ФЕДЕРАЛЬНОЕ ГОСУДАРСТВЕННОЕ БЮДЖЕТНОЕ УЧРЕЖДЕНИЕ НАУКИ ИНСТИТУТ СИНТЕТИЧЕСКИХ ПОЛИМЕРНЫХ МАТЕРИАЛОВ ИМ. Н.С. ЕНИКОЛОПОВА РОССИЙСКОЙ АКАДЕМИИ НАУК

Центр исследования полимеров

Перечень публикаций, подготовленных по результатам работ, выполненных с использованием научного оборудования ЦКП за 2024 год

No	ID	Вид публикации	Наименование публикации	DOI публикации	Автор(ы)	Издание, номер, год	ISSN / ISBN издания	Индексация издания	Краткое описание научных результатов	Наличие в публикации ссылки на ЦКП	Страница, содержащая ссылку на ЦКП
1	1A	2	3	4	5	6	7	8	9	10	11
1	380	журнал	Synthesis and properties of new thermosetting oligoimides containing terminal propargyl groups	10.1007/s11172-024-4386-4	Bochenkov V S, Kuznetsov A A, Buzin A I, Abramov I G, Tsegelskaya A Yu, Baklagin V L, Piskarev M S, Shamsutdinova R N, Ryzhkov A I	Russian Chemical Bulletin, 9, 2024	1573-9171	РИНЦ		Да	2738
2	381	журнал	Novel thermosetting diimides containing terminal propargyl groups	10.1007/s11172-024-4388-2	Bochenkov V S, Kuznetsov A A, Buzin A I, Abramov I G, Tsegelskaya A Yu, Baklagin V L, Ryzhkov A I, Shamsutdinova R N	Russian Chemical Bulletin, 9, 2024	1573-9171	РИНЦ		Да	2757
3	382	журнал	Silicon-Containing Dendrimer with Long Spacers between Branching Points	10.32931/io2414a	Klokova K S	ИНЭОС OPEN, 1-3, 2024	2658-5618	РИНЦ	<jats:p>Dendrimers are macromolecules with a highly ordered, hyperbranched globular structure, which is ideal for a number of high-tech applications owing to the monodispersity, well-defined functionality, and combinatorial potential. In this communication, the synthesis of the first-generation silicon-containing dendrimer with long spacers between branching points using a combination of polyaddition reactions is presented.</jats:p>	Да	32
4	383	журнал	Crystals of para-Quaterphenyl and Its Trimethylsilyl Derivative. I: Growth from Solutions, Structure, and Crystal Chemical Analysis by the Hirschfeld Surface Method	10.1134/s1063774524601886	Sorokina N I, Surin N M, Svidchenko E A, Borshchev O V, Sorokin T A, Kulishov A A, Yurasik G A, Lyasnikova M S, Postnikov V A	Crystallography Reports, 5, 2024	1562-689X	РИНЦ		Да	769

No	ID	Вид публикации	Наименование публикации	DOI публикации	Автор(ы)	Издание, номер, год	ISSN / ISBN издания	Индексация издания	Краткое описание научных результатов	Наличие в публикации ссылки на ЦКП	Страница, содержащая ссылку на ЦКП
1	1A	2	3	4	5	6	7	8	9	10	11
5	384	журнал	Crystals of 4,7-Bis(2,5-dimethyl-[1,1'-biphenyl]-4-yl)benzothiadiazole and Its Derivative with Terminal n-Hexyl Substitutes: Growth, Structure, Thermal and Absorption/Fluorescent Properties	10.1134/s1063774524602028	Sorokin T A, Borshchev O V, Surin N M, Svidchenko E A, Popova V V, Lyasnikova M S, Kulishov A A, Yurasik G A, Sorokina N I, Postnikov V A	Crystallography Reports, 6, 2024	1562-689X	РИНЦ		Да	966
6	385	журнал	Liquid benzothiadiazole-based organic luminophores emitting light from the blue to red spectral region: synthesis, properties, and application in liquid scintillators	10.1016/j.dyepig.2024.112003	Kalinichenko Nadezhda K, Balakirev Dmitry O, Dyadishchev Ivan V, Luponosov Yuriy N, Ponomarenko Sergey A, Bakirov Artem V, Shashkanova Olga Yu, Vasilev Victor G, Peregudova Svetlana M, Surin Nikolay M, Svidchenko Evgenia A	Dyes and Pigments, 2024	0143-7208	РИНЦ		Да	11

No	ID	Вид публикации	Наименование публикации	DOI публикации	Автор(ы)	Издание, номер, год	ISSN / ISBN издания	Индексация издания	Краткое описание научных результатов	Наличие в публикации ссылки на ЦКП	Страница, содержащая ссылку на ЦКП
1	1A	2	3	4	5	6	7	8	9	10	11
7	386	журнал	Tailoring Wetting Properties of Organic Hole-Transport Interlayers for Slot-Die-Coated Perovskite Solar Modules	10.1002/solr.202400437	Muratov Dmitry S, Kozlov Sergey S, Alekseev Aleksandr O, Saratovsky Nikita S, Balakirev Dmitry O, Sukhorukova Polina K, Le Thai Son, Ilicheva Ekaterina A, Chuyko Irina A, Luchnikov Lev O, Saranin Danila S, Luponosov Yuriy N, Maloshitskaya Olga A, Svidchenko Evgenia A, Polyakov Alexander Y, Vasilev Anton A, Ilina Tatiana S, Kiselev Dmitry A, Gostishchev Pavel A, Voronov Victor A	Solar RRL, 22, 2024	2367-198X	РИНЦ	<jats:p>The strategy of incorporating self-assembled monolayers (SAMs) with anchoring groups is an effective and promising method for interface engineering in perovskite solar cells with metal oxide charge-transporting layers. However, coating SAM layers in upscaled perovskite solar modules (PSMs) using slot-die coating is challenging due to the low viscosity and wettability of the solutions. In this study, a triphenylamine-based polymer poly([{5-[4-(diphenylamino)phenyl]-2-thienyl}(4-fluorophenyl) methylene]malononitrile) (pTPA)–TDP, blended with SAM based on 5-[4-[4-(diphenylamino)phenyl]thiophene-2-carboxylic acid, is integrated to address these challenges. And, p–<jats:italic>i</jats:italic>–n-oriented PSMs on 50 × 50 mm<jats:sup>2</jats:sup> substrates (12 sub-cells) are fabricated with a NiO hole-transport layer and organic interlayers for surface modification. Wetting angle mapping shows that ununiform regions of the slot-die-coated SAM has extreme hydrophobicity, causing absorber thickness fluctuations and macro-defects at buried interfaces. The blended interlayer at the NiO/perovskite junction homogenizes surface wettability and mitigates lattice strain, enabling the effective use of SAM properties on large surfaces. This improved energy level alignment, enhancing the power conversion efficiency of the modules from 13.98% to 15.83% and stability (ISOS-L-2, <jats:italic>T</jats:italic><jats:sub>80</jats:sub> period) from 500 to 1630 h. In these results, the complex effects of using SAM in slot-die-coating technology for large-scale perovskite photovoltaics are highlighted.</jats:p>	Да	13
8	387	журнал	Novel organic luminophores with benzene-1,3,5-triyl branching units	10.1016/j.mencom.2024.02.004	Fedorov Yury V, Ponomarenko Sergey A, Surin Nikolay M, Svidchenko Evgeniya A, Pisarev Sergey A, Borshchev Oleg V, Levkov Lev L	Mendeleev Communications, 2, 2024	1364-551X	РИНЦ		Да	173

No	ID	Вид публикации	Наименование публикации	DOI публикации	Автор(ы)	Издание, номер, год	ISSN / ISBN издания	Индексация издания	Краткое описание научных результатов	Наличие в публикации ссылки на ЦКП	Страница, содержащая ссылку на ЦКП
1	1A	2	3	4	5	6	7	8	9	10	11
9	388	журнал	Синтез и фазовое поведение нового кремнийорганического полимера с фрагментами [1]бензотиено[3,2-b][1]бензотиофена в основной цепи	10.31857/S2308114724010088	Гудкова И О, Пономаренко С А, Чвалун С Н, Бакиров А В, Борщев О В, Заборин Е А	ВЫСОКОМОЛЕКУЛЯРНЫЕ СОЕДИНЕНИЯ. СЕРИЯ С, 1, 2024	2412-9860	РИНЦ	<jats:p>Описан синтез нового карбосилан-силоксанового полимера [Si–O–Si–C11–BTBT–C11]n с фрагментами [1]бензотиено[3,2-b][1]бензотиофена (BTBT) в основной цепи. Синтез мономеров осуществлен путем последовательного введения функциональных алкильных заместителей в ядро BTBT с использованием реакции Фриделя–Крафтса с последующим восстановлением кето-группы. Целевой полимер получен по реакции гидросилилирования между 2,7-бис-(10-ундецен-1-ил)-BTBT и 2,7-бис-(11-(1,1,3,3-тетраметилдисилоксан)-ундецил)-BTBT. Все новые соединения получены с высокой чистотой, что подтверждено методами спектроскопии ЯМР 1H и ЯМР 13C, гель-проникающей хроматографии и элементного анализа. Структура и фазовое поведение синтезированного полимера исследованы методами дифференциальной сканирующей калориметрии, поляризационной оптической микроскопии и рентгеноструктурного анализа, а также определены тип упорядочения вещества и природа фазовых переходов в цикле нагревания и охлаждения.</jats:p>	Да	91
10	394	статья	БИОРАЗЛАГАЕМЫЕ КОМПОЗИЦИОННЫЕ МАТЕРИАЛЫ НА ОСНОВЕ ПОЛИЛАКТИДА И КРАХМАЛА			Академкнига, 2024	2500-2341/0234-2758			Да	8

No	ID	Вид публикации	Наименование публикации	DOI публикации	Автор(ы)	Издание, номер, год	ISSN / ISBN издания	Индексация издания	Краткое описание научных результатов	Наличие в публикации ссылки на ЦКП	Страница, содержащая ссылку на ЦКП
1	1A	2	3	4	5	6	7	8	9	10	11
11	395	журнал	Functional Polyorganosilsesquioxane Nanocomposite Hydrogels With Encapsulated Silver Nanoparticles – Promising Compounds Against Gastrointestinal Pathogen Bacteria	10.1002/slct.202400441	Rozanova J V, Muzafarov A M, Shitikov E A, Milenin S A, Meshkov I B, Migulin D A	ChemistrySelect, 16, 2024	2365-6549	РИНЦ	<jats:title>Abstract</jats:title><jats:p>Nowadays the most common gastrointestinal related gram-negative <jats:italic>H. pylori</jats:italic> and <jats:italic>E. coli</jats:italic> pathogen bacteria that are considered to be the main causes for the development of various gastric diseases and bloodstream infections are rapidly developing resistance against the standard antibiotics, commonly used in the clinical practices. One of the alternative high potential approaches for solving problems of bacterial resistance includes applications of silver-based materials and silver nanoparticles (AgNPs). In the present study two types of amine- and triazol- functional polyorganosilsesquioxane nanocomposite sorbent hydrogels with narrowly dispersed AgNPs were developed. In vitro antibacterial activity and cytotoxicity tests showed concentration- and time-dependent activity of the prepared nanocomposites against gram-negative <jats:italic>E. coli</jats:italic> and <jats:italic>H. pylori bacteria</jats:italic> and a reduced cytotoxicity towards <jats:italic>Caco-2</jats:italic> human colon epithelial cells. Molecular structures and chemical compositions of the synthesized composites elucidated with transmission and scanning electron microscopy and UV-Vis spectroscopy revealed spherical and narrowly dispersed along the polymer matrices AgNPs with average sizes of 3–5 nm. It was estimated that the chemical composition and particularly the zeta-potentials values that were found to be dependent on the molecular structures of the synthesized nanocomposites had a high influence on the AgNPs antibacterial activity and cytoxicity profiles.</jats:p>	Да	6
12	396	журнал	The influence of polymer dielectrics on electrical and sensory properties of organic field-effect transistors	10.1007/s11172-024-4438-9	Nagorny V A, Ponomarenko S A, Agina E V, Gaidarzhi V P, Trul A A	Russian Chemical Bulletin, 11, 2024	1573-9171	РИНЦ		Да	3237
13	397	журнал	Fully printed polymer capacitive gas sensor for ammonia and toluene detection	10.1007/s11172-024-4148-3	Abramov A A, Ponomarenko S A, Agina E V, Trul A A, Gaidarzhi V P	Russian Chemical Bulletin, 2, 2024	1573-9171	РИНЦ		Да	419

No	ID	Вид публикации	Наименование публикации	DOI публикации	Автор(ы)	Издание, номер, год	ISSN / ISBN издания	Индексация издания	Краткое описание научных результатов	Наличие в публикации ссылки на ЦКП	Страница, содержащая ссылку на ЦКП
1	1A	2	3	4	5	6	7	8	9	10	11
14	409	журнал	Crown ether-containing derivative of [1]benzothieno[3,2-b]benzothiophene for receptor layers of electrolyte-gated organic field-effect transistors	10.1007/s11172-024-4439-8	Poymanova E Yu, Ponomarenko S A, Agina E V, Cherkaev G V, Borshchev O V, Skorotetcky M S, Kuleshov B S	Russian Chemical Bulletin, 11, 2024	1573-9171	РИНЦ		Да	3249
15	410	журнал	Methoxylated bis(pentafluorophenyl)boron-β-diketonates: Synthesis, Optical Properties and Hydrolytic Stability	10.1002/cptc.202300317	Muzafarov Aziz M, Alfimov Mikhail V, Sazhnikov Viacheslav A, Karnaeva Anastasia I, Safonov Andrey A, Ionov Dmitry S, Kononevich Yuriy N, Filippov Maxim V	ChemPhotoChem, 9, 2024	2367-0932		<jats:title>Abstract</jats:title><jats:p>A series of methoxylated bis(pentafluorophenyl)boron-<jats:italic>β</jats:italic>-diketonates (dkB(C<jats:sub>6</jats:sub>F<jats:sub>5</jats:sub>)<jats:sub>2</jats:sub>) with intense emission has been synthesized and characterized by a variety of physicochemical methods. The photophysical properties of the synthesized compounds were thoroughly investigated by electronic absorption, steady-state, and time-resolved fluorescence spectroscopy in both solution and solid state. The studied compounds exhibit solvatochromic behavior attributed to the intramolecular charge transfer (ICT) nature of the first excited state. The formation of exciplexes between DBMB(C<jats:sub>6</jats:sub>F<jats:sub>5</jats:sub>)<jats:sub>2</jats:sub> and benzene derivatives was also studied. Notably, the studied compounds display a complex luminescence profile in the solid state, featuring fluorescence, delayed fluorescence and phosphorescence emission. Furthermore, the hydrolytical stability of the complexes was assessed, demonstrating excellent resistance to hydrolysis. Estimated rate constants, determined at 60 °C, are significantly lower (90-2000 times) than those observed for the well-studied dibenzoylmethanatoboron difluoride (DBMBF<jats:sub>2</jats:sub>). The incorporation of pentafluorophenyl substituents at the boron atom enables the synthesis of highly fluorescent and hydrolytically stable boron chelate complexes, suitable for sensing and bioimaging applications in water-containing environments.</jats:p>	Да	16
16	411	журнал	Modification of Polyvinyltrimethylsilane Films by a 40 kHz Glow Discharge Plasma	10.1134/s2075113324020473	Zinoviev A V, Kuznetsov A A, Teplyakov V V, Syrtsova D A, Gatin A K, Senatulin B R, Skryleva E A, Gilman A B, Piskarev M S	Inorganic Materials: Applied Research, 2, 2024	2075-115X	РИНЦ		Да	551

No	ID	Вид публикации	Наименование публикации	DOI публикации	Автор(ы)	Издание, номер, год	ISSN / ISBN издания	Индексация издания	Краткое описание научных результатов	Наличие в публикации ссылки на ЦКП	Страница, содержащая ссылку на ЦКП
1	1A	2	3	4	5	6	7	8	9	10	11
17	412	журнал	Effect of the Chemical Nature of MQ Copolymers on the Rheological Properties of Compositions on Their Basis	10.32931/io2310a	Kulichikhin V G, Muzafarov A M, Meshkov I B, Mironova M V	ИНЭОС OPEN, 2024	2658-5618	РИНЦ	<jats:p>The rheological and rheokinetic properties of the compositions based on low-molecular rubber polyisoprene and MQ copolymer particles with decyl terminal groups were studied. The effect of the ratio of M and Q units in the copolymer on the rheological and mechanical properties of the compositions was analyzed. An increase in the length of a hydrocarbon substituent in M units was shown to lead to an increase in the affinity of the copolymer to the carbon-chain polymer matrix. An increase in the content of Q units facilitates the growth of the elastic modulus of the cured composites.</jats:p>	Да	5
18	413	журнал	Use of Tetrakis(2-ethoxyethoxy)silane for the Preparation of Ethylalkoxysilanes of a Single Structure by the Organomagnesium Methods	10.32931/io2403a	Ardabevskaia S N, Muzafarov A M, Milenin S A	ИНЭОС OPEN, 2024	2658-5618	РИНЦ	<jats:p>A new method for obtaining individual ethylalkoxysilanes of various types of substitution without using chlorosilanes is proposed based on the reactions of tetrakis(2-ethoxyethoxy)silane with the Grignard reagents. The structures of the compounds obtained are confirmed by NMR spectroscopy and GLC.</jats:p>	Да	6
19	414	журнал	Preparation of Polydimethylsiloxane Copolymers by the Azide–Alkyne Huisgen Cycloaddition Method	10.32931/io2404a	Milenin S A, Klokova K S, Bakanov K K, Bezlepkina K A, Muzafarov A M, Kramarenko E Yu	ИНЭОС OPEN, 2024	2658-5618	РИНЦ	<jats:p>The copolymers containing alternating siloxane and urethane units in the chain as well as ester moieties were synthesized by the azide–alkyne cycloaddition without application of a solvent and copper salts as catalysts. The resulting copolymers were analyzed by NMR spectroscopy and gel permeation chromatography.</jats:p>	Да	8
20	415	журнал	Preparation of Allyl-Containing PDMS Telehelics by the Anionic Ring-Opening Polymerization	10.32931/io2405a	Belikova I I, Krylov F D, Muzafarov A M, Milenin S A, Bezlepkina K A, Ardabevskaia S N	ИНЭОС OPEN, 2024	2658-5618	РИНЦ	<jats:p>The synthesis of allyl-containing PDMS telechelics from octamethylcyclotetrasiloxane and 1,3-diallyl-1,1,3,3-tetramethyldisiloxane as a stopper by the anionic ring-opening of a siloxane ring is presented. A series of the polymers with the molecular weights from 1000 to 12000 were obtained and characterized by gel permeation chromatography and 1H NMR spectroscopy. The molecular weights of the resulting polymers correspond to the given ones.</jats:p>	Да	10
21	416	журнал	Hollow Silica Particles from Silica Sol	10.32931/io2406a	Borisov K M, Borisova D M, Kalinina A A, Muzafarov A M	ИНЭОС OPEN, 2024	2658-5618	РИНЦ	<jats:p>The possibility to obtain hollow particles using silica sol as a precursor of a silica shell at different pH values of a D4 emulsion in water is studied. It is shown that the yield of particles, their structure and sizes strongly depend on the pH value.</jats:p>	Да	12

No	ID	Вид публикации	Наименование публикации	DOI публикации	Автор(ы)	Издание, номер, год	ISSN / ISBN издания	Индексация издания	Краткое описание научных результатов	Наличие в публикации ссылки на ЦКП	Страница, содержащая ссылку на ЦКП
1	1A	2	3	4	5	6	7	8	9	10	11
22	417	журнал	Hyperbranched Organosilicon Surfactants as Emulsifiers for the Emulsion Polymerization of Methyl Methacrylate	10.32931/io2407a	Borisova D M, Muzafarov A M, Kalinina A A, Borisov K M	ИНЭОС OPEN, 2024	2658-5618	РИНЦ	<jats:p>This report is devoted to the investigation of the emulsion polymerization of methyl methacrylate in the presence of PEGylated hyperbranched polymethylethoxysiloxane as an emulsifier. It is shown that its use in the amount of 1–5 wt % affords stable 25–50% poly(methyl methacrylate) dispersions with the controlled particle sizes from 300 to 800 nm and a narrow particle size distribution.</jats:p>	Да	14
23	418	журнал	Synthesis of Hexamethyltrisiloxanediol and 1,1,3,3,5,5,7-Heptamethyl-7-phenylcyclotetrasiloxane on Its Basis	10.32931/io2410a	Koshutina K D, Muzafarov A M, Kalinina A A, Talalaeva E V	ИНЭОС OPEN, 1-3, 2024	2658-5618	РИНЦ	<jats:p>A method for the directed synthesis of hexamethyltrisiloxanediol and 1,1,3,3,5,5,7-heptamethyl-7-phenylcyclotetrasiloxane from sodium hexamethyltrisiloxanediolate in 90% and 55% yields, respectively, is suggested.</jats:p>	Да	22
24	495	журнал	olymethylsilsesquioxane Oligomers as Ecologically Friendly Binding Agents for Particle Boards	10.32931/io2419a	Borisova D M, Muzafarov A M, Serenko O A, Afanasyev E S, Kalinina A A, Litvinov E A	ИНЭОС OPEN, 1-3, 2024	2658-5618	РИНЦ	<jats:p>The possibility of using multifunctional methylsilsesquioxane oligomers as ecologically friendly binding agents for wood chipboards is investigated. The physical and mechanical properties of the resulting particle boards are studied and compared with those of the boards containing a formaldehyde resin as a binder.</jats:p>	Да	43
25	496	журнал	Synthesis of Organocyclosiloxanes Containing a Methylbenzylsiloxane Moiety	10.32931/io2421a	V. V. Gorodov, A. M. Muzafarov, S. A. Milenin, E. A. Olenich	ИНЭОС OPEN, 1-3, 2024	2658-5618	РИНЦ	<jats:p>The synthesis of mixed polyorganosiloxanes is nowadays of paramount industrial importance for obtaining new copolymers by the simple ring-opening polymerization. In this work, the synthesis and characterization of a new mixed cycle with one methylbenzyl moiety are presented.</jats:p>	Да	47
26	497	журнал	Thermal Characteristics of the Epoxy–Metallosiloxane Compositions Filled with Phenylsiloxane Resins	10.32931/io2422a	Tarasenkov A N, Muzafarov A M, Borisov K M, Afanasyev E S, Parshina M S	ИНЭОС OPEN, 1-3, 2024	2658-5618	РИНЦ	<jats:p>A method for increasing the glass transition temperature of the compositions obtained by curing an epoxy-diane resin with a partially siloxy-substituted organo(alkoxy)(zirconium)siloxane by introducing phenylsiloxane resins is considered. The initial content of zirconium siloxane was 10 wt %. It is shown that the introduction of the siloxane resins in 10–50 wt % relative to the epoxy resin is capable of not only increasing the glass transition temperature of the material almost twice, but also enhancing the curing degree of the system.</jats:p>	Да	51
27	498	журнал	Synthesis of Cyclic Oligomethylphenylsiloxanes in an Active Medium	10.32931/io2427a	Kalinina A A, Muzafarov A M, Talalaeva E V	ИНЭОС OPEN, 1-3, 2024	2658-5618	РИНЦ	<jats:p>The polycondensation of diethoxy(methyl)phenylsilane in an active medium in the presence of acetyl chloride or cation exchanger Purolite CT 175 has been studied, and their effect on the rate and selectivity of the process has been evaluated. It is shown that the use of the sulfonic cation exchanger allows for achieving 100% yields of methylphenylcyclosiloxanes.</jats:p>	Да	64

No	ID	Вид публикации	Наименование публикации	DOI публикации	Автор(ы)	Издание, номер, год	ISSN / ISBN издания	Индексация издания	Краткое описание научных результатов	Наличие в публикации ссылки на ЦКП	Страница, содержащая ссылку на ЦКП
1	1A	2	3	4	5	6	7	8	9	10	11
28	499	журнал	Synthesis and Properties of Polysiloxane Copolymers with Urea Fragments for 3D Printing	10.32931/io2442a	Gorodov V V, Kramarenko E Yu, Zou J, Kostrov S A, Olenich E A	ИНЭОС OPEN, 1-3, 2024	2658-5618	РИНЦ	<jats:p>3D printing by the fused deposition modeling (FDM) method has become widespread nowadays. Soft materials, which are suitable for FDM printing, can be utilized to print soft robots capable of deformation under various stimuli (such as magnetic, electric fields, or light). In this study, a polysiloxane copolymer with urea fragments with sufficient softness was synthesized and filaments based on it were produced for 3D printing.</jats:p>	Да	104
29	500	журнал	PDMS-based copolymers with polyurea blocks and 1,2,3-triazole blocks obtained by CuAAC polymerization for 3D printing	10.1016/j.reactfunctpolym.2024.106005	Klokova Kseniia S, Milenin Sergey A, Kramarenko Elena Yu, Zou Jun, Muzafarov Aziz M, Chvalun Sergey N, Drozdov Fedor V, Bakirov Artem V, Kostrov Sergei A, Khanin Dmitriy A, Buzin Alexander I, Krupnin Artur E, Bezlepkina Kseniya A, Ardabevskaia Sofia N, Bakanov Kirill K	Reactive and Functional Polymers, 2024	1381-5148	РИНЦ		Да	9
30	501	журнал	From silicon to silicones without dimethyldichlorosilane: direct green mechanochemical synthesis of methylmethoxysilanes from silicon and dimethyl ether	10.1039/d4gc00472h	Kryzhanovskii I N, Muzafarov A M, Chistovalov S M, Naumkin A V, Frank I V, Ratnikov A K, Anisimov A A, Temnikov M N	Green Chemistry, 11, 2024	1463-9270	РИНЦ	<jats:p>First gram-scale synthesis of methylmethoxysilanes <jats:italic>via</jats:italic> mechanochemical direct reaction of Si with dimethyl ether, achieving nearly 100% silicon conversion and high selectivity for dimethylsilyl-containing products.</jats:p>	Да	6663
31	502	журнал	Effect of Metal Catalysis and Functionality of a Metallosiloxane during the Formation of Metallosiloxane–Epoxy Materials	10.32931/io2423a	Parshina M S, Muzafarov A M, Tarasenkov A N, Pletnev S I	ИНЭОС OPEN, 1-3, 2024	2658-5618	РИНЦ	<jats:p>The catalytic activity of a wide range of metals incorporated into the structures of metallosiloxane oligomers in the curing process of epoxy-diane resins has been estimated. From the viewpoint of activity, the most preferable metallosiloxanes are those containing Al, Hf, and Nb, and from the viewpoint of cost—Al, Ti, FeII, Zr. It is shown that the structure and functionality of the metallosiloxane can serve as the factors to control the formation of a metallosiloxane–epoxy material, which allows for increasing the efficiency of metal catalysis.</jats:p>	Да	55
32	503	журнал	Crosslinking Kinetics for Blends of Polyisoprene and MQ Copolymers	10.1134/s1560090424601213	Meshkov I B, Muzafarov A M, Kulichikhin V G, Shandryuk G A, Mironova M V	Polymer Science - Series B, 2024	1560-0904	РИНЦ		Да	6

No	ID	Вид публикации	Наименование публикации	DOI публикации	Автор(ы)	Издание, номер, год	ISSN / ISBN издания	Индексация издания	Краткое описание научных результатов	Наличие в публикации ссылки на ЦКП	Страница, содержащая ссылку на ЦКП
1	1A	2	3	4	5	6	7	8	9	10	11
33	507	журнал	Preparation and Study of Solid Dispersions of Acyclovir with Starch and Carboxymethylcellulose	10.1134/s1811238224600101	Romanenko N A, Khavpachev M A, Akopova T A, Svishcheva N B, Kryuk T V, Ivanov P L, Popyrina T N	Polymer Science - Series C, 1, 2024	1811-2382	РИНЦ		Да	6
34	508	журнал	Synthesis of Vinyl-Containing Polydimethylsiloxane in An Active Medium	10.3390/polym16020257	Tukhvatshin Rinat S, Muzafarov Aziz M, Ponomarenko Sergey A, Cherkaev Georgii V, Meshkov Ivan B, Kalinina Aleksandra A, Khmelnitskaia Alina G	Polymers, 2, 2024	2073-4360	РИНЦ	<jats:p>This research deals with the synthesis of copoly(methylvinyl)(dimethyl)siloxanes by the copolycondensation of dimethyldiethoxy- and methylvinyldimethoxysilane in an active medium, followed by thermal condensation in a vacuum. We achieved a range of copolymers exhibiting finely tuned molecular weights spanning between 1500 and 20,000 with regulated functional methylvinylsiloxane units. Analysis of the microstructure showed that the copolymerization predominantly formed products demonstrating a random distribution of units (R~1). However, an increase in the content of vinyl-containing monomers increases the R parameter, indicating an enhanced tendency towards alternating linkages within the copolymer matrix.</jats:p>	Да	15
35	509	журнал	Crystals of Diphenyl-Benzothiadiazole and Its Derivative with Terminal Trimethylsilyl Substituents: Growth from Solutions, Structure, and Fluorescence Properties	10.1021/acsomega.3c08543	Postnikov Valery A, Ponomarenko Sergey A, Surin Nikolay M, Svidchenko Evgeniya A, Pisarev Sergey A, Skorotetcky Maxim S, Borshchev Oleg V, Lyasnikova Maria S, Sorokin Timofei A, Yurasik Georgy A, Kulishov Artem A, Sorokina Nataliya I	ACS Omega, 13, 2024	2470-1343	РИНЦ		Да	13
36	510	журнал	Peculiar Features of the Reduction of Keto Group in the Synthesis of Mono- and Dialkyl-Substituted Benzo[b]benzo[4,5]thieno[2,3-d]thiophene	10.1134/s1070428024060137	Sorokina E A, Ponomarenko S A, Borshchev O V, Polinskaya M S, Zaborin E A, Gudkova I O	Russian Journal of Organic Chemistry, 6, 2024	1608-3393	РИНЦ		Да	1083
37	511	журнал	Synthesis of oligoimides with terminal nadic groups in the presence of a new cyclizing system methyltriethoxysilane — tertiary aliphatic amine	10.1007/s11172-024-4177-y	Tsegelskaya A Yu, Kuznetsov A A, Semenova G K, Piskarev M S, Ustimov A V	Russian Chemical Bulletin, 3, 2024	1573-9171	РИНЦ		Да	680

No	ID	Вид публикации	Наименование публикации	DOI публикации	Автор(ы)	Издание, номер, год	ISSN / ISBN издания	Индексация издания	Краткое описание научных результатов	Наличие в публикации ссылки на ЦКП	Страница, содержащая ссылку на ЦКП
1	1A	2	3	4	5	6	7	8	9	10	11
38	512	журнал	Effect of Conformational States on the Photophysical Properties of Di-para-biphenyl-benzothiadiazole and a Dimethyl Derivative of It	10.1134/s0036024424030294	Svidchenko E A, Borschev O V, Yurasik G A, Postnikov V A, Lyasnikova M S, Popova V V, Skorotetskii M S, Surin N M	Russian Journal of Physical Chemistry A, 3, 2024	0036-0244	РИНЦ		Да	8
39	513	журнал	Silicone films with azo dyes moieties based on eugenol with response to Cu2+ metal ions	10.1016/j.matchemphys.2024.129248	Vasilyeva Alexandra A, Muzafarov Aziz M, Drozdov Fedor V, Cherkaev Georgij V, Ryzhkov Aleksei I	Materials Chemistry and Physics, 2024	0254-0584	РИНЦ		Да	6
40	515	журнал	SiO2-Filled Polydimethylsiloxane Compositions Functionalized with Carboxy and Thioether Groups	10.32931/io2429a	Shevchenko V G, Goncharuk G P, Tarasenkov A N, Ponomarenko S A	ИНЭОС OPEN, 1-3, 2024	2658-5618	РИНЦ	<jats:p>The possibility of application of carboxy- and thioether-containing alkoxysilanes as additives in the formation of elastomeric SiO2-filled polydimethylsiloxane (PDMS) compositions cured with zirconium siloxanes has been studied. It is shown that the introduction of these additives into the system ensures an increase in the dielectric constant, provided that the final components are compatible (up to ε' ≥ 4 at f =102 Hz). By varying the composition and initial ratio of the components, it is possible to achieve the desired mechanical characteristics suitable for using the resulting materials as actuators.</jats:p>	Да	72
41	516	журнал	Tuning Molecular Packing, Charge Transport, and Luminescence in Thiophene–Phenylene Co-Oligomer Crystals via Terminal Substituents	10.1021/acs.jpcc.4c02082	Borshchev Oleg V, Sorokina Nataliya I, Konstantinov Vladislav G, Trukhanov Vasiliy A, Sosorev Andrey Yu, Maslennikov Dmitry R, Dominskiy Dmitry I, Paraschuk Dmitry Yu, Ponomarenko Sergey A, Skorotetcky Maxim S	Journal of Physical Chemistry C, 22, 2024	1932-7455	РИНЦ		Да	9373
42	521	статья	ОСОБЕННОСТИ ВОССТАНОВЛЕНИЯ КЕТОГРУППЫ В СИНТЕЗЕ МОНО- И ДИАЛКИЛЗАМЕЩЕННЫХ ПРОИЗВОДНЫХ БЕНЗО[b]БЕНЗО[4,5]ТИЕНО[2,3-d]ТИОФЕНА			Наука, 2024	0514-7492			Да	23

No	ID	Вид публикации	Наименование публикации	DOI публикации	Автор(ы)	Издание, номер, год	ISSN / ISBN издания	Индексация издания	Краткое описание научных результатов	Наличие в публикации ссылки на ЦКП	Страница, содержащая ссылку на ЦКП
1	1A	2	3	4	5	6	7	8	9	10	11
43	523	статья	ИЗМЕНЕНИЕ КОНТАКТНЫХ И АДГЕЗИОННЫХ СВОЙСТВ МОДИФИЦИРОВАННЫХ В ПЛАЗМЕ ПЛЕНОК ПОЛИКЕТОНА ПРИ ХРАНЕНИИ В РАЗЛИЧНЫХ УСЛОВИЯХ			ООО «Наука и Технологии», 2024	1813-7008			Да	46
44	524	журнал	Получение и исследование твердых дисперсий ацикловира с крахмалом и карбоксиметилцеллюлозой	10.31857/s230811202402003 4	Попырина Т Н, Хавпачев М А, Акопова Т А, Свищева Н Б, Иванов П Л, Романенко Н А, Крюк Т В	ВЫСОКОМОЛЕКУЛЯРНЫЕ СОЕДИНЕНИЯ. СЕРИЯ А, 2, 2024	2412-9844	РИНЦ		Да	36
45	527	статья	Синтез и исследование поли(L-лактид-со-ε-капролактона) для создания биоразлагаемого мочеточникового стента			Морфология, 2024	1026-3543			Да	64

научный сотрудник _____ (Городов В. В.)