Table of Contents

Preface, Scientific Committee

Chapter 1: Building Materials for Buildings and Structures

Increasing Hot Rolling Mass of Steel Sheet Products V. Artiukh, V. Mazur and R.V. Prakash	3
Heat Liberation of Barium Cements as a Background of their Application in Mass Concrete Structures	
Y. Barabanshchikov, T. Belkina, A. Muratova and A. Bieliatynskyi	9
Improving Producing Characteristics of Constructions through FE-NI and FE-NI-CR Alloy Coatings with a Given Structure I. Zhikhareva, N. Smirnova, V. Schmidt and O. Vorobyev	16
Biological Resistance of Cement Composites Filled with Limestone Powders V. Erofeev, V. Kalashnikov, D. Emelyanov, E. Balathanova, I. Erofeeva, O. Smirnova, I. Tretiakov and A. Matvievskiy	22
Physical and Mechanical Properties of the Cement Stone Based on Biocidal Portland Cement with Active Mineral Additive V. Erofeev, V. Kalashnikov, S. Karpushin, A. Rodin, V. Smirnov, O. Smirnova, M. Moroz, V.	
Rimshin, I. Tretiakov and A. Matvievskiy	28
Biological Resistance of Cement Composites Filled with Dolomite Powders V. Erofeev, V. Kalashnikov, D. Emelyanov, E. Balathanova, I. Erofeeva, V. Smirnov, I. Tretiakov and A. Matvievskiy	33
Flammability of the Disperse-Filled Polymer Composites A. Askadsky, V. Ushkov, V. Smirnov and V. Voronin	40
Self-Organization Processes in Silicate and Cement Construction Materials Y. Sidorenko and S.F. Korenkova	47
The Strength Quantum Theory for Crystals with Nanodefects M. Hlystunov and Z. Mogiljuk	53
Eco-Friendly Polymer Construction Materials V. Gerasimova and O. Zotikova	62
Treatment of Natural Zeolites for Increasing the Sorption Capacity M.G. Bruyako, L. Grigorieva, A. Grigorieva and I. Ivanova	70
Nano Filled Facade Plasters to Increase Durability of Building and Structures E. Perlova, M. Platonova, E. Bondarenko, I. Togo, A. Tereshchenko and A. Fikfak	76
Influence of Fillers on Polyvinyl Chloride Materials Thermal Resistance R. Nizamov and L.A. Abdrakhmanova	84
The Problem of Structurization of Liquid Glass	
S. Radayev, O. Seleznyova, K. Ilyukhin, K. Ivanov and N. Forosevich	90
Theoretical Evaluation of Rheological State of Sand Cement Composite Systems with Polyoxyethylene Additive Using Topological Dynamics Concept V. Erofeev, A.A. Bobryshev, A. Lakhno, L.N. Shafigullin, I. Khalilov, K. Sibgatullin and R.	
Igtisamov	96
Polymer-Cement Material for Corrosion Protection of Reinforced Concrete Elements Y.B. Potapov, S.A. Pinaev, A.A. Arakelyan and A.D. Barabash	104
Structure Formation and Phase Composition of Sulfur-Bitumen Systems V. Gladkikh, E. Korolev and D. Husid	110
About the Possibility of Applying Coloured Soil-Cement in Making Road Pavement Layers V. Malikov, Y. Panasiuk and V. Strikha	118
Recycling Waste Wood of Construction L. Grigorieva and P. Oleinik	126
Studying of Innovative Qualities at Experts in the Field of Production and Use of Eco- Friendly Construction Materials	
E.V. Romanova	132

138
146
154
160
166
173
185
185 192
192
192 199
192 199 208