

PAJEWSKI, K.; STARZYNSKA, M.; NIESPODZIEWANSKI, Z.

"Calcium Plumbate, a New Rust-Preventing Coloring", Biuletyn, p. 21A,
(INZYNIERIA I BUDOWNICTWO, Vol. 11, No. 8, Aug. 1954, Warszawa, Poland)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, No. 5,
May 1955, Uncl.

PAJEWSKI, K.
PAJEWSKI, K.

V. Kiselev and A. Abashkina's Production of Lacquers, Varnishes, and Paints: a book review.

p. 152 (Wiadomosci Chemiczne) Vol. 11, no. 2, Feb. 1957, Wroclaw, Poland

SO: MONTHLY INDEX OF EAST EUROPEAN ACCESSIONS (EEAI) LC, VOL. 7, NO. 1, JAN. 1958

PAJEWSKI, W.

The inhibitive effect of gases on the oxidizing or reducing effects of ultrasonic energy. P. Doman. *Proc. Polish Conf. Ultrasonics, 2nd, 1956, 17-19* (Pub. 1957) (in English).

The potential of the Pt electrode in 0.1N $K_4Fe(CN)_6$ was increased and in $K_3Fe(CN)_6$ decreased, by 10-25 mv. after 6 min. irradiation by an 800-kc. 15-w./sq. cm. generator. The effect is attributed to α -ionization. Intermolecular forces and acoustic properties of liquids. ^{2/} Franciszek Kuczera (Wyższa Szkoła Roln., Olsztyn). *Ibid.* 66-8 (in English).

By substitution of a Lennard-Jones (6-n) intermol. potential in the Kudriavtsev equation for the velocity of sound propagation, an equation was obtained by which the exponent n was calcd. from exptl. data and found between 12 and 18 for 30 liquids (cf. *C.A.* 52, 15994a). Hence the relative thermal coeff., α , was related to that of thermal expansion, β , by the equation $\alpha = (n/6)\beta$, which was verified, again with $14 \leq n \leq 18$. Determination of electric, piezo electric, and elastic constants of barium titanate ceramics. ² Win-

centy Pajewski (Polska Akad. Nauk, Warsaw). *Ibid.* 71-73 (in English).—Math. Compliance, dielec. const. and piezoelec. tensors are theoretically considered and relations between various matrix elements are derived. Producing suspensions by means of ultrasonics. A. Piotrowska, M. Górska, and J. Zieniuk (Inst. Chem. Ogólnej, Warsaw). *Ibid.* 77-82 (in English).—A few expts. on carbon black-water and $MnCO_3$ -rape oil systems are described. Luminescence and oxidizing action of ultrasonic waves in water in the presence of rare gases. R. O. Prudhomme (Inst. Pasteur, Paris). *Ibid.* 83-6 (in French).

Water, degassed and satd. with He, Ne, Kr, Xe, air, O, or N, was exposed for 30 min. to the action of 860-kc. ultrasonic waves. (6 w./sq. cm.). Luminescence and formation of H_2O_2 were observed. O plays no essential role. Effect of ultrasonic waves on

Diatr: 4E2c(j)/4E3c 2 cys

621.315.612.4.002

✓ 6119

Pajewski W. Technological Problems of Dielectric Ceramics of Very High Dielectric Constant.

„Zagadnienia technologicznej ceramiki dielektrycznej o bardzo duzym E” (Prace Inst. Tele- i Radiot, No. 3), Warszawa, 1958, ITR, 39 pp. 24 figs., 2 tabs.

A discussion of the problem of the synthesis of raw materials used for the production of ceramics having very high dielectric constant. Special consideration is given to the synthesis of barium titanate from technical titanium oxide and barium carbonate. The influence of various impurities on properties of barium titanate used as initial raw material is stated. An investigation was made of the influence of impurities such as silicon, strontium, magnesium, sodium, aluminium, calcium etc. The quality of the raw material was examined by indirect method, using specimens of ceramics made of this raw

material; the properties of these were examined by means of X-ray apparatus, of microscope and by dielectrical measurements. Next were studied the conditions of obtaining ceramics with satisfactory dielectrical and mechanical properties. Special consideration is given to the reproducibility of the results obtained. Quality of ceramics is influenced not only by raw materials used, but also by chemical composition and by the method of preparing the mixture. In some cases,

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Pajewski W. Technological Problems of Dielectric Ceramics...

for instance, mixing of oxides of appropriate metals proved most useful, while in other cases, mixing of ready made titanates was more advantageous. An examination was made of a number of solid solutions of barium titanate with stannates and titanates of magnesium, barium, bismuth, lead and calcium. The results of these investigations made it possible to find the composition of dielectric material having determined dielectric characteristics.

7/2 OR
M.H.

PAJEWSKI, W.

8

5655 021.315.612.4.08 : 537.220.1 : 621.398.611.21.08
Pajewski, W. -- Measurement of Piezoelectric and Elastic Constants of
Titanate Ceramics. 15

„Pomiary współczynników piezoelektryczności i sprężystości ceramiki tytanianowej”. (Prace Inst. Tele- i Radiot. No. 3), Warszawa, 1957.
Inst. Tele- i Radiotechn., 22 pp., 3 figs.

Parameters are here specified defining piezoelectric and elastic properties of piezoelectric ceramics. In view of the somewhat inadequate treatment of this subject in technical literature, not suitable for practical application, a method of measuring these parameters is presented. The piezoelectric constant is determined on a vibrating bar polarized in the direction of the vibrations. Formulae are given for the equivalent circuit of a bar vibrating thus, allowance being made for the fact that electric conditions are in this case different from those of a bar vibrating perpendicularly to the direction of polarization. Thickness vibrations of plates are used for determining the elastic constant. This makes measurements of parameters possible, most essential in the research over properties of piezoelectric ceramics. The method described has been verified experimentally in the course of work on the technology of such ceramics.

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Phlewski, W.

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Phlewski W. Titanate Ceramics.

031.315.812.4:537.228.1

POL . A

"Ceramika tytanianowa". (Prace Przem. Inst. Telekom. No. 12),
Warszawa, 1954, PWT, 6 pp., 7 figs., 3 tabs.

Research work with a view to obtaining titanate ceramics with high dielectric constant ($\epsilon_r = 1000 \dots 6700$) has been conducted at the Industrial Telecommunication Institute (PIT). The object was to achieve high dielectric constant while keeping dielectric loss to a minimum. The article briefly presents the results obtained, the influence of various factors affecting the dielectric constant and the dielectric loss. The investigations led to the conclusion that in the majority of cases the decrease of dielectric loss involves decrease of the dielectric constant. The article is concluded with a review of technical data concerning the piezo-electric ceramics obtained, which may find wide application in the design of ultrasonic transducers.

MIT

PAJEWSKI, W.

Titanate ceramics. p.14. (SPRAWOZDANIA Z POSIEDZEN, Warszawa, Vol. 5, No. 12, 1954)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, No. 6, June 1955,
Uncl.

PAJEWSKI, W.

"Ferroelectric materials and their applications." p. 36.
(PRAGE, Vol. 5, No. 13/14. 1954. Warszawa, Poland)

SO: Monthly List of East European Accessions. (EEAL). LC. Vol. 4, No. 4,
April 1955. Uncl.

DTA

4

1392 537.228.1 : 548.5 : 621.396.611.21
Pajawski-W. Controlling of Thermal Frequency Factor of Round
Shaped Quartz Crystal Plates, AT and BT Cut, by Means of Grinding the Edges

„Regulowanie współczynnika termicznego częstotliwości okrągłych płytek kwarcowych cięcia AT i BT przez szlifowanie krawędzi”.
Prace Państw. Inst. Telekom., Warszawa, 1950, PIT. 6 pp., 2 figs.

Adaptation of the method for spectrograph ISP-22. Influence of copper content on the analytic results. Optimal analytic conditions. The advantages of the proposed method

Description of a method to obtain zero thermal frequency factor in wide temperature range of round shaped plates, AT and BT cut, by means of grinding edges. A quantity of piezoelectric oscillators has been produced with such a low thermal frequency factor, that thermostatic control was not necessary.

4

PTA

1393 537.228.1 : 548.5 : 621.396.611.31
Pajewski W. Growing of Piezoelectric Crystals.
"Hodowienie kryształów piezoelektrycznych". (Prace Państw.
Inst. Telekom.). Warszawa, 1950, PIT, 4 pp., 4 figs.
This article gives a method of growing piezoelectric crystals.
using thermostat of proper design. Results and observations
obtained are discussed.

4

PTA

1394 537.228.1 : 548.1 : 621 396 611.21.08
Pajewski W. Determination of X and Y Axes of Quartz Crystals
by Means of Shock Wave Pattern
„Wyznaczanie osi X i Y kryształów kwarcu przy pomocy figur
udarowych”. (Prace Państw. Inst. Telekom.), Warszawa, 1950. PIT.
2 pp., 3 figs.

A new method, developed in the State Institute of Telecommu-
nications, of determining X and Y axes of quartz crystals, based
upon observation of wave pattern appearing on grinded and polished
surfaces, struck with a steel ball, vertically to axis Z. Accuracy of
determination of X axis by this method is of the order of one degree.

L 47413-66 EWP(e) WH

ACC NR: AP6027200

SOURCE CODE: CZ/0055/66/016/005/0423/0430

AUTHOR: Pajewski, W.

ORG: Institute of Telegraph and Radio Engineering, Warsaw

TITLE: Highly stable ¹⁵quartz properties

SOURCE: Chekhoslovatskiy fizicheskiy zhurnal, v. 16, no. 5, 1966, 423-430

TOPIC TAGS: quartz, piezoelectric crystal, resonator, electric parameter

ABSTRACT: The article deals with some problems concerning the development and technology of laboratory production of highly stable quartz piezoelectric resonators. The results of investigating the effect of technology on the electric parameters and on the aging of quartz are given. Orig. art. has: 12 figures and 4 formulas. [Based on author' s abstract] [NT]

SUB CODE: 20/ SUBM DATE: 21Oct65/ OTH REF: 002/

Card 1/1 vlr

36
B

PAJEWSKI, W.
POLAND/Electricity - Dielectrics

G-2

Abs Jour : Ref Zhur - Fizika, No 3, 1957, No 6973

Author : Pajewski, W.
Title : Ferroelectric Materials and Their Application

Orig Pub : Prace Frzemysl Inst. telekomun., 1954, 5, No 13=14, 36-40

Abstract : Survey. Bibliography, 33 titles.

Card : 1/1

PAJEWSKI, W.
POLAND/Electricity - Semiconductors

Abs Jour : Referat - Fizika, No 5, 1957, 12131

Author : Pajewski, W.
Inst : -
Title : Titanate Ceramics.

Orig Pub : Prace. Przemysl. Inst. telekomun., 1954, 5, No 12, 14-19

Abstract : Investigations were performed in the laboratories of the Commercial Institute for Communication on the study of a titanate ceramic, having very dielectric constants ($\epsilon = 10^3$ -- 6×10^3). The purpose of the work was to obtain a material with a maximum ϵ and minimum losses. The methods for obtaining a ceramic and the influence of various factors on ϵ and $\tan \delta$ are indicated. It is shown that a reduction in $\tan \delta$ takes place almost always in conjunction with a reduction in the value of ϵ . In conclusion, the author describes properties of the resultant piezoelectric ceramics, which can have wide

Card 1/2

PAJEWSKI WINCENTY

POLAND/Electricity - Dielectrics

G-2

Abs Jour : Ref Zhur - Fizika, No 2, 1958, No 3668

Author : Peikara Arkadiusz, Pajewski Wincenty

Inst : Not Given

Title : Stable Dielectrics: Development of Research and Application

Orig Pub : Zesz. probl. nauki polsk., 1957, No 8, 143-176; diskus.,
389-390

Abstract : No abstract

Card : 1/1

PAJEWSKI, Wincenty, doc.

Overtone piezoelectric oscillators (15-120 Mc/s). Prace
Inst teletechn 8 no.1:27-48 '64.

PAJEWSKI, Wincenty, doc.

Searching for ceramic molding materials for piezoelectric resonators.
Prace Inst teletechn 5 no.4:19-40 '61.

PAJEWSKI, Wincenty, doc.

Piezoelectric quartz oscillators for frequency stabilization of
higher class generators. Prace Inst telotechn 6 no.1:3-18 '62.

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P/022/60/000/007/001/004
A225/A026

9.2180

AUTHOR: Pajewski, Wincenty, DocentTITLE: The Technological Problems in Growing Quartz Crystals 11

PERIODICAL: Przegląd Telekomunikacyjny, 1960, No. 7, pp. 199-203

TEXT: A few technological problems are presented, which are encountered when growing quartz crystals on larger than laboratory scale. The autoclave in which the crystals are grown must be perfectly air-tight, resistant to corrosion, and must maintain a constant internal pressure of about 1200 atm at a temperature of about 400°C (higher, about 410-420°C, at the bottom where quartz fragments or quartzite are deposited in a dissolving solution, lower - about 380-390°C - in its higher part where crystals are grown around the crystal seeds). The locking devices of three different autoclaves are shown: of that used by the Bell Laboratories (Fig. 2: here, the lid sides are welded to the cylinder of the autoclave); by the Instytut Tele- i Radiotechniczny (Telecommunication and Radio Engineering Institute) in Warsaw (Fig. 3: a piston is pulled initially by a screw against a gasket, later by the pressure building up inside), and by the Crystallographic Institute of the Soviet Academy of Sciences (Fig. 4: locked also by

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The Technological Problems in Growing Quartz Crystals

the internal pressure on a piston resting on a copper gasket). Comparatively the easiest one to open is the Soviet model. The Polish model is heated by a chromium-nickel electric heater embedded in fire-clay and placed at the bottom of the autoclave. The heat is controlled by a FeCo thermocouple connected to a thermostat. It supplies temperatures up to 650°C regulated by the thermostat so as to obtain a temperature of about 400°C in the autoclave. FeCo thermocouples placed in various parts of the autoclave allow to register exact temperatures and to maintain them at the necessary level within 5°C (as shown on Fig. 5). According to Walker (Ref. 9) the solution used should be a watery solution (0.5-1 N) of NaOH. The Polish Institute experimented also with NaCO₃, but the crystals obtained were less pure. A proper selection of the seed laminae may determine the direction of the crystal's growth. Figure 6 shows the speed of crystal growth in various directions according to Bechman and Hal, while Figure 7 shows the laminae used as crystal seeds by the Bell Laboratories, by General Electric and Brush. Twin-crystals may be grown from laminae cut from twin crystals, but unlike to nature - the tension in both parts will always be different. To pre-

Card 2/3

PAJEWSKI, WINCENTY
~~PAJEWSKI, W.~~

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PHASE I BOOK EXPLOITATION POL/5981

Symposium on Electroacoustic Transducers. Krynica, 1958

Proceedings of the Symposium on Electroacoustic Transducers [held in] Krynica, 17-26 September, 1958. Warsaw, Panstwowe Wydawnictwo Naukowe, 1961. 442 p. Errata slip inserted. 630 copies printed.

Sponsoring Agency: Polish Academy of Sciences. Institute of Basic Technical Problems.

Ed. in Chief: Janusz Kacprowski, Doctor of Sciences; Editing Committee: Ignacy Malecki, Professor, Doctor of Sciences; Wincenty Pajewski, Doctor; and Jerzy Wehr, Master of Sciences; Secretary: Juliusz Mierzejewski.

PURPOSE: This book is intended for physicists and acoustical engineers.

COVERAGE: The book is a collection of detailed research papers constituting the proceedings of a conference held in Krynica from 17 to 26 September 1958 under the auspices of the Institute of Technical Problems, Polish Academy of Sciences.

Card 1/8

35

Symposium on Electroacoustic Transducers

POL/5981

The following basic problems are treated: 1) theoretical research on energy transformation processes; 2) experimental development of new types of transducers; 3) electroacoustic measurements; 4) technology of piezoelectric and magnetostrictive materials; 5) construction of transducers for technical needs; and 6) design of acoustic transducer systems. No personalities are mentioned. References (if any) follow the individual articles.

TABLE OF CONTENTS:

Preface	3
Problems of Research Work on Electroacoustic Transducers. Ignacy Malecki, President of the Conference	5
Ch. 1. General Problems and Theory of Electroacoustic Transducers	
1. Classification of electromechanical transformation methods in the light of the tasks faced within [sic] the design and construction of electroacoustic equipment. V. S. Grigor'yev	7

Card 2/8

S/274/63/000/001/009/020
D469/D308

AUTHOR: Pajewski, Wincenty

TITLE: Piezoelectric quartz oscillators used for frequency stabilization in high quality signal generators

PERIODICAL: Referativnyy zhurnal, Radiotekhnika i elektrosvyaz', no. 1, 1963, 32, abstract 1B237 (Prace Inst. Tele- i radiotechn., 1962, 6, no. 1, 3-18 (Pol.: summaries in Eng., Rus., Fr. and Ger.))

TEXT: The author considers causes affecting the frequency stability of generators stabilized by quartz crystals, as well as methods of increasing the frequency stability of piezoelectric quartz oscillators. The results discussed concern quartz crystals with Y, DT and AT cuts. It is established that AT cut crystals maintain highest frequency stability at their fundamental and harmonic frequencies. The aim of these investigations is to develop high stability quartz resonators for uses as frequency standards.

[Abstracter's note: Complete translation]

Card 1/1

which comprises a 220 V...
channels being...
and an audio bandwidth...
to 2.1 kc/s. The first carrier F_1 is employed to
actuate an automatic gain control circuit in the re-

achieved.

621 395 621 621 621 216 01

PAJGRT, M.

Telephone receiver with a single side band for carrier links in high-tension lines. p. 268.
SLABOPROUDY OBZOR, Prague, Vol. 15, no. 6, June 1954.

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

PAJGRT, H.

Dlouhy, M. Design problems of unserviced transmitting stations; for a multi-channel telephone system with 12 or 24 channels on symmetric coilless cables. p. 57. SLABOPROUDY OBZOR, Praha, Vol. 16, no. 2, Feb. 1955.

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, no. 10, Oct. 1955, Uncl.

PAIGET, M.

CZECH

681,395.64 : 621,395.64

3425. Problems in the design of unattended repeater stations (for the carrier telephony system with 12 or 24 channels, by symmetrical cables without coil loading). M. PAIGET AND M. DLOUHÝ. *Stábo-průmysl Obč. 16, No. 7, 51-57 (1955)* in Czech.

Layout and equipment of a repeater station are discussed from the point of view of the requirements recommended by the C.C.I.P., particular attention being paid to the problem of its uninterrupted operation and the measures against valve and power supply failure. It is thought that the reliability of a repeater station can be substantially increased by employing special valves and by providing an emergency rotary converter (~220 V), which will feed the equipment from a battery. Methods of fault-finding in and control of the unattended repeaters are reviewed and compared. The paper contains a large number of diagrams and photographs, and 27 references.

R. S. SIDOROVICH

① K. K.

PAJGRT, M.

Paigrt, M; Dlouhy, M. Design problems of unserviced transmitting stations; for a multichannel telephone system with 12 or 24 channels on symmetric coilless cables. p. 57.

SO: Monthly List of the East European Accession, (EEAL), LC. Vol. 4, no. 10, Oct. 1955. Uncl.

PAJGRT, M.

"Nonlinear distortion of one-phase telecommunication equipment." p. 135

SDELOVACI TECHNIKA. Praha, Czechoslovakia, Vol. 3, No. 5, May, 1955

Monthly List of East European Accessions (EEAI), LC, Vol. 8, No. 9, September, 1959
Unclas

. PAJGT, M.

Multiplex wide-band feedback amplifiers. p. 63.

Vol. 17, no. 2, Feb. 1956

RUDY

Praha, Czechoslovakia

Source: East European Accession List. Library of Congress
Vol. 5, No. 8, August 1956

PAJGRT, M.

Multiplex wide-band feedback amplifiers. (Conclusion) p. 134.
SLABOPROUDY BOZOR, Prague, Vol. 17, no. 3, March 1956.

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

PAJGRT, M.

Amplifiers with gain correctors.

P. 206, (Sdelovaci Technika) Vol. 5, no. 7, July 1957, Praha, Czechoslovakia

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

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PAJGRT, M.

TECHNOLOGY

periodicals: SDELKVAZI TEHNIIKA Vol. 6, no. 9, Sept. 1958

PAJGRI, M. A design for power stages of class A amplifiers. p. 328.

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

PAJGRT, O.

Drying and steaming woollen tissues. p. 67.

TEXTIL. (Ministerstvo lehkého průmyslu) Praha, Czechoslovakia. Vol. 14, no. 2, Feb. 1959.

Monthly list of East European Accessions (EEAI), IC, Vol. 8, no. 10, Oct. 1959. Uncl.

PAJORT, M.

Measuring the stability of feedback transistor repeaters. p. 542.

SLABOPROUDY OBZOR (Ministerstvo vacebenibe strojirenstri, Ministerstvo speju
a Ceskoslovenska vedecke-technicka spolecnost, sekce elektrotechnika) Praha,
Czechoslovakia, Vol. 20, no. 9, Sept. 1959

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

Uncl.

PAJGRT, M.

Measurements of the stability of transistor amplifiers. p. 372.

SDELOVACI TECHNIKA. (Ministerstvo strojirenstvi) Praha, Czechoslovakia.
Vol. 7, no. 10, Oct. 1959.

Monthly List of East European accession, (EEAI), LC, Vol. 8, No. 12, Dec. 1959
Uncl.

PAJGRT M. ind.

Multiple-feedback systems. Slaboproudy obzor 24 no.5:313-
314 My '63.

PAJGRT, Miloslav

Z/039/60/021/01/011/040
E140/E135

AUTHOR: Miloslav Pajgrt (Engineer)

TITLE: Wideband Transistor Amplifiers in Telephone Technique

PERIODICAL: Slaboproudý Obzor, 1960, Vol 21, Nr 1, pp 41-43

ABSTRACT: The article gives a brief review of the state of transistor cable amplifiers in test operation in the Soviet Union for the last two years. After a brief general discussion of the problem according to the recommendations of CCIT three types of Soviet amplifiers are described.

Type VKUS-24 (Fig 3): transmitted band 12 - 108 kc/s, gain > 4 Np. The amplifiers are placed directly in the widened lead envelope of the cable and have operated for more than 12 months without fault.

Type K-24P (Figs 2 and 4): band 12 to 108 kc/s, gain 4.8 - 4.3 Np, noise background referred to input - 14.8 Np, at 0 Np output level the second harmonic is attenuated by > 8.5 Np and third harmonic > 10 Np.

The power supply for this amplifier is described in some detail.

Card
1/2

PAJGRT, Miloslav, inz.

Designing transistorized R.F. Amplifiers. Slaboproudy obzor 21 no.12:
714-719 D '60. (EEAI 10:3)

1. Vyzkumny ustav telekomunikaci, Praha.
(Transistors) (Amplifiers)

PAJGRT, Miloslav, inz.

An example of designing a push-pull amplifier with OC30 transistors. Sdel tech 9 no.8:286-288 Ag '61.

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Z/014/61/000/008/001/007
E192/E382

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AUTHOR: Pajgrt, Miloslav, Engineer


TITLE: An Example of the Design of a Push-pull Amplifier
with OC30 Transistors

PERIODICAL: Sdělovací technika, 1961, No. 8, pp. 286 - 288

TEXT: The design approach is based on the formulae available from literature (Ref. 1 - R.F. Shea - Principles of Transistor Circuits, Czech. translations, SNTL, Prague, 1958; Ref. 2 - J. Budinsky - Low-frequency transistor amplifiers, SNTL, Prague, 1959).

The circuit of the amplifier to be designed is illustrated in Fig. 1. The main criterion for the design is the determination of the optimum operating point for the transistors such that the output power will be a maximum. The suitable operating point for the transistors can be set by the variable resistor R_1 . Further, it is possible to include a means of thermal stabilisation of the collector current by connecting a thermistor R_3 into the circuit. First, it is assumed that

Card 1/3



PAJGRT, M. Tošlar

COUNTRIES: CZECHOSLOVAKIA

Author: PAJGRT, Miloslav, Ed., Research Institute for Telecommunications (Vysoký ústav telekomunikací), Prague.

Title: "An Example of Designing a Push-Pull Amplifier with OC 30 Transistors."

Source: Prague, Střevická technika, Vol IX, No 8, 1961, pp 260-266.

Abstract: To find the maximum output power of the transistor, the author uses a graphic method. He illustrates two cases of amplifiers--classes A and B--and compares with the transistor amplifier. The most important part, on decreasing the output power, has an increased ambient temperature and allows a reduced voltage of the DC source. Comparing the maximum output powers of class A or B amplifiers with OC 30 transistors, the author derives a ratio of 1:4.63 1/2

CZECHOSLOVAKIA

Source: Pravda, Sviatopuk tehnika, Vol IX, No 8, 1961,
pp 286-288.

(larger), but a comparison of the proper coefficients of
power amplification results in a ratio of 8.3:1 (smaller).

2/2

PAJGRT, Miloslav, inz.

Substitute dipole tunnel-diodes. Slaboproudy obzor 22 no.12:770-771
D '61.

(Diodes)

PAJGRT, Miloslav, inz.

Determining the admittance parameters of radio frequency transistors
by the means of substitute two-pole networks. Sdel tech 10 no.2:
55-56 F '62.

PAJGRT, Miloslav, inz.

Frequency dependence of the Y_e parameters of the 11401 type transistor. Slaboproudý obzor 22 no.3:145-148 Mr '61. (EEAI 10:6)

1. Vyzkumny ustav telekomunikaci, Praha.
(Transistors)

PAJGRT, Miloslav, inz.

Broad-band transistorized amplifier. Slaboproudny obzor 24
no.1:43 Ja '63.

PAJGRT, Miloslav, inz.

Note on the feedback loop disconnecting in amplifiers.
Sdel tech ll no.2:41-42 F '63.

PAJGRT, Miloslav, inz.

Admittance parameters of the OC613 transistor in the frequency band up to 50 MHz. Slaboproudny obzor 24 no.2:108-109 F '63.

PAJGRT, Miloslav, inz.

A broad-band amplifier with OC872 transistors for the sixty-channel telephone system. Slaboproudy obzor 24 no.3:173 Mr '63.

PAJGRT, Miloslav, inz.

Requirements on intermediate amplifiers of multichannel systems from the viewpoint of basic and intermodulation noises. Slaboproudý obzor 24 no.6:340-342 Je '63.

1. Vyzkumny ustav telekomunikaci, Praha.

PAJGRT, Miloslav, inz.

Influence of the feedback on nonlinear distortion in transistorized amplifiers. Slaboproudý obzor 24 no.10:586-590
0 '63.

1. Vyskumny ustav telekomunikaci.

PAJGRT, Miloslav, inz.

Effect of the small thermal inertia of mesa transistors on the frequency response of their Y parameters. Slaboproudy obzor 24 no. 11:677-678 N°63.

ACCESSION NR: AP4038993

Z/0014/64/000/006/0173/0175

AUTHOR: Pajgrt, Miloslav (Engineer); Vojta, Ludomir (Engineer)

TITLE: Some little-known properties of high-frequency power transistors

SOURCE: Sdelovaci tehnika, ¹²⁻no. 5, 1964, 173-175

TOPIC TAGS: communications engineering, HF amplifier, amplifier circuit, transistorized amplifier, HF transistorized amplifier, transistor, solid state physics, solid state circuitry, network analysis, circuit theory, network synthesis, HF power transistor, power transistor

ABSTRACT: High-frequency power transistors are finding an ever-increasing use. Their technical parameters, which are put out by the manufacturers, are directed toward the requirements of pulse engineering. In addition to the limiting values for current, voltage, collector losses, frequencies f_{α} or f_{β} and direct current transfer characteristics which are generally given for a low frequency transistor, there are additional requirements for a short switch-over period and low saturation resistance. When the HF power transistor is to be used in HF amplifier circuits, some other data, which is dependent upon frequency, must also be known. The power gain A_v and input impedance Z_{input} must especially be known. A much better index

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ACCESSION NR: AP4038993

than the cutoff frequencies f_{α} , f_{β} and f_T could be the frequency f_{v10} , with which the class A power gain of the amplifier is $A_v = 10$. The relationship of the transistor's power gain to frequency is given by the equation

$$|A_v| = \frac{U_2}{U_1} \cdot \frac{I_2}{I_1} = A_u \cdot A_i \quad (1)$$

The relationship of the gain A_v , and input Z_{input} and output Z_{output} impedances to collector current in a 10B10-10R transistor were measured at a frequency of 500 cycles and voltage of $U_{CE} = 8$ V. Results are plotted on a curve. The properties of this type of transistor are in marked contrast to electron tubes with comparable power. This includes the very low input impedance in the transistor, the nonlinear relationship of all of the transistor's impedance parameters and excess phase shift of the transistor's transmission factor. Three new and heretofore unpublished values are given. This is the cutoff frequency f_{v10} , the cutoff frequency f_{α} , and the deviation ΔQ from the minimum phase of the transistor's transmission factor. Orig. art. has: 11 figures, 1 table and 7 equations.

ASSOCIATION: none

Card 2/3

ACCESSION NR: AP4038993

SUBMITTED: 00

SUB CODE: EC, GP

DATE ACQ: 09 Jun 64

NO REF SOV: 000

ENCL: 00

OTHER: 006

Card 3/3

PAJGRT, Miloslav, inz.

Protection of transistor amplifiers from overvoltage.
Slaboproudy obzor 25 no.4:236-237 Ap '64.

PAJGRT, Miloslav, inz.

Attenuator pad with semiconductor diodes. Sdel tech 12 no.7:
260-261 J1 '64.

PAJGRT, Miloslav, inz.

Measurement of amplifier stability without disconnecting
the feedback loop. Sdel tech 13 no.1:15-16 Ja '65.

L 10471-66

ACC NR: AP6003701

SOURCE CODE: CZ/0039/65/026/001/0044/0047

AUTHOR: Pajert, Miloslav--Payert, M. (Engineer)

30
B

ORG: Telecommunications Research Institute, Prague (Vyzkumny ustav telekomunikaci)

TITLE: Bridge-type feedback in transistorized amplifiers 25

SOURCE: Slaboproudy obzor, v. 26, no. 1, 1965, 44-47

TOPIC TAGS: transistorized amplifier, amplifier design, circuit design, electronic feedback

ABSTRACT:

Simplified formulas are presented to facilitate and speed up the computation of bridge circuits at the input and output of amplifiers. Unlike in the case of tube amplifiers, the influence of the internal feedback of the transistors is also taken into consideration. As an example a circuit diagram is presented in which the input bridge is formed with the aid of the winding of the output transformer, whereby the input transformer is excluded from the feedback circuit and thus cannot deteriorate the stability of the amplifier. Orig. art. has: 4 figures and 8 formulas. [JFRS]

SUB CODE: 09 / SUBM DATE: 08May64 / ORIG REF: 004 / OTH REF: 001

UDC: 621.396.645.5

Card 1/1

PAJGRT, Miloslav, inz.

Bridge feedback of transistor amplifiers. Slatoproudy obzor
26 no.1:44-47 Ja '65.

1. Research Institute of Telecommunication, Prague. Submitted
May 8, 1964.

PAJGRT, O. (Czechoslovakia)

Special finishing methods for polyester fiber containing
fabrics. Magy textil 16 no.9:418-421 S '64.

PAJGRT, O.

Drying and steaming woolen tissues. p. 349.

TESTIL (Ministerstvo lehkeho prumyslu)
Praha, Czechoslovakia, Vol. 14, no. 9, Sept. 1959.

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

Uncl.

CZECHOSLOVAKIA/Chemical Technology. Chemical Products and
Application, Part 4. - Dyeing and Chemical
Treatment of Textile Materials.

H

Abs Jour: Referat. Zhurnal Khimiya, No 21, 1958, 72699.

Author : Oldrich Pajgrt.

Inst :

Title : Elution of Oilers and Treatment of Goods of Coarse Wool. (

Orig Pub: Textil, 1956, 11, No 3, 84-85.

Abstract: Description and results of studies of Czechoslovak
oilers, oil D1 [90% of white mineral oil and 10% of
emulsifier (E)]; oil DLH (same composition with the
addition of 2% of a wetting agent); oil D2 (80% of
mineral oil, 12% of fatty and sulfo acids and 8% of
E). Sulfonate of "Makhagon" of the composition
 $\text{NaO}_3\text{S}(\text{R}')\text{CHCH}_2\text{CH}_2\text{CH}(\text{COONa})\text{CH}_2$, where R' is an alkyl

Card : 1/2

CZECHOSLOVAKIA/Chemical Technology. Chemical Products and
Application. Part 4. - Dyeing and Chemical
Treatment of Textile Materials.

H

Abs Jour: Referat. Zhurnal Khimiya, No 21, 1958, 72699.

containing, for example, ^{14}C atoms, is used as an
E. The experiments of oiler elimination by the
action of Retardon A (a condensation product of de-
graded proteins and acid chlorides of higher fatty
alcohols) produced positive results, and it was
found that the oil DLH is eluted worse than the
oil DL.

Card : 2/2

COUNTRY : Czechoslovakia
CATEGORY :

H-34

ABS. JOUR. : RZKhim., No. 21 1959, No.

77100

AUTHOR : Paigrt, O. and Plisek, L.
TITLE : Not given
: Imparting Permanent Pleats and Creases to Wool-
Containing Fabrics

ORIG. PUB. : Textil (CSR), 13, No 12, 467-469 (1958)

ABSTRACT : Experiments have shown that permanent creases
can be produced in pure wool and blended wool
fabrics (with 30-60% viscose staple fiber) by
treating the pleats before pressing with 0.5-
1% of a solution of 50% thioglycolic acid, con-
taining 0.1-0.2% of wetting agent and adjusted to
a pH of 7 by the addition of CH_3COOH .
I. Fodiman

CARD: 1/1

PAJIC, D.

A proposal for the construction of future freight cars. p. 18.

ZELEZNICE. (Zeleznicki institut GDZ) Beograd, Yugoslavia.
Vol. 15, no. 6, June 1959.

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

Uncl.

PAJIC, S.

"Small Rehna; impressions of the competition in West Germany," Narodna Krila, Geograd, Vol 6, No 5, July/Aug. (i.e. Sept./Oct.) 1953, p. 30.

SO: Eastern European Accessions List, Vol 3, No 11, Nov 1954, L.C.

PAJIC, S.

"Forming parachute units." p. 3. (Aero Svet. Vol. 3, no. 33, Feb. 1953. Beograd.)

SO: Monthly List of East European Accessions, Vol. 3, no. 6, Library of Congress, June 1954.
Uncl.

PAJIC, V.

Technique of operating a train on various inclinations of track. p. 29.

Periodical: ZELEZNICE.

Vol. 15, no. 2, Feb. 1959.

TECHNOLOGY

SO: Monthly List of East European Accessions (EEAI) LC

Vol. 8, no. 4
April 1959, Uncl.

PAJIC, V.

"A method for calculating the costs of train traction."

p. 16 (Zeleznice) Vol. 13, no. 11, Nov. 1957
Belgrade, Yugoslavia

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

PAJIC, V.

Low speeds on rails and their effect on the consumption of coal. p. 90.
ZELEZNICE. Vol. 11, No. 3, March, 1955. Belgrad.

SOURCE: East European Accessions List (EEAL) Library of Congress,
Vol. 4, No. 12, Dec. 1955.

PAJIC, Vojislav M., inz.

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superstructure. Zeleznice Jug 15 no.8:1-8 Ag '59.

PAJK, A.
MAKS SANEČ, Akad. Znanosti Umetnosti Ljubljani, Kem. Lab., Kem. Studije
1947, 52-75

PAJKANOVIC, D.

Will the speed of trains be increased in view of the fact that
the Yugoslav railroad tracks are being thoroughly repaired and
so readied for greater speeds? Zeleznice Jug 20 no. 5:50-51
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PAJKANOVIC, D.

Reconstruction of the cylinders of vacuum brakes. p. 37.

ZELEZNICE. (Železnički institut GDJZ) Beograd, Yugoslavia.
Vo. 15 , no. 7, July 1959.

Monthly list of East European Accessions (EEAI) LC, Vol. 8, no. 9,
Sept. 1959

Uncl.

PAJKANOVIC, Dejan

Is the computation of brakes of 0.76 m. gauge loaded freight cars correct? Zeleznice Jug 20 no. 2:43-45 '64.

PAJKIC, Radisa Lj., dipl. ek (Beograd)

Greater possibilities of applying glass fibers. Kem ind 12
no.9:683-686 S '63.

PAJKIC, Radisa, dipl. ekonomista (Beograd)

More varieties in the production of lighting ware. *Ken ind 13*
no. 6:423-425 Je '64.

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Climatic characteristics of southwestern Montenegro. p. 15.

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Uncl.

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(3) the possibility of differentiated care under modern conditions. *Česk. zdrav.* 13 no.2:53-59 F165.

1. Katedra organizace zdravotnictví lékařské fakulty Karlovy University v Hradci Králové a Fakultní nemocnice Krajské ústavy národního zdraví v Hradci Králové.

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93 no.28:773-775 9 July 54.

1. Z chirurgicke kliniky VIA v Hradci Kralove
(NEOPLASMS, diagnosis
*Bolen test)

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A laboratory viscosimeter for measurements in vessels used for chemical reactions.

p. 106 (Chemicky Prumysl. Vol. 7, no. 2, Feb. 1957, Praha, Czechoslovakia)

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Uncl.

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in Hungary, hygienic cond. in a county (Hun))

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181-184 Je '61.

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(igazgato: Kneffel Pal dr.)

(DYSENTERY BACILLARY epidemiol)
(WATER SUPPLY microbiol)

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Experiences in practical teaching and preliminary vocational training. Nepegeszsegugy 45 no.3:82-86 Mr'64

1. Kozlemeny as Vas megyei Kozegeszsegugyi-Jarvanyugyi Allomasrol.

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PAJOC, H.

Electronic equipment in guided missiles. p. 52

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Vol. 12, no. 3, Mar. 1959.

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Uncl.

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A method of partial hydrolysis of proteins in decalcified collagen of human dentine. Wlad chem 16 no.1:43 Ja '62.

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no.1:44 Ja '62.

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Fluorescent and sensitizing wavelengths of psoralens. Wiad
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Automatic wagon weighing machines with bank in railroad
operations. Kozleked kozl 18 no.44:797-801 4 N '62.

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Universitaet, Budapest.

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Three-year follow-up examination of 227 newborn infants with retinal hemorrhage. Orv. hetil. 105 no.17:781-783; 26 Ap'64

I. Budapesti Orvostudományi Egyetem, I.Szemeszeti Klinika és
II. Noi Klinika.

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1. Budapesti Orvostudományi Egyetem I. sz. Szemeszeti Klinika
közleménye (Igazgató: Radnot Magda egyetemi tanár az orvostudo-
mányok doktora).
(AMBLYOPIA ther)