OMPETENTNOST'/ **COMPETENCY (Russia)**

Monthly scientific and practical journal Published since 2000 (former name Kvalifikatsiya I Kachestvo) Registration certificate PI No Φ C-77-48934 from 12, March, 2012 The journal is included in the list of publications, recommended by Higher Attestation Commission (VAK) Academy for Standardization, Metrology and Certification (ASMS)

109443, Moscow, Volgogradsky pros., 90, 1 Phone: +7 (499) 172 4730. Fax: +7 (499) 742 5241 E-mail: info@asms.ru. www.asms.ru

Vladimir V. Voronin, FSAEI FVT ASMS, RF, Moscow Svetlana A. Kalintseva, FSAEI FVT ASMS, RF,

Moscow

Stanislav Bartusek, Technical University of Ostrava, Czech Republic, Ostrava

Viktor Ya. Belobragin, LLC Advertising Informational Agency Standards and Quality, RF, Moscow Boris V. Boytsov, International Public Organization Academy of Quality Problems, and Moscow Aviation Institute (MAI), RF, Moscow

Fedor V. Bulygin, All-Russian Research Institute of Metrological Service (VNIIMS), RF, Moscow Tatiana V. Guseva, D. Mendeleev University of Chemical Technology of Russia, RF, Moscow

Ol'ga P. Dvoryaninova, Voronezh State University of Engineering Technologies, RF, Voronezh Nina I. Dunchenko, Russian State Agrarian University — Moscow Timiryazev Agricultural Academy, RF, Moscow

Lev K. Isaev, All-Russian Research Institute of Metrological Service (VNIIMS), RF, Moscow Wilfried Kirmse, Technical University of Berlin (TU), Germany, Berlin

Leonid V. Kolomiets, Odessa State Academy of Technical Regulation and Quality, Ukraina, Odessa Vladimir Yu. Korchak, Presidium of RAS, RF, Moscow Aleksey V. Leonov, FSBI 46 Central Research Institute, RF, Moscow

Vladimir A. Novikov, FSAEI FVT ASMS, RF, Moscow Yuriy A. Pal'chun, Novosibirsk Branch FSAEI FVT ASMS, RF, Novosibirsk

Vladimir V. Pomazanov, Self-Regulatory Organization CenterReahim, and SEI HE MO State Humanitarian and Technological University, RF, Moscow Region

Anatoliy I. Solyanik, Russia Voronezh Branch FSAEI FVT ASMS, RF, Voronezh

Editorial stat I.S. Gridin, L.A. Kas'yanova, E.V. Kirienko, E.G. Kolesnikova, I.B. Kuskova Phone: +7 (499) 172 7717, 172 5757 A.B. Kostrikov Original layout Individual Entrepreneur Shilenkova E.I.

Phone: +7 (916) 324 0613 In the catalogue Newspapers. Journals of Rospechat

agency: 83344 In the union catalog Russia Press: 87872 In the publishing department Phone: +7 (499) 172 7717. E-mail: komp@asms.ru

Signed for printing 14.05.2019 Matte coated paper 84×108/16 Offset printing. Conv. pp. 7 2000 copies. Order number 230

JSC Kaluzhskaya Tipografiya Standartov 248021, Kaluga, Moskovskaya ul., 256

Authors' ideas may not always coincide with the editorial stuff. While using materials reference to the journal Kompetentnost' is required Articles' reprinting is allowed only with the editorial stuffs' permission Editorial stuff is not responsible for the content of the advertisements Materials in the category Company are published on the rights of advertising © Academy for Standardization, Metrology and Certification, 2019

Content

4/2019

COMPETITIVENESS

V.E. Lyustik S.N. Mel'nik N.M. Kuprikov **High-tech Products** Competitiveness: Intellectual Property Management System

TRAINING

A.N. Pegina **O.P.** Dvoryaninova A.I. Solyanik Organizational **Basics of Student** Practice: Experience. Problems, Prospects

NEWS

3, 24, 51

TECHNICAL REGULATION

> G.P. Bunin M.B. Plushchevskiy On Development of the Standardization Theory and Role: Once Again



S.V. Stukalin S.V. Demshin A.V. Makitrin Technical and Economic **Bisk Assessment** of Project Implementation. Dependence on Imported Materials

METROLOGY

CYu.A. Baryshev Specialist in Calibration Testing. Who is He? MANAGEMENT

S.V. Petrov

Team Building as a Way to the Organization Effectiveness of the Improve

34K.Z. Nemesh S.G. Komarova

Outsourcina in the Pharmaceutical Industry

RESEARCH

DS.A. Musatova G.V. Dovzhik M.V. Iontseva Trends of Artificial Intelligence Development in EVENT

A.P. Druchinin

JThermoelectric Temperature Converters. Effect Analysis of the Shell on the Thermoelectric EMF

CONFERENCES

A.E. Artes On the Wave of Innovative Projects

Reviewers: Prof. Dr. G.V. Pankina, ASMS; Prof. Dr. T.V. Guseva, D.I. Mendeleev University of Chemical Technology of Russia; Prof. Dr. V.A. Vasil'ev, Russian State University of Aviation Technology (MAI); Prof. Dr. N.I. Dunchenko, Russian State Agrarian University — Moscow Timiryazev Agricultural Academy; Prof. Dr. A.I. Solyanik, Voronezh ASMS Branch; Prof. Dr. V.Ya. Belobragin, Academy for Quality Problems; Prof. Dr. I.A. Makeeva, State Scientific Institution, Research Institute for Dairy Industry; Prof. Dr. V.Yu. Korchak, Section of Applied Problems, Russian Academy of Sciences

Next issues

On the Universal Criteria for the Level of High Technology

Competence Approach: Formation and Modern Interpretation in Domestic Practice

Implementation of IT Technologies for Spare Parts Marking