

CONTENT OF THE ISSUES FOR 2015

1



№1/2015

PUBLISHER INFORMATION

Editorial Council; Editorial Board; The Editors; Founders; Publisher; Publication Ethics; Contacts; Minimal System Requirements to Access the Edition; Journal Production Schedule	5
------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---

CONGRATULATIONS ON THE RUSSIAN SCIENCE DAY!	15
---------------------------------------------------	----

EDITOR'S ADDRESS TO THE AUTHORS AND READERS

The electronic edition «Nanotechnologies in Construction: A Scientific Internet-Journal» is included in the international data base Global Impact Factor	16
----------------------------------------------------------------------------------------------------------------------------------------------------------------	----

THE ACHIEVEMENTS OF RUSSIAN SCIENTISTS AND SPECIALISTS

UDC 69.001.5

Falikman V.R., Vainer A.Ya. New high performance nanoadditives for photocatalytic concrete: synthesis and study	18
------------------------------------------------------------------------------------------------------------------------------	----

DOI: dx.doi.org/10.15828/2075-8545-2015-7-1-18-28

INTERNATIONAL EXPERIENCE

UDC 69.001.5

Kudryavtsev P.G., Figovsky O.L. Quasi-homogenous approximation for description of the properties of dispersed systems. The basic approaches to model hardening processes in nanodispersed silica systems. Part 1. Statical polymer method	29
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----

DOI: dx.doi.org/10.15828/2075-8545-2015-7-1-29-54

ANNIVERSARY AND CELEBRANT

Professor Oleg Lvovich Figovsky: An Outstanding Inventor	55
----------------------------------------------------------------	----



THE RESEARCH RESULTS IN THE AREA OF NANOTECHNOLOGIES AND NANOMATERIALS

UDC 691:620.197

- Yanakhmetov M. R., Chuykin A.E., Massalimov I.A.* Pore structure modification of cement concretes by impregnation with sulfur-containing compounds 63
 DOI: dx.doi.org/10.15828/2075-8545-2015-7-1-63-72

THE ELECTRONIC EDITION «NANOTECHNOLOGIES IN CONSTRUCTION: A SCIENTIFIC INTERNET-JOURNAL» 73
 ACHIEVEMENTS OF THE LEADING RUSSIAN COMPANIES

- The Fourth Prize for Innovations «The Time of Innovations–2014» 77

THE REVIEW OF PATENTS FOR INVENTIONS, UTILITY MODELS, INDUSTRIAL MODELS

UDC 608; 69.001.5

- Vlasov V.A.* Nanotechnological Inventions and Nanomaterials Produce A Profound Effect in Different Areas of Economy 82
 DOI: dx.doi.org/10.15828/2075-8545-2015-7-1-82-104

INTERNATIONAL EXHIBITIONS

- Exhibition «Architecture, Construction of the Far East Region-2014. City. Ecology»
 (21–24 May 2015, Khabarovsk) 105
 Exhibition «Construction and Improvement–2015» (20–23 May 2015, Sochi) 106

THE REVIEW OF THE RESULTS OF MASTER, PH.D. AND DOCTORATES RESEARCH IN THE AREA OF NANOTECHNOLOGIES, NANOMATERIALS, HOUSING AND COMMUNAL SERVICES AND JOINT ECONOMIC SPHERES

UDC 66.011

- Karpov A.I.* An overview of the results of dissertation research in the field of nanotechnology and nanomaterials. Part 1 107
 DOI: dx.doi.org/10.15828/2075-8545-2015-7-1-107-126

INTERREGIONAL EXHIBITIONS

- The XI Interregional exhibition «Cottage. Real Estate. Landscape Design. Gardening»
 (16–19 April 2015, Chelyabinsk) 127
 The XII Interregional exhibition «Spring Construction Fair. Saving of Energy»
 (3–5 June 2015, Chelyabinsk) 128
 The XIII Interregional exhibition «Mechanical Engineering. Metal Working. Welding. Industrial Innovations–2015» (3–5 June 2015, Chelyabinsk) 129

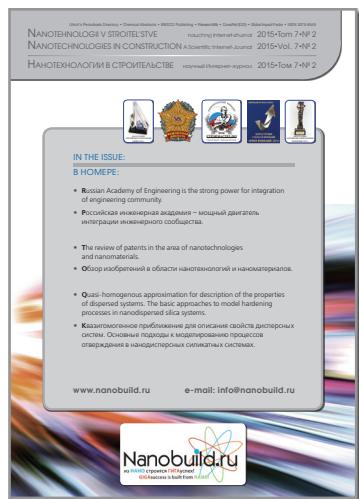
ON THE OBSERVANCE OF PUBLISHING ETHICS BY THE EDITORS OF ELECTRONIC EDITION «NANOTECHNOLOGIES IN CONSTRUCTION: A SCIENTIFIC INTERNET-JOURNAL» AND THE STATEMENT OF PREVARICATION ABSENCE

General statements. For the editor-in-chief. For the reviewers. For the authors.

- The paper format guidelines. The Topics of Published Materials. The structure of the paper. Reference Formats 130



2



№2/2015

PUBLISHER INFORMATION

Editorial Council; Editorial Board; The Editors; Founders; Publisher; Publication Ethics; Contacts; Minimal System Requirements to Access the Edition; Journal Production Schedule	5
------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---

THE ACHIEVEMENTS OF THE LEADING RUSSIAN ORGANIZATIONS

UDC 62

Gusev B.V. Russian Academy of Engineering: a strong power for integration of engineering community	15
-----------------------------------------------------------------------------------------------------------------	----

DOI: dx.doi.org/10.15828/2075-8545-2015-7-2-15-46

THE ELECTRONIC EDITION «NANOTECHNOLOGIES IN CONSTRUCTION: A SCIENTIFIC INTERNET-JOURNAL» 47**INTERNATIONAL EXHIBITIONS**

The exhibition BuildUral 2015 successfully finished.....	51
----------------------------------------------------------	----

The start of the new format: LE MONDIAL DU BATIMENT 2015 – Paris construction week BATIMAT	56
--------------------------------------------------------------------------------------------------	----

BATIMAT: all for the successful construction	61
----------------------------------------------------	----

INTERNATIONAL EXPERIENCE

UDC 69.001.5

Kudryavtsev P.G., Figovsky O.L. Quasi-homogenous approximation for description of the properties of dispersed systems. The basic approaches to model hardening processes in nanodispersed silica systems. Part 2. The hardening processes from the standpoint of statistical physics.....	62
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----

DOI: dx.doi.org/10.15828/2075-8545-2015-7-2-62-84

115

<http://nanobuild.ru>

INTERNATIONAL FORUMS, CONFERENCES, SYMPOSIA

- The VIII International Congress «Energy efficiency. XXI century. Engineering methods to decrease energy consumption in buildings» 85

THE REVIEW OF PATENTS FOR INVENTIONS, UTILITY MODELS, INDUSTRIAL MODELS

UDC 608; 69.001.5

- Vlasov V.A.* The review of patents in the area of nanotechnologies and nanomaterials. Part 1 89
 DOI: dx.doi.org/10.15828/2075-8545-2015-7-2-89-114

INTERNATIONAL EXHIBITIONS

- Exhibition «Construction and Improvement–2015» (20–23 May 2015, Sochi)..... 115

- The result of the exhibition SibBuild 2015: over 13 thousand visitors..... 116

- Exhibition «Architecture, Construction of the Far East Region–2014. City. Ecology» (21–24 May 2015, Khabarovsk) 122

ANNIVERSARY AND CELEBRANT

- BAZHENOV Yuri Mikhailovich** – the outstanding scientist in construction material science..... 123

THE REVIEW OF THE RESULTS OF MASTER, PH.D. AND DOCTORATES RESEARCH IN THE AREA OF NANOTECHNOLOGIES, NANOMATERIALS, HOUSING AND COMMUNAL SERVICES AND JOINT ECONOMIC SPHERES

UDC 66.011

- Karpov A.I.* An overview of the results of dissertation research in the field of nanotechnology and nanomaterials. Part 2..... 127

DOI: dx.doi.org/10.15828/2075-8545-2015-7-2-127-138

INTERREGIONAL EXHIBITIONS

- The XII Interregional exhibition «Spring Construction Fair. Saving of Energy» (3–5 June 2015, Chelyabinsk)..... 139

- The XIII Interregional exhibition «Mechanical Engineering. Metal Working. Welding. Industrial Innovations–2015» (3–5 June 2015, Chelyabinsk) 140

ON THE OBSERVANCE OF PUBLISHING ETHICS BY THE EDITORS OF ELECTRONIC EDITION «NANOTECHNOLOGIES IN CONSTRUCTION: A SCIENTIFIC INTERNET-JOURNAL» AND THE STATEMENT OF PREVARICATION ABSENCE

General statements. For the editor-in-chief. For the reviewers. For the authors.

- The paper format guidelines. The Topics of Published Materials. The structure of the paper. Reference Formats..... 141



3



№3/2015

PUBLISHER INFORMATION

Editorial Council; Editorial Board; The Editors; Founders; Publisher; Publication Ethics; Contacts; Minimal System Requirements to Access the Edition; Journal Production Schedule	5
------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---

INTERNATIONAL EXPERIENCE

UDC 69.001.5

Kudryavtsev P.G., Figovsky O.L. Quasi-homogenous approximation for description of the properties of dispersed systems. The basic approaches to model hardening processes in nanodispersed silica systems. Part 3. Penetration of energy barriers	15
---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----

DOI: dx.doi.org/10.15828/2075-8545-2015-7-3-15-36

INTERNATIONAL EXHIBITIONS

BATIMAT: all for the successful construction (2–6 November 2015, Paris, France)	37
---------------------------------------------------------------------------------------	----

The international exhibition «Forum Uralstroyindustria » (22–25 September 2015, Ufa, Bashkortostan).....	38
----------------------------------------------------------------------------------------------------------	----

THE ELECTRONIC EDITION «NANOTECHNOLOGIES IN CONSTRUCTION: A SCIENTIFIC INTERNET-JOURNAL»	39
-------------------------------------------------------------------------------------------------------	----

THE RESULTS OF THE SPECIALISTS' AND SCIENTISTS' RESEARCHES

UDC 666.974; 661.666.4

Belousova E.S., Lynkov L.M., Abdolsalam Meftah Mohamed A. The carbonaceous concrete based on sawdust	43
-------------------------------------------------------------------------------------------------------------------	----

DOI: dx.doi.org/10.15828/2075-8545-2015-7-3-43-59



INTERREGIONAL EXHIBITIONS

- The 41st interregional specialized exhibition «The New City. Construction»
and «Voronezh Energy Forum» (7–8 October, 2015, Voronezh) 60

THE ACHIEVEMENTS OF RUSSIAN SCIENTISTS AND SPECIALISTS

UDC 666.974; 661.666.4

- Massalimov I.A., Yanakhmetov M.R., Chuykin A.E.** Strength and durability
of concrete modified by sulfur-based impregnating compounds 61

DOI: dx.doi.org/10.15828/2075-8545-2015-7-3-61-75

- About the international Tang Prize 76

INTERNATIONAL EXPERIENCE

UDC 691

- Saaid I. Zaki.** Assessment of the durability of nanosilica / fly ash cement pastes exposed
to normal and aggressive curing conditions 78

DOI: dx.doi.org/10.15828/2075-8545-2015-7-3-78-99

THE ACHIEVEMENTS OF THE LEADING SPECIALISTS, ENTERPRISES AND ORGANIZATIONS

- The awards of «Russian construction Olympus – 2015»
is the sign of the quality and reliability 100

INTERNATIONAL BOOK REVIEW

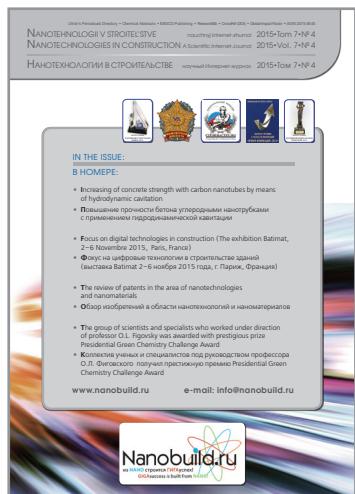
- Encyclopedia of the Russian Academy of Engineering 112

**ON THE OBSERVANCE OF PUBLISHING ETHICS BY THE EDITORS OF ELECTRONIC EDITION «NANOTECHNOLOGIES
IN CONSTRUCTION: A SCIENTIFIC INTERNET-JOURNAL» AND THE STATEMENT OF PREVARICATION ABSENCE.****ON THE USE OF THE CONTENT IN ACCORDANCE WITH CREATIVE COMMONS CC-BY «ATTRIBUTION».****DECLARATION OF THE OPEN ACCESS JOURNAL**

General statements, paper format guidelines, the topics of published materials,
paper structure, reference format. The authors of the published materials allow
the use of the content according to the license Creative Commons CC-BY «Attribution».

- Declaration Open Access of the journal 116





№4/2015

4

IN THE ISSUE 1

PUBLISHER INFORMATION

Editorial Council; Editorial Board; The Editors; Founders; Publisher; Publication Ethics; Contacts; Minimal System Requirements to Access the Edition; Journal Production Schedule	6
------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---

INTERNATIONAL EXPERIENCE

UDC 69.001.5

<i>Kudryavtsev P.G., Figovsky O.L.</i> Quasi-Homogenous Approximation for Description of the Properties of Dispersed Systems. The Basic Approaches to Modeling Hardening Processes in Dispersed Silica Systems. Part IV. The Main Approaches to Modeling the Kinetics of the Sol-Gel Transition	16
-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----

DOI: dx.doi.org/10.15828/2075-8545-2015-7-4-16-41

INTERNATIONAL AWARDS

The group of scientists and specialists who worked under direction of professor O.L. Figovsky was awarded with prestigious prize Presidential Green Chemistry Challenge Award	42
About the international Tang Prize	47

INTERNATIONAL EXHIBITIONS

Focus on digital technologies in construction (The exhibition Batimat, 2-6 November 2015, Paris, France).....	49
---------------------------------------------------------------------------------------------------------------	----

THE REVIEW OF PATENTS FOR INVENTIONS, UTILITY MODELS, INDUSTRIAL MODELS

УДК 608; 69.001.5

<i>Vlasov V.A.</i> The review of patents in the area of nanotechnologies and nanomaterials. Part 2	59
----------------------------------------------------------------------------------------------------------	----

DOI: dx.doi.org/10.15828/2075-8545-2015-7-4-59-79



INTERNATIONAL BOOK REVIEW

- New book by B.V. Gusev «Automatic technological lines for production of precast concrete»
 and «Development of prefabricated reinforced concrete industry
 in the Soviet Union (1981–1990)» 80

THE ELECTRONIC EDITION «NANOTECHNOLOGIES IN CONSTRUCTION: A SCIENTIFIC INTERNET-JOURNAL» 92**THE REVIEW OF THE RESULTS OF MASTER, PH.D. AND DOCTORATES RESEARCH IN THE AREA OF NANOTECHNOLOGIES,
 NANOMATERIALS, HOUSING AND COMMUNAL SERVICES AND JOINT ECONOMIC SPHERES**

УДК 66.011

- Karpov A.I.* An overview of the results of dissertation research in the field of nanotechnology
 and nanomaterials. Part 3..... 96

DOI: dx.doi.org/10.15828/2075-8545-2015-7-4-96-114

INTERREGIONAL EXHIBITIONS

- Forum «SOCHI-BUILD-2015» is an efficient site to develop your business 115

- The 41st Interregional Specialized Exhibition «New City. Construction»
 and «Voronezh Power Forum» (7–8 October 2015, Voronezh) 120

FOREIGN EXPERIENCE

UDC 691

- Zaki Saaid I.* Application of ultra cellulose fiber for the enhancement of the durability
 and shrinkage of cement pastes exposed to normal and aggressive curing conditions 121

DOI: dx.doi.org/10.15828/2075-8545-2015-7-4-121-142

INTERNATIONAL FORUMS, CONGRESSES, CONFERENCES, SYMPOSIA

- The IX International congress «Energy Efficiency. XXI Century.
 Engineering methods to decrease energy consumption of the buildings»
 (11–12 November 2015, Saint-Petersburg) 143

- In memory of D.A. Rototaev..... 144

**ON THE OBSERVANCE OF PUBLISHING ETHICS BY THE EDITORS OF ELECTRONIC EDITION «NANOTECHNOLOGIES
 IN CONSTRUCTION: A SCIENTIFIC INTERNET-JOURNAL» AND THE STATEMENT OF PREVARICATION ABSENCE.****ON THE USE OF THE CONTENT IN ACCORDANCE WITH CREATIVE COMMONS CC-BY «ATTRIBUTION».****DECLARATION OF THE OPEN ACCESS JOURNAL**

- General statements, paper format guidelines, the topics of published materials,
 paper structure, reference format. The authors of the published materials allow
 the use of the content according to the license Creative Commons CC-BY «Attribution».
 Declaration Open Access of the journal..... 145



5



№5/2015

IN THE ISSUE 1

PUBLISHER INFORMATION

Editorial Council; Editorial Board; The Editors; Founders; Publisher; Publication Ethics; Contacts; Minimal System Requirements to Access the Edition; Journal Production Schedule	6
------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---

TO THE AUTHORS AND READERS

Electronic edition «Nanotechnologies in Construction: A Scientific Internet-Journal» has been included in the bibliographic database EZB (Elektronische Zeitschriftenbibliothek, Germany).....	16
------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----

INTERNATIONAL EXPERIENCE

UDC 69.001.5

Gryaznov I.V., Figovsky O.L. The new technology for manufacturing polymer nanopowder.

Part I.....	20
-------------	----

DOI: dx.doi.org/10.15828/2075-8545-2015-7-5-20-45

INTERNATIONAL COOPERATION

Strengthening and expansion of cooperation between the International Academy of Engineering and scientific, engineering and business circles in Taiwan	46
--------------------------------------------------------------------------------------------------------------------------------------------------------------	----

INTERNATIONAL AWARDS

About the international Tang Prize	60
------------------------------------------	----



THE REVIEW OF PATENTS FOR INVENTIONS, UTILITY MODELS, INDUSTRIAL MODELS

UDC 608; 69.001.5

Vlasov V.A. The review of patents in the area of nanotechnologies and nanomaterials.

Part 3 64

DOI: dx.doi.org/10.15828/2075-8545-2015-7-5-64-82

THE ELECTRONIC EDITION «NANOTECHNOLOGIES IN CONSTRUCTION: A SCIENTIFIC INTERNET-JOURNAL» 83

THE RESULTS OF THE SPECIALISTS' AND SCIENTISTS' RESEARCHES

UDC 699.812.3

Ahmed A.A., Nasonova N.V., Pulko T.A., Llynkov L.M. Finishing panels for electromagnetic

shielded premises on the basis of nanostructured composite material 87

DOI: dx.doi.org/10.15828/2075-8545-2015-7-5-87-101

THE REVIEW OF THE RESULTS OF MASTER, PH.D. AND DOCTORATES RESEARCH IN THE AREA OF NANOTECHNOLOGIES,
NANOMATERIALS, HOUSING AND COMMUNAL SERVICES AND JOINT ECONOMIC SPHERES

УДК 66.011

Karpov A.I. An overview of the results of dissertation research in the field of nanotechnology

and nanomaterials. Part 4 102

DOI: dx.doi.org/10.15828/2075-8545-2015-7-5-102-122

ON THE OBSERVANCE OF PUBLISHING ETHICS BY THE EDITORS OF ELECTRONIC EDITION «NANOTECHNOLOGIES
IN CONSTRUCTION: A SCIENTIFIC INTERNET-JOURNAL» AND THE STATEMENT OF PREVARICATION ABSENCE.

ON THE USE OF THE CONTENT IN ACCORDANCE WITH CREATIVE COMMONS CC-BY «ATTRIBUTION».

DECLARATION OF THE OPEN ACCESS JOURNAL

General statements, paper format guidelines, the topics of published materials,

paper structure, reference format. The authors of the published materials allow

the use of the content according to the license Creative Commons CC-BY «Attribution».

Declaration Open Access of the journal 123





№6/2015

6

IN THE ISSUE 1

PUBLISHER INFORMATION

Editorial Council; Editorial Board; The Editors; Founders; Publisher; Publication Ethics; Contacts; Minimal System Requirements to Access the Edition; Journal Production Schedule	6
------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---

EDITOR'S ADDRESS TO THE AUTHORS AND READERS

UDC 69.001.5

Gusev B.V. On the further development of the electronic edition «NANOTECHNOLOGIES IN CONSTRUCTION: A Scientific Internet-Journal» in 2015	16
--------------------------------------------------------------------------------------------------------------------------------------------------------	----

DOI: dx.doi.org/10.15828/2075-8545-2015-7-6-16-23

Electronic edition «NANOTECHNOLOGIES IN CONSTRUCTION: A Scientific Internet-Journal» has been included in the prestige international journal data base DOAJ (Sweden)	24
----------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----

HAPPY NEW YEAR 2016! 26

INTERNATIONAL EXPERIENCE

UDC 69.001.5

Gryaznov I.V., Figovsky O.L. The new technology for manufacturing polymer Nanopowder. Part 2	28
-----------------------------------------------------------------------------------------------------------	----

DOI: dx.doi.org/10.15828/2075-8545-2015-7-6-28-57

INTERNATIONAL EXHIBITIONS

LE MONDIAL DU BÂTIMENT – a real Paris construction week which united 3 largest industrial exhibitions: BATIMAT, INTERCLIMA+ELEC and IDEOBAIN (2–6 November 2015, Paris, France)	58
---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----



INTERNATIONAL COOPERATION

Information about upcoming Recommendation of the Council of Eurasian Economical Comission «On the development of cooperation between the states – members of Eurasian economic union in the nanoindustrial area».....	64
-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----

INTERNATIONAL PRIZE

About the international Tang Prize	67
------------------------------------------	----

THE REVIEW OF PATENTS FOR INVENTIONS, UTILITY MODELS, INDUSTRIAL MODELS

UDC 608; 69.001.5

<i>Vlasov V.A.</i> The review of patents in the area of nanotechnologies and nanomaterials. Part 4	71
-------------------------------------------------------------------------------------------------------------	----

DOI: dx.doi.org/10.15828/2075-8545-2015-7-6-71-88

The electronic edition «NANOTECHNOLOGIES IN CONSTRUCTION: A Scientific Internet-Journal».....	89
-----------------------------------------------------------------------------------------------	----

INTERNATIONAL BOOK REVIEW

<i>Kudryavtsev P.G., Figovsky O.L.</i> The Sol-Gel Technology of Porous Composites	93
------------------------------------------------------------------------------------------	----

The programme «RUSSIAN CONSTRUCTION OLYMPUS» celebrates 20 years!	101
-------------------------------------------------------------------------	-----

XXIV Siberian construction forum	112
----------------------------------------	-----

THE CONTENT OF THE JOURNALS ISSUED IN 2015.....	113
-------------------------------------------------	-----

ON THE OBSERVANCE OF PUBLISHING ETHICS BY THE EDITORS OF ELECTRONIC EDITION «NANOTECHNOLOGIES IN CONSTRUCTION: A SCIENTIFIC INTERNET-JOURNAL» AND THE STATEMENT OF PREVARICATION ABSENCE.**ON THE USE OF THE CONTENT IN ACCORDANCE WITH CREATIVE COMMONS CC-BY «ATTRIBUTION».****DECLARATION OF THE OPEN ACCESS JOURNAL**

General statements, paper format guidelines, the topics of published materials, paper structure, reference format. The authors of the published materials allow the use of the content according to the license Creative Commons CC-BY «Attribution». Declaration Open Access of the journal.....	137
------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----

CALENDAR FOR 2016	172
-------------------------	-----

