

### Сведения об официальном оппоненте

по диссертации Якимовой Людмилы Сергеевны, выполненной на тему «Полифункциональные частицы на основе макроциклических соединений и диоксида кремния: от синтеза макроциклических структур к созданию функциональных материалов», представленной на соискание ученой степени доктора химических наук по специальности 1.4.3. Органическая химия

| Фамилия, имя, отчество        | Год рождения, гражданство    | Место основной работы (полное наименование организации, адрес), должность, телефон, адрес электронной почты                                                                                                                  | Ученая степень (с указанием шифра специальности и научных работников, по которой защищена диссертация) | Ученое звание (по специальности, по кафедре)    | Основные работы, опубликованные в рецензируемых научных журналах за последние 5 лет                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-------------------------------|------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|-------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1                             | 2                            | 3                                                                                                                                                                                                                            | 4                                                                                                      | 5                                               | 6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Аксенов Николай Александрович | 01.12.1990 г, гражданство РФ | Федеральное государственное автономное образовательное учреждение высшего образования «Северо-Кавказский Федеральный Университет», Химический факультет, Кафедра органической химии, пр. Пушкина д.1а, г. Ставрополь, 190013 | Доктор химических наук, 1.4.3. Органическая химия                                                      | Профессор по специальности «Органическая химия» | 1. Aksenov, N.A. Synthesis of $\beta$ -Carbolines with Electrocyclic Cyclization of 3-Nitrovinylindoles / N.A. Aksenov, N.A. Arutiunov, A.V. Aksenov, N.K. Kirilov, I.V. Aksenova, D.A. Aksenov, E.V. Aleksandrova, M. Rubin, A. Kornienko // <i>Int. J. Mol. Sci.</i> – 2023. – V. 24. – Article № 13107.<br>2. Aksenov, N.A. A Two-Step Synthesis of Unprotected 3-Aminoindoles via Post Functionalization with Nitrostyrene / N.A. Arutiunov, I.A. Kurenkov, V. V. Malyuga, D. A. Aksenov, D.S. Momotova, A. M. |

|  |  |                                                                                            |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|--|--|--------------------------------------------------------------------------------------------|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  |  | <p>Тел.: +79187430256<br/> e-mail:<br/> naksenov@ncfu.ru<br/> Заведующий<br/> кафедрой</p> |  | <p>Zatsepilina, E. A. Chukanova, A. V. Leontiev, A. V. Aksenov // <i>Molecules</i>. – 2023. – V. 28. – Article № 3657.</p> <p>3. Aksenov, D.A. An Effective Synthesis of Previously Unknown 7-Aryl Substituted Paullones / D. A. Aksenov, A. S. Akulova, E. A. Aleksandrova, N. A. Aksenov, A. V. Leontiev, A. V. Aksenov // <i>Molecules</i>. – 2023. – V. 28. – Article № 2324.</p> <p>4. Arutiunov, N. A. Convenient synthesis of (Z)-3-(1-aryl-2-nitrovinyl)-indoles / N. A. Arutiunov, A. V. Aksenov, D. A. Aksenov, N. A. Aksenov, A. Kornienko // <i>Tetrahedron Lett.</i> . – 2023. – V. 129. – Article № 154722.</p> <p>5. Aksenov, A. V. A New, Convenient Way to Fully Substituted <math>\alpha,\beta</math>-Unsaturated <math>\gamma</math>-Hydroxy Butyrolactams / A. V. Aksenov, D. A. Aksenov, I. A. Kurenkov, A. V. Leontiev, N. A. Aksenov // <i>IJMS</i>. – 2023. – V. 24. – № 2. – Article № 10213.</p> <p>6. Aksenov, N.A. A Diastereoselective Assembly of Tetralone Derivatives via a Tandem Michael Reaction and ipso-Substitution of the Nitro Group / N. A. Aksenov, D. A. Aksenov, D. D. Ganusenko, I. A. Kurenkov, A. V. Aksenov // <i>J. Org. Chem.</i> – 2023. – V. 88. – № 9. – P. 5639-</p> |
|--|--|--------------------------------------------------------------------------------------------|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|--|--|--|--|--|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  |  |  |  |  | <p>5651.</p> <p>7. Aksenov, N.A. Synthesis of 2-carboxyaniline-substituted maleimides from 2'-nitrochalcones / N. A. Aksenov, D. A. Aksenov, D. D. Ganusenko, I. A. Kurenkov, A. V. Leontiev, A. V. Aksenov // <i>Org. Biomol. Chem.</i> – 2023. – V. 21. – P. 3156-3166.</p> <p>8. Aksenov, N.A. Nitrovinylindoles as Heterotrienes: Electrocyclic Cyclization En Route to <math>\beta</math>-Carbolines: Total Synthesis of Alkaloids Norharmane, Harmane, and Eudistomin N. / N. A. Aksenov, N. A. Arutiunov, A. V. Aksenov, I. V. Aksenova, E. V. Aleksandrova, D. A. Aksenov, M. Rubin. <i>Org. Lett.</i> – 2022. – V. 24. – № 39. – P. 7062-7066.</p> <p>9. Aksenov, A.V. Reductive Cleavage of 4'H-Spiro[indole-3,5'-isoxazoles] En Route to 2-(1H-Indol-3-yl)acetamides with Anticancer Activities / A. V. Aksenov, N. K. Kirilov, N. A. Arutiunov, D. A. Aksenov, I. K. Kuzminov, N. A. Aksenov, D. N. Turner, S. Rogelj, A. Kornienko, M. Rubin // <i>J. Org. Chem.</i> – 2022. – V. 87. – P. 13955-13964.</p> <p>10. Aksenov, N.A. Oxidative Cyclization of 4-(2-Aminophenyl)-4-oxo-2-phenylbutanenitriles into 2-(3-Oxoindolin-2-ylidene)acetonitriles / N. A. Aksenov, A. V. Aksenov, L. A. Prityko,</p> |
|--|--|--|--|--|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|--|--|--|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  |  |  |  | <p>D. A. Aksenov, D. S. Aksenova, M. A. Nobi, M. Rubin // <i>ACS Omega</i>. – 2022. – V. 7. – № 16. – P. 14345-14356.</p> <p>11. Aksenov, A.V. Synthetic Studies toward 1,2,3,3a,4,8b-Hexahydropyrrolo[3,2-b]indole Core. Unusual Fragmentation with 1,2-Aryl Shift / A. V. Aksenov, E. V. Aleksandrova, D. A. Aksenov, A. A. Aksenova, N. A. Aksenov, M. A. Nobi, M. Rubin // <i>J. Org. Chem.</i> – 2022. – V. 87. – № 2. – P. 1434-1444.</p> <p>12. Aksenov, A.V. Does electrophilic activation of nitroalkanes in polyphosphoric acid involve formation of nitrile oxides? / A. V. Aksenov, N. A. Aksenov, N. K. Kirilov, A. A. Skomorokhov, D. A. Aksenov, I. A. Kurenkov, E. A. Sorokina, M. A. Nobi, M. Rubin // <i>RSC Adv.</i> – 2021. – V. 11. – № 57. – P. 35937-35945.</p> <p>13. Aksenov, D.A. Synthetic studies towards benzofuro[2,3-b]quinoline and 6H-indolo[2,3-b]quinoline cores: Total synthesis of norneocryptolepine and neocryptolepine / D. A. Aksenov, N. A. Arutyunov, A. Z. Gasanova, N. A. Aksenov, A. V. Aksenov, C. Lower, M. Rubin // <i>Tetrahedron Lett.</i> – 2021. – V. 82. – Paper № 153395.</p> <p>14. Aksenov, A.V. Direct conversion</p> |
|--|--|--|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|--|--|--|--|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  |  |  |  |  | <p>of 3-(2-nitroethyl)-1H-indoles into 2-(1H-indol-2-yl)acetonitriles / A.V. Aksenov, N. A. Aksenov, E. V. Aleksandrova, D. A. Aksenov, I. Yu. Grishin, E. A. Sorokina, A. Wenger, M. Rubin / <i>Molecules</i>. – 2021. – V. 26. – № 20. – Paper № 6132.</p> <p>15. Aksenov, A.V. Electrophilically activated nitroalkanes in double annulation of [1,2,4]triazolo[4,3-a]quinolines and 1,3,4-oxadiazole rings / A. V. Aksenov, N. K. Kirilov, N. A. Aksenov, D. A. Aksenov, E. A. Sorokina, C. Lower, M. Rubin // <i>Molecules</i>. – 2021. – V. 26. – № 18. – Paper № 5692</p> |
|--|--|--|--|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

Официальный оппонент

ПОДПИСЬ  
УДОСТОВЕРЯЮ

начальник Управления  
делами СКФУ



Порочева А. В.

Аксенов Николай Александрович

25.06.2024