

An efficient method for long-term configurational stabilization of chiral tricyclic dipeptide via heterocomplexation approach

Hu, Xiaoyun; Yin, Zhongyou; Guo, Jianxin; **Borovkov, Victor**; Shan, Zixing ChemistrySelect 2019 / p. 3210-3213
<https://doi.org/10.1002/slct.201900099>

An investigation of noncovalently bound supramolecular systems through case studies of oxacalixarenes and iodo-triazoles = Mittekvalentsete sidemetete abil moodustunud supramolekulaarsete süsteemide uurimine oksakaliiksareenide ja jodotriasoolide näitel

Cowart, Anna 2021 <https://digikogu.taltech.ee/et/Item/2f3f9906-0db8-427d-9d88-165f09e3d7da> https://www.ester.ee/record=b5415281*est
<https://doi.org/10.23658/taltech.18/2021>

Anion recognition and the templated solid-state synthesis of hemicucurbiturils = Hemikukurbituriilid kui anioonide retseptorid ning nende mehhanokeemiline süntees tahkes faasis

Kaabel, Sandra 2019 <https://digi.lib.ttu.ee/i/?11236> https://www.ester.ee/record=b5182788*est

Binding between cyclohexanohemicucurbit[n]urils and polar organic guests

Ustrnul, Lukas; Burankova, Tatsiana; Öeren, Mario; **Juhhimenko, Kristina**; Ilmarinen, Jenni; Siilak, Kristjan; Mishra, Kamini Atindrakumar; Aav, Riina Frontiers in chemistry 2021 / art. 701028 <https://doi.org/10.3389/fchem.2021.701028> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

The breaking of symmetry leads to chirality in cucurbituril-type hosts

Aav, Riina; Mishra, Kamini Atindrakumar Symmetry 2018 / 26 p. : ill <https://doi.org/10.3390/sym10040098> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

The breaking of symmetry leads to chirality in cucurbituril-type hosts : [the article in collection]

Aav, Riina; Mishra, Kamini Atindrakumar Chiral Auxiliaries and Chirogenesis 2021 / p. 1-26 : ill <https://doi.org/10.3390/books978-3-0365-1017-0> <https://doi.org/10.3390/sym10040098>

Chiral Hemicucurbit[N]Urils, their synthesis, post functionalization and application

Mishra, Kamini Atindrakumar; Aav, Riina GSFMT Scientific Conference 2021 : Tartu, June 14-15, 2021 : abstracts 2021 / O 21
https://fmdk.ut.ee/wp-content/uploads/2021/06/GSFMT_abstractbook_2021.pdf

Chiral heterocycle-based receptors for enantioselective recognition

Khose, Vaibhav N.; John, Marina E.; Pandey, Anita D.; **Borovkov, Victor**; Karnik, Anil V. Chiral Auxiliaries and Chirogenesis 2021 / p. 27-101 <https://doi.org/10.3390/books978-3-0365-1017-0> <https://doi.org/10.3390/sym10020034>

Chiral heterocycle-based receptors for enantioselective recognition

Khose, Vaibhav N.; John, Marina E.; Pandey, Anita D.; **Borovkov, Victor**; Karnik, Anil V. Symmetry 2018 / 75 p : ill
<https://doi.org/10.3390/sym10020034> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Chirogenesis in supramolecular systems

Ustrnul, Lukas; **Borovkov, Victor**; Aav, Riina Chirogenesis in Chemical Science 2023 / p. 69-123 : ill
https://doi.org/10.1142/9789811259227_0002 https://www.ester.ee/record=b5748359*est

Chirogenesis in supramolecular systems

Kanagaraj, Kuppusamy; Yang, Cheng; **Borovkov, Victor** Fundamentals of supramolecular chirality 2021 / p. 85-147
https://doi.org/10.1142/9781800610255_0004

Chirogenesis in supramolecular systems on the basis of porphyrinoids

Borovkov, Victor Proceedings : 2018, Symmetry 2017 ; vol. 2 2018 / p. 83 <https://doi.org/10.3390/proceedings2010083>

Chromatographic analysis of cyclohexano-substituted hemicucurbiturils and characterization of their intermediates with mass spectrometry = Tsükloheksaano-asendatud hemikukurbituriilide kromatograafiline analüüs ning nende vaheühendite mass-spektromeetiline iseloomustamine

Fomitšenko, Maria 2017 https://www.ester.ee/record=b4748237*est <https://digi.lib.ttu.ee/i/?9122>

Cyclohexanohemicucurbit[8]uril inclusion complexes with heterocycles and selective extraction of sulfur compounds from water

Shalima, Tatsiana; Mishra, Kamini Atindrakumar; Kaabel, Sandra; **Ustrnul, Lukas**; Bartkova, Simona; Tõnsuaadu, Kaia; Heinmaa, Ivo; Aav, Riina Frontiers in chemistry 2021 / art. 786746, 8 p. : ill <https://doi.org/10.3389/fchem.2021.786746> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Cyclohexanohemicucurbit[n]urils, their synthesis, formation mechanism, and complexation =

Tsükloheksanohemikukurbit[n]uriilid, nende süntees, tekkemehhanism ja komplekseerumine
Prigorchenko, Elena 2019 <https://digi.lib.ttu.ee/i/?12083> https://www.ester.ee/record=b5228157*est

Design of new phosphorylated amphiphilic calix[4]arenes

Silenko, Oleg; Nagappa, Nandish M.; Cherenok, Sergey; Kalchenko, Vitaly I.; **Karpichev, Yevgen** GSFMT Scientific Conference 2021 : Tartu, June 14-15, 2021 : abstracts 2021 / P 10 https://fmdk.ut.ee/wp-content/uploads/2021/06/GSFMT_abstractbook_2021.pdf

Dynamic chiral cyclohexanohemicucurbit[12]uril

Mishra, Kamini Atindrakumar; Adamson, Jasper; Öeren, Mario; Kaabel, Sandra; Fomitšenko, Maria; Aav, Riina Chemical communications 2020 / p. 14645–14648 <https://doi.org/10.1039/D0CC06817A> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Formation and trapping of the thermodynamically unfavoured inverted-hemicucurbit[6]uril

Prigorchenko, Elena; Kaabel, Sandra; Narva, Triin; Baškir, Anastassia; Fomitšenko, Maria; Adamson, Jasper; **Järving, Ivar;** Rissanen, Kari; **Tamm, Toomas; Aav, Riina** Chemical communications 2019 / p. 9307–9310 : ill <https://doi.org/10.1039/C9CC04990H> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Helicene-Based Chiral Auxiliaries and Chirogenesis

Hasan, Mohammed; Borovkov, Victor Chiral Auxiliaries and Chirogenesis 2021 / p. 103-150 <https://doi.org/10.3390/books978-3-0365-1017-0> <https://doi.org/10.3390/sym10010010>

Helicene-based chiral auxiliaries and chirogenesis

Hasan, Mohammed; Borovkov, Victor Symmetry 2018 / 48 p. : ill <https://doi.org/10.3390/sym10010010> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Heterocomponent ternary supramolecular complexes of porphyrins : a review

Prigorchenko, Elena; Ustrnul, Lukas; Borovkov, Victor; Aav, Riina Porphyrin Science by Women. Volume 3: Materials, Sensors, Energy and Catalysis 2021 / p. 816-833 https://doi.org/10.1142/9789811223556_0071

Isolation of cyclohexanohemicucurbit[10-12]urils - success and difficulties in their analysis

Kamini, Mihsra; Kaabel, Sandra; Adamson, Jasper; **Fomitšenko, Maria;** Öeren, Mario; **Aav, Riina** GSFMT Scientific Conference 2020 : Tallinn, February 4-5, 2020 : abstracts 2020 / p. 62 : ill <http://fmdk.ut.ee/wp-content/uploads/2020/01/GSFMT2020.pdf>

Mechanochemical synthesis of amides with uronium-based coupling reagents : a method for hexa-amidation of biotin[6]uril

Dalidovich, Tatsiana; Mishra, Kamini Atindrakumar; Shalima, Tatsiana; Kudrjašova, Marina; Kananovich, Dzmitry; Aav, Riina ACS sustainable chemistry & engineering 2020 / p. 15703–15715 : ill <https://doi.org/10.1021/acssuschemeng.0c05558> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Medium viscosity effect on fluorescent properties of Sn(IV)-tetra(4-sulfonatophenyl)porphyrin complexes in buffer solutions

Mamardashvili, Galina; Maltceva, Olga; Lazovski, Dmitriy; Khodov, Ilja; Borovkov, Victor Journal of molecular liquids 2019 / p. 1047-1053 : ill <https://doi.org/10.1016/j.molliq.2018.12.118>

Porphyrin-based hybrid nanohelices : cooperative effect between molecular and supramolecular chirality on amplified optical activity

Anfar, Zakaria; Kuppan, Balamurugan; Scalabre, Antoine; Nag, Rahul; Pouget, Emilie; Nlate, Sylvain; Magna, Gabriele; Di Filippo, Ilaria; Monti, Donato; Naitana, Mario L.; Stefanelli, Manuela; Nikonovich, Tatsiana; Borovkov, Victor; Aav, Riina; Paolesse, Roberto; Oda, Reiko The journal of physical chemistry B 2024 / p. 1550-1556 <https://doi.org/10.1021/acs.jpcc.3c07153> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Porphyrinoid based supramolecular probes for chirality sensing

Borovkov, Victor; Gathergood, Nicholas Symmetry : culture and science 2017 / p. 175-178 : ill <http://journal-scs.symmetry.hu/content-pages/volume-28-number-2-pages-161-240-2017/>

Scalable mechanochemical synthesis of biotin[6]uril

Suut-Tuule, Elina; Schults, Eve; Jarg, Tatsiana; Kananovich, Dzmitry; Aav, Riina INCOME 2025 : Book of Abstracts 2025 / p. 108 https://www2.hu-berlin.de/income2025-berlin/INCOME2025_Program_abstracts.pdf

Self-assembly of chiral cyclohexanohemicucurbit[n]urils with bis(Zn porphyrin): size, shape, and time-dependent binding

Šakarašvili, Marko; Ustrnul, Lukas; Suut, Elina; Nallaparaju, Jagadeesh Varma; Mishra, Kamini Atindrakumar; Konrad, Nele; Adamson, Jasper; **Borovkov, Victor; Aav, Riina** Molecules 2022 / art. 937, 13 p. : ill <https://doi.org/10.3390/molecules27030937> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Supramolecular Chirogenesis in bis-porphyrin: crystallographic structure and CD spectra for a complex with a chiral guanidine derivative

Osadchuk, Irina; Konrad, Nele; Truong, Khai-Nghi; Rissanen, Kari; Clot, Eric; **Aav, Riina; Kananovich, Dzmitry; Borovkov, Victor** Symmetry 2021 / 14 p. : ill <https://doi.org/10.3390/sym13020275> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Supramolecular Chirogenesis in bis-porphyrin: crystallographic structure and CD spectra for a complex with a chiral guanidine derivative

Osadchuk, Irina; Konrad, Nele; Truong, Khai-Nghi; **Aav, Riina; Kananovich, Dzmitry; Borovkov, Victor** Chiral Auxiliaries and Chirogenesis II 2021 / p. 83-96 <https://doi.org/10.3390/sym13020275> <https://doi.org/10.3390/books978-3-0365-1155-9>

Supramolecular chirogenesis in chemical and related sciences : editorial

Sun, Yue; **Aav, Riina; Borovkov, Victor** Frontiers in chemistry 2021 / art. 679332 <https://doi.org/10.3389/fchem.2021.679332> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Supramolecular chirogenesis in zinc porphyrins by interaction with enantiopure hemicucurbiturils

Ustrnul, Lukas; Kaabel, Sandra; Burankova, Tatsiana; **Konrad, Nele; Borovkov, Victor; Aav, Riina** 14th International Symposium on Macrocyclic and Supramolecular Chemistry (ISMSC2019), June 2-6 2019, Lecce, Italy : book of abstracts 2019 / p. 489 <https://sti.chem.polimi.it/ismc2019/>

Supramolecular control in hemicucurbiturils

Aav, Riina; Kaabel, Sandra; Prigorchenko, Elena; Fomitšenko, Maria; Öeren, Mario; Trunin, Madli; Adamson, Jasper; Rissanen, Kari 11th International Symposium on Macrocyclic and Supramolecular Chemistry : ISMSC-2016 : Seoul, Korea, 10-14 July 2016 2016 / p. PB037

Suprastars of Chemistry

2022 <https://doi.org/10.3389/978-2-88976-456-3>

Suprastars of chemistry : editorial

Xiao, Tangxin; James, Tony D.; **Borovkov, Victor;** Castellano, Ronald K.; Deng, Chao Frontiers in Chemistry 2022 / art. 932508 <https://doi.org/10.3389/fchem.2022.932508> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

TalTechi keemikud segavad molekule nagu meisterkokad

Uusen, Kaire Trialoog 2025 <https://trialoog.taltech.ee/taltechi-keemikud-segavad-molekule-nagu-meisterkokad/>

Theoretical rationalization of chirality sensors on the basis of mono- and bis-porphyrins : abstract

Osadchuk, Irina Proceedings of the CSAC2021 : 1st International Electronic Conference on Chemical Sensors and Analytical Chemistry, 1–15 July 2021, MDPI: Basel, Switzerland : online 2021 / 1 p <https://doi.org/10.3390/CSAC2021-10550>

Thiourea organocatalysts as emerging chiral pollutants : en route to porphyrin-based (chir)optical sensing

Konrad, Nele; Horetski, Matvey; Sihtmäe, Mariliis; Osadchuk, Irina; Senge, Mathias O.; Borovkov, Victor; Aav, Riina; Kananovich, Dzmitry Chemosensors 2021 / art. 278 <https://doi.org/10.3390/chemosensors9100278> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Unsubstituted oxacalix[n]arenes (n=4 and 8): a conformational study in solution and solid state and interaction studies with aromatic guests

Peterson, Anna; Kaabel, Sandra; Kahn, Iiris; Pehk, Tõnis; **Aav, Riina;** Adamson, Jasper ChemistrySelect 2018 / p. 9091 - 9095 <https://doi.org/10.1002/slct.201801590> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)