**Ключевые публикации по результатам, полученным в ЦКП ИОХ РАН за 2020-2024 гг.**

**Статьи в научных журналах**

**2020 год**

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**Патенты**

**2020 год**

1. **Патент № 2729424** **Российская Федерация** «Органический светоизлучающий диод» В. М. Коршунов, Т. Н. Чмовж, Е. А. Князева, И. В. Тайдаков, Л. В. Михальченко, Е. А. Вараксина, Р. Р. Сайфутяров, И. Х. Аветисов, О. А. Ракитин зарегистрирован в государственном реестре изобретений РФ 06.08.2020 по заявке № 2019142522 с приоритетом от 19.12.2019 г., Патентовладелец: ИОХ РАН.
2. **Патент № 2724764 Российская Федерация** «Способ получения наноразмерной нитроцеллюлозы или композитов на ее основе» / Жарков М.Н., Кучуров И.В., Злотин С.Г. // зарегистрирован в Гос. реестре изобретений РФ 25.06.**2020** г. по заявке № 2019130520 с приоритетом от 27.09.2019 г. Патентообладатель ИОХ РАН.
3. **Патент № 2729422 Российская Федерация** «Катализатор для удаления оксидов серы из дымовых газов электростанций» / Цыбулевский А.М., Боливар Э., Кустов Л. М., Грейш А.А., Соколовский П.В., Богданов В.Н., Гилядов И.Г. // зарегистрирован в государственном реестре изобретений РФ 06.08.2020 по заявке 2019133972 с приоритетом от 24.10.2019 Патентовладелец: ИОХ РАН и Компания М Кемикал Инкорпорейтед.
4. **Патент № 2729424** **Российская Федерация** «Органический светоизлучающий диод» В. М. Коршунов, Т. Н. Чмовж, Е. А. Князева, И. В. Тайдаков, Л. В. Михальченко, Е. А. Вараксина, Р. Р. Сайфутяров, И. Х. Аветисов, О. А. Ракитин зарегистрирован в государственном реестре изобретений РФ 06.08.2020 по заявке № 2019142522 с приоритетом от 19.12.2019 г., Патентовладелец: ИОХ РАН.
5. **Патент № 198292** **Российская Федерация** «Устройство для получения метано-водородной смеси» / Баннов А.Г, Брестер А.Е, Попов М.В. // зарегистрирован в государственном реестре полезных моделей РФ 30.06.2020 г. по заявке № 2020105482 с приоритетом от 04.02.2020 г. Патентовладельцы: ИОХ РАН, Новосибирский Государственный Технический Университет.
6. **Патент № 2747110 Российская Федерация** «Замещенные [(3-нитро-1*Н*-1,2,4-триазол-1-ил)-*NNO*-азокси]фуразаны и способ их получения» / Кленов М.С., Гуляев Д.А., Чураков А.М., Тартаковский В.А. // зарегистрирован в государственном реестре изобретений РФ 27.04.2021 г. по заявке № 2020133933 с приоритетом от 15.10.2020 г. Патентовладелец: ИОХ РАН.
7. **Патент № 2756321 Российская Федерация** «Замещенные [(3,4-динитро-1*Н*-пиразол-1-ил)-*NNO*-азокси]фуразаны и способ их получения» / Кленов М.С., Коннов А.А., Чураков А.М., Тартаковский В.А. // зарегистрирован в государственном реестре изобретений РФ 29.09.2021 по заявке № 2020135027 с приоритетом от 26.10.2020 г. Патентовладелец: ИОХ РАН.

**2021 год**

1. **Патент № 2752760** **Российская Федерация** «Замещенные трициклические органические монопероксиды и способ их получения» / Яременко И.А., Радулов П.С., Белякова Ю.Ю., Терентьев А. О. // зарегистрирован в государственном реестре изобретений РФ 02.08.2021 г. по заявке № 2020141055 с приоритетом от 14.12.2020г. Патентообладатель: ИОХ РАН
2. **Патент № 2752940** **Российская Федерация** «Способ получения замещенных 5-гидроперокси-5-алкил-1,2-диоксолан-3-онов» / Барсегян Я. А., Виль В. А., Терентьев А. О. // зарегистрирован в государственном реестре изобретений РФ 11.08.2021 г. по заявке № 2020141057 с приоритетом от 14.12.2020г. Патентообладатель: ИОХ РАН.
3. **Патент № 2752951** **Российская Федерация** «Органический светоизлучающий диод» / Коршунов В.М., Чмовж Т. Н., Голованов И.С., Князева Е.А., Михальченко Л.В., Сайфутяров Р.Р., Аветисов И.Х., Тайдаков И. В., Ракитин О.А. // зарегистрирован в государственном реестре изобретений РФ 11.08.2021 г. по заявке № 2020137242 с приоритетом от 12.11.2020 г. Патентообладатель: ИОХ РАН
4. **Патент № 2752957** **Российская Федерация** «Способ получения трициклических органических дипероксидов» / Яременко И.А., Радулов П.С., Белякова Ю.Ю., Терентьев А. О. // зарегистрирован в государственном реестре изобретений РФ 11.08.2021 г. по заявке № 2020141056 с приоритетом от 14.12.2020г. Патентообладатель: ИОХ РАН.
5. **Патент № 2750297** **Российская Федерация** «Производные 1-(3-трет-бутил-4-гидрокси-8-метилпиразоло[5,1-c][1,2,4]триазин-1(4H)-ил)-2,2-дифтор-этанонов, способ их получения и их применение в качестве фотогенераторов кислоты» / Иванов С.М., Травень В.Ф., Иванов И.В., Долотов С.М. // зарегистрирован в государственном реестре изобретений РФ 25.06.2021 г. по заявке № 2020138817 с приоритетом от 26.11.2020г. Патентообладатель: ИОХ РАН.
6. **Патент № 2750639** **Российская Федерация** «Замещенные спироандростен-17,6'[1,3,4]тиадиазины, обладающие противовирусной активностью» / Малых А.Г., Павлов А.Р., Волкова Ю.А., Комков А.В., Менчиков Л.Г., Заварзин И.В. // зарегистрирован в государственном реестре изобретений РФ 30.06.2021 г. по заявке № 2021111981 с приоритетом от 27.04.2021г. Патентообладатель: ИОХ РАН.
7. **Патент № 2756161** **Российская Федерация** «Димерные четвертичные соли пиридиния, содержащие диоксинафталиновый фрагмент, обладающие биоцидным действием» / Верещагин А. Н., Фролов Н. А., Егоров М. П. // зарегистрирован в государственном реестре изобретений РФ 28.09.2021г. по заявке № 2020142557с приоритетом от 23.12.2020г. Патентообладатель: ИОХ РАН
8. **Патент № 2747110** **Российская Федерация** «Замещенные [(3-нитро-1*Н*-1,2,4-триазол-1-ил)-*NNO*-азокси]фуразаны и способ их получения» / Кленов М. С., Гуляев Д. А., Чураков А. М., Тартаковский В. А. // зарегистрирован в государственном реестре изобретений РФ 27.04.2021 г. по заявке № 2020133933 с приоритетом от 15.10.2020 г. Патентообладатель: ИОХ РАН.
9. **Патент № 2756321** **Российская Федерация** «Замещенные [(3,4-динитро-1*H*-пиразол-1-ил)-*NNO*-азокси]фуразаны и способ их получения» / Кленов М.С., Коннов А. А., Чураков А. М., Тартаковский В. А. // зарегистрирован в государственном реестре изобретений РФ 29.09.2021г. по заявке № 2020135027 с приоритетом от 26.10.2020 г. Патентообладатель: ИОХ РАН
10. **Патент № 2760680** **Российская Федерация** «3-(3,4-Динитропиразол-5-ил)-4-нитрофуразан и способ его получения» / Далингер И. Л., Вацадзе И. А., Шкинева Т. К., Шереметев А. Б., Муравьев Н. В., Мельников И.Н. // зарегистрирован в государственном реестре изобретений РФ 29.11.2021г. по заявке № 2021111978 с приоритетом от 27.04.2021г. Патентообладатель: ИОХ РАН.
11. **Патент № 2762560** **Российская Федерация** «3-(3-Нитропиразол-5-ил)-4-нитрофуразан и способ его получения» / Далингер И. Л., Вацадзе И. А., Шкинева Т. К., Шереметев А. Б., Муравьев Н. В., Косарева Е. С. // зарегистрирован в государственном реестре изобретений РФ 21.12.2021г. по заявке № 2021111974 с приоритетом от 27.04.2021г. Патентообладатель: ИОХ РАН.

**2022 год**

1. **Патент № 2765464** **Российская Федерация** «Способ получения эфиров пиперидин-4,4-дикарбоновых кислот» / Поспелов Е. В., Иоффе С. Л., Сухоруков А. Ю. // зарегистрирован в государственном реестре изобретений РФ 31.01.2022г. по заявке № 2021114265 с приоритетом от 20.05.2021г. Патентообладатель: ИОХ РАН.
2. **Патент № 2768870** **Российская Федерация** «3-Амино-4-{[4-(нитро-*NNO*-азокси)-фуразан-3-ил]-*NNO*-азокси}фуразан и способ его получения» / Кленов М.С., Леонов Н.Е., Чураков А.М., Тартаковский В.А. // зарегистрирован в государственном реестре изобретений РФ 25.03.2022г. по заявке № 2021117823 с приоритетом от 18.06.2021 г. Патентообладатель: ИОХ РАН.
3. **Патент № 2772602** **Российская Федерация** «Нитраминопроизводные 2,6,8,10,12-пентанитро-2,6,8,10,12-гексаазаизовюрцитана и способы их получения» / Похвиснева Г. В., Терникова Т. В., Парахин В. В., Смирнов Г. А. // зарегистрирован в государственном реестре изобретений РФ 23.05.2022г. по заявке № 2021132070 с приоритетом от 02.11.2021г. Патентообладатель: ИОХ РАН.
4. **Патент № 2773080** **Российская Федерация** «Тримерные четвертичные соли пиридиния, обладающие биоцидным действием» / Верещагин А. Н., Фролов Н. А. // зарегистрирован в государственном реестре изобретений РФ 30.05.2022г. по заявке № 2021129046 с приоритетом от 05.10.2021 г. Патентообладатель: ИОХ РАН.
5. **Патент № 2775006** **Российская Федерация** «Замещенные (циано-*NNO*-азокси)фуразаны и способ их получения» / Кленов М.С., Леонов Н.Е., Чураков А.М., Тартаковский В.А. // зарегистрирован в государственном реестре изобретений РФ 27.06.2022г. по заявке № 2021134207 с приоритетом от 24.11.2021г. Патентообладатель: ИОХ РАН.
6. **Патент № 2778517** **Российская Федерация** «Катализатор для селективного окисления арабинозы в арабоновую кислоту и способ селективного окисления арабинозы в арабоновую кислоту с использованием этого катализатора» / Кустов Л.М., Кустов А.Л. // зарегистрирован в государственном реестре изобретений РФ 22.08.2022г. по заявке № 2021138520 с приоритетом от 23.12.2021г. Патентообладатель: ИОХ РАН.
7. **Патент №** [**2779566**](https://www1.fips.ru/registers-doc-view/fips_servlet?DB=RUPAT&DocNumber=2779566&TypeFile=html) **Российская Федерация** «Катализатор для селективного окисления арабинозы в арабоновую кислоту и способ селективного окисления арабинозы в арабоновую кислоту с использованием этого катализатора» / Кустов Л.М., Кустов А.Л. // зарегистрирован в государственном реестре изобретений РФ [09.09.2022](https://www1.fips.ru/ofpstorage/Doc/IZPM/RUNWC1/000/000/002/779/566/%D0%98%D0%97-02779566-00001/document.pdf)г. по заявке № 2021138519 с приоритетом от 23.12.2021г. Патентообладатель: ИОХ РАН.
8. **Патент №** [**2782118**](https://www1.fips.ru/registers-doc-view/fips_servlet?DB=RUPAT&DocNumber=2779566&TypeFile=html) **Российская Федерация** «1,1'-(*Е*)-Диазен-1,2-диилбис[3-(нитро-*NNO*-азокси)-1*Н*-1,2,4-триазол] и способ его получения» / Кленов М.С., Леонов Н.Е., Чураков А.М., Тартаковский В.А. // зарегистрирован в государственном реестре изобретений РФ 21.10.2022г по заявке № 2022119318 с приоритетом от 14.07.2022г. Патентообладатель: ИОХ РАН.
9. **Патент №** [**2784323**](https://www1.fips.ru/registers-doc-view/fips_servlet?DB=RUPAT&DocNumber=2779566&TypeFile=html) **Российская Федерация** «Электрохимический способ получения производных тетрагидрохинолина, применение их в качестве фунгицидных средств и фунгицидные композиции на их основе» / Виль В.А., Гришин С.С., Баберкина Е.П., Алексеенко А.Л., Коваленко А.Е., Глинушкин А.П., Терентьев А.О. // зарегистрирован в государственном реестре изобретений 23.11.2022г по заявке № 2022103403 с приоритетом от 10.02.2022г. Патентообладатель: ИОХ РАН.
10. **Патент №** [**2784328**](https://www1.fips.ru/registers-doc-view/fips_servlet?DB=RUPAT&DocNumber=2779566&TypeFile=html) **Российская Федерация** «Способ приготовления катализатора для селективного гидрирования арабинозы в арабинитол, катализатор, приготовленный по этому способу, и способ селективного гидрирования арабинозы в арабинитол с использованием полученного катализатора» / Виканова К.В., Редина Е.А., Костюхин Е.М. Кустов Л.М. // зарегистрирован в государственном реестре изобретений 23.11.2022г по заявке № 2022125140 с приоритетом от 26.09.2022г. Патентообладатель: ИОХ РАН.
11. **Патент №** [**2784332**](https://www1.fips.ru/registers-doc-view/fips_servlet?DB=RUPAT&DocNumber=2779566&TypeFile=html) **Российская Федерация** «Способ получения двумерных металл-органических каркасов» / Исаева В.И., Архипов Д. А., Кустов Л.М. // зарегистрирован в государственном реестре изобретений 23.11.2022г по заявке № 2022125135 с приоритетом от 26.09.2022г. Патентообладатель: ИОХ РАН.
12. **Патент №** [**2784334**](https://www1.fips.ru/registers-doc-view/fips_servlet?DB=RUPAT&DocNumber=2779566&TypeFile=html) **Российская Федерация** «Катализатор для получения синтез-газа и способ получения синтез-газа с его использованием» / Виканова К.В., Евдокименко Н.Д., Кустов А.Л. // зарегистрирован в государственном реестре изобретений 23.11.2022г по заявке № 2022125139 с приоритетом от 26.09.2022г. Патентообладатель: ИОХ РАН.
13. **Патент №** [**2784345**](https://www1.fips.ru/registers-doc-view/fips_servlet?DB=RUPAT&DocNumber=2779566&TypeFile=html) **Российская Федерация** «Способ получения металл-органического каркаса на основе циркония» / Исаева В.И., Вергун В.В., Кустов Л.М. // зарегистрирован в государственном реестре изобретений 23.11.2022г по заявке № 2022125136 с приоритетом от 26.09.2022г. Патентообладатель: ИОХ РАН.
14. **Патент №** [**2786218**](https://www1.fips.ru/registers-doc-view/fips_servlet?DB=RUPAT&DocNumber=2779566&TypeFile=html) **Российская Федерация** «Биметаллический катализатор для жидкофазного селективного гидрирования ацетиленовых углеводородов и способ его получения» // Шестеркина А.А., Стрекалова А.А., Кустов А.Л., Кустов Л.М. // зарегистрирован в государственном реестре изобретений 19.12.2022г по заявке № 2022125134 с приоритетом от 26.09.2022г. Патентообладатель: ИОХ РАН.
15. **Патент №** [**2786221**](https://www1.fips.ru/registers-doc-view/fips_servlet?DB=RUPAT&DocNumber=2779566&TypeFile=html) **Российская Федерация** «*N*,*N′*-метилен-бис(полинитро-2,4,6,8,10,12-гексаазаизовюрцитаны) и способы их получения» // Похвиснева Г. В., Терникова Т. В., Парахин В. В., Смирнов Г. А. // зарегистрирован в государственном реестре изобретений 19.12.2022г по заявке № 2022128607 с приоритетом от 03.11.2022г. Патентообладатель: ИОХ РАН.

**2023 год**

1. **Патент № 2789599 Российская Федерация** «Способ получения (6*R*,7*S*,7a*S*)-6-((*R*)-1-(3,5-бис (трифторметил)фенил)этокси)-7-(4-фторфенил)гексагидро-3H-пирролизин-3-она**»** / Сухоруков А. Ю., Окладников И. В., Иоффе С. Л. // зарегистрирован в государственном реестре изобретений 06.02.2023г. по заявке № 2022118586 с приоритетом от 07.07.2022г. Патентообладатель: ИОХ РАН.
2. **Патент № 2791787** **Российская Федерация** «Способ очистки отработанного огнестойкого триарилфосфатного турбинного масла от кислых продуктов» / Петрова К.Е., Шулишов Е.В., Бакунин В.Н., Томилов Ю.В. // зарегистрирован в государственном реестре изобретений 13.03.2023г. по заявке № 2022103689 с приоритетом от 14.02.2022г.: Патентообладатель: ИОХ РАН.
3. **Патент № 2797201** **Российская Федерация** «Способ очистки воздуха от диэтиламина» / Землянский П.В., Кучеров А.В., Давшан Н.А., Кустов А.Л., Кустов Л.М. // зарегистрирован в государственном реестре изобретений 31.05.2023г. по заявке № 2023108405 с приоритетом от 04.04.2023г. Патентообладатель: ИОХ РАН.
4. **Патент № 2798584** **Российская Федерация** «Способ очистки воздуха от этанола» / Землянский П.В., Кучеров А.В., Давшан Н.А., Кустов А.Л., Кустов Л.М. // зарегистрирован в государственном реестре изобретений 23.06.2023г. по заявке № 2023108407 с приоритетом от 04.04.2023г. Патентообладатель: ИОХ РАН.
5. **Патент № 2801166** **Российская Федерация** «[N’-(изо)хинолилметилен]гидразиды 3-метокси-13,17-секоэстра-1,3,5(10)-триен-17-овой кислоты» / Иловайский А.И., Меркулова В.М., Чернобурова Е.И., Щетинина М.А., Заварзин И.В., Терентьев А.О., Щербаков А.М., Андреева О.Е. Сальникова Д.И. // зарегистрирован в государственном реестре изобретений 02.08.2023г. по заявке № 2023102869 с приоритетом от 09.02.2023г. Патентообладатель: ИОХ РАН.
6. **Патент № 2802012** **Российская Федерация** «Способ очистки воздуха от этанола» / Землянский П.В., Кучеров А.В., Давшан Н.А., Кустов А.Л., Кустов Л.М. // зарегистрирован в государственном реестре изобретений 22.08.2023г. по заявке № 2023108406 с приоритетом от 04.04.2023г. Патентообладатель: ИОХ РАН.
7. **Патент № 2804394** **Российская Федерация** «Соли 3-амино-4-(1*H*-тетразол-5-ил-*NNO*-азокси)фуразана и способы их получения» / Кленов М.С., Леонов Н.Е., Чураков А.М., Тартаковский В.А. // зарегистрирован в государственном реестре изобретений 28.09.2023г. по заявке № 2023103789 с приоритетом от 20.02.2023г. Патентообладатель: ИОХ РАН.
8. **Патент № 2804396** **Российская Федерация** «Способ получения *N*-замещенных мостиковых 1,2,4-диоксазолидинов» / Ярёменко И.А., Белякова Ю.Ю., Радулов П.С., Терентьев А. О. // зарегистрирован в государственном реестре изобретений 28.09.2023г. по заявке № 2023103791 с приоритетом от 20.02.2023г. Патентообладатель: ИОХ РАН.
9. **Патент № 2807376** **Российская Федерация** «Способ получения металл-органического каркаса на основе циркония» / Исаева В.И., Вергун В.В., Кустов Л.М. // зарегистрирован в государственном реестре изобретений 14.11.2023г. по заявке № 2023108408 с приоритетом от 04.04.2023г. Патентообладатель: ИОХ РАН.
10. **Патент № 2807778** **Российская Федерация** «Способ получения бактерицидных материалов для средств защиты органов дыхания» / Исаева В.И., Вергун В.В., Кустов Л.М. // зарегистрирован в государственном реестре изобретений 21.11.2023г. по заявке № 2023109759 с приоритетом от 17.04.2023г. Патентообладатель: ИОХ РАН.
11. **Патент № 2807864** **Российская Федерация** «Способ получения цеолита со структурой типа ферриерит» / Макова А.С., Кустов Л.М. // зарегистрирован в государственном реестре изобретений 21.11.2023г. по заявке № 2023109757 с приоритетом от 17.04.2023г на изобретение: Патентообладатель: ИОХ РАН.
12. **Патент № 2807866** **Российская Федерация** «Способ получения никелевого катализатора для жидкофазного селективного гидрирования ароматических непредельных углеводородов и нитросоединений» / Шестеркина А.А., Стрекалова А.А., Журавлева В.С., Кустов А.Л., Кустов Л.М. // зарегистрирован в государственном реестре изобретений 21.11.2023г. по заявке № 2023109758 с приоритетом от 17.04.2023г. Патентообладатель: ИОХ РАН.
13. **Патент № 2807870** **Российская Федерация** «Фосфорил замещенные 3-кето-андрост-4-ен-[16,17-d]пиридазины и способ их получения» / Волкова Ю.А., Щербаков А.М., Комков А. В., Заварзин И. В. // зарегистрирован в государственном реестре изобретений 21.11.2023г. по заявке № 2023125570 с приоритетом от 05.10.2023г. Патентообладатель: ИОХ РАН.

**2024 год**

1. **Патент № 2812568** **Российская Федерация** «Способ получения глицидола» / Тимофеева М.Н., Лукоянов И.А., Исаева В.И., Кустов Л.М., Адонин Н.Ю. // зарегистрирован в государственном реестре изобретений 30.01.2024г. по заявке № 2023110596 с приоритетом от 25.04.2023г. Патентообладатель: ИОХ РАН.

2. **Патент № 2812574** **Российская Федерация** «Соли 5-нитрамино-[1,2,3]триазоло[4,5-c][1,2,5]оксадиазола и способ их получения» / Воронин А.А., Балабанова С.П., Кленов М.С., Чураков А.М., Тартаковский В.А // зарегистрирован в государственном реестре изобретений 30.01.2024г. по заявке № 2023106217 с приоритетом от 16.03.2023г. Патентообладатель: ИОХ РАН.

3. **Патент № 2813466** **Российская Федерация** «3-(4-нитратометил-1Н-1,2,3-триазол-1-ил)-4-нитро-1,2,5-оксадиазол и способ его получения» / Епишина М.А., Куликов А.С., Ферштат Л.Л. // зарегистрирован в государственном реестре изобретений 12.02.2024г. по заявке № 2023120251 с приоритетом от 01.08.2023г. Патентообладатель: ИОХ РАН.

4. **Патент № 2817968** **Российская Федерация** «Производные 3-(5-нитратометил-1Н-1,2,3-триазол-1-ил)-4-нитро-1,2,5-оксадиазола и способ их получения» / Епишина М.А., Куликов А.С., Ферштат Л.Л. // зарегистрирован в государственном реестре изобретений 23.04.2024г. по заявке № 2023120252 с приоритетом от 01.08.2023г. Патентообладатель: ИОХ РАН.

5. **Патент № 2818440** **Российская Федерация** «Азо[5-(4-нитрофуразан-3-ил)-2-(1,3,4-тиадиазол)] и способ его получения» / Дельцов И. Д., Ферштат Л. Л. // зарегистрирован в государственном реестре изобретений 02.05.2024г. по заявке № 2023127262 с приоритетом от 24.10.2023г. Патентообладатель: ИОХ РАН.

6. **Патент № 2828547 Российская Федерация** «Циано-полинитро-2,4,6,8,10,12-гексаазаизовюрцитаны и способы их получения» / Похвиснева Г. В., Парахин В. В., Смирнов Г. А. // зарегистрирован в государственном реестре изобретений 14.10.2024г. по заявке № 2024100685 с приоритетом от 12.01.2024г. Патентообладатель: ИОХ РАН.

7. **Патент № 2831117** **Российская Федерация** «Способ получения замещенных 3-арилпирролов» / Сухоруков А.Ю., Поспелов Е. В., Жиров А. В. // зарегистрирован в государственном реестре изобретений 02.12.2024г. по заявке № 2024107218 с приоритетом от 20.03.2024г. Патентообладатель: ИОХ РАН.