



JOINT COMPANY
«RESEARCH AND PRODUCTION CORPORATION
«SPACE MONITORING SYSTEMS, INFORMATION & CONTROL AND
ELECTROMECHANICAL COMPLEXES» NAMED AFTER A.G. IOSIFIAN»
(JC «VNIIEM CORPORATION»)

ISSN 2500-1299

Tome 165

**№4
2018**

ELECTROMECHANICAL MATTERS. VNIIEM STUDIES

Scientific and technical journal
Published since 1959
Released once every two months

Chief Editor:

MAKRIDENKO L. A., Director General,
D. Sc. (Tech.)

Editorial board:

Vereshchagin V. P., D. Sc. (Tech.)
Volkov S. N., D. Sc. (Tech.)
Gecha V. Ia., D. Sc. (Tech.)
(Deputy Chief Editor)
Gorbunov A. V., Ph. D. (Tech.)
Duyshenaliev T. B., D. Sc. of Physics
and Mathematics (Kyrgyz Republic)
Zakharenko A. B., D. Sc. (Tech.)
Zolotoy S. A., Ph. D. (Tech.)
(Republic of Belarus)
Kazantsev S. G., D. Sc. (Tech.)
Karachun N. D., D. Sc. (Tech.)
Minaev I. V., D. Sc. (Tech.)
Nurguzhin M. R., D. Sc. (Tech.)
(Republic of Kazakhstan)
Pinchuk A. V., Ph. D. of Military Science
Sarychev A. P., D. Sc. (Tech.)
Tyutnev A. P., D. Sc. of Physics
and Mathematics
Fedotov A. Yu., D. Sc. (Tech.)
Hodnenko V. P., D. Sc. (Tech.)
Chunikhina O. A.
(Editorial board Executive secretary)

Executive editor:

Gecha V. Ia., D. Sc. (Tech.)

Subscription index:

Union catalogue
«Pressa Rossii»
87648

Editorial office address:

JC «VNIIEM Corporation», 30 Volnaia st., Moscow, Russian
Federation. Postcode: 105187.
Tel.: (495) 365-30-63.
E-mail: vniiem@vniiem.ru; redactori@mail.ru.
<http://jurnal.vniiem.ru>

Signed for print 22.08.2018. Format: 60×84 1/8.
Conventional printed sheet 7,21. Circulation: 150 copies.
Printed at «SAM-POLIGRAFIST» LLC6,
Protopopovskii pereulok, Moscow. Tel.: (495) 545-37-10.
www.onebook.ru

© JC «VNIIEM Corporation», 2018

CONTENTS

**SPACE ELECTROMECHANICS. SPACE CRAFTS.
NEAR-EARTH SPACE RESEARCH**

*A. B. Zakharenko, A. I. u. Fedotov, A. V. Shishlov,
N. A. Belokurova, K. S. Osikova*
Evaluation of influence of thermal expansion of reflector
attachment fitting on electrical characteristics
of antenna-feeder system.....3

*A. A. Astashkin, A. V. Karelin, Iu. A. Kuzmin,
O. K. Margun, T. S. Markelova,
N. V. Nagovitsyna, E. M. Tverdokhlebova*
Oceanographic satellite constellations overview.....9

**PRODUCTS AND EQUIPMENT
TESTING METHODS**

V. Ia. Gecha, M. Iu. Liberman, A. V. Shmatkov
Methodological principles of metrological certification
of anechoic acoustic chambers based on the results
of intensimetric measurements.....20

**HISTORY CHAPTERS OF THE NATIONAL
SPACE METEOROLOGY**

*L. A. Makridenko, S. N. Volkov, A. V. Gorbunov,
V. P. Khodnenko, A. L. Churkin*
Launch of first russian meteorological spacecraft of new
generation «Meteor-M» № 1: beginning of recreation
of russian meteorological orbital constellation.....46