

Aerobic oxidations in asymmetric synthesis : catalytic strategies and recent developments

Kananovich, Dzmitry; Elek, Gabor Zoltan; Lopp, Margus; Borovkov, Victor *Frontiers in chemistry* 2021 / art. 614944
<https://doi.org/10.3389/fchem.2021.614944> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Aminocatalysts are more environmentally friendly than hydrogen-bonding catalysts

Sihtmäe, Mariliis; Silm, Estelle; Kriis, Kadri; Kahru, Anne; Kanger, Tõnis *ChemSusChem* 2022 / art. e202201045, 5 p. : ill
<https://doi.org/10.1002/cssc.202201045> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Asymmetric aminocatalytic Michael addition of cyclopropane-containing aldehydes to nitroalkenes

Reitel, Kärt; Lippur, Kristin; Järving, Ivar; Kudrjašova, Marina; Lopp, Margus; Kanger, Tõnis *Synthesis* 2013 / p. 2679-2683 : ill
<https://doi.org/10.1055/s-0033-1338704> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Asymmetric diastereoselective synthesis of spirocyclopropane derivatives of oxindole

Ošeka, Maksim; Noole, Artur; Žari, Sergei; Öeren, Mario; Järving, Ivar; Lopp, Margus; Kanger, Tõnis *European journal of organic chemistry* 2014 / p. 3599-3606 : ill <https://doi.org/10.1002/ejoc.201402061> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Asymmetric organocatalytic cascade synthesis of tetrahydrofuranyl spirooxindoles

Trubitsõn, Dmitri; Žari, Sergei; Kaabel, Sandra; Kudrjašova, Marina; Kriis, Kadri; Järving, Ivar; Pehk, Tõnis; Kanger, Tõnis *Synthesis* 2018 / p. 314-322 : ill <https://doi.org/10.1055/s-0036-1590918> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Asymmetric organocatalytic Michael addition of cyclopentane-1,2-dione to alkylidene oxindole

Silm, Estelle; Järving, Ivar; Kanger, Tõnis *Beilstein Journal of Organic Chemistry* 2022 / p. 167-173
<https://doi.org/10.3762/bjoc.18.18> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Asymmetric organocatalytic Michael addition–cyclisation cascade of cyclopentane-1,2-dione with alkylidene malononitriles

Silm, Estelle; Kaabel, Sandra; Järving, Ivar; Kanger, Tõnis *Synthesis* 2019 / p. 4198-4204 <https://doi.org/10.1055/s-0039-1690484> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Asymmetric organocatalytic Michael Addition-cyclization cascade of cyclopentane-1,2-dione with substituted α,β -unsaturated aldehydes

Preegel, Gert; Silm, Estelle; Kaabel, Sandra; Järving, Ivar; Rissanen, Kari; Lopp, Margus *Synthesis* 2017 / p. 3118-3125 : ill
<https://doi.org/10.1055/s-0036-1588787> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Asymmetric organocatalytic synthesis of spiro-cyclopropaneoindoles

Noole, Artur; Malkov, Andrei; Kanger, Tõnis *Synthesis* 2013 / p. 2520-2524 : ill <https://doi.org/10.1055/s-0033-1338505> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Asymmetric synthesis of 2,3,4-trisubstituted piperidines

Kriis, Kadri; Melnik, Triin; Lips, Kristiina; Juhanson, Ilona; Kaabel, Sandra; Järving, Ivar; Kanger, Tõnis *Synthesis* 2017 / p. 604-614 : ill <https://doi.org/10.1055/s-0036-1588299> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Aza-Michael reactions of isatin imines : deeper insight and origin of the stereoselectivity

Metsala, Andrus; Žari, Sergei; Kanger, Tõnis *ChemCatChem* 2016 / p. 2961-2967 : ill <https://doi.org/10.1002/cctc.201600584> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Challenges in mechanistic investigation of a flexible aminocatalyst as demonstrated through enamine formation

Osadchuk, Irina; Kanger, Tõnis *ChemistryOpen* 2025 / art. 2500116 <https://doi.org/10.1002/open.202500116> <https://chemistry-europe.onlinelibrary.wiley.com/doi/10.1002/open.202500116>

Cyclopentane-1,2-dione bis(tert-butyldimethylsilyl) enol ether in asymmetric organocatalytic Mukaiyama–Michael reactions

Reile, Indrek; Paju, Anne; Kanger, Tõnis; Järving, Ivar; Lopp, Margus *Tetrahedron letters* 2012 / p. 1476-1478 : ill
<https://www.sciencedirect.com/science/article/pii/S0040403912000767>

A DFT study of an organocatalytic enantioselective Mannich reaction under the sway of noncovalent interactions

Metsala, Andrus; Kriis, Kadri; Kanger, Tõnis *Journal of computational chemistry* 2025 / art. e70159 <https://doi.org/10.1002/jcc.70159>

Enantioselective catalytic synthesis of N-alkylated indoles

Trubitsõn, Dmitri; Kanger, Tõnis *Chiral Auxiliaries and Chirogenesis II* 2021 / p. 1-30 <https://doi.org/10.3390/sym12071184>
<https://doi.org/10.3390/books978-3-0365-1155-9>

Enantioselective Catalytic Synthesis of N-alkylated Indoles

Trubitsõn, Dmitri; Kanger, Tõnis *Symmetry* 2020 / art. 1184 ; 30 p.: ill <https://doi.org/10.3390/sym12071184> [Journal metrics at Scopus](#)

Enantioselective organocatalytic Michael addition–cyclization cascade of cyclopentane-1,2-dione with substituted (E)-2-oxobut-3-enoates

Preegel, Gert; Ilmarinen, Kaja; Järving, Ivar; Kanger, Tõnis; Pehk, Tõnis; Lopp, Margus Synthesis 2015 / p. 3805-3812 : ill <https://doi.org/10.1055/s-0035-1560347> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Halogen-Bonding Organocatalysis - New Opportunities for Asymmetric Synthesis

Kaasik, Mikk; Kanger, Tõnis Asymmetric Organocatalysis: New Strategies, Catalysts, and Opportunities. Vol. 1 2022 / p. 203-224 <https://doi.org/10.1002/9783527832217.ch6>

Highly enantio- and diastereoselective generation of two quaternary centers in spirocyclopropanation of oxindole derivatives

Noole, Artur; Sucman, Natalia S.; Kabeshov, Mikhail A.; Kanger, Tõnis; Macaev, Fliur Z.; Malkov, Andrei Chemistry : a European journal 2012 / p. 14929–14933 : ill <https://pubmed.ncbi.nlm.nih.gov/23112107/>

Organocatalytic asymmetric addition of malonates to unsaturated 1,4-diketones

Žari, Sergei; Kailas, Tiiu; Kudrjašova, Marina; Öeren, Mario; Järving, Ivar; Tamm, Toomas; Lopp, Margus; Kanger, Tõnis Beilstein journal of organic chemistry 2012 / p. 1452-1457 : ill <https://pubmed.ncbi.nlm.nih.gov/23019480/>

Organocatalytic conjugate addition of cyclopropylacetaldehyde derivatives to nitro olefins : en route to β- and γ-amino acids

Kaasik, Mikk; Noole, Artur; Reitel, Kärt; Järving, Ivar; Kanger, Tõnis European journal of organic chemistry 2015 / p. 1745-1753 : ill <https://doi.org/10.1002/ejoc.201403387> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Supramolecular halogen bonds in asymmetric catalysis

Kaasik, Mikk; Kanger, Tõnis Frontiers in chemistry 2020 / art. 599064, 18 p. : ill <https://doi.org/10.3389/fchem.2020.599064> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

3-Chlorooxindoles : versatile starting materials for asymmetric organocatalytic synthesis of spirooxindoles

Noole, Artur; Ošeka, Maksim; Pehk, Tõnis; Öeren, Mario; Järving, Ivar; Elsegood, Mark R. J.; Malkov, Andrei; Lopp, Margus; Kanger, Tõnis Advanced synthesis and catalysis 2013 / p. 829-835 : ill [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)