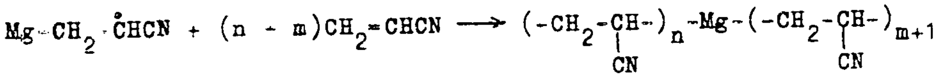
TITLE: Initiation of low-temperature polymerization in systems that have been obtained by the molecular beam method

PERIODICAL: Vysokomolekulyarnyye soyedineniya, v. 3, no. 3, 1961, 426-434

TEXT: In earlier papers, (Ref. 1: Vysokomolek. soyed. 1, 265, 1959; Ref. 2: Vysokomolek. soyed., 1, 1422, 1960; Ref. 3: Vysokomolek. soyedineniya, 1, 1859, 1959; Ref. 6: Vysokomolek. soyed. 2, 303, 1960, Ref. 4: V. A. Kabanov, Thesis, Moscow, 1960) the present authors showed that a few monomers when condensed together with metals, inorganic salts, or oxides may enter polymerization upon a cold surface at the melting temperature or even below it. When the usual methods are used, these substances (metals, salts, oxides) are absolutely inert. It was the aim of the present investigation to disclose the initiation in these systems. A) The systems monomer + metal: Rapid, explosive polymerization was attained by simultaneous condensation of vaporized magnesium and

Card 1/5

acrylonitrile, methacrylonitrile, methacrylate, isopropylacrylate, methyl methacrylate, acryloamide, methacryloamide, butylester of ethylene sulfonic acid, dibutylester of vinylphosphinic acid, formaldehyde, acetaldehyde, and acetone upon a surface cooled with liquid nitrogen. The authors employed the arrangement shown in Fig. 1 in order to explain this mechanism. This apparatus may reduce the overlapping of both molecular beams in the gaseous phase in the case of simultaneous condensation of the monomer (1) and magnesium (2) upon the cooled surface (3). It was found that in this case a polymer does not form. Thus, polymerization takes place only when the vapors interact. From epr spectra it was found that free magnesium-organic radicals form when magnesium and acrylonitrile vapor are condensed simultaneously. The analyses showed that the polyacrylonitrile formed under these circumstances contained Mg which could be extracted by hydrolysis with diluted HCl. In this case, the molecular weight (130,000 and 110,000) dropped to about half of its former value. From this, the authors concluded the following course of the reaction:



$$Mg-CH_2\cdot\dot{C}HCN + (n-m)CH_2=CHCN \longrightarrow (-CH_2-\underset{CN}{\underset{|}{C}H}-)_n-Mg-(-CH_2-\underset{CN}{\underset{|}{C}H}-)_{m+1}$$

Further experiments showed that also atomic hydrogen initiates the polymerization of acrylonitrile, methyl methacrylate, and styrene. When Mg was heated on a tungsten spiral up to 2500°C it reacted also with less active monomers, as vinyl acetate. In the same way Zn, Cd, and Hg could be activated. The authors assume that, similar to the results obtained by Steacie (Ref. 9: see end of abstract) and Laidler (Ref. 10: see end of abstract), initiation is due to the excitation of the metal atoms: $CH_2=CHR{\cdot}Me^* \longrightarrow MeH + \dot{C}H=CHR$. Lead or tin vapors do not initiate the polymerization of acrylonitrile, but even hinders it when Mg is present, due to an addition of the free radicals. B) The systems monomer + salt and monomer + oxide: Joint condensation of molecular beams of styrene, α-methyl styrene, or isoprene with water-free $BeCl_2$, $ZnCl_2$, $TiCl_3$, and of the first two compounds with MoO_3 leads to a rapid polymerization near the melting point of the intensely colored molecular mixture. The formation of π complexes with double bonds is characteristic of the mentioned organic compounds. They only initiate the polymerization of monomers which contain a dense electron cloud at the double bond. The authors assume a cationic mechanism, according to A. R. Gantmakher and S. S. Medvedev (Ref. 11: Vysokomolek. soyed. 1, 1331, 1959). Perfect crystals

89991

Initiation of low-temperature...

S/190/61/003/003/007/014
B101/B204

of these catalysts were not very active, whereas polymerization could be brought about at room temperature through vacuum-vaporized crystal films containing enough surface defects. NaCl and KCl do not initiate the polymerization of monomers with electropositive substituents. However, with negatively substituted monomers, as acrylonitrile, polymerization occurred below the melting point of acrylonitrile in the case of joint condensation, when the salt was heated by means of a tungsten spiral. This process is explained by a partial dissociation. Small regions with non-stoichiometric metal atoms in the lattice are forming, and thus F centers which initiate polymerization by giving their electron to the monomer and forming an anionic radical. As the ionization potential of the F center (2.2 v for KCl) is lower than that of a free atom (4.3 v for a K atom), these F centers are intense initiators. The phase of the catalysts and initiators of the investigated systems depends on the ratio of the aggregation rate of the molecularly dispersed catalyst to the rate of polymerization. Thus, a continuous transition from homogeneous to heterogeneous catalysis may be attained. In all the cases investigated the processes were found to be highly specific due to the nature of the monomer and of the catalyst or initiator. There are

Card 4/5

KARGIN, V.A., KABANOV, V.YA., PAPISOV, I.M.,

Effect of phase transitions on the polymerization of monomers below their melting point.

Report submitted for the International Symposium of Macromolecular Chemistry, Paris, 1-6 July 63

PAPISOV, I. M.; PISARENKO, T. A.; PANASENKO, A.A.; KABANOV, V.A.;
KARGIN, V. A., akademik

Nature of the initiator and the phase state of acetaldehyde as influencing the chemical structure of macromolecules formed during acetaldehyde polymerization. Dokl. AN SSSR 156 no. 3:669-672 '64. (MIRA 17:5)

1. Moskovskiy gosudarstvennyy universitet im. M.V.Lomonosova.

L 51703-65 EWT(1)/EWT(m)/EPF(c)/EWP(j)/T/EEC(b)-2 Pc-4/Pr-4/Pi-4 IJP(c) GG/RM

UR/0020/65/162/001/0136/0139 47

ACCESSION NR: AP5013449 46

AUTHOR: Papisov, I. M.; Kabanov, V. A.; Kargin, V. A. (Academician) 3

TITLE: Mechanism of seeding of the polymeric phase within monomer crystals 21

SOURCE: AN SSSR. Doklady, v. 162, no. 1, 1965, 136-139

TOPIC TAGS: solid phase, polymerization, polymer chain

ABSTRACT: An attempt was made to correlate the dimensions of the supercritical polymer seed capable of further growth with the dimensions of the individual polymer chain initiated on the active center of molecular size. This is a fundamental problem of the kinetics of solid phase polymerization. Polymer chains initiate and spread from the polymer-monomer interphase. It was assumed that the seeds of

form and that they represent one macromolebe either single chains or banks of parallel chains.

Card 1/3

L 51703-65

ACCESSION NR: AP5013449

thermal effects and entropy of polymerization as well as upon temperature and pro-
perties of the monomer crystal lattice. Number of chains (x^*) in the critical seed
is:

$$x^* = \frac{1}{\alpha}\left(\frac{2\pi r_0\sigma\lambda_0}{l\Delta G_0}\right)^2.$$

where r_0 is radius of the polymer chain, σ is the packing coefficient, λ_0 is length
extension of the polymer chain caused by addition of one monomer, l is length of
the assumed cylindrical polymer seed, ΔG_0 is change in volume free energy during
the process of addition of one monomer unit to the polymer chain. If $x^* > 1$, then
formation of a single polymer chain in the crystalline monomer phase is thermodyna-
definite number of unstable

mically unfavored. At a given [illegible] (n*) and stable (n) polymer chains. The polymer yield (q) is calculated from formula:

$$q=\bar{\nu}(n^{*}+n)/N_0$$

where: $\bar{\nu}$ is the average number of monomer molecules which can polymerize at a given temperature, and N_0 is the number of monomer molecules in a unit of volume. Orig. art. has: 2 figures and 13 formulas.

Card 2/3

L 54703-65
ACCESSION NR: AP5013449

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Moscow State University)

SUBMITTED: 24Nov64
ENCL: 00
SUB CODE: SS, OC

NO REF SOV: 004
OTHER: 002

Card 3/3 mB

L 8362-66 EWT(m)/EWP(j)/T/EWA(c) RPL WW/RM

ACC NR: AP5025964 SOURCE CODE: UR/ 0190/65/007/010/1779/1786

46
B

AUTHOR: Papisov, I. M.; 44,55 Kabanov, V. A.; 44,55 Kargin, V. A. 44,55

ORG: Moscow State University im. M. V. Lomonosov 44,55 (Moskovskiy gosudarstvennyy universitet)

TITLE: Conditions for the onset of rapid polymerization 7,44,55 below the monomer melting points. Rapid polymerization as thermal explosion

SOURCE: Vysokomolekulyarnyye soyedineniya, v. 7, no. 10, 1965, 1779-1786

TOPIC TAGS: polymerization, polymerization kinetics, methylmethacrylate, organic nitrile compound

ABSTRACT: The investigation of polymerizing frozen monomers in thin layers is continued in this study with acrylonitrile, 7 methylmethacrylate 7 and acrylonitrile-propionitrile mixtures. The dependence of the occurrence of explosive polymerization in systems produced by simultaneous freezing of monomer and initiator (magnesium) vapor upon the thickness of the condensate layer, initiator concentration and surface temperature change was examined. It was shown that the rate of explosive polymerization below the melting point of the monomers taking

UDC: 66.095.26
2

Card 1/2

L 8862-66

0

ACC NR: AP5025964

place in the process of phase transitions is determined by the rate of these transformations. Explosive polymerization under such conditions has the characteristics of spontaneous thermal ignition. Orig. art. has: 11 equation, 3 tables and 2 figures.

SUB CODE: OC, GC, TD/ SUBM DATE: 23Nov64/ ORIG REF: 009/ OTH REF: 005

B/K

Card 2/2

L 8859-66 EWT(m)/EWP(j)/T/EWA(c) RPL WW/RM

ACC NR: AP5025965 SOURCE CODE: UR/0190/65/007/010/1787/1791

AUTHOR: Kabanov, V. A.; Papisov, I. M.; Gvozdetskiy, A. N.; Kargin, V. A. 44,55

46
B

ORG: Moscow State University im. M. V. Lomonosov 44,55 (Moskovskiy gosudarstvennyy universitet)

TITLE: Role of "mobile prearrangements" in rapid polymerization below the monomer melting points

SOURCE: Vysokomolekulyarnyye soyedineniya, v. 7, no. 10, 1965, 1787-1791

TOPIC TAGS: polyacrylonitrile, crystallization, polymerization, copolymerization, polymerization kinetics, polymerization rate, copolymer

ABSTRACT: polymerization of acrylonitrile 7 in the system inert diluent-acrylonitrile and copolymerization 7 44,55 in the acrylonitrile-propionitrile system were investigated at temperatures below the monomer melting point to determine if diffusion migration of the monomer molecule is sufficient for rapid conversion to the polymer. Reactions were run at -196C using n-hexane or cyclohexane as inert diluents. The copolymeri-

UDC: 66.095.26

Card 1/2

L 8859-66

ACC NR: AP5025965

0

zation product with propionitrile, regardless of initial monomer concentration, contained 57 mol% propionitrile, corresponding to its content in the eutectic phase. The most favorable conditions for rapid polymerization of monomers below their melting points occur at the instant when the mobility of the monomer molecule coincides with the ordering of the monomer molecules in the crystal, for instance, during phase transition in the solid polymer. This condition exists at the boundary of the crystals and the noncrystallized mass during the motion of the crystallization front. It is suggested that "mobile prearrangements" are formed momentarily on the crystal phase boundary; these are rapidly converted to polymer chains. Thus the polymerization front moves immediately behind the phase transition front. Orig. art. has: 3 figures and 2 tables.

SUB CODE: GC, OC, TD/ SUBM DATE: 23Nov64/ ORIG REF: 003/ OTH REF: 004

OVK

Card 2/2

KABANOV, V.A.; PAPISOV, I.M.; GVOZDETSKIY, A.N.; KARGIN, V.A.

Role of "labile preparations" in rapid polymerization below the melting point of monomers. Vysokom.soed. 7 no.10:1787-1791 O '65. (MIRA 18:11)

1. Moskovskiy gosudarstvennyy universitet imeni M.V.Lomonosova.

PAPISOV, V.K., inzh.; MALOVA, I.D., inzh.; SINEL'NIKOV, V.A., inzh.

Modification of the mashing method in chromium plating processes. Vod.i san.tekh. no.12:33 D '65.

(MIRA 19:1)

84639

S/076/60/034/010/022/022
B015/B064

11.310

AUTHORS: Gurman, V. S., Yakovenko, Ye. I., Papisova, V. I.

TITLE: Influence of the Phase Transitions in the Matrix Upon the Annihilation of the Radicals Formed in the Photolysis of a Frozen 25% H_2O_2 Solution in Water

PERIODICAL: Zhurnal fizicheskoy khimii, 1960, Vol. 34, No. 10, p. 2372

TEXT: In the course of investigations of kinetic laws of the concentration and recombination of radicals, forming in water in a photolysis by ultraviolet light of a 25% frozen H_2O_2 solution, by the method of the electron paramagnetic resonance the authors observed that the processes of the phase transformations in the matrix influence the recombination of the radicals. Allen and Stoyn (Ref. 1) have already assumed the possibility of such an influence. The spectrum of the electron paramagnetic resonance of the radicals, in samples irradiated at - 196°C, changes somewhat at a temperature increase to - 130°C, and in the range of from - 125°C to - 120°C the radicals vanish completely. When the irradiation temperature of the samples is over - 115°C, the radicals form again and remain stable

Card 1/2

84639

Influence of the Phase Transitions in the Matrix Upon the Annihilation of the Radicals Formed in the Photolysis of a Frozen 25% H_2O_2 Solution in Water

S/076/60/034/010/022/022
B015/B064

until - 53°C are reached to be then rapidly annihilated again. The thermograms of the non-irradiated samples show that at - 116°C an exothermic phase transition begins, and at - 53°C an endothermic transition. According to Chormley (Ref. 2), the transition from the amorphous to the crystalline ice takes place at - 120°C. N. Ye. Mironov and A. G. Bergman (Ref. 3) observed the formation of a eutectic in the system H_2O_2 - H_2O at - 52.5°C. Thus, it was shown that under the conditions of the present experiments, the phase transitions in the matrix cause a rapid annihilation of the frozen radicals.

[Abstracter's note: This is a summarized translation]

There are 1 figure and 3 references: 1 Soviet and 2 British.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Moscow State University imeni M. V. Lomonosov)

SUBMITTED: April 20, 1960

Card 2/2

PAPISOVA, V.I.; SHLYAPINTOKH, V.Ya.; VASIL'YEV, R.F.

Chemiluminescence and kinetics of chemical reactions. Usp. khim. 34 no.8:1416-1447 Ag '65. (MIRA 18:8)

1. Moskovskiy gosudarstvennyy universitet imeni M.V. Lomonosova i Institut khimicheskoy fiziki AN SSSR.

L 01482-66 EWT(1)/EWT(m)/EPF(c)/EWG(m)/EWP(j)/T/EWA(c)/ETC(m) IJP(c)
DS/RM/WW/JW/WE/RM

ACCESSION NR: AP5021782 UR/0074/65/034/008/1416/1447
535.37:531.1

38
51
B

AUTHOR: Papisova, V. I. 44,55 Shlyapintokh, V. Ya.; 44,55 Vasil'yev, R. F. 44,55

TITLE: Chemiluminescence and kinetics of chemical reactions 1,44,55

SOURCE: Uspekhi khimii, 21,44,55 v. 34, no. 8, 1965, 1416-1447

TOPIC TAGS: chemiluminescence, chemical kinetics

ABSTRACT: The review is devoted to the relationship between chemiluminescence and reaction kinetics, and is based on studies in which chemiluminescence was investigated in reactions whose mechanism was reliably determined, or in which the reactions were investigated both by means of luminescence and by methods of chemical kinetics. Particular attention is given to the potential of chemiluminescence as a method of quantitative study of reaction kinetics. The article is divided into the following sections: (1) chemiluminescence of flames; (2) reactions of nitrogen, oxygen, and hydrogen atoms; (3) infrared chemiluminescence in thermal reactions; (4) liquid-phase oxidation reactions associated with bright chemiluminescence; (5) systems with faint chemiluminescence. The first three sections deal with gas-phase

Card 1/2

L 23712-66 EWT(m)/EWP(j) WW/JW/RM

ACC NR: AP6009424 SOURCE CODE: UR/0020/66/166/006/1369/1371

AUTHOR: Papisova, V. I.; Sergeyev, G. B.

ORG: Moscow State University im. M. V. Lomonosov (Moskovskiy gosudarstvennyy universitet)

TITLE: Low-temperature nitration of olefins with nitrogen tetroxide

SOURCE: AN SSSR. Doklady, v. 166, no. 6, 1966, 1369-1371

TOPIC TAGS: nitrogen oxide, nitration, olefin

ABSTRACT: The low-temperature nitration of olefins (ethylene, isobutylene, 1-butene, propylene, 1-hexene, cyclohexene) with nitrogen tetroxide was studied by differential thermal analysis in a vacuum unit. All the olefins except ethylene reacted vigorously with N_2O_4 at temperatures above the melting points of the olefins but below the melting point of N_2O_4 (-11.2°C). Spectroscopic analysis showed that the nitration forms addition products, i. e., nitrates and nitro compounds. By analogy with halogenation reactions of olefins, it is postulated that nitration proceeds via a stage of formation of intermediate donor-acceptor-type complexes (N_2O_4 being a weak acceptor). This hypothesis accounts for the absence of the reaction with ethylene, whose ionization potential is too high to form molecular complexes and enter into an addition reaction with N_2O_4 at low temperatures. Only polar olefins react with N_2O_4 under these

UDC: 541.117+541.124.2+547.311+546.174+541.126

Card 1/2

L 23712-66

ACC NR: AP6009424

conditions. A more detailed investigation of the mechanism of low-temperature nitration of unsaturated compounds is planned. The paper was presented by Academician N. N. Semenov on 3 June 1965. Orig. art. has: 3 figures, 1 table.

SUB CODE: 07/ SUBM DATE: 02Jun65/ ORIG REF: 007/ OTH REF: 003

Card 2/2

L 09064-67 EWT(m)/EWP(j) WW/JW/RM

ACC NR: AP6023961 SOURCE CODE: UR/0204/66/006/002/0302/0308

20

19

AUTHOR: Sergeyev, G. B.; Papisova, V. I.; Martinek, K.; Chen Ton-kha

ORG: Moscow State University (Moskovskiy gosudarstvennyy universitet)

TITLE: Reactions of nitrogen oxides with unsaturated compounds at low temperatures

SOURCE: Neftekhimiya, v. 6, no. 2, 1966, 302-308

TOPIC TAGS: nitrogen oxide, olefin

ABSTRACT: A thermographic method was used to study the reactions of N_2O_4, NO, and N_2O with ethylene, propylene, 1-butene, isobutylene, 1-hexene, cyclohexene, acetylene, methylacetylene, allene, benzene, 1,3-butadiene, 1,3-cyclopentadiene, and 1,3-cyclohexadiene at subzero temperatures. N_2O_4 reacted at a high rate with 1-butene, 1-hexene, and cyclohexene at about -40, -32, and -66° respectively, and with propylene and isobutylene at -35 and -74°. The reactions of 1,3-butadiene and 1,3-cyclopentadiene with N_2O_4 were even more vigorous. Ethylene, acetylene, cyclohexadiene and certain other compounds did not react with N_2O_4 at low temperatures. NO and N_2O did not react with any of the unsaturated compounds at low temperatures. Infrared spectroscopic analysis of the reaction products, performed after heating the reacted mixture of acyclic olefins and N_2O_4 to room temperatures, showed that chiefly nitrates and nitro compounds were formed. The reaction of N_2O_4 with olefins is explained in terms of

Card 1/2 UDC: 546.172.5/.6+546.174]:547.31

L 09064-67

ACC NR: AP6023961

complex formation. Orig. art. has: 3 figures and 2 tables.

SUB CODE: 07/ SUBM DATE: 26Aug65/ ORIG REF: 013/ OTH REF: 009

Card 2/2 nst

PAPI-SZALAY, G.

Temperature gradient of free atmosphere in the lower 500 meters under various macrosynoptic conditions. P. 105.

IDOJARAS. (Meteorologiai Intezet es Magyar Meteorologiai Tarasag)
Budapest, Hungary. Vol. 63, No. 2, Mar./Apr. 1959

Monthly List of East European Accessions, (EEAI) LC, Vol. 9, no. 1 Jan. 1960 Uncl.

PAPITASHVILI, M. E.

35596 Voprosu o lechenii erozii sheyki matki protozoogennoy. Trudy sev.-oset. gos. Med. In-ta, Vyp. 4, 1949, s. 59-61

SO: Letopis' Zhurnal'nykh Statey, Vol. 5, 1949

PAPITASHVILI, M. YE.

35552. Rak Matki I Beremennost'. Trudy Sev.-Oset. Gos. Med. In-ta, VYP. 4, 1949, c. 55-58.

Letopis' Zhurnal'nykh Statey, Vol. 48, Moskva, 1949

ASATIANI, G.K., prof., doktor med.nauk; PAPITASHVILI, M.Ye., red.

[Treatment of gynecological patients at Tskhaltubo] Lechenie ginekologicheskikh bol'nykh v TSkhaltubo. Tbilisi, Gruzmedgiz, 1957. 68 p. (MIRA 12:1)
(TSKHALTUBO--MINERAL WATERS) (WOMEN--DISEASES)

PAPITASHVILI, Mikhail Yermolayevich; KORIDZE, Shalva Melitonovich;
DZHINCHARADZE, Margarita Zakhar'yevna

[Technique of some gynecological operations] [Tekhnika nekotorykh ginekologicheskikh operatsii. Tbilisi, Sabchota Sakartvelo] 1964. 181 p. [In Georgian] (MIRA 18:7)

PAPIU, V.; Kizyk, A.

The lithology of reef calcareous sediments in Baile Herculane. p. 121

STUDII CI CERCETARI DE GEOLOGIE. Bucresti, Rumania, Vol. 3, no. 1/2, 1958

Monthly list of East European Accessions (EEAI) LC, Vol. 9/no. 2, Feb. 1960

Uncl.

PAPIU V. CORVIN

SURNAME, Given Names

③

Country: Rumania

Academic Degrees: -not given-

Affiliation: -not given-

Source: Bucharest, Comunicarile Academiei Republicii Populare Romine, Vol XI, No 12, 1961, pp 1515-1520.

Data: "Magnetometric Data Concerning the Genesis of Thermomineral Waters at Baile-Herculane."

Authors:

PAPIU, V. Corvin
ROMANESCU, D.
IONESCU, Fl.

PAPIU, V.C.; POPESCU, A.; SERAFIMOVICI, V.

Lithogenetic importance of the carbonated rocks in the epizone of Poiana Rusca Massif. Dari seama sed 49 pt.2:53-67 '61-'62[publ. '64].

1. Submitted December [illegible], 1961.

PAPIU, V. Corvin; ROMANESCU, D.; IONESCU, Fl.

Magnetometric data on the origin of thermomineral waters of Baile-Herculane. Comunicarile AR 11 no.12:1515-1520 D '61.

1. Comunicare prezentata de Sabba Stefanescu, membru corespondent al Academiei R.P.R.

PAPIU, V., Corvin; POPESCU, A.; SERAFIMOVICI, V.; DUTU, Marcela

Geologic and petrographic research in the dolomite Hunedoara Massif. Dari seama sed 47:323-344 '59/60 [publ. '62.].

BANCILA, I.; PAPIU, V. Corvin

On the Cretaceous sediment lithology in the Cirnu-Valea Tiganilor (Bicaz region) Anticline. Pts. 1-2. Dari seama sed 45 13-35, 115-129 '57/58 [publ. '62].

BANCILA, I.; PAPIU, V. Corvin

On the Lower Cretaceous silicolites in the marginal basin of the Eastern Carpathians. Dari seama sed 46:25-51 '58/59 [publ. '62].

DRAGOS, V.; PAPIU, Victor Corvin (Bucuresti)

"Geologic and metallogenetic study of the medium part of the Arize Massif" by Elena Adriana Perseil. Reviewed by V. Dragos, Victor Corvin Papiu. Natura Geografie 16 no.1:96 Ja-F '64.

PAPIVANOV, Radoy

Prevention of hemolytic disease of newborn. Sov.med. 19 no.2:49-52 F '55. (MLRA 8:5)

1. Iz Instituta biologii (dir. akademik Metodiy Popov) Sofiyskoy meditsinskoy akademii imeni Vulko Chervenkov.

(ERYTHROBLASTOSIS, FETAL, prevention and control)

ZAKARYAN, M.R., inzh.; GASANOV, I.M., inzh.; PAPIYAN, R.F., agronom

Testing SNU-48 mounted narrow-row grain drills. Trakt. i sel'-khozmash. 31 no.1:28 Ja '61. (MIRA 14:1)

1. Zakavkazskaya Gosudarstvennaya mashinoispytatel'naya stantsiya.
(Drill (Agricultural machinery))

ANDRONNIKOV, K.S.; BALAKOV, V.V.; BUZHINSKIY, A.N.; BURAGO, A.N.; VENTMAN, L.A.; VISHNEVSKIY, A.A.; VOLOSOV, D.S.; GASSOVSKIY, L.N., professor; GERSHUN, A.A., professor; YEL'YASHEVICH, M.A.; YEVSTROP'YEV, K.S.; GUREVICH, M.M., professor; KOLYADIN, A.I.; KORYAKIN, B.M.; KURITSKIY, A.L.; PAPIYANTS, K.A.; PROKOF'YEV, V.K., professor; PUTSEYKO, Ye.K.; REZUNOV, M.A.; RITYN', N.E., SAVOST'YANOVA, M.V., professor; SEVCHENKO, A.N.; SENNOV, N.I.; STOZHAROV, A.I.; FAYERMAN, G.P., professor; FEOFILOV, P.P.; TSAREVSKIY, Ye.N., professor; CHEKHMATAYEV, D.P.; YUDIN, Ye.F.; KAVRAYSKIY, V.V., professor; VAVILOV, S.I., akademik, redaktor

[Optics in military science] Optika v voennom dele; sbornik statei. Pod red. S.I.Vavilova i M.V.Savost'ianovoi. Izd. 3-e, zanovo perer. i dop. Moskva. Vol.2. 1948. 387 p. (MLRA 9:9)

1. Akademiya nauk SSSR. 2. Sostaviteli - sotrudniki Gosudarstvennogo Opticheskogo instituta (for all except Vavilov and Kavrayskiy) 3. Voyenno-morskaya akademiya (for Kavrayskiy)
(Optics)

PAPIYANTS, K.A.

Method of crossed spectral prisms used for rapid evaluation of the aberration of optical systems. Opt.-mekh.prom. 25 no.6:7-12 Je '58.
(MIRA 11:10)

(Aberration--Measurement)

FEDIN, Leonid Andreyevich; PAPIYANTS, K.A., kand. fiziko-matem. nauk, retsenzent; KOROLEV, N.V., inzh., retsenzent; IOFFE, G.A., red.; TOKAR', V.M., red. izd-va; ORESHKINA, V.I., tekhn. red.

[Manual on microscopes, their accessories, and lenses] Mikroskopy, prinadlezhnosti k nim i lupy; spravochnaia kniga. Pod red. G.A.Ioffe. Moskva, Gos. nauchno-tekhn. izd-vo Oborongiz, 1961. 251 p. (MIRA 14:10)

(Microscope)

PAPIYEV, G.G., inzh.

Enlargement and specialization of furniture manufacturing enterprises in Georgia. Der. prom. 12 no.9:18-19 S '63. (MIRA 16:10)

1. Upravleniye lesnoy i bumazhnoy promyshlennosti soveta narodnogo khozyaystva Gruzinskoy SSR.

PAPIYEV, G.G.

From practices in safety engineering and industrial hygiene.
Der.prom. 11 no.6:23 Je '62. (MIRA 15:6)
(Akhaldaba--Furniture industry--Safety measures)
(Industrial hygiene)

PANIYEV, I.G.

Prospects for the development of the production of gas in Armenia. Gaz. prom. 8 no.2:[illegible] '63 (MIRA [illegible])

PAPKE, Anna

Diffuse hypertrophy and hyperfunction of the islands of Langerhans. Endokr. pol. 14 no.2:181-186 '63.

1. III Klinika Chirurgiczna AM w Poznaniu Kierownik: prof. dr A. Piskorz.

(ISLANDS OF LANGERHANS) (ISLET CELL TUMOR)
(DIAGNOSIS, DIFFERENTIAL)
(HYPERTROPHY AND HYPERPLASIA) (HYPERINSULINISM)

PAPKA, G.F.

Surgeon A.G.Zaloga, a man of public activity. Sov. zdrav. 13 no.4: 50-55 Jl-Ag '54. (MLRA 7:9)
(ZALOGA, ANATOLII GEORGIEVICH, 1870-1954)

PAPKA, G.F.

I.K.Spizharnyi; physician, scientist, teacher, and public figure; 1857-1924. Khirurgiia 34 no.6:136-142 Je '58 (MIRA 11:8)

1. Iz travmatologicheskogo otdeleniya Moskovskoy gorodskoy klinicheskoy ordena Lenina bol'nitsy imeni S.P. Botkina (glavnyy vrach - prof. A.N. Shabanov).

(SPIZHARNYI, IVAN KONSTANTINOVICH, 1857-1924)

PAPKO, G.F.

Candidiasis of the internal organs in association with staphylococcal septicemia in surgical practice. Sov.med. 23 no.8:118-125 Ag '59.
(MIRA 12:12)

1. Iz travmatologicheskogo otdeleniya (nauchnyy rukovoditel' - prof. D.K. Yazykov) Moskovskoy gorodskoy klinicheskoy ordena Lenina bol'nitsy imeni S.P. Botkina (glavnyy vrach - prof. A.N. Shabanov).
(MONILIASIS etiology)
(STAPHYLOCOCCAL INFECTIONS complications)
(SURGERY, OPERATIVE complications)
(ANTIBIOTICS eff., inj.)

PAPKO, G.F.

Case of primary plastic surgery of the forearm following almost total avulsion. Khirurgiia 35 no. 5:112-114 My '59.
(MIRA 13:10)

1. Iz travmatologicheskogo otdeleniya Moskovskoy gorodskoy klinicheskoy ordena Lenina bol'nitsy im. S.P. Botkina (glavnyy vrach - prof. A.N. Shabanov, rukovoditel' kliniki - prof. D.K. Yazykov).
(ARM—WOUNDS AND INJURIES) (SURGERY, PLASTIC)

PAPKO, G. F., Cand Med Sci -- (diss) "A. A. Bobrov and his school." Moscow, 1960. 23 pp; (Second Moscow State Medical Inst im N. I. Pirogov); 300 copies; price not given; list of author's works on pp 22-23; (KL, 26-60, 144)

PAPKO, G.F. (Moskva)

A.V. Martynov and his role in the development of Russian surgery; on the 25th anniversary of his death. Sov.zdrav. 19 no.2:70-75 '60. (MIRA 13:5)

1. Iz travmatologicheskogo otdeleniya Moskovskoy gorodskoy ordena Lenina klinicheskoy bol'nitsy imeni S.P. Botkina (dir. - prod. D.K. Yazykov, glavnyy vrach - prof. A.N. Shabanov).
(MARTYNOV, ALEKSEI VASIL'EVICH, 1868-1934)

PAPKO, G.F.

Aleksei Vasil'evich Martynov. Vest.khir. 84 no.1:136-140 Ja '60. (MIRA 13:10)

(MARTYNOV, ALEKSEI VASIL'EVICH)

PAFKO, G.F.

An outstanding representative of Russian surgery, S.P. Fedorov, 1869-1936. Sov.med. 24 no.9:139-145 S '60. (MIRA 13:11)

1. Iz travmatologicheskogo otdeleniya Moskovskoy gorodskoy klinicheskoy ordena Lenina bol'nitsy imeni S.P. Botkina (glavnyy vrach - prof. A.N. Shabanov).
(FEDOROV, SERGEI PETROVICH, 1869-1936)

PAPKO, G.F.; SEFEROVA, N.I.

Osteoid osteoma. Sov.med. 25 no.5:143-146 My '62. (MIRA 15:8)

1. Iz travmatologicheskogo otdeleniya (nauchnyy rukovoditel' - prof. D.K.Yazykov) Moskovskoy gorodskoy ordena Lenina klinicheskoy bol'nitsy imeni S.P.Botkina (glavnyy vrach - prof. A.N.Shabanov) i pervoy kafedry rentgenologii i radiologii (zav. - prof. S.A. Reynberg) TSentral'nogo instituta usovershenstvovaniya vrachey.
(BONES--TUMORS)

PAPKE A

POLAND/General Problems of Pathology - Tumors. T-5

Abs Jour : Ref Zhur - Biol., No 3, 1958, 12832

Author : Budzynska - Kozanecka, A., Papke, A.

Inst : Not given.

Title : A Case of a Large Teratoma of the Ovary in a 6-year Old Girl.

Orig Pub : Pediatr. polska, 1957, 32, No 1, 74-76

Abstract : No abstract.

Card 1/1

PAPKE, Anna

Two cases of peptic ulcer in the jejumm operated on by Henley's method. Polski przegl. chir. 28 no.11:1187-1193 Nov 56.

1. Z III Kliniki Chirurgicznej A.M. w Poznaniu Kierownik: doc dr. J. Borszewski. Poznan, ul. Ostroroga 13, m. 3.
(PEPTIC ULCER
jejunum, surg., Henley's method (Pol))

PAPKE Anna

BORSZEWSKI, Jerzy; PAPKE, Anna; LEJA, Zbigniew

Assimilation of proteins and fats following Henley's gastric resection. Polski przegl. chir. 29 no.3:197-202 Mar 57.

1. Z III Kliniki Chirurgicsnej A.M. w Posnaniu Kierownik: doc. dr. J. Borszewski. Adres autorow: Posnan, ul. Szkolna 8/12 III. Klinika Chirurgiczna A.M.
(GASTRECTOMY,
Henley's operation in peptic ulcer, postop. protein & fat absorp. (Pol))
(FATS, metabolism,
absorp. after Henley's operation in peptic ulcer (Pol))
(PROTEINS, metabolism,
same)

PAPKE, ANNA

BORSZEWSKI, Jerzy; PAPKE, Anna

Surgical treatment of postoperative stenosis of the common bile duct. Polski tygod. lek. 12 no.13:463-468 25 Mar 57.

1. (Z III Kliniki Chirurgicznej A.M. w Poznaniu; kierownik: doc. dr. Jerzy Borszewski). Adres: Poznan, III Kl. Chir. A.M.
(BILE DUCT, COMMON, stenosis
surg. of postop. stenosis (Pol))

~~PAPKE~~ PAPKE, ALICJA

BUDZYNSKA-KOZANECKA, Alicja; PAPKE, ~~Anna~~

Case of a large ovarian teratoma in 6 year old girl. Pediat. polska 32 no.1:74-76 Jan 57.

1. Z I Kliniki Chorob Dzieciecych A.M. w Poznaniu Kierownik: prof. dr. med. T. Rafinski i z III Kliniki Chirurgicznej A.M. w Poznaniu Kierownik: doc. dr. med. J. Boraszewski. Adres: Poznan, ul. Magdaleny 14.

(OVARIES, neoplasms
teratoma in 6 year old girl (Pol))
(TERATOMA, in inf. & child
ovarian, in 6 year old girl (Pol))

POLAND

PAPKE, Anna, Clinic of Infectious Diseases (Klinika Chorob Zakaznych), AM [Akademia Medyczna, Medical Academy] in Poznan (Director: Prof. Dr. A. PISKORZ)

"Mechanical Jaundice in Chronic Pancreatitis."

Warsaw-Krakow, Przeglad Lekarski, Vol 19, Ser II, No 4, 63, pp 220-222.

Abstract: [Author's English summary modified] Mechanical jaundice may appear in patients with chronic pancreatitis without the presence of stones in the common bile duct. Such jaundice may be caused by mechanical pressure of the inflamed head of the pancreas on the terminal section of the common bile duct, as well as by stricture or cicatrization of the sphincter of the heptopancreatic ampulla. Surgical clearing of the common bile and pancreatic ducts may bring about the disappearance of the symptoms of the jaundice and the pancreatitis. The eight (8) references consist of two (2) Russian and six (6) Western sources.

1/1

DEBSKA, Wanda, dr; PAPKE, Jan, dr

The need of scientific and technological progress in pharmacies. Farmacja Pol 18 no.21:522-523, 526 10 N '62.

L

POLAND / Meadow Cultivation

Abs Jour: Ref Zhur-Biol., Vol 13, 1958, 58449

Author : Papke, R.

Inst : Not given

Title : The Utilization of Phytocenology in the Typological Classification of Meadows and Pastures in the Light of Recent Research of German Authors

Orig Pub: Postepy nauk roln., 1957, 4, No 4, 147-151

Abstract: No abstract.

Card 1/1

2

PAPKO, G.F., SEFEROVA, N.I.

Diffuse osteoporosis in amyloidosis of the liver and kidneys.
Sov.med. 22 no.8:37-42 Ag '58 (MIRA 11:10)

1. Iz travmatologicheskogo otdeleniya (nauchnyy rukovoditel' - prof. D.K. Yazykov) Moskovskoy gorodskoy ordena Lenina klinicheskoy bol'nitsy imeni S.P. Botkina (glavnyy vrach - prof. A.N. Shabanov) i pervoy kafedry rentgenologii i radiologii (zav. - prof. S.A. Reynberg) TSentral'nogo instituta usovershenstvovaniya vrachey.

(AMYLOIDOSIS, compl.
    osteoporosis, diffuse, in amyloidosis of liver & kidneys (Rus))
(LIVER DISEASES, compl.
    osteoporosis, diffuse, in amyloidosis (Rus))
(KIDNEYS, DISEASES, compl.
    same (Rus))
(OSTEOPOROSIS, compl.
    diffuse, with amyloidosis of liver & kidneys (Rus))

PAPKO, G.F.

S.P. Fedorov and his role in the development of Russian surgery (1869-1936). Khirurgiia 36 no.2:130-135 F '60. (MIRA 13:12)

(FEDOROV, SERGEI PETROVICH, 1869-1936) (SURGERY)

PAPKO, G.F., kand.med.nauk

Some historical data on the development of the Moscow Municipal Clinical Hospital No.4 and the present state of its scientific work in the light of the prospective plan for the hospital's development during 1960-1962. Nauch.trudy Chetv.Mosk.gor.klin. bol'. no.1:7-11 '61. (MIRA 16:2)
(MOSCOW—HOSPITALS)

KUKIN, Nikolay Nikolayevich, doktor med. nauk; PAPKO, Grigoriy Fedoseyevich, kand. med. nauk; SOROKO, Ya.I., red.; RAKITIN, I.T., tekhn. red.

[Ways of surgery] Puti khirurgii. Moskva, Izd-vo "Znanie," 1964. 47 p. (Novoe v zhizni, nauke, tekhnike. VIII Seriia: Biologiia i meditsina, no.3) (MIRA 17:2)

ROZANTSEV, E. G.; PAPKO, R. A.

2,2,7,7-Tetramethyl-5-homopiperazinone-nitric oxide, a new stable free radical. Izv. AN SSSR Otd. khim. nauk no.12:2254 D '62. (MIRA 16:1)

1. Institut khimicheskoy fiziki AN SSSR.

(Piperazinone) (Radicals(Chemistry))

ROZANTSEV, E.G.; PAPKO, R.A.

Beckmann rearrangement of a free radical. Izv. AN SSSR. Otd.khim. nauk no.4:764-765 Ap '63. (MIRA 16:3)

1. Institut khimicheskoy fiziki AN SSSR.
(Beckmann rearrangement) (Radicals (Chemistry))

PAPKO, O.S.I. Cand. Chem. Sci.

Dissertation: "Oxidation of the Aqueous Solutions of Ammonia with Ozonized Oxygen." Moscow State Pedagogical Inst imeni V. I. Lenin, 2 Jun 47.

SO: Vechernyaya Moskva, Jun, 1947 (Project #17836)

CA

-2

PROCESSES AND PROPERTIES INDEX

Oxidation of aqueous solutions of ammonia by ozonized oxygen. S. I. Papko. *Zhur. Priklad. Khim.* (J. Applied Chem.) 22, 667-82(1949).—Ozonized O_2, led into an NH_4OH soln. through a Schott filter so as to ensure dispersion of the gas into finest bubbles, produces high yields of NH_4NO_3. At const. O_3 content (~5%) in the gas, the amt. of NH_3 oxidized, α, in percentage of the initial concn., c, of NH_3 in the soln., calcd. per 1 g. of O_3 passed, decreases with c. Thus, at 25°, 100 ml. soln., 2 hrs., with c = 0.5539, 0.948, 2.051, 3.067, 5.622%, α = 24.4, 18.6, 11.7, 7.6, 3.6%. These figures fit the empirical formula α = $0.809 c^2 - 8.28 c + 25.22$. The degree of utilization of O_3, β, calcd. on the basis of the over all reaction equation $2NH_3 + 4O_3 \rightarrow NH_4NO_3 + H_2O + 4O_2$, is, at the above initial concns., β = 70.2, 102.4, 130.1, 130.1, 114.7%. A degree of utilization exceeding 100%, means, of course, that NH_3 is oxidized not only by O_3, but also to some extent by O_2, if the reaction has been initiated by O_3. The rate of flow of the gas has but little effect on α. Thus, at const. c ~ 1%, under the above conditions, doubling of the rate of flow from 3 to 6 l./hr. resulted in a decrease of α from 17.2 to 13.1%; above 4-5 l./hr., α becomes practically const. and independent of the rate of flow. Likewise, α remains practically const. At the const. rate of 4 l./hr., at 25°, O_3 content ~5%, c ~ 1%, α rises only very slightly with the length of the reaction, and becomes practically const. from 90 min. on. Kinetically, the reaction proves to be of the 2nd order, with the rate const. k = 0.051 at 25° (moles/l. min.), which is consistent with a bimol. rate-detg. step $NH_3 + O_3 \rightarrow NH_2OH + O_2$. Further steps are very fast, which explains the failure to detect the intermediate products. The mechanism involving intermediate formation of NH_2OH also accounts for the observed excess of β over 100%; the NH_2OH formed in the initial step is oxidized not only by O_3 but also by O_2. Oxidation of NH_3 increases linearly with the amt. of O_3 in the gas, thus, under the above standard conditions, with O_3 = 0.0144, 0.0280, 0.0448 g./l., α = 1.0, 2.5, 4.5%, and β = 60.8, 84.2, 101.0%. The increase of β with the O_3 content indicates that O formed in the decompn. of O_3 mols. is more active than mol. O_2. Extrapolation to zero shows that oxidation of NH_3 begins at the min. content of 0.006 g. O_3/l. The Arrhenius equation holds between 15 and 60°, at which log k = −1.3010 and −1.0555, resp. Advance addn. of NH_4NO_3 first increases α very slightly (thus, 13.48% NH_4NO_3 increases α from 10.3 to 21.1%), but further amts. of NH_4NO_3 have no more effect on α. Consequently, O_3 does not oxidize the NH_4^+ ion. Thanks to the absence of inhibition by the NH_4NO_3 formed, it is possible to carry the oxidation of NH_3 in soln. by O_3 very far. The values of α obtained are considerably higher than those reported in previous literature. N. Thon

Chin Gen Chew.

2nd Moscow State Med Instu Stalin

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

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Action of homogeneous catalysts. N. I. [illegible] (Stalin State Med. Inst., Moscow). *Zhur. Priklad. Khim.* (J. Applied Chem.) **23**, 8-20(1950).—Relative rates of oxidation of NH$_3$ in aq. soln. by O$_3$ (ozonized O$_2$) flowing at 4 l./hr., were detd. by the percentage *n* of NH$_3$ oxidized to NH$_2$OH found in the soln. after 1.5 hrs. Oxidation to NH$_2$OH is the 1st and the rate-detg. step of the whole oxidation process. At 25°, at const. content *c* of CuSO$_4$ as catalyst, 0.5% as metallic Cu, variation of the initial NH$_3$ content *a* of the soln. from 0.5 to 8% results in a decrease of *n*, fastest at low NH$_3$ contents, then increasingly slower. The accelerating effect of CuSO$_4$ is distinct over the whole range of NH$_3$ contents. At const. NH$_3$ content, *n* increases linearly with *c* varying from 0.1 to 0.9%. The degree of utilization *η* of the O$_3$, at const. *c*, increases from 113 to 180% with *a* increasing from 0.66 to 5.1%; values of *η* higher than 100% indicate participation of O$_2$ in the oxidation process. At const. *a*, *η* increases from 76 to 126% with *c* increasing from 0.12 to 0.85%. The catalytic effect of CuSO$_4$ is attributed to a polarization of the NH$_3$ mols. through formation of the $[Cu(NH_3)_4]^{++}$ complex ion. NiSO$_4$ has still a catalytic effect, but less than CuSO$_4$. The variation of *n* with *a* at const. *c*, and with *c* at const. *a*, has the same form as with CuSO$_4$. The slopes of the *n*(*c*) lines at const. *a* are approx. the same in both cases. With Co^{+++}, introduced as CoSO$_4$ and spontaneously oxidized by air in the alk. soln., and leaving, after filtration from the Co$_2$O$_3$ ppt., at most *c* = 0.003% in soln., the catalytic effect is intermediate between that of Cu^{++} and that of Ni^{++}. The shape of the *n*(*a*) curve at const. *c* is the same. The catalytic effect remains unchanged when, with *a* kept const., *c* is varied from 0.01 to 0.06%. No catalytic effect was found with $5(NH_4)_2O.12MoO_3.7H_2O$ (*c* = 0.5%); $5(NH_4)_2O.12WO_3.7H_2O$ has a slight accelerating effect, independent of *c* between 0.12 and 0.9%. A slight catalytic effect was also observed with NH$_4$VO$_3$, independent of *c* between 0.1 and 0.9%. N. Thon

Organ[illegible]

Papko, S. I.

6010

Experimental investigation of reaction kinetics in liquids by the flow method. L. A. Nikolaev and S. I. Papko (Stalin Inst. Railroad Transport Eng., Moscow). *Zhur. Fiz. Khim.* 29, 1113-15(1955).—An app. was designed to observe the reaction proceeding in a liquid stream in different sections of that stream. The app. is claimed to be particularly adapted to the study of catalysis kinetics; this permits an identification of intermediate products and of the initial stages of homogeneous catalysis, possibly also the kinetics of color changes of org. dyes, such as indicators, luminescence extinction in solns., etc. W. M. Sternberg

Chem

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PAPKO, S.I.

3

Study of reaction kinetics by the flow method. S. I. Papko and L. A. Mikolacy (Inst. Railroad Transport Engineers, Moscow). *Zhur. Fiz. Khim.* 30, 2583-4(1956).—An improvement in the app. described in *C.A.* 51, 824g. W. M. Sternberg

MT

PAPKO, O.I.

Distr: 4E3d

Effect of heterogeneous catalysts on the oxidation of aqueous ammonia solutions by ozonized oxygen. O. I. Papko. *Zhur. Priklad. Khim.* 30, 1280-82 (1957); cf. C.A. 43, 8825d; 44, 4318i.—The oxidation of NH_3 in a 1% aq. soln. by O_3 in the presence of different catalysts was studied by a method similar to that previously described (*loc. cit.*). The Schott (glass) filter through which the gas was led into the soln. was removable. It was dipped into a soln. of the catalyst until thoroughly wet and then dried in air; some catalysts were sintered (below the m.p. of glass) to convert the salt to oxides; some oxides were reduced to the metallic state with H. The following were catalytically inactive: MoO_3, Mo, W, Ti, Pd (obtained by decompn. of $PdCl_2$), V_2O_3, V_2O_4, and Cu_2C. The following were active catalysts: WO_3, Pt, Pd (obtained by reducing $PdCl_2$ with H), Ir, and Rh. The rate of oxidation (on Pt) increased from 40.3 to 52.2% as the temp. of the soln. increased from 25 to 75°. At 25° 2 atoms of O of O_3 entered the reaction and at 75° 3 atoms. I. Bencowitz

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OM

PAPKO, S. I.

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Distr: 4E4j/4E3d

27 27

The kinetics of ammonia oxidation with ozone in water solutions. S. I. Panko (Transport Eng. Inst., Moscow). *Zhur. Fiz. Khim.* 31, 1030-9(1957).—The kinetics of the reaction was studied by the method described by Nikolaev and P. (*C.A.* 51, 8244) by siphoning separately solns. of NH_3 and O_3 into a mixing tube, and then into a H_2SO_4 soln. The time required by the mixt. to pass through the reactor, maintained at 5.0-30° ± 0.05° was recorded. The reaction was of the 2nd order and the log k change with the inverse temp. was: $2.303 \log k = -(11,231/T) + 42.27$. The activation energy of the reaction was 22,300 cal./mol. W. M. Sternberg

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1/1

SOV 156-58-1-10/46

AUTHOR: Papko, S. I.

TITLE: On the Interaction Between Ammonia and Ozone Solved in Carbon Tetrachloride (O vzaimodeystvii ammiaka i ozona, rastvorennykh v chetyrekhkhloristom uglerode)

PERIODICAL: Nauchnyye doklady vysshey shkoly, Khimiya i khimicheskaya tekhnologiya, 1958, Nr 1, pp. 36 - 39 (USSR)

ABSTRACT: The oxidation of ammonia is much less investigated than the oxidation in the gas phase. From the point of view of practical exploitation it is much more advantageous to oxidize ammonia in anhydrous solvents. Ozone and ammonia are assumed to be soluble in them; the solvent has to be inert with respect to the two gases; furthermore it must be cheap and not short in supply. Carbon tetrachloride corresponds to all these conditions. Ozone is better soluble in the latter than in water, ammonia is less. Figure 1 shows a scheme of the plant used for the oxidation. Before the beginning of the experiment the carbon tetrachloride saturated with ammonia was completely clear. With progressing flowing through of ozonized oxygen the liquid became blurred, and white small grains of the

Card 1/3

On the Interaction Between Ammonia and Ozone Solved in Carbon Tetrachloride SOV 156 58-1-10/46

oxidation products began to form on the walls of the reaction vessel (6). The experiments were carried out at 14 and 31°. The isolated solid oxidation products were recrystallized. The qualitative analysis showed the presence of the following ions: NH_4^+, NO_3^-, Cl^-, OCl^-. NO_2^- -, CN^-- and CO_3^{2-} ions were lacking. The results of a quantitative analysis of individual fractions are shown in table 1. They agree with the solubility of NH_4NO_3 and NH_4Cl. The I^{rst} fraction contains mainly NH_4Cl. The fractions II and III are practically of the same composition and contain mainly NH_4NO_3. Average data on the composition of these products (Table 1) show that they represent a mixture of 58% NH_4NO_3 and 36% NH_4Cl. 6% are formed by organic admixtures. The temperature change does not influence considerably the ratio of the products. The way of the flowing through of ammonia and ozone is, however, very important (Table 3). There are 1 figure, 3 tables, and 4 references, 1 of which is Soviet.

Card 2/3

On the Interaction Between Ammonia and Ozone Solved in Carbon Tetrachloride SOV/156-58-1-16/46

ASSOCIATION: Kafedra khimii Moskovskogo instituta inzhenerov transporta im. I. V. Stalina (Chair of Chemistry of the Moscow Institute of RR Engineers imeni I.V. Stalin)

SUBMITTED: October 5, 1957

Card 3/3

PAPKO, S.I.

Kinetics of the reaction between ammonia and ozone, dissolved in carbon tetrachloride. Zhur. fiz. khim. 34 no.2:387-394 F '60. (MIRA 14:7)

1. 2-y Moskovskiy gosudarstvennyy meditsinskiy institut im. N.I.Pirogova.

(Ammonia) (Ozone)