MEDVED', R.A.; SEREDININA, N.V.

Hygienic characteristics of working conditions in the case of electrostatic spray painting. Gig. truda. i prof. zab. 4 no.6: 7-11 Je '60. (MIRA 15:4)

1. Meditsinskiy institut, Gor'kiy.
(SPRAY PAINTING--HYGIENIC ASPECTS)

Medved, S.V.

Total cross section for the π-p interaction in the energy range 410-660 m.e.v. V. P. Dzhelepov, V. I. Moskalev, and S. V. Medved. *Doklady Akad. Nauk S.S.S.R.* 104.

MEDVED', S.K.

163
/120-59-5-6/46
Katyshev, Yu. V.,

ring High-energy Small-

a, 1959, Nr 5.

cross-sections in the
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d consists in the
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Medved', S. V.

SOV/56-36-3-12/71
., Katyshev, Yu. V.,

otons in the Region of Small
0 Mev (Rasseyaniye neytronov
pri energii neytronov 590 Mev)

eticheskoy fiziki, 1959,

ferential cross section of
tron energy of 590 Mev in
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he authors' earlier papers
Fig 1). Results:

unt of ng cross	n-p-scattering cross section in $10^{-27}cm^2$/steradian
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$_1\vec{n})(\vec{\sigma}_2\vec{n})$ is possible by
ons. It holds that
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$(\vartheta = 0^\circ) - [\mathrm{Im}(\vartheta = 0^\circ)]^2$.
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t is found that
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SOV/56-36-3-12/71
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S/056/60/038/02/58/061
B006/B014

24.6900

AUTHORS: Amaglobeli, N. S., Golovin, B. M., Kazarinov, Yu. M., Medved', S. V., Polev, N. M.

TITLE: Determination of the Coupling Constant of Pion - Nucleon

Determination of the Coupling Constant of Pion - Nucleon Interaction From the Cross Section of Elastic Neutron Scattering by Protons at an Energy of 630 Mev

S/056/60/038/02/58/061
B006/B014

values by the function $x^2\sigma_{np}(\vartheta)$, the authors used a series of experimental functions, ranging from linear to parabolic functions of the fourth

Determination of the Coupling Constant of Pion - Nucleon Interaction From the Cross Section of Elastic Neutron Scattering by Protons at an Energy of 630 Mev

with $m > 4$ because these terms are small compared to the error of more than 100%. The authors then obtained the value $f^2 = 0.04 \pm 0.005$.

S/120/62/000/005/017/036
E192/E382

AUTHORS: Zinov, V.G. and Medved', S.V.

TITLE: Smoothing of the time intervals between randomly distributed pulses

PERIODICAL

amplifier then generates a pulse whose duration is mτ. This pulse actuates the generator, whose natural period is also equal to τ. The operation of the generator is only possible in the presence of the pulse from the limiter. The number of output

S/120/63/000/001/054/072
E032/E314

AUTHORS: Medved', S.V. and Ozerov, Ye.B.

TITLE: Method for calibration of the length of an oscillograph time-base

PERIODICAL: Pribory i tekhnika eksperimenta, no. 1, 1963, 177 - 178

Method for calibration ....

Fig. 1:

Fig. 2:

ACC NR: AP7012413 SOURCE CODE: UR/0367/67/005/001/0146/0149

AUTHOR: Golovin, B. M.; Zul'karneyev, R. Ya.--Zulkarneev, R. Ya.; Kiselev, V. S.; Medved', S. V.--Medved, S. V.; Nikanorov, V. I. Pisarev, A. F.; Semashko, G. L.

ORG: Joint Institute for Nuclear Research (Ob"yedinennyy institut yadernykh issledovaniy)

TITLE: Spin correlation during elastic scattering of polarized 605 MEV protons on protons

ACC NR: AP7012413

for examining the photoplates. Orig. art. has: 1 figure and 4 formulas.
[Based on authors' Eng. Abst.] [JPRS: 40,393]

MEDVED, T. Ya.

Organophosphorus compounds. XIV. Synthesis of aminophosphonic acids. I. M. I. Kabachnik and T. Ya. Medved. (Izvest. Akad. Nauk S.S.S.R., Otdel. Khim. Nauk 1950, 635-40; cf. C.A. 43, 5739e; 44, 7257f. —Heating $(EtO)_3P$ with CH_2I_2 6-7 hrs. with continuous removal of EtI in a stream of dry air, gave 30-40% $ICH_2P(:O)(OEt)_2$, b_5 119-20°, n_D^{18} 1.5000, d_4^{18} 1.6606. This (1.65 g.) kept 8 days at room temp. with 10 ml. 25% NH_4OH, then concd. *in vacuo*, gave an oil and a solid, which on extn. with Et_2O gave an unstated amt. of unreacted ester, b_4 111-12°; the Et_2O-insol. crystals, m. 168° (from abs. $EtOH$-C_6H_6), were shown to be ...

2nd dissocn. consts. are widely different, titrations with phenolphthalein and with alizarin red may be used. A simpler prepn. is also given. Dry paraform (sublimes at 145-55°) (200 g.) in a 2-l. autoclave was treated slowly with 1320 g. PCl_5, then heated 5 hrs. to 220-50° (pressure about 30 atm.); distn. gave 500-540 g. $ClCH_2POCl_2$ (50%), b_{12} 93°, n_D^{20} 1.4983; this (50 g.) was slowly added at 2° to 150 ml. abs. EtOH, let stand overnight, and distd., yielding 40 g. (72%) $ClCH_2P(:O)(OEt)_2$, b_4 88-9°, n_D^{20} 1.4412, ...

MEDVED' T. Ya.

PA 174T13

USSR/Chemistry - Organophosphorous Compounds Jan/Feb 51

"Brief Communications: Toward the Synthesis of Aminomethylphosphonic Acid," M. I. Kabachnik, T.

MEDVED', T. Ya.

USSR/Chemistry - Org
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MEDVED, T. Ya.

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(2) Chem.

The reaction of phosphorus trichloride with cyclic unsaturated ketones. Sm. I. Kabachnik and T. Ya. Medved. *Bull. Acad. Sci. U.S.S.R., Div. Chem. Sci.* 1952, 517-22 (Engl. translation).—See *C.A.* 47, 4848b. H. L. H.

Chemical Abst.

MEDVED, T. Ya.

Chem Abs V48
1-25-54
Organic Chemistry

Aminomethylphosphonic acid M. I. Kabachnik and T. Ya. Medved. Akad. Nauk S.S.S.R., Inst. Org. Khim., Sintezy Org. Soedinenii, Sbornik 2, 12-14(1952); cf. C.A. 45, 8444b; 46, 421c; Chavane, C.A. 43, 124b.—Heating 50 g. $ClCH_2P(O)(OEt)_2$ and 240 ml. 25% NH_4OH in sealed tubes 1 hr. at 150° (the tubes are best heated in an autoclave or bomb with suitable counterpressure of about 25-30 atm. to prevent rupture) and evapn. of the contents on a steam bath gave a sirup. This, in small vol. of H_2O was shaken with 35 g. fresh moist Ag_2O and filtered. The filtrate was freed of Ag with H_2S, filtered and the filtrate and wash H_2O combined and evapd. to constant vol. The yellowish residue was taken up in small vol. of 95% EtOH and treated with EtOH soln. of 54 g. $PhNH_2$ (2 moles per mole of original ester). After prolonged standing a ppt. of [illegible]

MEDVYED', T. Ya.

USSR/Chemistry - Or

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Unsaturated Ketones
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MEDVED', T. Ya.

USSR/Chemistry - Organo-Phosphorus Compounds 11 Apr 52

"A New Method of Synthesizing alpha-Aminophosphonic

MEDVED', T. Ya.

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USSR/Chemistry - Or

"A New Method of Sy
Acids - Reaction of
phites and Ammonia,
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"Dok Ak Nauk SSSR"

In a previous paper
No 5, 1952, a new
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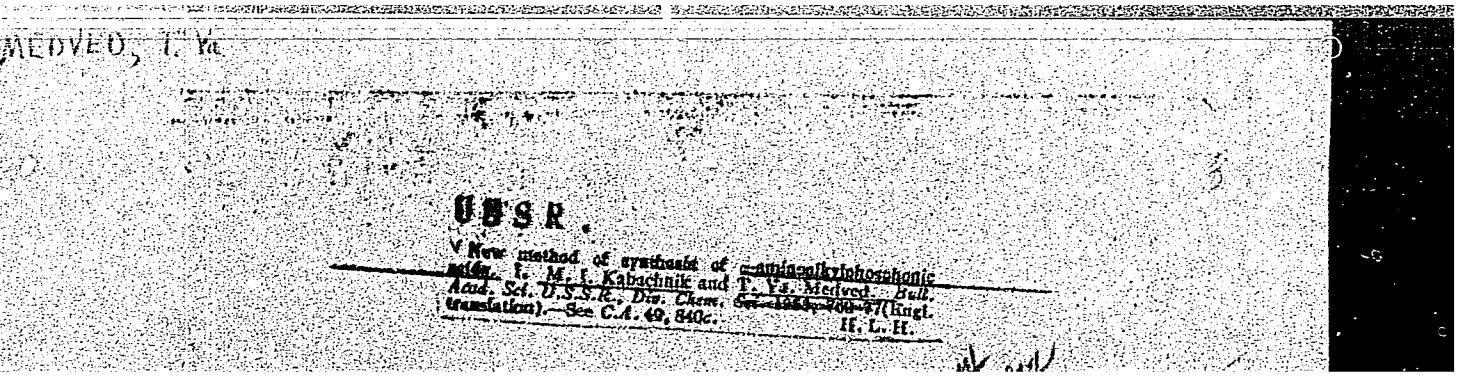
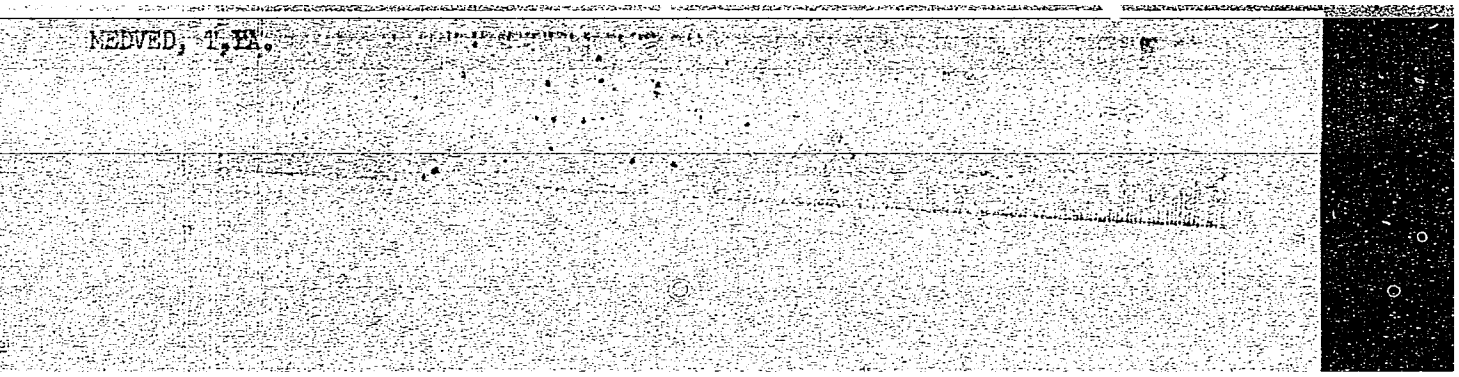
A.N. Nesmeyanov, 1





MEDVED, T. YA.

Some derivatives of (aminomethyl)phosphonic acid. M. I. Kabachnik and T. Ya. Medved' (Inst. Org. Chem., Acad. Sci. U.S.S.R., Moscow). *Izvest. Akad. Nauk S.S.S.R., Otdel. Khim. Nauk* 1953, 1126–8; cf. *C.A.* 46, 7996g. —Acetylation of $H_2NCH_2PO_3H_2$ (I) is much more difficult than is that of glycine. Heating 0.8 g. I in 8 ml. Ac_2O 2.5 hrs. on a steam bath, distg. off Ac_2O *in vacuo*, treating the residue with hot MeOH, and concg. and cooling the MeOH ext. gave 57% $AcNHCH_2PO_3H_2$, m. 185° (from MeOH); heated 6 hrs. in a sealed tube to 200–20° (best done by placing the tubes in an autoclave in which is maintained 40 atm. pressure) gave after evapn. 82% *betaine iodide*, m. 220° (from MeOH), which is formulated as $Me_3NCH_2PO_3H \cdot {}^1/_2HI$; acidimetric titration of the substance with phenolphthalein corresponds to that of a tribasic acid. The product (2.7 g.) shaken in H_2O with excess fresh Ag_2O, filtered, and the filtrate treated with H_2S, filtered, and evapd. gave 1.35 g. (87%) free *betaine*, $C_3H_{12}NPO_3$, m. 287°

EtOH, yielding 1.2 g. ppt., m. 157° (unaltered by cryetn. from EtOH), which was identified as *ClCH$_2$CONHCH$_2$PO$_3$H$_2$.PANH$_2$*. I (1.1 g.) and 1.5 g. *o*-C$_6$H$_4$(CO)$_2$O fused together by careful heating, the cooled melt extd. with hot EtOH, and the soln. filtered from residual I and evapd. gave 0.8 g. (31%) *o*-C$_6$H$_4$(CO)$_2$NCH$_2$PO$_3$H$_2$, m. 280–5°. I (1 g.) and 3 ml. MeI heated in sealed tube 6 hrs. at 200–20° failed to react. I (2 g.), 6 ml. MeI, and 6 ml. MeOH earlier (cf. *C.A.* 46, 7000g). I (1 g.), 0.4 ml. MeI (20% of theory), and 5 ml. MeOH heated in a sealed tube 6 hrs. at 200–20° and evapd. gave 1.2 g. (62%) of the same betaine iodide, m. 220°, as described above. The result indicates that the HI liberated in the methylation of the amino group reacts with MeOH, forming more MeI. In the absence of MeI, the reaction does not proceed.

G. M. Kosolapoff

MEDVED', T. YA.

USSR/ Chemistry - Synthesis methods

Card 1/1 : Pub. 40 - 14/22

Authors : Kabachnik, M. I., and Medved', T. Ya.

Title : New method of synthesizing alpha-aminoalkylphosphinic acids. Part 1.-

Synthesis of esters of α-aminoalkylthiophosphonic acids. M. I. Kabachnik, T. Ya. Medved, and T. A. Mastryukova (Inst. Org. Chem., Acad. Sci. U.S.S.R., Moscow). *Doklady Akad. Nauk S.S.S.R.* 92, 959–62(1953); cf. *C.A.* 47, 3226c, 9909a; 48, 3243e; following abstr.—In $(RO)_2PSH$, the tautomeric shift from $(RO)_2P(S)H$ to $(RO)_2PSH$ is relatively small, but in presence of RONa these esters form salts which are based on trivalent P: $(RO)_2PS^-Na^+$, which on alkylation yield $R'PS(OR)_2$. The thio esters

d_{20} 1.0204, n_D^{20} 1.4740; 26% $MeBuC(NH_2)PS(OEt)_2$, b. 99–101°, d_{20} 1.0355, n_D^{20} 1.4708; 45% *di-iso-Pr ester*, b. 107–8°, d_{20} 0.9931, n_D^{20} 1.4745; 41% $PhCH(NH_2)HOC_6H_2(NO_2)_3$-2,4,6]$PS(OEt)_2$, m. 175–8°; 33% *di-iso-Pr ester analog*, m. 174°; $PhCH_2[NH_2.HOC_6H_2(NO_2)_3$-2,4,6]$PS(OEt)_2$, 42%, m. 169–71°; 31% *di-iso-Pr ester analog*, m. 170°. Hydrolysis of $Me_2C(NH_2)PS(OEt)_2$ with 1:1 HCl in sealed tube at 120° gave $Me_2C(NH_2)PO(OH)_2$, identical with that reported earlier (cf. *C.A.* 47, 3226c). The reaction is believed to proceed by the way of original formation of a salt

MEDVED', T. Ya.

MEDVED', T.Ya.; KABACHNIK, M.I.

New synthesis of aminophosphinic acids. Report no.2. Reaction of ketones with dialkylphosphites and ammonia. Izv.AN SSSR. Otd.khim.nauk no.2:314-322 Mr-Ap '54. (MLRA 7:6)

1. Institut organicheskoy khimii im. N.D.Zelinskogo Akademii nauk SSSR.

(Ketones) (Phosphites) (Ammonia) (Phosphinic acid)

MEDVED', T. YA.

USSR/ Chemistry - Synthesis

Card 1/1 Pub. 40 - 11/27

Authors Kabachnik, M. I., and Medved', T. Ya.

Title New method for the synthesis of alpha-aminoalkylphosphinic acids. Part 4

MEDVED, T. YA.

USSR/Biology - Plant pathology

Card 1/1 Pub. 22 - 40/47

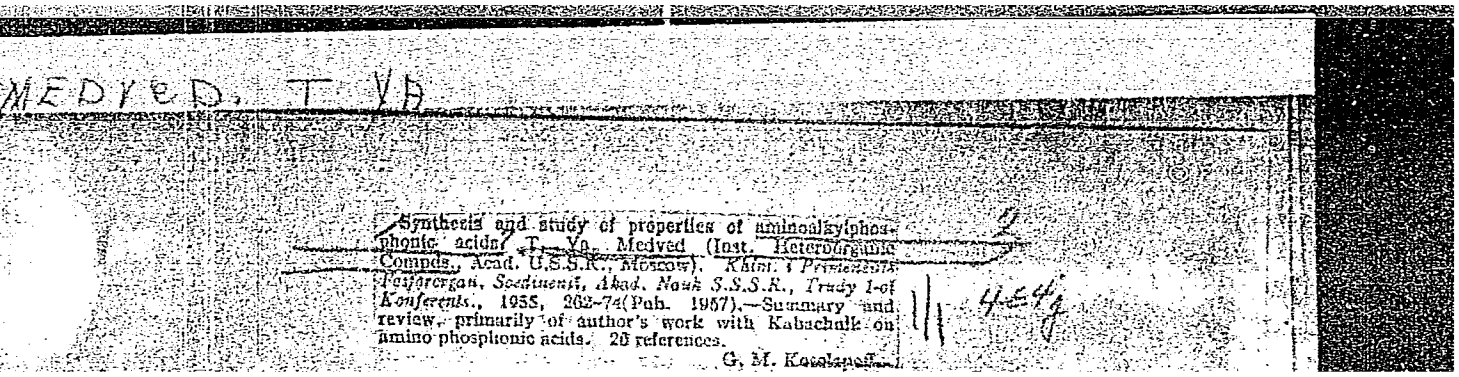
Authors : Ryzhkov, V. L.; Kabachnik, M. I.; Memb. Corresp. of Acad. of Sc. USSR; Tarasevich, L. M.; Medved', T. Ya.; Zeytlenok, N. A.; Marchenko, N. K.; Vagzhanova, V. A.; Ulanova, E. F.; and Cheburkina, N. V.

USSR/ Chemistry - Synthesis

Card 1/1 Pub. 22 - 26/56

Authors : Kabachnik, M. I., Memb. Corresp. of Acad. of Sc. USSR.; and Meived', T. Ya.

Title : Derivatives of amino alkyl phosphinic acids. Reaction of amino alkyl phosphinic acid and thiophosphinic acid esters with arylisocyanates



MEDVED, T. YA

Synthesis and study of properties of aminoalkylphosphonic acids. T. Ya. Medved (Inst. Heteroorganic Compds., Acad. U.S.S.R., Moscow). *Khim. i Primenenie Fosfororgan. Soedinenii, Akad. Nauk S.S.S.R., Trudy 1-oi Konferents.*, 1955, 262–74(Pub. 1957).—Summary and review, primarily of author's work with Kabachnik on amino phosphonic acids. 26 references.

G. M. Kosolapoff

Medved, T. Ya.

Acylation of (aminoalkyl)phosphonic acids and (aminoalkyl)thiophosphonic acids. T. Ya. Medved and M. I. Kabachnik (Inst. Heteroorg. Compds., Acad. Sci. U.S.S.R., Moscow). *Izvest. Akad. Nauk S.S.R., Otdel. Khim Nauk* 1955, 1043–7.—Addn. of 0.76 g. Ac_2O to 0.97 g. $H_2NCMe_2PO(OEt)_2$ caused a temp. rise to 70°; after it had cooled, the mixt. was kept 15 min. on a steam bath, and the Ac_2O then distd. (*in vacuo*, leaving 82% $AcNHCMe_2PO(OEt)_2$, m. 96–7° (from petr. ether). Similarly were prepd. 63% $AcNHCHPhPO(OEt)_2$, m. 144° (from EtOH), and 66% $AcNHCMe_2PS(OEt)_2$, b_4 116–17°, m. 47–8°. Heating 3.14 g. $H_2NCMe_2PO_3H_2$ (monohydrate, m. 256°) and 15 g. Ac_2O on a steam bath until soln. took place (1–2 hrs.)

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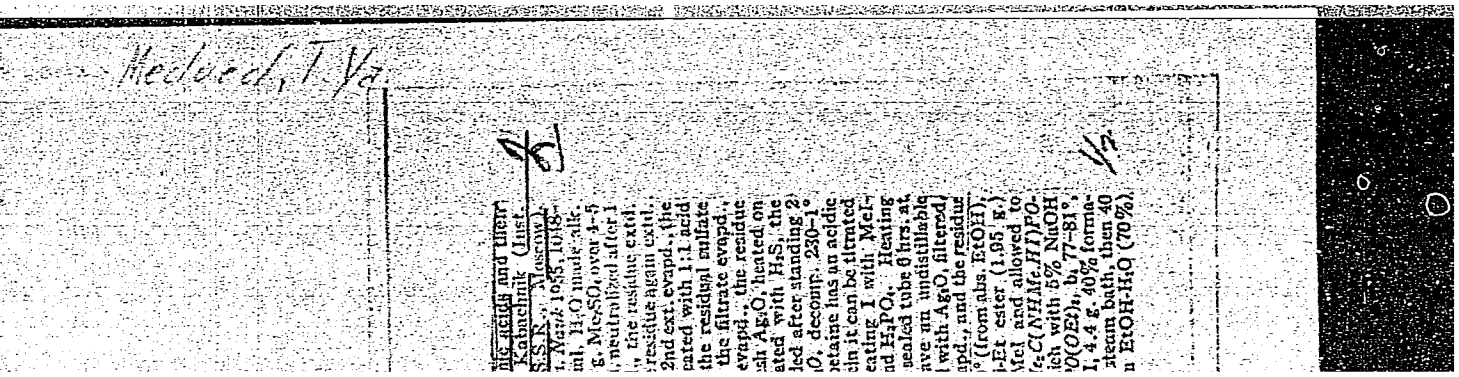

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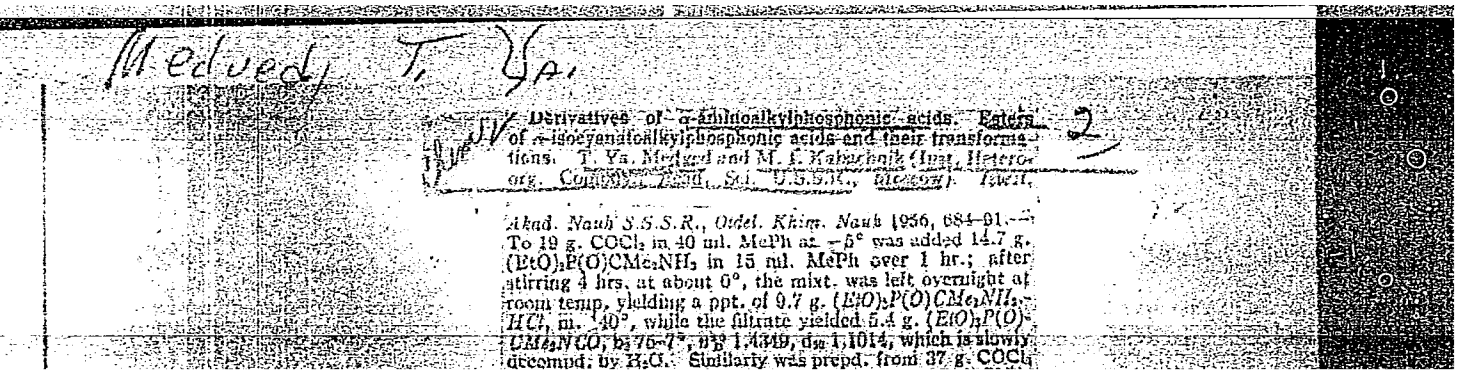
MEDVED, T. YA. KABACHNIK, M. I.

— gave 79.6% $Me_2NCMe_2PO_3H_2$, decomp. 220-3°, titrating as a monobasic acid to phenolphthalein. Similarly 2.5 g. $H_2NCHPhPO_3H_2$, 2 g. formalin, and 1.6 g. 77% HCO_2H gave 20% $Me_2NCHPhPO_3H_2$, m. 230° (decompn.).
G. M. Kosolapoff

[illegible]OVED, T.

"Syntheses and Studies of Pr[illegible]erties of Amino[illegible] [illegible]ic A[illegible]s"
Pa[illegible]r presented at the First Conference on [illegible] [illegible] Compounds, Kazan, 8-1[illegible] Dec 56

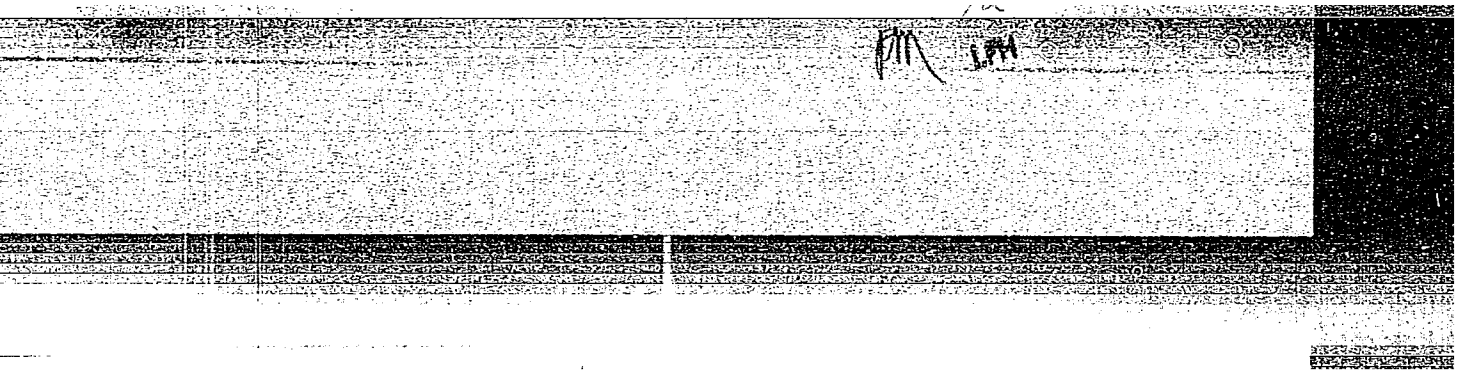


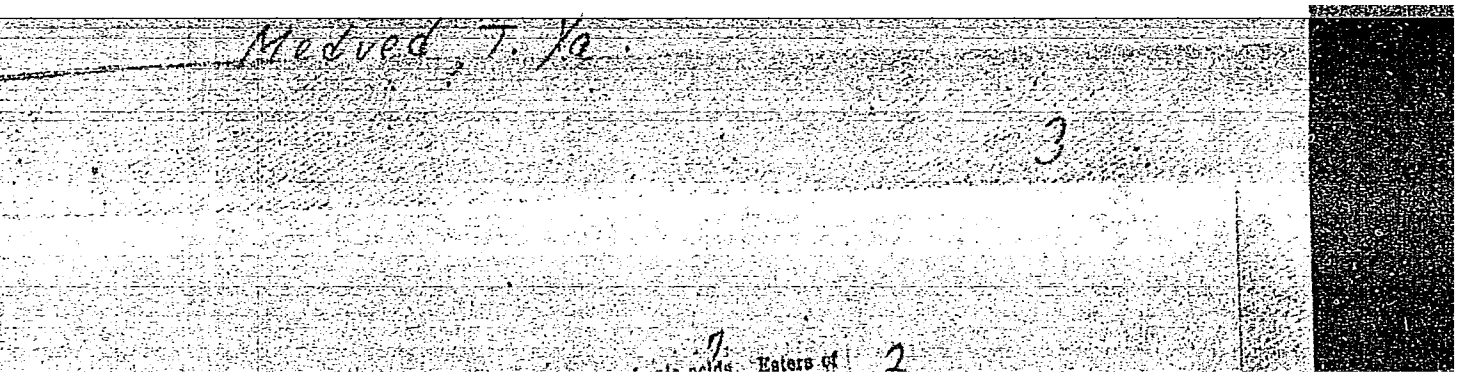
Medved, T. Ya.

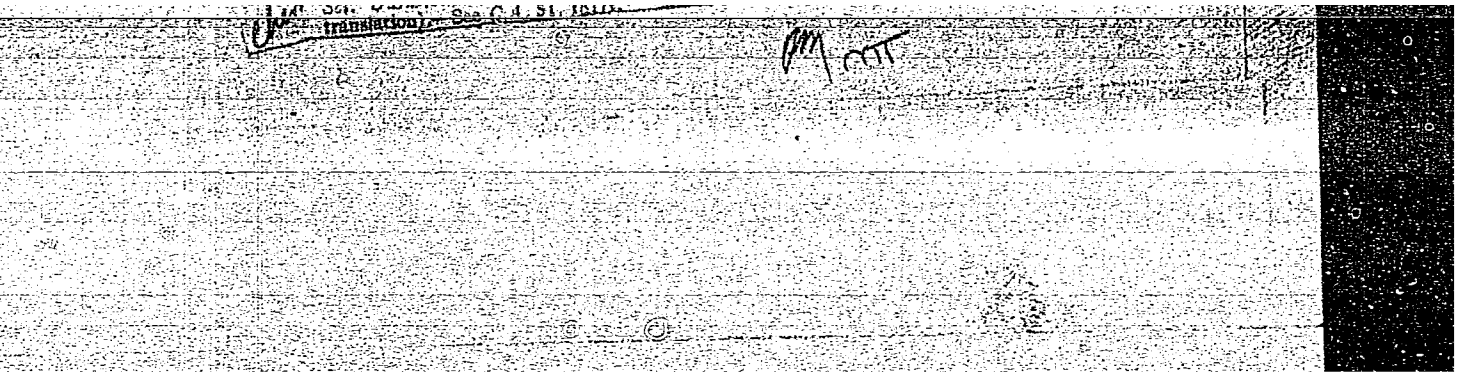
IV Derivatives of α-aminoalkylphosphonic acids. Esters of α-isocyanatoalkylphosphonic acids and their transformations. T. Ya. Medved and M. I. Kabachnik (Inst. Heteroorg. Compounds Acad. Sci. U.S.S.R., Moscow). Izvest. Akad. Nauk S.S.S.R., Otdel. Khim. Nauk 1956, 684–91.—To 19 g. $COCl_2$ in 40 ml. MePh at −5° was added 14.7 g. $(EtO)_2P(O)CMe_2NH_2$ in 15 ml. MePh over 1 hr.; after stirring 4 hrs. at about 0°, the mixt. was left overnight at room temp. yielding a ppt. of 0.7 g. $(EtO)_2P(O)CMe_2NH_2 \cdot HCl$, m. 140°, while the filtrate yielded 5.4 g. $(EtO)_2P(O)CMe_2NCO$, b$_3$ 75–7°, n_D^{20} 1.4349, d_4^{20} 1.1014, which is slowly decompd. by H_2O. Similarly was prepd. from 37 g. $COCl_2$

MEDVED, T. YA AND KABACHNIK, M.I.

heated 5 min. to 100° and chilled, yielding 71.5% DC(NH2)-
CH2P(O)(OEt)2, m. 73-4°, identical with the above







MEDVED', T.Ya.; KABACHNIK, M.I.

Acylation of aminoalkylphosphinic and aminoalkylthiophosphinic acids by chlorocarbonic esters. Izv.AN SSSR.Otd.khim.nauk no.3: 327-331 Mr '56. (MLRA 9:8)

1. Institut elementoorganicheskikh soyedineniy Akademii nauk SSSR.
(Phosphinic acid) (Formic acid) (Acylation)

MEDVED', T.Ya.; KABACHNIK, M.L.

Derivatives of α-aminoalkylphosphinic acids. Esters of α-isocyanatoalkylphosphinic acids and their conversions. Izv.AN SSSR. Otd.khim.nauk no.6:684-691 Je '56. (MLRA 9:9)

1.Institut elementoorganicheskikh soyedineniy Akademii nauk SSSR.
(Phosphinic acid)

MEDVED', T. Ya. (Inst. Elementary Organic Compounds AS USSR)

"Synthesis and Study of the Properties of Aminoalkylphosphinic Acids" (Sintez i issledovaniye svoystv aminoalkilfosfinovykh kislot)

Chemistry and Uses of Organophosphorous Compounds
...fosfororganicheskikh soyedneniy),

Medved, T. Ya

AUTHORS: Medved', T. Ya., Kabachnik, M. I. 62-11-9/29

TITLE: Synthesis of Aminoalkylphosphonic Acids (Sintez aminoalkilfosfinovykh kislot) Reaction of Some Heterocyclic Ketones with Dialkylphosphites and Ammonia (Reaktsiya nekotorykh geterotsiklicheskikh ketonov s dialkilfosfitami i ammiakom)

PERIODICAL: Izvestiya AN SSSR, Otdelenie Khimicheskikh Nauk, 1957, Nr 11, pp. 1357-1362 (USSR)

Synthesis of Aminoalkylphosphonic **Acids. Reaction of Some Heterocyclic Ketones with Dialkylphosphites and Ammonia.** 62-11-9/29

was applied:
influence of dialkylphosphites on ketones under presence of sodium-alcoholate. There are 4 Slavic references.

ASSOCIATION: Institute for Element-Organic Compounds of the AN USSR (Institut elementoorganicheskikh soyedineniy Akademii Nauk SSSR)

AUTHORS: Kabachnik, M. I., Medved', T. Ya., SOV/62-58-9-8/24
Kozlova, G. K., Balabukha, V. S., Senyavin, M. M.,
Tikhonova, L. I.

TITLE: Synthesis and Testing of the Complex-Forming Properties of Several Organophosphorus Compounds (Sintez i ispytaniya kompleksoobrazuyushchey sposobnosti nekotorykh fosfororga-

ethylenediamine and dialkyl phosphites and aldehydes (or ketones), esters of ethylenediaminodialkylphosphinic acids form. By saponifying these esters the free acids can be obtained. The complexing properties of the

AUTHORS: Medved' , T. Ya., Kabachnik, M. I. SOV/62-58-10-9/25

TITLE: β-Ethyl Mercapto Ethyl Phosphites and Some of Their Properties (β-etilmerkaptoetilfosfity i nekotoryye ikh svoystva)

PERIODICAL: Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk, 1958, Nr 10, pp 1212-1218 (USSR)

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R001033220012-7"

$$PCl_3 + 3C_2H_5SC_2H_4OH + 2C_6H_5N(CH_3)_2 \longrightarrow 2C_6H_5N(CH_3)_2 \cdot HCl + C_2H_5SC_2H_4Cl + (C_2H_5SC_2H_4O)_2\ POH$$

Similar to this synthesis of di-β -ethyl mercapto ethyl phosphite the ethyl-β -ethyl mercapto ethyl phosphite could be produced. Some properties of the synthesized β -ethyl

β-Ethyl Mercapto Ethyl Phosphites and Some of Their Properties

SOV/62-58-10-9/25

ASSOCIATION: Institut elementoorganicheskikh soyedineniy Akademii nauk SSSR
(Institute of Elementary Organic Compounds, Academy of Sciences, USSR)

.3630

77070
SOV/62-59-12-14/43

AUTHORS: Kabachnik, M. I., Medved', T. Ya.

TITLE: Vinylphosphonic Acid and Some of Its Derivatives

PERIODICAL: Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh

(1×10^{-4} mm); n_D^{20} 1.5571. The acid dichloride and trimethylene glycol, in the presence of triethylamine, form the cyclic trimethylene ester, in 53% yield; bp 129-130° (2 mm); n_D^{20} 1.4775. Diethyl vinylphosphonate

Vinylphosphonic Acid and Some of Its Derivatives

77070
SOV/62-59-12-14/43

1 U.S., 1 U.K. The U.S. and U.K. references are: G. M. Kosolapoff, J. Am. Chem. Soc., 70, 1971 (1948); A. Kinner, E. Perren, J. Chem. Soc., 3437 (1952).

ASSOCIATION: Institute of Elementoorganic Compounds, Academy of Sciences, USSR (Institut elementoorganicheskikh

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R001033220012-7"

S/020/60/135/004/022/037
B016/B062

AUTHORS: Kabachnik, M. I., Academician, Medved', T. Ya., and Polikarpov, Yu. M.

TITLE: Phosphine Oxides Containing the Vinyl Group at the Phosphorus Atom

dity of this reaction for compounds of the type PCl_3, $RPCl_2$, and R_2PCl. They proved that the β-chloro-ethyl ester of diethyl phosphinous acid is, when heated, converted into compounds of pentavalent phosphorus. The authors succeeded in isolating the two products of the regrouping of Arbuzov (not explained in the text) at the same time: a) β-chloro-ethyl

oxide. Mention is made of a paper by M. I. Kabachnik, Chzhan Zhun-yuy, and Ye. N. Tsvetkov (Ref. 9). Table 1 contains the formulas of the synthetized compounds I - IX with constants and yields. There are 1 table and 11 references: 10 Soviet and 1 US.

ASSOCIATION: Institut elementoorganicheskikh soyedineniy Akademii nauk

89908

S/062/61/000/002/004/012
B115/B207

5 3630 2209, 1287, 1153

AUTHORS: Medved', T. Ya. and Kabachnik, M. I.

TITLE: Organophosphorus monomers. Report no. 2. α-Chloro- and α-bromo vinyl phosphonic acids and their derivatives

The aniline salt of this acid melts at 194-195°C. While the authors tried to obtain an anilide of this acid, a dehydrobromination occurred, and a dianilide of α-bromo vinyl phosphonic acid was separated. In

apart from the addition of chlorine to the double bond, and the formation of α,β-dichloro ethyl phosphonic acid dichloride, a separation of hydrogen chloride and simultaneous formation of α-chloro vinyl phosphonic acid dichloride. The two acid chlorides were obtained in

vinyl phosphonic acid were obtained from the reaction of α-chloro vinyl phosphonic acid dichloride with alcohols. By interaction of the ethyl ester with aniline, the dianilide of this acid was obtained. In

15 8050

S/190/61/003/007/021/021
B101/B230

AUTHORS: Tsetlin, B. L., Medved', T. Ya., Chikishev, Yu. G., Polikarpov, Yu. M., Rafikov, S. R., Kabachnik, M. I.

TITLE: Radiation polymerization of tertiary monovinylphosphine oxides

S/190/61/003/007/021/021
B101/B230

Radiation polymerization of [illegible]

this type of initiators, either not polymerized at all or their polymerization proceeded at an extremely low rate with very poor yield (Ref 2, see below). Authors conducted experiments to initiate polymerization of diethylvinylphosphine oxide (I) and diphenylvinylphosphine oxide (II) by radiation. As source of radiation an X-ray irradiation apparatus was

reprecipitated polymer (II) is about 180°C (determined by thermomechanical method, Ref. 3: B. L. Tsetlin, V. I. Gavrilov, N. A. Velikovskaya, V. V. Kochkin, Zavodsk. lab., 22, 352, 1956). It has been proved hereby that the radiation polymerization is an efficient method to obtain polymers on the basis of oxides of monovinylphosphines. Mechanism of the process is being studied at present. [Abstracter's note: Complete translation.]

22515

15.8114 2209

S/062/61/000/004/004/008
B118/B208

AUTHORS: Kabachnik, M. I. and Medved', T. Ya.

TITLE: Organophosphorus monomers. 3. Vinyl thiophosphinic acid and some of its derivatives

Organophosphorus monomers. ...

thiophosphinic acid (III) obtained by hydrolysis of the acid dichloride is sirupy. Its aniline salt melts at 105-106° with decomposition. The acid dichloride (II) gives with aniline the dianilide of the acid [illegible] the dichloride (II) with

22515

S/062/61/000/004/004/008
B118/B208

Organophosphorus monomers. ...

CH_2=$CHPO(OC_2H_5)(SC_2H_4SC_2H_5)$ (XII); compound (IX) (as well as its isomerization product (XII)) add an alcohol molecule, when heated with alcohol in the presence of sodium methylate, and form the corresponding ester of ethoxy-ethyl thiophosphinic acid

29521
S/062/61/000/011/008/012
B103/B147

53630

AUTHORS: Kabachnik, M I., Medved', T. Ya., Polikarpov, Yu M., and Yudina, K. S.

TITLE: Synthesis of diphenyl-vinyl phosphine oxide

29521

S/062/61/000/011/008/...
B103/B147

Synthesis of diphenyl-vinyl phosphine..

to diphenyl-chloro phosphine was effected by catalytic disproportionation of the former in the presence of $AlCl_3$ and constant distilling off of the PCl_3 formed. The yield in diphenyl-chloro phosphine was 70%. This method is simple and gives easily reproducible results. Ditolyl-chloro-phosphi...

Synthesis of diphenyl-vinyl phosphine...

Polikarpov, Dokl. AN SSSR, 135, 849 (1960)). Isomerization of the β-chloroethyl ester of diphenyl-phosphinous acid yields not only the products mentioned but also (a) owing to spontaneous dehydrochlorination.

MEDVED', T. YA.

43

PHASE I BOOK EXPLOITATION SOV/6034

Konferentsiya po khimii i primeneniyu fosfororganicheskikh soyedineniy. 2d, Kazan', 1959.

Khimiya i primeneniye fosfororganicheskikh soyedineniy; trudy (Chemistry and Use of Organophosphorus Compounds; Conference Transactions) Moscow,

Organophosphorus Compounds held at Kazan' from 2 Nov through 1 Dec 1959. The material is divided into three sections: Chemistry, containing 67 articles; Physiological Activity of Organophosphorus Compounds, containing 26 articles; and Plant Protection, containing 12 articles. The reports reflect

MEDVED', T.YA., KABACHNIK, M.I., MOSHKIN, P.A., VARSHAVSKIY, S.L.
KOFMAN, L.P., GEFTER, YE.L., TKACHENKO, G.V., DANILEVICH, A.A.

Industrial method of synthesis of di-B,B chlor-ethyl of vinyl-phosphinic acid from ethylene oxide and phosphorus trichloride.

Report submitted for the 12th Conference on high molecular weight compounds devoted to monomers, Baku, 3-7 April 62

3

S/081/62/000/023/119/120
B117/B186

5 3630

AUTHORS: Andreyeva, M. A., Gribova, I. A., Kabachnik, M. I., Kolesnikov, G. S., Korshak, V. V., Medved', T. Ya., Polikarpov, Yu. M., Rodionova, Ye. F., Fedorova, L. S.

TITLE: Some methods of synthesizing new organophosphorus monomers

41854
S/204/62/002/004/019/019
E075/E436

AUTHORS: Kabachnik, M.I., Gefter, Ye.L., Moshkin, P.A., Medved', T.Ya.

TITLE: Phosphororganic monomers. Review paper

PERIODICAL: Neftekhimiya, v.2, no.4, 1962, 639-651

Phosphororganic monomers

S/204/62/002/004/019/019
E075/E436

of (I). Treatment of (II) with PCl_5 gives $ClCH_2CH_2\overset{\overset{O}{\|}}{P}Cl_2$

which can be used for the synthesis of amides and esters of β-chloroethylphosphorous acids. Removal of water from (II) with alcoholic alkalis, or heating over $BaCl_2$, gives $CH_2{=}CH$ [illegible]

until recently the only available method for their preparation. The phosphines polymerize easily by ionic or radical mechanism. At the present time the polymerization of vinyldiethyl and vinyldiphenylphosphines is being investigated under the action of X-ray and chemical initiators. In general, the vinyl-phosphorus compounds can polym-

KOLESNIKOV, G.S.; RODIONOVA, Ye.F.; FEDOROVA, L.S.; MEDVED', T.Ya.; KABACHNIK, M.I.

Carbochain polymers and copolymers. Part 41: Synthesis, polymerization, and copolymerization of vinylphosphinic amides. Vysokom.soed. 4 no.9:1385-1389 S '62. (MIRA 15:11)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.
(Phosphinic amide)

KABACHNIK, M.I.; MEDVED', T.Ya.; POLIKARPOV, Yu.M.; YUDINA, K.S.

Reactions of vinyldiphenylophosphine oxide. Izv.AN SSSR.Otd.khim. nauk no.9:1584-1589 S '62. (MIRA 15:10)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.
(Phosphine oxide)

KABACHNIK, M.I.; MEDVED', T.Ya.

Synthesis of methylenediphosphine oxide. Izv. AN SSSR. Otd.khim. nauk no.11:2103-2104 N '62. (MIRA 15:12)

1. Institut elementoorganicheskikh soyedineniya AN SSSR.
(Diphosphine)

S/079/62/032/010/004/008
D204/D307

AUTHORS: Popov, Ye.M., Tsvetkov, Ye.N., Chang, Jung-Yü, and Medved', T.Ya.

TITLE: Raman and ultraviolet spectra of some unsaturated organic compounds of phosphorus

nal = CH_2 group, and the UV spectra of $CH_2 = CH - C_4H_9$ and $CH_2 =$ $= CH - CH_2 - (O)P(OC_4H_9)_2$ were practically the same, indicating that in these compounds there is practically no interaction between the

ACCESSION NR: AT4033994 S/0000/63/000/000/0117/0122

AUTHOR: Korshak, V.V.; Gribova, I.A.; Andreyeva, M.A.; Kabachnik, M.I.; Medved', T. Ya.

TITLE: Polymers containing phosphorus. XXIX. Heterocyclic polyesters of vinyl-

ACCESSION NR: AT4033994

Yields ranged from 23.2% for VI to 88.6% for II, indicaring that penta-cyclic esters are the most suitable. Structural modification of the synthesized polyesters was then attempted by the use of radical polymerization catalysts (benzoyl peroxide, tert.-butyl peroxide, tert.-butyl hydroperoxide and metallic Na; 0.5 to 3.0% by weight, 55-90C, 10-51 hours). The polymers obtained were solids or similar to factice rubber with

ACCESSION NR: AT4033994 - Cyclic esters of vinylphosphinic acid ENCLOSURE: 01

TABLE 1

Chemical formula	B.P., °C/mm	n_D^{20}	d_4^{20}	MR_D Found	MR_D Calculated	C, % Found	C, % Calculated	H, % Found	H, % Calculated	P, % Found	P, % Calculated	Yield %

KOLESNIKOV, G.S.; RODIONOVA, Ye.F.; FEDOROVA, L.S.; MEDVED', T.Ya.; KABACHNIK, M.I.

Carbochain polymers and copolymers. Part 43: Synthesis, polymerization, and copolymerization of aromatic esters of vinylphosphinic and α-chlorovinylphosphinic acids. Vysokom. soed. 5 no.1:32-38 Ja '63. (MIRA 16:1)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.
(Phosphinic acid) (Polymerization)

KABACINIK, M.I. [Kabachnik, M.I.]; GHEFTER, E.L.; MOSKIN, P.A. [Moshkin, P.A.]; MEDVED, T.I. [Medved', T.Ya.]

Organophosphoric monomers. Analele chimie 18 no.3:62-76 Jl-S '63.

MEDVED', T.Ya.; FRUNZE, T.M.; KHU CHIN-MEY; KURASHEV, V.V.; KORSHAK, V.V.; KABACHNIK, M.I.

Organophosphorus polyamides based on methyldi-(m-aminophenyl)phosphine oxide. Vysokom.soed. 5 no.9:1309-1314 S '63. (MIRA 17:1)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.

L 22658-65
EPF(c)/EPR/EPA(s)-2/EWP(j)/EWT(m)/T Pc-4/Pr-4/Ps-4/Pt-10 JAJ/RM/WW/MLK

ACCESSION NR: AT5002111 S/0000/64/000/000/0063/0066

AUTHOR: Korshak, V.V.; Frunze, T.M.; Kurashev, V.V.; Medved', T.Ya.; Polikarpov, Yu. M.; Hu, Ch'ing-mei; Kabachnik, M.I.

TITLE: Synthesis of certain phosphorus-containing monomers

[illegible] sintezu. Sintez i svoystva monomerov

of equilibrium and [illegible]

tained from the phosphorus-containing dicarboxylic acids with aliphatic and aromatic diamines as well as from the phosphorus-containing diamines with certain dicarboxylic acids. All the polyamides were capable of fiber- and film-formation. In their mechanical properties, the polyamides were comparable to polymers of the type of polyhexamethylenediamine

Card 1/2

L 22658-65
ACCESSION NR: AT5002111

or polyhexamethylenesebacamide. The polyamides containing phosphorus showed good flame resistance. In addition, they can be used for the same applications as ordinary polyamides. Orig. art. has: 3 tables and 5 formulas.

ASSOCIATION: None

ARKHIPOVA, O.G.; KOCHETKOVA, T.A.; RUDOMINO, M.V.; MEDVED', T.Ya.; KABACHNIK, M.I., akademik

Effect of aminoalkylphosphinic acids on experimental beryllium intoxication. Dokl. AN SSSR 158 no.5:1235-1237 O '64.

(MIRA 17:10)

1. Institut gigiyeny truda i professional'nykh zabolevaniy AMN SSSR i Institut elementoorganicheskikh soyedineniy AN SSSR.

KABACHNIK, M.I.; BALUYEVA, G.A.; MEDVED', T.Ya.; TSVETKOV, Ye.N.; CHZHAN ZHUN-YUY [Chang Jung-ju]

Kinetics and mechanism of bromination of vinylphosphinic acid derivatives. Kin. i kat. 6 no.2:212-220 Mr-Ap '65. (MIRA 18:7)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.

L 30039-65 EPA(s)-2/EWT(m)/EPF(c)/EPF(n)-2/EPR/EWP(j)/T Pc-4/Pr-4/Ps-4/Pt-10/
Pu-4 GG/RM/WW

ACCESSION NR: AP5003825 S/0190/65/007/001/0033/0038

AUTHORS: Chikishev, Yu. G.; Tsetlin, B. L.; Rafikov, S. R.; Polikarpov, Yu. M.; Medved', T. Ya.; Kabachnik, M. I.

TITLE: Radiation polymerization of diphenylvinylphosphine oxide in a melt

for the reprecipitated polymer and 16-24000 for the distilled polymer. The thermomechanical compression curves for the polymer are shown in Fig. 1 on the Enclosure, and the infrared absorption curves for the polymer and monomer are shown in Fig. 2 on the Enclosure. It was found that the yield changed linearly with time, showing

MEDVED', T.Ya.; POLIKARPOV; YUDINA, K.S.; KABACHNIK, M.I.

Synthesis of β-ketophosphine oxides. Izv. AN SSSR. Ser. khim. no.9:1707-1708 '65. (MIRA 18:9)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.

L 57010-65 EWT(m)/EWP(j)/T Pc-4 RM

ACCESSION NR: AP5010582 UR/0020/65/161/003/0607/0610

AUTHORS: Dyatlova, N. M.; Kabachnik, M. I. (Academician); Medved', T. Ya.; Rudomino, M. V.; Beluzin, Yu. F.

TITLE: Peculiarities of complex formation of phosphoorganic complexing agents

having a double betaine structure. Complex formation with the cations Mg, Ca, Sr, Cu, Ni, Co, Zn, Mn, Fe^{+3}, Be, Y, La, Pr, Nd, Sm, Eu, Gd, Tb, Dy, Ho, Er, Tu, Yb, Lu was studied. The pK values of the acids were determined. Formation of hydrogen complexes was observed for a 1:1 composition of components with all cations with the exception of the alkali earth cations. For Fe^{+3}, Cr, Al, Mn, Th, and the rare earth elements the formation of hydroxy complexes was observed. The rare earth elements

Card 1/2