"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110013-5

L 6625-65 EWT(1)/EWG(k)/EPA(sp)-2/EPA(w)-2/EEC(t)/T/EEC(b)-2/EWA(m)-2 Po-4/
Pa-6/Pab-24/Pi-4 IJP(c)/AFMDC/RAEM(c)/AEDC(a)/ASD(p)-3/BSD/AFETR/AFWL/SSD/ASD(a)-5/
AEDC(b)/ESD(si)/ESD(t)/RAEM(t)

ACCESSION NR: AP4047369 S/0294/64/002/005/0661/0671

112
109

AUTHORS: Kurtmullayev, R. Kh; Nesterikhin, Yu. Ye.; Ponomarenko, A. G.

TITLE: Investigation of plasma jet structure created from a conical source

SOURCE: Teplofizika vysokikh temperatur, v. 2, no. 5, 1964, 661-671

TOPIC TAGS: magnetic field, plasma arc, plasma decay, electric conductivity, plasma jet, charged particle/ KGB condenser, IM 150/5 condenser, SVCh

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measuring apparatus, SFR optical device, FRO optical device, monochromator, Langmuir probe, Rogovskiy loop

ABSTRACT: The structure of a plasma jet stream, generated from a conical source, was investigated in an attempt to determine the directed velocity, energy, and the mechanisms involved in the loss of charged particles. Two conical sources were used with 25° included angles, one with 5-cm and the other with 10-cm base diameters. KBG capacitors were used with 32 μf capacitance, 10-kv maximum discharge potential, and a discharge current of 3×10^5 amps. Two 2000-oersted Helmoltz coils were placed around the jet, which in turn was confined in a glass tube 2 m in length. The measuring apparatus consisted of optical instruments, electro-

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ACCESSION NR: AP4047369

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magnetic counters (connected to double Langmuir probes, magnetic probes and Rogovskiy loops) and an SVCh-sounding apparatus. Charged particle concentration distributions, the conductivity, and effective collision frequencies were measured by means of a velocity interferometer with 3×10^{-8} sec time resolution. In the absence of magnetic fields, measurement results indicate a sharp velocity gradient in the arc-jet which is divided into four regions: a sharp front layer followed

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L 6625-65
ACCESSION NR: AP4047369

ASSOCIATION: Institut yadernoy fiziki, Sibirskogo otdeleniya Akademii nauk SSSR (Institute of Nuclear Physics, Siberian Branch of Academy of Sciences SSSR)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110013-5

L 17798-65 EWT(d)/EWT(1)/EWG(k)/EPA(sp)-2/EEC(k)-2/EEC-4/EPA(w)-2/EEC(t)/T/EEC(b)-2/EWA(m)-2 Po-4/Pz-6/Pab-10/Pq-4/Pg-4/Pi-4/Pk-4/Pl-4 IJP(c)/SSD(b)/AFWL/AEDC(b)/SSD/SSD(a)/ASD(f)-2/BSD/AS(mp)-2/ASD(a)-5/AFETR/RAEM(a)/ESD(c)/ESD(gs)/ESD(t) AT

ACCESSION NR: AP5001146 S/0294/64/002/006/0837/0841

AUTHORS: Kurtmullayev, R. Kh.; Nesterikhin, Yu. Ye.; Pil'skiy, V. I.; Ponomarenko, A. G.

TITLE: Velocity diagnostics of plasma jets

SOURCE: Teplofizika vysokikh temperatur, v. 2, no. 6, 1964, 837-841

TOPIC TAGS: microwave equipment, microwave plasma, plasma, interferometer, electron collision, phase shift, reflected signal envelope / OK 15 oscillograph, 23LO51A cathode ray tube, 6V2P diode, OK 17 oscilloscope

ABSTRACT: A microwave interferometer for plasma speed diagnostics is described. The characteristics of the interferometer are: $\lambda = 8$ mm; resolving power 3×10^{-8} sec; maximum rate of phase change ± 6 rad/μsec, and sweep range T = (3 to 120) μsec. The interferometer operates by measuring the phase shift of the probe waves and by utilizing a frequency transformation from $f_0 = 3.7 \times 10^{10}$ cycles to an intermediate F = 30 Mcycle frequency with a heterodyne circuit. This is then compared with a reference frequency phase $F_0 = 30$ Mcycle on a cathode-ray oscilloscope. The schematic of the interferometer is shown in Fig. 1 on the

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110013-5

L 17798-65
ACCESSION NR: AP5001146

3

Enclosures. The instrument was used to measure the phase shift $\phi(t)$

$$\varphi(t) = 2\pi \frac{l}{\lambda}\left(1 - \frac{1}{l}\int_0^l \sqrt{\varepsilon(x,t)}\,dx\right),$$

the strength of reflected and transmitted signals, and thus to determine the mean electron density N, conductivity σ, and electron collision frequency ν. The plasmoid diameter was 12 λ and was generated from a conical source. The minimum value of N was 5×10^{10} cm^{-3}, and the boundary velocity was 1.4×10^{6} cm/sec. The measurement accuracy is independent of probe signal absorption. "The authors are grateful to Yu. M. Malyavin for adjusting the apparatus and carrying out the experiments." Orig. art. has: 3 formulas and 2 figures.

ASSOCIATION: Institut yadernoy fiziki Sibirskogo otdeleniya Akademii nauk SSSR (Institute of Nuclear Physics, Siberian Branch, Academy of Sciences SSSR)

SUBMITTED: 08Jun64 ENCL: 02

SUB CODE: ME,GP,EE NO REF SOV: 003 OTHER: 003

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110013-5

L 17798-65
ACCESSION NR: AP5001146 ENCLOSURE: 01

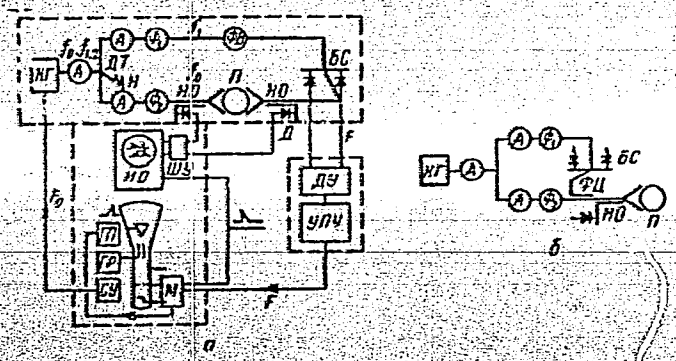

Fig. 1. Block-diagram of microwave interferometer
ДТ - double T-junction
$Ф_1$, $Ф_2$ - filters
КГ - probe signal source
U_1, U_2, H - loads

(to card 4/4)

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ACCESSION NR: AP5001146 (to card 3/4) ENCLOSURE: 02

A - attenuator

П - plasma

БС - balanced mixer

ДУ - differential amplifier

УПЧ - intermediate frequency amplifier

ІО - pulse oscillograph

ІІІУ - two-channel amplifier

ФЦ - ferrite circulator

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110013-5

ACCESSION NR: AP4009944 S/0057/64/034/001/0190/0192

AUTHOR: Kurtmullayev, R.Kh.; Nesterikhin, Yu.Ye.; Ponomarenko, A.G.

TITLE: On measuring the instantaneous velocity of a plasma burst

SOURCE: Zhurnal tekhnicheskoy fiziki, v.34, no.1, 1964, 190-192

TOPIC TAGS: plasma, plasma burst, plasma burst velocity, plasma burst velocity measurement

ABSTRACT: A procedure is described for measuring the instantaneous velocity of plasma bursts by observing the Doppler shift of obliquely reflected microwaves. Microwave transmitting and receiving horns are located on opposite sides of the drift tube, with their axes inclined to and intersecting on the axis of the tube. In the absence of a plasma, no signal from the transmitting horn can enter the receiver. When the plasma burst reaches the critical position it reflects microwaves into the receiving horn. These are mixed with a portion of the transmitted signal and the beats are displayed on an oscilloscope screen. From these beats the Doppler shift, and hence the velocity, is obtained. This method has the advantage over some others that it responds, at any moment, to a definite section of the plasma burst

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110013-5

ACC.NR: AP4009944

and thus enables one to investigate the structure of the burst. The described procedure was used to measure the velocities of plasma bursts from a conical gun, using 37 kilomegacycle microwaves with the antennas inclined 40° to the drift tube axis. The two parameters of the system (microwave frequency and antenna inclination) can be adjusted to meet a wide variety of conditions. For example, if the inclination is made very large the frequency can also be made large, with a resulting increase in space resolution. Orig.art.has: 1 formula and 3 figures.

ASSOCIATION: none

SUBMITTED: 31Aug63 DATE ACQ: 10Feb64 ENCL: 00

SUB CODE: PH NR REF SOV: 001 OTHER: 002

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110013-5

S/0057/64/034/007/1242/1251

ACCESSION NR: AP4042000

AUTHOR: Davidovskiy, V.G.; Dubovoy, L.V.; Ponomarenko, A.G.

TITLE: The resonance probe in a plasma in a magnetic field

SOURCE: Zhurnal tekhnicheskoy fiziki, v.34, no.7, 1964, 1242-1251

TOPIC TAGS: plasma, plasma diagnostics, resonance probe, magnetic field plasma effect

ABSTRACT: This paper is concerned with the applicability of the resonance probe (L.Tonks, Phys.Rev.37,1458,1931; T.H.Jeung and I.Sayers, Proc.Phys.Soc.70B,663,1957) as a diagnostic tool in the investigation of a plasma in a magnetic field. The method consists in observing the oscillations excited in the plasma by a small probe field of frequency near the Langmuir frequency. In the absence of a magnetic field one can derive the electron concentration from the resonant frequency, and the collision frequency from the width of the resonance. The authors derive the dispersion equation for a plasma in a magnetic field and show that in addition to the resonance at the Langmuir frequency ($V = 1$), there are resonances at $V = 1 \pm \sqrt{U}$ and, under some conditions, at $V = 1-U$. Here $V = f_0^2/f^2$, $U = f_H^2/f^2$, and f_0, f_H and f are the

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ACCESSION NR: AP4042000

Langmuir, Larmor, and probe frequencies, respectively. The behavior of resonance probes was investigated experimentally in helium and air plasmas at pressures from 0.03 to 0.1 mm Hg and magnetic fields up to 4 kOe. The plasmas were excited in a cubical glass container by a 50 megacycle/sec electric field, the available power of which was 300 W. The probes were similar to those employed by Jeung and Sayers (loc.cit.) and were made from lengths of high frequency coaxial line. The exciting and detecting probes were located near the center of the container and were separated by 0.5 to 1.5 cm. The probe frequency was varied from 200 to 1000 megacycles/ /sec. Resonance probe measurements in the absence of a magnetic field were compared with measurements performed by the method of G.Schulz and S.Brown (Phys.Rev.98,1642, 1955), and satisfactory agreement was found. In the presence of the magnetic field, the probe frequency was held constant and the amplitude of the probe oscillations was observed with an oscilloscope as a function of the electron concentration. (The electron concentration was obtained from the power absorbed by the plasma from the exciting field.) The predicted resonances were observed at the predicted places. As the magnetic field increased, the Langmuir resonance ($V = 1$) broadened, was replaced by a plateau having several small peaks, and finally disappeared entirely. Although there are noise problems, and the method cannot be used when the collision frequency is as great as the probe frequency, it is concluded that the resonance

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KURTMULLAYEV, R.Kh.; NESTERIKHIN, Yu.Ye.; PONOMARENKO, A.G.

Measurement of the instantaneous velocity of a plasma clot. Zhur. tekh. fiz. 39 no.1:190-192 Ja '64. (MIRA 17:1)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110013-5

L 14032-65 EWT(1)/EWP(m)/EWG(k)/EPA(sp)-2/EPA(w)-2/EEC(t)/T/EEC(b)-2/EWA(m)-2
Pz-6/Po-4/Pd-1/Pab-10/Pi-4 IJP(c)/ASD(f)-2/SSD/SSD(b)/AEDC(b)/AEDC(a)/AFWL/AFETR/
ACCESSION NR: AP4043659 ESD(gs) AT S/0056/64/047/002/0774/0776

AUTHORS: Iskol'dskiy, A. M.; Kurtmullayev, R. Kh.; Nesterikhin, Yu. Ye.; Ponomarenko, L. G.

TITLE: Experiments on collision-free shock waves in a plasma

SOURCE: Zh. eksper. i teor. fiz., v. 47, no. 8, 1964, 774-776

TOPIC TAGS: plasma shock wave, plasma magnetic measurement, shock front structure, shock wave propagation, plasma radiation

ABSTRACT: Preliminary results are reported on the propagation of shock waves in a plasma of considerably lower density ($n < 10^{14}$ cm^{-3}) than that used by R. Patrick (Phys. Fluids v. 3, 1960, 321), in which

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pacitor bank (magnetic piston). Measurements with the aid of an

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ACCESSION NR: AP4043659

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electron-optical converter and magnetic probes have shown that oscillations exist within the shock front, in qualitative agreement with the predictions made by R. Sagdeyev (Symposium on Electromagnetics and Fluid Dynamics of Gaseous Plasma, Polytch. Inst. of Brooklyn, 1961), V. I. Karpman (ZhTF v. 33, 959, 1963), and R. W

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accompanying the convergence of the shock wave to the chamber axis were also recorded, including a burst of radio emission in the 3 and 0.8 cm bands at the instant of cumulation, with a signal duration $\sim 30 \times 10^{-9}$ sec, corresponding to the time necessary for the hydromagnetic disturbance to cover a distance of the order of 1--2 cm. This correlates with the estimates obtained for the wave front with the aid of the optical and magnetic measurements. "The authors are grateful to G. I. Budker for continuous attention and interest in the work, and to R. Z. Sagdeyev and A. A. Galeyev for a discussion and help." Orig. art. has: 4 figures.

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L 14032-65
ACCESSION NR: AP4043659

ASSOCIATION: Institut yadernoy fiziki Sibirskogo otdeleniya Akademii nauk SSSR (Institute of Nuclear Physics, Siberian Department, AN SSSR)

SUBMITTED: 09May64 ENCL: 01

SUB CODE: ME NO REF:SOV: 001 OTHER: 008

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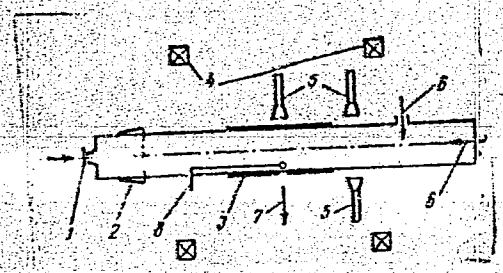
ACCESSION NR: AP4043659

ENCLOSURE: 01



1 - electrodynamic pulsed inlet of neutral gas,
2 - conical turn producing a pre-ionized plasma,
3 - shock turn of magnetic piston,
4 - coils producing axial magnetic field,
5 - microwave antenna horns
6 - scintillation fast-electron and x-ray pickups
7 - transverse slot for registration of shock wave
8 - magnetic micro-probe

Fig. 1. Schematic diagram of the experimental apparatus.

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SUCHIL'NIKOV, S.I.; PONOMARENKO, A.G.; DERYABIN, Yu.A.; PAVLOV, V.A.

Reduction of iron oxides from ilmenite concentrates by solid carbon. Report No.1. Izv.vys.ucheb.zav.; chern.met. 8 no.6:10-15 '65. (MIRA 18:8)

1. Ural'skiy politekhnicheskiy institut.

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110013-5

L 01463-66 EWT(1)/EPF(n)-2/EWG(m), EPA(w)-2 IJP(c) AT

ACCESSION NR: AP5016651

UR/0382/65/000/002/0035/0043
533.9.082

AUTHOR: Iskol'dskiy, A. M.; Kurtmullayev, R. Kh.; Luk'yanov, V. N.; Nesterikhin, Yu. Ye.; Ponomarenko, A. G.

TITLE: Some properties of the behavior of plasma heated by collisionless shocks

SOURCE: Magnitnaya gidrodinamika, no. 2, 1965, 35-43

TOPIC TAGS: plasma shock wave, shock wave heating, plasma diagnostics, microwave, plasma containment

ABSTRACT: The generation of collisionless shocks in plasma with quasistatic axial magnetic field by use of theta-pinches (powered by a storage system with maximum energy of about 3000 J) is discussed. Plasma density in the experiments was about 10^{13} cm^{-3}. Magnetic and optical measurements indicate the formation of a cylindrical "magnetic piston" driving the collisionless shocks which concentrates along the plasma axis. Also studied are the accompanying phenomena of X-ray and microwave (8 mm) noise emission. The diagnostic instrumentation (magnetic and scintillation probes and image-converter camera) is described in detail and typical results are shown (e. g. collisionless shock is shown to run ahead of the current sheet). It

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ACCESSION NR: AP5016651

is shown in the experiments that plasma is heated during first current rise (with trapping of the magnetic field also occuring). Later, a cold plasma sheet formed at the tube walls together with the field trapped in the hot plasma leads to containment of plasma for a few microseconds. "The authors thank Academician G. I. Budker and Corresponding member AN SSSR R. Z. Sagdeyev for their continued interest and help in interpreting the experiment." Orig. art. has: 7 figures.

ASSOCIATION: none

SUBMITTED: 12Aug64

ENCL: 00

SUB CODE: NE, EM

NO REF SOV: 004

OTHER: 004

Card 2/2

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110013-5"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110013-5

KURTMULLAYEV, R.Kh. (Novosibirsk); MALINOVSKIY, V.K. (Novosibirsk); NESTERIKHIN, Yu.Ye. (Novosibirsk); PONOMARENKO, A.G. (Novosibirsk)

Excitation of strong collisionless shock waves in a plasma. PMTF no.2: 79-83 Mr-Ap '65. (MIRA 18:7)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110013-5

ISKOL'DSKIY, A.M.; KURTMULLAYEV, R.Kh.; LUK'YANOV, V.N.; NESTERIKHIN, Yu.Ye.; PONOMARENKO, A.G.

Some characteristics of the behavior of a plasma heated by collisionless shock waves. Mag. gidr. no.2:35-43 '65. (MIRA 18:8)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110013-5

L 5388-66 EWT(1)/EWP(m)/ETC/EWG(m)/EWA(d)/EPA(w)-2/FCS(k)/EWA(h)/EWA(c) IJP(c)
ACC NR: AP5027280 WW/AT SOURCE CODE: UR/0207/65/000/005/0118/0120

AUTHORS: Iskol'dskiy, A. M. (Novosibirsk); Kurtmullayev, R. Kh. (Novosibirsk); Nesterikhin, Yu. Ye. (Novosibirsk); Pil'skiy, V. I. (Novosibirsk); Ponomarenko, A. G. (Novosibirsk)

ORG: none

TITLE: Magnetic field trapping and plasma containment in experiments with a collisionless shock wave

SOURCE: Zhurnal prikladnoy mekhaniki i tekhnicheskoy fiziki, no. 5, 1965, 118-120

TOPIC TAGS: magnetic field, plasma, shock wave, rarefied plasma, neutron generation, deuterium

ABSTRACT: Magnetic trapping and plasma containment were achieved in a rarefied, cylindrical, deuterium plasma by creating a collisionless shock condition. A 16-cm glass tube was placed in the centerline of a quasi-stationary magnetic field ($H_0 \sim 0.5$ kilo-oersted, $T = 5$ μsec). In the center of this system was added a 30-cm shock coil generating a magnetic field $H \sim 3$ to 6 kilo-oersteds, for $T \sim 1.4$

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ACC NR: AP5027280

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to 2 μsec. The initial plasma concentration was 5×10^{12} to 3×10^{13} cm^{-3}. Magnetic field trapping and plasma containment were achieved on the basis of the following observation. An average 40 μsec delay in neutron generation (10^6 to 10^7 neutrons), 10 kev ion-energy attainment, and bremsstrahlung radiation were obtained after the applied field H_o had decayed. Qualitative measurements from magnetic probes indicated that the trapped field was of the order of H (coil field) with a duration commensurate with neutron generation. The trapped plasma energy was about 10 kev. The authors thank G. I. Budker for his constant influence and interest in the work and R. Z. Sagdeyev for his help and participation in evaluating the results. Orig. art. has: 2 figures and 1 formula.

SUB CODE: ME/ SUBM DATE: 17Nov64/ ORIG REF: 002/ OTH REF: 001

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110013-5

L 10944-67 EWT(1) IJP(c) SOURCE CODE: UR/0386/66/004/010/0403/0409

ACC NR: AP7000537 80 79

AUTHOR: Nesterikhin, Yu. Ye.; Ponomarenko, A. G.; Yablochnikov, B. A.

ORG: Institute of Nuclear Physics, Siberian Department, Academy of Sciences SSSR (Institut yadernoy fiziki, Sibirskoye otdeleniye Akademii nauk SSSR)

TITLE: Generation of collisionless shock waves propagating along a magnetic field

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki. Pis'ma v redaktsiyu. Prilozheniye, v. 4, no. 10, 1966, 403-409

TOPIC TAGS: plasma shock wave, shock wave propagation, plasmoid, cyclotron frequency, plasma oscillation, plasma magnetic field, plasma decay

ABSTRACT: The authors present the results of preliminary experiments to check on the feasibility of exciting shock waves propagating in a rarefied plasma along the magnetic field, such as may occur under outer-space conditions. A column of preliminary plasma was produced in a quasistationary magnetic field $H_0 = 0 - 3$ kOe by discharging a capacitor bank in a glass vacuum chamber filled with hydrogen ($10^{-3} - 5 \times 10^{-4}$ mm Hg). Some 50 - 70 μsec later, a second capacitor was discharged to produce a fast plasmoid propagating in the stationary plasma. The propagation of the plasmoid was traced with a series of suitably distributed probes and an electrooptical converter. The results show that when the longitudinal pressure is larger than the transverse pressure, a magnetic disturbance is actually seen to be produced after a time on the order of the reciprocal ion-cyclotron frequency, on the front of the moving plasmoid.

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ACC NR: AP7000537

This distrubance consists of an increase in the radial and azimuthal components to a value equal to about half the stationary field. As the plasmoid moves forward in the preliminary plasma, the slope of the leading front of the magnetic signal increases. The fine structure of the radial magnetic field could be seen more clearly at velocities in excess of the Alfven velocity. Large scale Alfven-type oscillations were observed behind the front of the magnetic disturbance. It is shown that the observed effect is influenced not only by damping, but also by dispersion effects and by disturbances that move relative to the quasistationary field. No instability occurs in the absence of a preliminary plasma. The extent to which the described phenomenon can be identified with the formation of a collisionless shock wave is still uncertain, but the results are qualitatively close to those obtained by satellite exploration of the magnetosphere, and the experimentally measured leading front of the disturbance agrees qualitatively with theoretical estimates. The authors thank R. Z. Sagdeyev for discussions and help. Orig. art. has: 3 figures and 1 formula.

SUB CODE: 20/ SUBM DATE: 22Aug66/ ORIG REF: 005 OTH REF: 003

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L 33388-66 EWT(1)/ETC/f IJP(c) AT

ACC NR: AP6015309 (A, N) SOURCE CODE: UR/0057/66/036/005/0877/0880

AUTHOR: Alinovskiy, N.I.; Iskol'dskiy, A.M.; Nesterikhin, Yu.Ye.; Ponomarenko, A.G. 85 83 B

ORG: none

TITLE: Investigation of the plasma injected into a magnetic trap with the aid of a conical theta-pinch

SOURCE: Zhurnal tekhnicheskoy fiziki, v. 36, no. 5, 1966, 877-880

TOPIC TAGS: plasma gun, plasma source, plasma injection, magnetic pinch, plasma diagnostics, plasma shock wave, shock wave physics

ABSTRACT: The authors briefly describe the production and diagnosis of the plasma that was injected into a magnetic trap in the experiments of A.M.Iskol'dskiy, R.Kh. Kurtmullayev, Yu.Ye.Nesterikhin, and A.G.Ponomarenko (ZhETF, 47, No. 8, 1964). The plasmas (ion density about 10^{13} cm^{-3}) were produced with the aid of a conical theta-pinch. Approximately 0.1 cm^3 of D_2 or He was admitted to the vacuum chamber and a 2 μF 20-40 kV capacitor was discharged through the ionizing winding some 300-400 microsec later. The heated plasma entered the 150 cm long 16 cm diameter region between the two magnetic mirrors (mirror ratio ~ 1.4, magnetic field strength ≤ 3 kOe) through one of the mirrors, the field strength in which was less than that in the other by a factor of 1.3. Diagnosis of the plasma was effected with the aid of 0.4,

UDC: 533.9

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PONOMARENKO, A.G.; MOROZOV, A.N.; KARSHIN, V.P.

Stoichiometric disorder of liquid slags in the system CaO - SiO_2. Izv. vys. ucheb. zav.; chern. met. 7 no.11:16-20 '64. (MIRA 17:12)

1. Chelyabinskiy nauchno-issledovatel'skiy institut metallurgii.

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PONOMARENKO, A.G.; MOROZOV, A.N.; KARSHIN, V.P.

Effect of the oxido-reduction potential of the medium on the composition and properties of $CaO-SiO_2$ melts. Elektrokhimiia 1 no.7:862-863 Jl '65. (MIRA 18:10)

1. Chelyabinskiy nauchno-issledovatel'skiy institut metallurgii.

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L 14982-66 EWT(1)/EWP(m)/EWT(m)/ETC(F)/EPF(n)-2/EWG(m)/EWA(d)/EWP(t)/FCS(k)/
ACC NR: AP6002366 EWP(b)/EWA(h) SOURCE CODE: UR/0207/65/000/006/0119/0121
IJP(c) JD/HW/AT

AUTHOR: Iskol'dskiy, A. M. (Novosibirsk); Kurtmullayev, R. Kh. (Novosibirsk); Nesterikhin, Yu. Ye. (Novosibirsk); Ponomarenko, A. G. (Novosibirsk)

ORG: None

TITLE: Excitation of strong collisionless shock waves in a deuterium plasma

SOURCE: Zhurnal prikladnoy mekhaniki i tekhnicheskoy fiziki, no. 6, 1965, 119-121

TOPIC TAGS: shock wave, plasma wave, deuterium, ion temperature, hydrogen plasma

ABSTRACT: The authors showed earlier (Eksperimenty po besstolknovitel'noy udarnoy volne v plazme. Zh. eksperim. i teor. fiz., 1964, vol. 47, no. 8, p. 774) that in a rarefied plasma in a quasi-stationary magnetic field shock waves can be excited with a shock front width considerably smaller than the length of the free path of the ions. This article presents preliminary results of experiments on heating a hydrogen plasma by means of strong collisionless shock waves. The methods and equipment used are described. Experimental results confirm the theory that under conditions of excitation of strong collisionless shock waves and subsequent compression of the plasma by a current layer it is possible to achieve intensive heating of the ions. Optical and magnetic measurements on the first half-period do not reveal any appreciable instabilities, which according to the authors, is extremely important in the clarification of the mechanism in the formation of the neutrons. The temperature of the ions, estimated in the expectation of the thermonuclear mechanism of the formation of neutrons,

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PONOMARENKO, G.P., kand. fiz.-mat. nauk, otv. red.; KULAKOVSKAYA, N.S., red.

[Hydrological and hydrochemical research in the tropical zone of the Atlantic Ocean] Gidrologicheskie i gidrokhimicheskie issledovaniia v tropicheskoi zone Atlanticheskogo okeana. Kiev, Naukova dumka, 1965. 145 p. (MIRA 19:1)

1. Akademiya nauk URSR, Kiev.

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110013-5"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110013-5

PONOMARENKO, A. I., inzh.; RYBAL'SKIY, V. I., kand. tekhn. nauk

Rapid assembly-line construction of units for crushing ore. Shakht. stroi. 4 no.10:28-31 O '60. (MIRA 13:11)

1. Trest Krivorozhaglostroy (for Ponomarenko). 2. Nauchno-issledovatel'skiy institut stroitel'nogo proizvodstva Akademii stroitel'stva i arkhitektury USSR (for Rybal'skiy).
(Krivoy Rog Basin--Ore dressing--Equipment and supplies)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110013-5

SHCHERBOV, D.P.; PONOMARENKO, A.I.

Simplified fluorimeter equipped with the FEU-19 photomultiplier.
Zav.lab. 26 no.9:1143-1145 '60. (MIRA 13:9)

1. Kazakhskiy institut mineral'nogo syr'ya.
(Fluorimeter)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110013-5"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110013-5

PONOMARENKO, A.I. (Poltava)

Experience in the organization of a medical service for adolescents in the Velikaya Bogachka region. Sovet. zdravookhr. 5: 19-22 '63 (MIRA 17:2)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110013-5"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110013-5

SHCHERBOV, D.P.; PONOMARENKO, A.I.

Device attached to the SF-4 spectrophotometer for recording excitation and fluorescence spectra. Zav.lab. 27 no.9:1156-1158 '61. (MIRA 14:9)

1. Kazakhskiy institut mineral'nogo syr'ya.
(Spectrophotometer)

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PHASE I BOOK EXPLOITATION SOV/4973

Soveshchaniye po lyuminestsentsii, 8th, 1959

Metody lyuminestsentnogo analiza; materialy soveshchaniya (Methods for Luminescence Analysis; Materials of the 8th Conference) Minsk, Izd-vo AN BSSR, 1960. 147 p. 1,000 copies printed.

Sponsoring Agency: Akademiya nauk Belorusskoy SSR. Institut fiziki.

General Ed.: N. A. Borisevich; Ed.: L. Timofeyev; Tech. Ed.: N. Siderko.

PURPOSE: This collection of articles is intended for chemists and physicists interested in molecular luminescence, and for scientific personnel concerned with applications of this and related phenomena in research in the life sciences.

COVERAGE: The collection contains 28 papers read at the Eighth Conference on Luminescence, which took place 19-24 October, 1959 [place of conference not given]. These studies are concerned principally with the development of new luminescence methods for quantitative and qualitative chemical analysis, and with the applications of luminescence in medical and biological research. They discuss luminescence methods for the determination of uranium, mercury, magnesium, aluminum, boron, and other elements, as well as luminescence methods for the diagnosis of skin cancer and the detection of grippe virus, pathogenic microorganisms, etc. The structural design of new instruments for luminescence analysis is described. The conference was not concerned with studies on the phosphorescence of crystal phosphores. There is a discussion of the contributions of Soviet specialists in molecular luminescence in the course of the year and a half preceding the conference. The articles of V. K. Matveyev (p. 75) and of V. V. Patriksyev (p. 79) have been annotated because of their importance. No personalities are mentioned. References accompany most of the articles.

Stolyarov, K. P., and N. N. Grigor'yev [Leningradskiy gosudarstvennyy universitet imeni A. A. Zhdanova (Leningrad State University imeni A. A. Zhdanov)]. Qualitative and Quantitative Luminescence Analysis of Inorganic Ions 32

Shcherbov, D. P., R. N. Korzheva, and A. I. Ponomarenko [Kazakhskiy institut mineral'nogo syr'ya (Kazakh Institute of Mineral Raw Materials)]. Determination of Boron with Benzoin with the Aid of the Objective Fluorometer for Liquids 37

Shcherbov, D. P., and R. N. Korzheva. Increasing the Sensitivity and Reproducibility of Fluorescence Analysis of Solutions 43

Gurkina, T. V., and A. V. Drobachenko. Fluorometric Determination of Boron in Solutions by Means of Morin With a Sensitive Fluorometer of New Design 50

Rozhevol'nov, Ye. A., and G. V. Serebryakova [Vsesoyuznyy nauchno-issledovatel'skiy institut khimicheskikh reaktivov (IREA)(All-Union Scientific Research Institute of Chemical Reagents)(IREA)]. New Luminescence Reagent for the Determination of Magnesium 55

Rozhevol'nov, Ye. A., and V. M. Vanishevskaya [All-Union Scientific Institute of Chemical Reagents]. Determination of Aluminum by the Luminescence Method in Substances Having a High Degree of Purity 59

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Ponomarenko, A. I.

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110013-5

S/081/62/000/017/040/102
B162/B101

AUTHOR: Ponomarenko, A. I.

TITLE: An attachment to the СФ-4 (SF-4) spectrophotometer for taking fluorescence spectra

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 17, 1962, 142, abstract 17E5 (Tr. Kazakhsk. n.-i. in-ta mineral'n. syr'ya, no. 3, 1960, 338 - 340)

TEXT: An attachment is proposed to the SF-4 spectrophotometer, which does not require special expenditure for its manufacture and allows to take fluorescence spectra of liquids and solids in a range from 220 to 1100 mμ. The attachment consists of a block for holding the liquid to be analyzed, a photomultiplier with a stabilized source of supply and a microammeter. A cell with the solution is substituted for the Hg-lamp of the ПС-207 (PS-207) illuminator. The holder of the cell has 2 openings: one at the top for admission the exciting radiation, the second at the side facing the spherical mirror of the illuminator in order to direct the fluorescence on to the inlet slit of the spectrophotometer. An КП-1Н (KP-1N)

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B162/B101

An attachment to the...

illuminator with a СВД-120А (SVD-120A) quartz mercury vapor lamp is used as a source for the exciting radiation. In the cell section of the spectrophotometer a plane mirror is installed, which reflects the light on to the inlet of the photomultiplier. The recording arrangement is a magnetoelectric М-95 (M-95) microammeter with a universal П4 (P4) shunt which permits to alter the current measurement range of the apparatus: - 1 - 5 - 10 - 50 - 100 - 500 - 1000 μa. [Abstracter's note: Complete translation.]

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GNATYUK, K.S., red.; LEVKOVICH, G.A., red.; NAUMENKO, I.A., red.; PAVLENKO, V.A., kand.sel'skokhoz.nauk, red.; PEREKHREST, S.M., dotsent, red.; PONOMARENKO, A.I., red.; PRAUTENKO, Ye.Ya., red. [deceased]; SMOLYAK, V.V., red.

[Technical information] Tekhnicheskaia informatsiia. Kiev, 1956. 55 p. (MIRA 15:2)

1. Kiyev. Ukrainskiy gosudarstvennyy institut po proyektirovaniyu vodokhozyaystvennykh sooruzheniy i sel'skikh elektrostantsiy.
(Ukraine--Water resources development)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110013-5

S/032/60/026/009/013/018
B015/B058

AUTHORS: Shcherbov, D. P., Ponomarenko, A. I.

TITLE: Simplified Fluorometer With an ФЭУ-19 (FEU-19) Photomultiplier

PERIODICAL: Zavodskaya laboratoriya, 1960, Vol. 26, No. 9, pp. 1143 - 1145

TEXT: A simplified fluorometer (fluorophotometer) was designed for the objective measurement of the total intensity of the fluorescence excited in a liquid by an arbitrary line of the mercury spectrum. The instrument (Fig. 1) contains an ultraviolet lamp (of the type СВДШ-250 (SVDSh-250), СВД-120А (SVD-120A), or ПРК-4 (PRK-4)) and a special container (Fig. 2) for the liquid to be investigated, the design of which enables one to measure the luminescence of the upper liquid layer (as for the benzene extract of gallium rhodaminate) or that of the lower one (as for the chloroform extract of the indium oxinate). The photocurrent is measured with an М-194 (M-194) microammeter, the measuring range of which is mentioned in Table 1. A colored salt solution in the

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PONOMARENKO, A.I.

SYRKIN, G.Ye., inzhener; PONOMARENKO, A.I., inzhener.

Small water heater. Masl.-zhir.prom. 23 no.1:40-41 '57.
(MIRA 10:1)

1. Rosglavrazhirmaslo (for Syrkin). 2. Saratovskiy zhirkombinat (for Ponomarenko).
(Water heaters)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110013-5

SYRKIN, G.Ye., inzh.; PONOMARENKO, A.I., inzh.

Producer of inert gas. Masl.-zhir.prom. 24 no.11:30-32 '58. (MIRA 12:1)

1. Gosudarstvennyy institut po proyektirovaniyu masloboynoy, zhirovoy, mylovarennoy, parfyumernoy i margarinovoy promyshlennosti (for Syrkin). 2. Saratovskiy zhirovoy kombinat (for Ponomarenko).

(Gas producers)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110013-5

PONOMARENKO, A.I., glavnyy inzhener

Construction of large sunk wells. Shakht.stroi. no.6:22-25 Je '59. (MIRA 12:9)

1. Trest Krivorozhsaglostroy.
(Wells)
(Reinforced concrete construction)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110013-5

PONOMARENKO, A. I.

Tree Planting

Planting forest stock by seeds and seedlings in one operation. Les. khoz. 5, No. 7, 1952.

9. Monthly List of Russian Accessions, Library of Congress, September 1952 ~~1953~~. Unclassified.

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110013-5"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110013-5

ORLOV, V.V., dotsent; PONOMARENKO, A.K., inzh.

Cement injection behind a gallery timber. Shakht. stroi. 5 no.7:26 Jl '61. (MIRA 15:6)

1. Donetskiy politekhnicheskiy institut.
(Mine timbering)
(Grouting)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110013-5"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110013-5

ORLOV, Vasiliy Vasil'yevich; PONOMARENKO, Aleksey Kuz'mich; GUDZ', Aleksandr Grigor'yevich; PETROV, Anatoliy Moiseyevich; TARASENKO, Vasiliy Konstantinovich; SIDYAK, A.Ya., otv. red.; VAYNBERG, D.A., red.; PLETENITSKIY, V.Yu., tekhn. red.

[Handbook of examples and problems on mining engineering] Sbornik primerov i zadach po provedeniiu gornykh vyrabotok. Khar'kov, Izd-vo Khar'kovskogo gos. univ. im. A.M.Gor'kogo, 1961. 352 p. (MIRA 15:2)
(Blasting) (Mining engineering)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110013-5"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110013-5

ORLOV, Vasiliy Vasil'yevich; YANCHUR, Aleksandr Mikhaylovich; BABICHEV, Nikolay Semenovich; PETROV, Anatoliy Moiseyevich; PONOMARENKO, Aleksey Kuz'mich; GUDZ', Aleksandr Grigor'yevich; POKROVSKIY, N.M., zasl. deyatel' nauki i tekhniki RSFSR, prof., doktor tekhn. nauk, retsenzent; CHERNEGOVA, E.N., ved. red.

[Mine workings and their support] Provedenie i kreplenie gornykh vyrabotok. [By] V.V.Orlov i dr. Moskva, Nedra, 1965. 496 p. (MIRA 18:7)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110013-5"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110013-5

VERLINSKAYA, D.K.; PONOMARENKO, A.M.

Shereshevsky-Turner syndrome as a chromosomal disease. Akush. i gin. 40 no.5:146-147 S-O '64. (MIRA 18:5)

1. Laboratoriya meditsinskoy genetiki (zav. - prof. Ye.F. Davidenkova) Instituta onkologii AMN SSSR, Leningrad.

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PONOMARENKO, A.M.

Nosological placement and clinical variations of Klinefelter's disease. Vest. AMN SSSR 20 no.3:12-17 '65. (MIRA 18:7)

1. Laboratoriya meditsinskoy genetiki AMN SSSR, Leningrad.

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110013-5

DAVIDENKOV, S.N.; PONOMARENKO, A.M.; SHALAGINA, T.L.

Clinical variants of familial spastic paraplegia. Och.klin.nevr. no.1:23-38 '62. (MIRA 15:9)

(PARALYSIS, SPASTIC)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110013-5

PONOMARENKO, A.M.

Data for the study on Klinefelter's syndrome. Vest. AMN SSSR 18 no.12:26-29 '63. (MIRA 17:7)

1. Institut onkologii AMN SSSR, laboratoriya meditsinskoy genetiki, Leningrad.

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PONOMARENKO, A.M.

Methods of studying and the diagnostic significance of sex chromatin. TSitologiia 6 no.1:121-125 Ja-F '64. (MIRA 17:9)

1. Laboratoriya meditsinskoy ginetiki Instituta onkologii AMN SSSR, Leningrad.

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110013-5

PONOMARENKO, A.N.

New section of the Porech'ye Canning Factory. Kons. i ov. prom. 14 no.1:11-12 Ja '59. (MIRA 12:1)

1.Porechskiy konservnyy zavod.
(Peas) (Canning and preserving--Equipment and supplies)

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PONOMARENKO, A.P.

Increasing the capacity of sugar refineries by applying all-around efficiency measures. Sakh.prom. 27 no.11:11-13 '53. (MLRA 7:1)

1. Sakharnyy zavod imeni Stalina.

(Sugar industry)

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ZOTOV, V.P.; MAKHINYA, M.M.; PARSHIKOV, M.Ya.; GAVRILOV, A.N.; SILIN, P.M.; GOLOVIN, P.V.; KHEYZE, N.V.; BUZANOV, I.F.; KHELEMSKIY, M.Z.; YAPASKURT, V.V.; SHARKO, A.P.; SAHOV, N.M.; LITVAK, I.M.; IVANOV, S.Z.; LEPESHKIN, I.P.; KLEYMAN, B.M.; YEPISHIN, A.S.; GOLUB, S.I.; GERASIMOV, S.I.; GEUBE, V.R.; PASHKOVSKIY, F.M.; LITVINOV, Ye.V.; BENIN, G.S.; IVANOV, P.Ya.; VINOGRADOV, N.V.; PONOMARENKO, A.P.; ZHIDKOV, A.A.; KOVAL', Ye.T.; KARTASHOV, A.K.; NOVIKOV, V.A.

Sixtieth birthday of A.N.Shakin, Director of the Central Scientific Research Institute of the Sugar Industry. Sakh. prom. 35 no.7:33 Jl '61. (MIRA 14:7)
(Shakin, Anatolii Nikitovich, 1901-)
(Sugar industry)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110013-5

PONOMARENKO, A.P.; KOLESNIK-TERESHCHENKO, V.A.

Small air preheaters. Sakh. prom. 36 no.12:32-33 D '62. (MIRA 16:6)

1. Lokhvitskiy sakharnyy zavod.
(Boilers—Air preheating)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110013-5

PONOMARENKO, A.P.

25680. Ponomarenko, A.P. Mekhanizatsiya podachi and podgotovki uglya na sakharnom zavode imeni Stalina Sakhar. prom-st, 1949, NO. 7, 5. 26-28
v. Dvigateli vnutrennego sgoraniya Gazogenerator-nye dvigateli Reaktivnye dvigateli.

SO: Letopis'Zhurnal'nykh Statey, Vol. 34, Moskva, 1949

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110013-5

PONOMARENKO, A.P.

Investigating the operation of high-speed centrifugals. Sakh. prom. 30 no.9:55-57 S '56. (MLRA 10:3)

1. Sakharnyy zavod imeni Stalina.
(Sugar machinery)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110013-5

PONOMARENKO, A.P.

Economic aspects of intermediate products in the sugar industry. Sakh. prom. 35 no.12:41-43 D '61. (MIRA 15:1)

1. Lokhvitskiy sakharnyy zavod.
(Sugar industry)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110013-5

PONOMARENKO, A.P.

YEREMENKO, B.A.; SUSOROV, B.G.; PONOMARENKO, A.P.; BOZHKO, P.L.

Organization and work of [redacted] section of control and measuring apparatus and automatic control. Sakh.prom. 31 no.8:50-52 Ag '57. (MLRA 10:8)

1.TSentral'nyy nauchno-issledovatel'skiy institut sakharnoy promyshlennosti (for Yeremenko and Susorov). 2.Sakharnyy zavod imeni Stalina (for Ponomarenko and Bozhko).
(Automatic control) (Sugar industry--Equipment and supplies)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110013-5

Ponomarenko, A P

TERESHIN, B.N.; PONOMARENKO, A.P.

Results of tests on the first model of the PN-1000 high-speed centrifuge. Sakh. prom. 32 no.1:33-35 Ja '58. (MIRA 11:2)

1. TSentral'nyy nauchno-issledovatel'skiy institut sakharnoy svekly (for Tereshin). 2. Sakharnyy zavod imeni Stalina (for Ponomarenko).
(Sugar machinery--Testing) (Centrifuges--Testing)

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PONOMARENKO, A.P.

Boiling first massecuite from syrup of increased thickness. Sakh. pron. 32 no.2:20-22 F '58. (MIRA 11:3)

1. Sakharnyy zavod imeni Stalina.
(Sugar manufacture)

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PONOMAREHKO, A.P.

25680

Mekhanizatsiya Podachi Podgotovki uglya na sakharnom. Zavode imenm Stalina. Sakhar. Prom-st', 1949, No. 7, s. 26-28

V. Dvigateli Vnutrennego sgoraniya Gasogeneratornye Dvigatel N. Reaktivnye Dvigateli.

SO: LETOPIS' No. 34

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110013-5

PONOMARENKO, A.P.

Extent of uncalculated losses of sugar in production. Sakh.prom. 27 no.7: 16-18 Jl '53. (MLRA 6:6)

1. Sakharnyy zavod imeni Stalina. (Sugar industry)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110013-5

PONOMARENKO, A. P.

Sugar Machinery

Increasing the area of strainers in large-capacity diffusion batteries. Sakh.prom. 27, No. 3, 1953.

Monthly List of Russian Accessions, Library of Congress, June 1953. UNCLASSIFIED.

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110013-5

PONOMARENKO, A.P.

Application of steam compressors in an evaporation system. A. P. Ponomarenko. *Sakharnaya Prom.* 28, No. 3, 11-14(1954).—The use of a steam jet compressor is always effective when vapors from the last body of the evapo. station are removed through a condenser. A steam economy or a higher d. sirup or both is obtained. Steam jet compressors increase cond. removal of steam and, therefore, give more stability to the evapo. Compressors are very dependable and easy to construct. A scheme of steam-compressor installation is given. V. B. Balkov

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110013-5

KAGAN, Yu.B.; ROZOVSKIY, A.Ya.; SLIN'KO, M.G.; PONOMARENKO, A.T.

Study of the kinetics of catalytic reactions based on the conditions of ignition. Part 1: Zero-order reactions. Kin. i kat. 5 no.5:920-926 S-O '64. (MIRA 17:12)

1. Institut neftekhimicheskogo sinteza imeni Topchiyeva AN SSSR i Institut kataliza Sibirskogo otdeleniya AN SSSR.

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110013-5

1. PONOMARENKO, A.T.

2. USSR (600)

4. Lignite - Babayevo Region

7. Geological report on the survey of the Babayevo lignite deposits in 1944. (Abstract) Izv.Glav.upr.geol.fon. no.2 1947

9. Monthly List of Russian Accessions. Library of Congress. March 1953. Unclassified.

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110013-5

1. PONOMARENKO, A. T.

2. USSR (600)

4. Babayevo Region - Lignite

7. Geological report on the survey of the Babayevo lignite deposits in 1944. (Abstract)Izv.Glav.upr.geol.fon. no. 2, 1947

9. Monthly List of Russian Accessions, Library of Congress, March 1953, Unclassified.

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110013-5

PONOMARENKO, A.T.; KAGAN, Yu.B.; KAMZOLKIN, V.V.

Device for measuring gas consumption under high pressure. Khim. i tekh.topl. i masel 9 no.2:48-50 F '64. (MIRA 17:4)

1. Institut neftekhimicheskogo sinteza AN SSSR.

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110013-5

KAGAN, Yu.B.; ROZOVSKIY, A.Ya.; SLIN'KO, M.G.; PONOMARENKO, A.T.

Kinetics of heterogeneous catalytic reactions as a function of ignition conditions. Part 2: Reaction of an arbitrary order. Kin.i kat. 5 no.6:1111-1114 N-D '64. (MIRA 18:3)

1. Institut neftekhimicheskogo sinteza imeni Topchiyeva AN SSSR i Institut kataliza Sibirskogo otdeleniya AN SSSR.

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KAGAN, Yu.B.; PONOMARENKO, A.T.; ROZOVSKIY, A.Ya.; LOKTEV, S.M.; BASHKIROV, A.N.

Kinetics of the synthesis of higher alcohols from CO and H_2 on a fused iron catalyst. Neftekhimiia 5 no.1:82-89 Ja-F '65. (MIRA 18:5)

1. Institut neftekhimicheskogo sinteza imeni Topchiyeva AN SSSR.

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SOURCE: Neftekhimiya, v. 5, no. 1, 1965, 82-89

TOPIC TAGS: hydrocarbon synthesis, alcohol synthesis, carbon monoxide, hydrogen exchange, catalytic hydrogenation, fused iron catalyst

ABSTRACT: The reaction kinetics of alcohol synthesis from carbon monoxide and hydrogen on a fused iron catalyst were studied. A catalyst having the composition 100 parts by wt. Fe_3O_4 + 2 parts by wt. Al_2O_3 was reduced at 450C and 50 atm. hydrogen pressure. The reaction kinetics were determined over a range of conditions with a described flow reactor, permitting measurements of gas and catalyst temperatures, the admixture of controlled amounts of methane to the process

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velocity of the process stream of [illegible]

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ently of linear velocity or catalyst particle size; increase of gas temperature

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Card 2/2

AVETISYAN, F. O.[Avetysian, F. O.]; TRACHUK, S. V., kand. tekhn. nauk; PONOMARENKO, A. T.

Some problems in the automation of the aniline dye industry. Khim. prom.[Ukr.] no.1:67-69 Ja-Mr '62. (MIRA 15:10)

1. Institut avtomatiki Gosplana UkrSSR.

(Aniline) (Cleaning and dyeing industry) (Automation)

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BC

Geological description of the Kivdo-Naishishin brown coal deposit. A. T. Ponomarenko (Rezvoika Nedr., 1955, 6, No. 3, 10—15). Ch. Abs. (e)

COMMON ELEMENTS

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CA

A short geological description of the Kivde-Raichikhin brown coal deposit. A. T. Ponomarenko. *Razvedka Nedr (Subterranean Prospecting)* 5, No. 3, 10-15(1935). This deposit is located 500 km. west of Khabarovsk, Siberia. The coal belongs to the class of humic coals contg. H_2O 30-34, volatile substances 26, ash 6, coke 33.5, S 0.5, H 2.5, C 42 and O + N 13.5%. Its structure is that of fusain and durain coal. A. A. Boehtlingk

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MALOVICHKO, V.I., gornyy inzh.; PONOMARENKO, A.V., gornyy inzh.; SHULESHKO, A.V., gornyy inzh.

Ways of increasing the durability of boring steel and determining standards for its use. Gor.zhur. no.4:48-51 Ap '64. (MIRA 17:4)

1. Nauchno-issledovatel'skiy gornorudnyy institut, Krivoy Rog.

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110013-5

PONOMARENKO, A.V., kand.biolog.nauk

Methods for investigating soils for contamination with harmful larvae. Zashch.rast.ot vred. i bol.4 no.4:39-40 Jl-Ag '59. (MIRA 16:5)

(Rostov Province-Soil fauna)
(Rostov Province-Insects, Injurious and beneficial)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110013-5

PONOMARENKO, A.V., kand.biolog.nauk; YEVSTIFEYEV, M.F., agronom-entomolog

From the experience obtained in Rostov Province in the protection of corn against wireworms. Zashch. rast. ot vred. i bol. 6 no.5: 17-18 My '61. (MIRA 15:6)

1. Kafedra zoologii bespozvonochnykh i entomologii Rostovskogo universiteta.
(Rostov Province--Corn (Maize)--Diseases and pests)
(Rostov Province--Wireworms)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110013-5

MALOVICHKO, V.I.; PONOMARENKO, A.V.

Standardizing the expenditure of flexible, rubber-hose, shielded cable in the mining industry. Met. i gornorud. prom. no.6:62-63 N-D '64. (MIRA 18:3)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110013-5

PONOMARENKO, A.V., ispolnyayushchiy obyazannosti dotsenta; VINOGRADOV, P.V.; starshiy nauchnyy sotrudnik; MIKHAYLOV, K.G., agronom-entomolog; IYERUSALIMSKAYA, K.P., studentka

Controlling soil pests in checkrowed corn fields. Zashch. rast. ot vred. i bol. 5 no.4:24-27 Ap '60. (MIRA 13:9)

1. Rostovskiy universitet (for Ponomarenko, Iyerusalimskaya).
2. Zernogradskaya selektsionnaya stantsiya (for Vinogradov).
3. Sal'skiy nablyudatel'nyy punkt (for Mikhaylov).
(Corn (Maize))--Diseases and pests)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110013-5

PONOMARENKO, A.V.

Insects damaging oak plantations in eastern districts of Rostov Province [with summary in English]. Zool. zhur. 37 no.11:1645-1658 N '58. (MIRA 11:12)

1. Kafedra zoologii bespozvonochnykh i entomologii Rostovskogo gosudarstvennogo universiteta.
(Rostov Province--Forest insects)
(Oak--Diseases and pests)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110013-5

PONOMARENKO, A. V.

"Harmful Insects Found in Young Oak Plantings in the Eastern Regions of Rostovskaya Oblast and the Development of Measures to Control Them." Cand Biol Sci, Rostov State U, Rostov na-Donu, 1953. (RZhBiol, No 1, Jan 55)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (13) SO: Sum. 598, 29 Jul 55

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110013-5

DOBROVOL'SKIY, B.V.; PONOMARENKO, A.V.; POMALEN'KAYA, O.T., redaktor; MIKHAYLOVA, T.A., tekhnicheskiy redaktor

[Chemical control of injurious insects in the soil] Khimicheskaia bor'ba s vrednymi nasekomymi v pochve. Moskva, Izd-vo Moskovskogo universiteta, 1956. 114 p. (MLRA 9:10)
(Insecticides)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110013-5

DOBROVOL'SKIY, Boris Vladimirovich; PONOMARENKO, Aleksandr Vladimirovich; ENDEL'MAN, G.N., red.

[Chemical control of harmful insects in the soil] Khimicheskaia bor'ba s vrednymi nasekomymi v pochve. Moskva, Izd-vo Mosk. univ., 1965. 129 p. (MIRA 18:10)

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V

The increase of sugars in sorghum, Jerusalem artichoke and chicory by mineral fertilizers. B. Ponomarenko. *Nauk. Zapiski Tsukrovoi Prom.* 10, No. 27, 165-80 (1933).—Complete mineral fertilizers increase the yields of Jerusalem artichoke and chicory but decrease the sugar contents. K alone noticeably increases the total sugars and sucrose in sorghum but only slightly in the Jerusalem artichoke and chicory.

V. E. Balkow

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B-III-1

BC

[redacted]

(I) and (III).

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BC

Increase of sugars in sorghum, Jerusalem artichoke, and chicory by mineral fertilizers. [illegible] (Nauk. Zapiski Tsuk. Prom., 1933, 10, No. 27, 165—180).—Complete mineral fertilizers increase the yields of Jerusalem artichoke (I) and chicory (II), but decrease the sugar content. K increases total sugars and sucrose in sorghum, but only slightly in (I) and (II). Cz. Ans.

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PONOMARENKO, B.

Our "Palace of Culture." Neftianik 8 no.1:26 Ja '63. (MIRA 16:3)

1. Chlen pravleniya Dvortsa kul'tury im. M.Azizbekova.
(Azerbaijan--Workingmen's clubs)

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PONOMARENKO, B.

Confidence gained through work. Sov. profsoiuzy 19 no.19: 29 O '63. (MIRA 16:11)

1. Predsedatel' soveta Vsesoyuznogo obshchestva izobretateley i ratsionalizatorov neftepromyslovogo upravleniya "Azizbekovneft'", Baku.

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DAVYDOV, V., kand. tekhn. nauk; PONOMARENKO, B., kand. tekhn. nauk

Work clothes for forest workers. Okh. truda i sots. strakh. no.6:80-81 Je '59. (MIRA 12:10)

(Work clothes)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001342110013-5

PONOMARENKO, B.A.

For new labor achievements. Neftianik 7 no.12:8-9 D '62.
(MIRA 16:6)

1. Predsedatel' soveta Vsesoyuznogo obshchestva izobretateley i ratsionalizatorov Nefteprovyslovogo upravleniya Azizbekovneft'.
(Azerbaijan—Oil well drilling—Equipment and supplies)

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PONOMARENKO, B.A.

Efficiency promoters of the Azizbekovo Oil Trust. Neftianik 7 no.9:16-17 S '62. (MIRA 16:7)

1. Neftepromyslovoye upravleniye Azizbekovneft'.
(Compressors)

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PONOMARENKO, B.A., inzh.

Efficiency promoters of the Oil Field Administration of the Azizbekovo Petroleum Trust. Neftianik 7 no.7:21-22 Jl '62. (MIRA 16:3)

1. Byuro po delam ratsionalizatsii i izobretatel'stvu gazokompressornogo tsekha neftepromyslovogo upravleniya Azizbekovneft'.
(Gases, Compressed)

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PONOMARENKO, B.P.

Fourth cruise of the research ship "M.Lomonosov" in the Atlantic Ocean. Biul.Okean.kom. no.6:43-44 '60. (MIRA 14:7)
(Atlantic Ocean--Oceanographic research)

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PROCESSES AND PROPERTIES INDEX

Chemical composition of dusts in the cotton weaving industry. B. V. Ponomarenko. *Hig. Truda i Tekh. Bezopasnosti* 14, 87-9(1936); *Chimie & industrie* 36, 924-5.—The compn. of the dust varies widely in different mills and with the nature of the cotton and the size of the dust particles. SiO_2 contents of 2.96-25.37, Fe_2O_3 4.19-24.13, acid-sol. CaO 15.04-59.65, silicate CaO 0-11.63, and acid-sol. MgO up to 7.65%, were found. Org. impurities and fiber debris generally constitute the larger portion of dusts in the textile industry. A. P.-C.

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The preparation of printing dyes. B. V. Ponomarenko. *Legkaya Prom.* 1938, No. 7-8, 94-108; *Khim. Referat. Zhur.* 2, No. 3, 116-17(1939).—The production of printing dyes was investigated in the lab. and on production scale from the *hygienic standpoint*. The prepn. of pastes not with oil and with acetol, and the prepn. of $Al(NO_3)_3$ are harmless. Some processes are harmful owing to the gases and vapors evolved. The harmful gases which should be removed are SO_2, Cl_2, NO_2, vapors of AcOH, CH_2O, PhOH and HCOOH. The heating of the indanthrene printing dyes is injurious because of the evolution of HCOOH. The diazo solns. produce injurious oxides of N.

W. R. Henn

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Chemical characteristics of the dust of linen mills. Yu. I. Mirtova and B. V. Pomomarenko. *L'no-Pen'ko-Dubilnaya Prom.* 8, No. 6, 34-7(1938); *Chem. Zentr.* 1938, II, 3228.—The dust of linen mills is chiefly of plant origin. The SiO_2 content, as calcd. on the dry dust, falls within the limits of 0.25-1.77% and is only about a tenth that of the dust of cotton mills. M. G. Moore

METALLURGICAL LITERATURE CLASSIFICATION

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