

2017 • Tom 9 • 3

**NANOTEHNOLOGII V STROITEL'STVE**

nauchnyj Internet-zhurnal

2017 • Vol. 9 • 3

**NANOTECHNOLOGIES IN CONSTRUCTION** A Scientific Internet-Journal**PUBLISHER INFORMATION**

(EDITORIAL COUNCIL; EDITORIAL BOARD; THE EDITORS; FOUNDERS; PUBLISHER;  
 PUBLICATION ETHICS; CONTACTS; MINIMAL SYSTEM REQUIREMENTS  
 TO ACCESS THE EDITION; JOURNAL PRODUCTION SCHEDULE)

**EDITORIAL COUNCIL**  
**PUBLIC ADVISORY BODY**
**Chairman of the editorial council**

**GUSEV Boris Vladimirovich** – Editor-In-Chief of Electronic Edition «Nanotechnologies in Construction: A Scientific Internet-Journal», Corresponding Member of RAS, President of Russian Academy of Engineering and International Engineering Academy, Head of Department «Construction Materials and Technologies», Moscow State University of Railway Engineering, Honored Scientist of RF, Laureate of USSR and RF State prizes, Doctor of Engineering, Professor, Russian Federation

**Members of the Editorial Council**

**ANANYAN Mikhail Arsenovich** – Director General of CC «Concern «Nanoindustry», President of National Association of Nanoindustry, Member of RANS, Doctor of Engineering, Russian Federation

**IVANOV Leonid Alekseevich** – Head of the Project «Nanobuild.ru», Chief Academic Secretary and Vice-President of the Russian Academy of Engineering and the International Academy of Engineering, Academician of RAE and IAE, PhD in Engineering, as a Guest Professor of Wuhan University of Technology (China), Member of the International Federation of Journalists, Russian Federation

**KALIUZHNIY Sergei Vladimirovich** – Scientific Advisor of Chairman of Board «RUSNANO», Chief Scientist, Member of Board «RUSNANO», Doctor of Chemistry, Professor, Russian Federation

**KOROLEV Evgeniy Valerjevich** – Prorector for Education, Director of the Research and Educational Center «Nanotechnology», National Research University «Moscow State University of Civil Engineering», Adviser of RAACS, Doctor of Engineering, Professor, Russian Federation



**TELICHENKO Valerij Ivanovich** – President of National Research University «Moscow State University of Civil Engineering», 1st vice-president of RAACS, Academician of RAACS Honored Scientist of RF, Doctor of Engineering, Professor, Russian Federation

**FIGOVSKY Oleg L'vovich** – Full Member of European Academy of Science, Foreign Member of RAE and RAACS, Editor-in-Chief of SITA, OCJ и RPCS, Director of «Nanotech Industries, Inc.» (USA), and Director of International Nanotechnological R&D Center «Polymate» (Israel), President of IAI, Chairman of the UNESCO Chair «Green Chemistry», USA, Israel

**CHERNYSHOV Evgenij Mikhailovich** – Full member of RAACS, Chairman Presidium of Central Regional Department of Russian Academy of Architecture and Construction Sciences, Director of Educational Creative Academic Center «Archstroynauka» SUACE Department of Academic Scientific and Educational Cooperation, Doctor of Engineering, Professor, Russian Federation

**Surendra P. SHAH** – Walter P. Murphy Emeritus Professor of Civil and Environmental Engineering of Northwestern University, Ill., USA, Honorary Professor at the University of L'Aquila, Italy, and Hong Kong Polytechnic University; Member of American National Academy of Engineering, Chinese Academy of Engineering, and Indian Academy of Engineering, USA

**SHEVCHENKO Vladimir Yaroslavovich** – Director of Institute of Silicate Chemistry of Russian Academy of Sciences, Head of Scientific Council RAS on Ceramic and Other Non-metal Materials, Vice-Chair of Coordinating Council on Development of Nanotechnologies attached to the Committee of the Council of the Federation of the Federal Assembly of the RF on Science, Culture, Education, Medicine and Ecology, Member of RAS, Doctor of Chemistry, Professor, Russian Federation

**Xu Li Da** – Foreign Member of Russian Academy of Engineering, Ph.D., Fellow of IEEE (Institute of Electrical and Electronics Engineers), Founding Editor-in-Chief of the *Journal of Industrial Information Integration*, Eminent Professor of Information Technologies & Decision Sciences Department, Old Dominion University, USA

## EDITORIAL BOARD

### Chairman of the editorial board

**GUSEV Boris Vladimirovich** – Editor-In-Chief of Electronic Edition «Nanotechnologies in Construction: A Scientific Internet-Journal», Corresponding Member of RAS, President of Russian Academy of Engineering and International Engineering Academy, Head of Department «Construction Materials and Technologies», Moscow State University of Railway Engineering, Honored Scientist of RF, Laureate of USSR and RF State prizes, Doctor of Engineering, Professor, Russian Federation

### Members of the editorial board

**BAZHENOV Yury Mikhailovich** – Head of Department «Binders and Concrete Technologies», Scientific Adviser of the Research and Educational Center «Nanotechnology» in National Research University «Moscow State University of Civil Engineering», Member of RAE, Academician of RAACS, Honored Scientist of RF, Doctor of Engineering, Professor, Russian Federation

**Prof. Peter J.M. BARTOS** – The Queen's University of Belfast, UK, Chair of RILEM Technical Committee TC 197-NCM on Nanotechnology in Construction Materials (2002–2009), former Head of Scottish Centre for Nanotechnology in Construction Materials (University of West Scotland), UK



**BELOV Vladimir Vladimirovich** – Vice-Rector for Innovative Development of Tver State Technical University, Head of Department «Production of Building Materials and Wares», Honoured Scientist and Figure of Higher Education of Tver Region, Advisor of RAACS, Doctor of Engineering, Professor, Russian Federation

**VAKHRUSHEV Alexander Vasilievich** – Head of the laboratory «Mechanics of nanostructures», Institute of Mechanics (Ural Branch of RAS), Head of the chair «Nanotechnologies and microsystem equipment» in State Technical University named after M.T. Kalashnikov (Izhevsk), Associate Member of RAE, Doctor of Physics and Mathematics, Professor, Russian Federation

**LYNKOV Leonid Mihailovich** – Head of the Department «Information Security», Belarussian State University of Informatics and Radioelectronics, Doctor of Engineering, Professor (Minsk, Belarus), Belarus

**MECHTCHERINE Viktor Sergeevich** – Director of the Institute of Construction Materials, Chair of Construction Materials, Technische Universität Dresden, Professor, Doctor of Engineering, Germany

**SOBOLEV Konstantin Gennadievich** – Head of Technical Committee of American Concrete Institute ACI 241 «Nanotechnologies of Concrete», Professor of University of Wisconsin-Milwaukee, USA

**URKHANOVA Larisa Alekseevna** – Head of Department «Production of Building Materials and Wares» East-Siberian State University of Technologies and Management, Doctor of Engineering, Professor, Russian Federation

**FALIKMAN Vyacheslav Ruvimovich** – 1<sup>st</sup> vice-president of Structural Concrete Association, Academician of RAE, Regional Convener of International Union of Laboratories and Experts in Construction Materials, Systems and Structures (RILEM) in East Europe and Central Asia, Member of Technical Committee of American Concrete Institute ACI 241 «Nanotechnologies of Concrete», Professor of MSUCE, Doctor of Material Science and Engineering, Russian Federation

**KHOZIN Vadim Grigorievich** – Head of Department «Technology of Construction Materials, Products and Structures», Kazan State University of Architecture and Engineering, Honoured Scientist of Russian Federation and the Republic of Tatarstan, Honoured Figure of Higher Education of RF, Doctor of Engineering, Professor, Russian Federation

## THE EDITORS

Editor-in-Chief  
Executive Editor  
Consultant  
Journalists:

D.Eng., Prof. **B.V. GUSEV**  
**YU.A. EVSTIGNEEVA**  
D.Eng., Prof. **V.N. KARPOV**  
Ph.D. (Engineering) **V.A. VLASOV**  
**K.N. BROEVA**

Design and layout  
The Chief for Foreign Relations

**A.S. REZNICHENKO**  
Ph.D. (Engineering) **S.R. MUMINOVA**

## FOUNDERS

The Russian Academy of Engineering • OOO «CNT «NanoStroitelstvo»



## PUBLISHER

ООО «CNT «NanoStroitelstvo»

**The Electronic Edition «Nanotechnologies in Construction: A Scientific Internet-Journal»** is registered as an independent mass media in the Ministry of Communication and Mass Media of The Russian Federation. (Registration Certificate ЭЛ № ФС77 – 35813 of 31 March 2009 issued by the Federal Service on Supervision in the Sphere of Connection and Mass Communications).

**The Electronic Edition «Nanotechnologies in Construction: A Scientific Internet-Journal»** has been included in the list of peer-review journals in which the candidates for Ph.D. and Doctorate degree must publish the main results of their theses.

**The electronic edition «Nanotechnologies in Construction: A Scientific Internet-Journal»** has been included: Chemical Abstracts (USA); DOAJ (Sweden); EBSCO Publishing (USA); ESCI Web of Science (USA); EZB (Germany); ProQuest (USA); Global Impact Factor (Australia); CrossRef (USA); ISSN 2075-8545 (France); ResearchBib (Japan); ResearchGate (USA); Scientific Electronic Library (Russia); Ulrich's Periodicals Directory (USA) et al. Each paper is assigned UDC, DOI, HTML-code.

## PUBLICATION ETHICS

Editorial Council, Editorial Board and the editorial staff second the politics aimed at observance of ethical publishing principles and recognize that keeping track of observance of ethical publishing principles is one of the main components in reviewing and publishing activities. The basic ethical principles of reviewing and publishing are available at website <http://www.nanobuild.ru>.

The authors of the published materials are responsible for the reliability of the presented information and utilization of the data which are not to be published avowedly. The editors have the right to make corrections. The opinion of the editors can be different from the authors' opinions, the materials are published to discuss the up-to-date problems. The editors are not responsible for the content of advertisement.

Any full or partial reprinting of the materials is possible only with editors' written permission.



## CONTACTS

**Address:** Russian Federation, 125009, Moscow, Gazetny per., bld. 9, str. 4

**Internet:** <http://www.nanobuild.ru>

**E-mail:** [info@nanobuild.ru](mailto:info@nanobuild.ru)

## MINIMAL SYSTEM REQUIREMENTS TO ACCESS THE EDITION

### Windows

- Intel Pentium® III or equivalent processor.
- Microsoft® Windows® 2000 with Service Pack 4; Windows Server® 2003 (32-bit or 64-bit editions) with Service Pack 1; Windows XP® Professional, Home, Tablet PC(32-bit or 64-bit editions) with Service Pack 2 or 3(32-bit or 64-bit editions); or Windows Vista® Home Basic, Home Premium, Ultimate, Business, or Enterprise with Service Pack 1 or 2 (32-bit or 64-bit editions).
- 128MB of RAM (256MB recommended for complex forms or large documents).
- 170MB of available hard-disk space.
- Microsoft Internet Explorer 6.0 or 7.0, Firefox 1.5 or 2.0, Mozilla 1.7, AOL 9, Google Chrome 5.0, Opera 10.6.

### Macintosh

- PowerPC G3, G4, G5 or Intel processor.
- Mac OS X v10.4.11–10.5.5.
- 128MB of RAM (256MB recommended for complex forms or large documents).
- 170MB of available hard-disk space (additional space required for installation).
- Safari® (Shipping with supported OS).

## JOURNAL PRODUCTION SCHEDULE IN 2017

| №№                | Papers submission deadline | Editing, proof-reading, layout, agreement | The approval of the issue by the Editor-in-Chief | Website publication | Note |
|-------------------|----------------------------|---|--|---------------------|------|
| 2017, Vol. 9, № 1 | 25.01.17                   | 10.02.17                                  | 22.02.17   | 28.02.17            |      |
| 2017, Vol. 9, № 2 | 24.03.17                   | 10.04.17                                  | 17.04.17   | 28.04.17            |      |
| 2017, Vol. 9, № 3 | 25.05.17                   | 09.06.17                                  | 16.06.17   | 30.06.17            |      |
| 2017, Vol. 9, № 4 | 25.07.17                   | 11.08.17                                  | 22.08.17   | 31.08.17            |      |
| 2017, Vol. 9, № 5 | 25.09.17                   | 09.10.17                                  | 13.10.17   | 24.10.17            |      |
| 2017, Vol. 9, № 6 | 22.11.17                   | 06.12.17                                  | 11.12.16   | 22.12.17            |      |

**Issue 2017, Volume 9, № 3 approved on 16.06.2017**

