



Head

Wojciech Sas

Current research

- Synthesis of monocyclic and bicyclic iminosugars from protected and unprotected sugars employing intramolecular 1,3-dipolar cycloaddition of N-(3-alkenyl)nitrones as the key steps
- Synthesis of nucleoside analogues possessing 1,2,3-triazole linker between nucleobase and sugars or iminosugars
- Synthesis of hybrids sugar-fullerene by 1,3-dipolar cycloaddition of sugar-nitrile oxides, sugar-azides and sugar azomethine ylides
- Synthesis of functional sugars and iminosugars and the studies of their biological or catalytic activity

Selected publications

Koszytkowska-Stawińska M., Sas W., *Synthesis of Novel NH-1,2,3-Triazolo-Nucleosides by the Banert Cascade Reaction*, *Tetrahedron*, 69, 2619, 2013

Mironiuk-Puchalska E., Rowicki T., Sas W., Koszytkowska-Stawińska M., *Convenient Synthesis of Epimeric Indolizidines by the Intramolecular 1,3-Dipolar Cycloaddition of a Sugar Derived N-(3-Alkenyl)Nitron*, *Tetrahedron*, 69, 9826, 2013

Koszytkowska-Stawińska M., Mironiuk-Puchalska E., Rowicki T., *Synthesis of 1,2,3-Triazolo-Nucleosides via the Tost-triazole N-Alkylation*, *Tetrahedron*, 68, 214, 2012

Koszytkowska-Stawińska M., Mironiuk-Puchalska E., Sas W., *Synthesis of 1-Pyrroline 1-Oxides Analogous to Pseudouridine*, *Tetrahedron Letters*, 52, 1866, 2011

Koszytkowska-Stawińska M., De Clercq E., Balzarini J., *Synthesis and Antiviral Activity Evaluation of Acyclic 2'-Azanucleosides Bearing a Phosphonomethoxy Function in the Side Chain*, *Bioorganic and Medical Chemistry*, 17, 3756, 2009

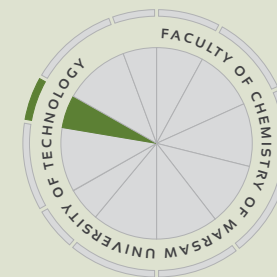
Koszytkowska-Stawińska M., Sas W., De Clercq E., *Synthesis of Aza-Analogues of Ganciclovir*, *Tetrahedron*, 62, 2006

Staff

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Magdalena Popławska
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Current PhD students

Adriana Przerwa
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Research profile

Intramolecular 1,3-dipolar cycloaddition of sugar-derived N-(3-alkenyl)nitrones

Sugar-derived 7-oxa-1-azabicyclo[2.2.1]heptanes as substrates for diversity oriented synthesis of monocyclic and bicyclic iminosugars

Synthesis of nucleoside analogues with 1,2,3-triazole linker by the use of alkylation of triazoles and by the use of Banert cascade

Employment of Banert cascade for synthesis of iminosugar-derived nucleosides with 1,2,3-triazole linker

Studies of 1,3-dipolar cycloaddition of sugar-derived nitrile oxides and azides to C60 fullerene

Examination of iminosugar inhibitory activity of glycosidases

Synthesis of sugar-based organocatalysts and examination of their catalytic activity

Research equipment

- Medium pressure liquid chromatograph

