October 28-29, 2021
Riga, Latvia

12th Paul Walden Symposium on Organic Chemistry

Latvian Institute of Organic Synthesis

NATIONAL DEVELOPMENT PLAN 2020

EUROPEAN UNION
European Regional Development Fund

INVESTING IN YOUR FUTURE

1862
RIGA TECHNICAL UNIVERSITY

Organized by

Latvian Institute of Organic Synthesis

1862 RIGA TECHNICAL UNIVERSITY

The best poster award by

ARMGATE

Supported by the European Regional Development Fund "Support for international cooperation projects in research and innovation in Latvian Institute of Organic Synthesis", contract No. 1.1.1.5/18/I/007.

NATIONAL DEVELOPMENT PLAN 2020

EUROPEAN UNION
European Regional Development Fund

INVESTING IN YOUR FUTURE

12th Paul Walden Symposium on Organic Chemistry

PROGRAM AND ABSTRACT BOOK

Riga, Latvia
28-29 October, 2021

https://walden.osi.lv/

Table of contents

Program 6
Plenary lectures 9
Student presentations 18
Posters 21

List of posters

D-1 Benzoxaphosphepine 2-oxides as potential carbonic anhydrase inhibitors
Anastasija Balašova

D-2 Reactivity Investigation of Propargyl Silanes with Various Electrophyles
Rūdolfs Beļaunieks, Mikus Puriņš

D-3 Synthesis and Photophysical Properties of C-C Bonded Triazole-Purine Conjugates
Aleksejs Burcevs, Armands Sebris

D-4 Process optimization of the synthesis of UAMC-00050, a novel uPA inhibitor
Davide Ceradini

D-5 Electrosynthesis of α,β-unsaturated esters from furfurylated ethylene glycols and amino alcohols
Madara Dārziņa

D-6 Functionalization of 1*N*-protected tetrazoles by deprotonation with turbo Grignard reagent
Konstantinos Grammatoglou

D-7 Synthetic approach towards enantiopure cyclic sulfinamides
Glebs Jersovs

D-8 C-H Activation of Betulin Analogs
Vladislavs Kroškins, Kristiāns Jankovičs

D-9 Cation–π interactions for high emission intensity
Kaspars Leduskrasts

D-10 S_NAr Regioselectivity and azide-tetrazole equilibrium study in pyrido[2,3-*d*]pyrimidine
Kristaps Leškovskis

D-11 Peptidic boronic acids as inhibitors of PfSUB1
Elīna Līdumniece

D-12 Synthesis of fluorocyclopropylidenes via Julia-Kocienski olefination
Renāte Melngaile

D-13 Synthesis and Photophysical Properties of Fluorescent Purine-Carbazole Conjugates
Armands Sebris

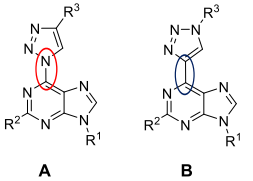
D-3

Synthesis and Photophysical Properties of C-C Bonded Triazole-Purine Conjugates

Aleksejs Burcevs, Armands Sebris

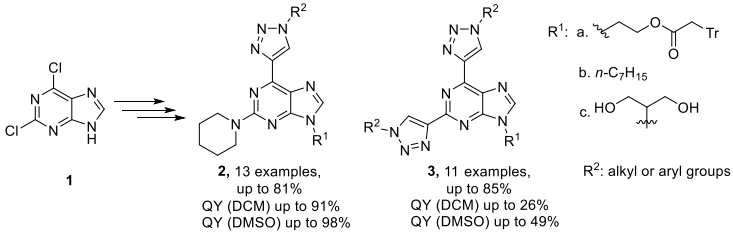
Institute of Technology of Organic Chemistry, Faculty of Materials Science and Applied Chemistry, Riga Technical University
e-mail: aleksejs.burcevs@rtu.lv

Earlier, our group reported the synthesis and photophysical properties of C-N bonded 6-(1*H*-1,2,3-triazol-1-yl)-9*H*-purine derivatives **A** (Scheme 1).[1,2] In this work we synthesized C-C bonded 6-(1*H*-1,2,3-triazol-4-yl)-9*H*-purine derivatives **B**. Such compounds possess enhanced stability due to C-C bond connection of 1,2,3-triazole to the purine ring, thus this triazole cannot act as a leaving group.



Scheme 1. C-N and C-C bonded triazolylpurine structures.

Target compounds **2-3** were synthesized from 2,6-dichloropurine **1**, using the sequence of Mitsunobu, Sonogashira, CuAAC and S_NAr reactions (Scheme 2). Further, photophysical properties of obtained compounds have been studied. Quantum yields reached up to 91% in DCM and 98% in DMSO solutions.



Scheme 2. General structures of target products **2-3**.

Supervisor: Dr. chem. I. Novosjolova

Acknowledgements
Dr. phys. K. Traskovskis is acknowledged for photophysical measurements.
This work was supported by the Latvian Council of Science grant No LZP-2020/1-0348.

References

1. Šišuļins, A.; Bucevičius, J.; Tseng, Y.; Novosjolova, I.; Traskovskis, K.; Bizdēna, Ē.; Chang, H.; Tumkevičius, S.; Turks, M. *Beilstein J. Org. Chem.* **2019**, *15*, 474.
2. Jovaisaite, J.; Cīrule, D.; Jeminejs, A.; Novosjolova, I.; Turks, M.; Baronas, P.; Komskis, R.; Tumkevicius, S.; Jonusauskas, G.; Jursenas, S. *Phys. Chem. Chem. Phys.* **2020**, *22*, 26502.