

# Laurence Hecquet

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/8603836/publications.pdf>

Version: 2024-02-01

27  
papers

594  
citations

567281

15  
h-index

610901

24  
g-index

28  
all docs

28  
docs citations

28  
times ranked

357  
citing authors

#	ARTICLE	IF	CITATIONS
1	Enzyme-catalyzed synthesis of carbohydrates: synthetic potential of transketolase. <i>Tetrahedron Letters</i> , 1991, 32, 5085-5088.	1.4	81
2	Preparative scale enzymatic synthesis of d-sedoheptulose-7-phosphate from $\beta$ -D-hydroxypyruvate and d-ribose-5-phosphate. <i>Journal of Molecular Catalysis B: Enzymatic</i> , 2009, 57, 6-9.	1.8	47
3	A pH-Dependent High-Throughput Assay for Transketolase: Fingerprinting of Substrate Tolerance and Quantitative Kinetics. <i>ChemBioChem</i> , 2012, 13, 2290-2300.	2.6	42
4	Donor Promiscuity of a Thermostable Transketolase by Directed Evolution: Efficient Complementation of $\beta$ -D-Deoxyxylulose-5-phosphate Synthase Activity. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 5358-5362.	13.8	37
5	Enzymes as reagents in organic chemistry: transketolase-catalysed synthesis of d-[1,2- <sup>13</sup> C <sub>2</sub> ]xylulose. <i>Carbohydrate Research</i> , 1990, 206, 79-85.	2.3	36
6	Thermostable Transketolase from <i>Geobacillus stearothermophilus</i> : Characterization and Catalytic Properties. <i>Advanced Synthesis and Catalysis</i> , 2013, 355, 116-128.	4.3	35
7	A thermostable transketolase evolved for aliphatic aldehyde acceptors. <i>Chemical Communications</i> , 2015, 51, 480-483.	4.1	35
8	Efficient Immobilization of Yeast Transketolase on Layered Double Hydroxides and Application for Ketose Synthesis. <i>Advanced Synthesis and Catalysis</i> , 2011, 353, 1497-1509.	4.3	32
9	New Assays for Transketolase. <i>Bioscience, Biotechnology and Biochemistry</i> , 1993, 57, 2174-2176.	1.3	31
10	Engineering a thermostable transketolase for arylated substrates. <i>Green Chemistry</i> , 2017, 19, 481-489.	9.0	27
11	Engineering a Thermostable Transketolase for Unnatural Conversion of (2S)-Hydroxyaldehydes. <i>Advanced Synthesis and Catalysis</i> , 2015, 357, 1715-1720.	4.3	26
12	One-pot, two-step cascade synthesis of naturally rare erythro (3S,4S) ketoses by coupling a thermostable transaminase and transketolase. <i>Green Chemistry</i> , 2017, 19, 425-435.	9.0	26
13	Second-Generation Engineering of a Thermostable Transketolase (TK <sub>Gst</sub> ) for Aliphatic Aldehyde Acceptors with Either Improved or Reversed Stereoselectivity. <i>ChemBioChem</i> , 2017, 18, 455-459.	2.6	19
14	Chiral Polyol Synthesis Catalyzed by a Thermostable Transketolase Immobilized on Layered Double Hydroxides in Ionic liquids. <i>ChemCatChem</i> , 2015, 7, 3163-3170.	3.7	18
15	Instant One-Pot Preparation of Functional Layered Double Hydroxides (LDHs) via a Continuous Hydrothermal Approach. <i>ChemNanoMat</i> , 2017, 3, 614-619.	2.8	15
16	Evolved Thermostable Transketolase for Stereoselective Two-Carbon Elongation of Non-Phosphorylated Aldoses to Naturally Rare Ketoses. <i>ACS Catalysis</i> , 2019, 9, 4754-4763.	11.2	14
17	Transketolase-Aldolase Symbiosis for the Stereoselective Preparation of Aldoses and Ketoses of Biological Interest. <i>Advanced Synthesis and Catalysis</i> , 2017, 359, 2061-2065.	4.3	13
18	Insights into the Thiamine Diphosphate Enzyme Activation Mechanism: Computational Model for Transketolase Using a Quantum Mechanical/Molecular Mechanical Method. <i>Biochemistry</i> , 2016, 55, 2144-2152.	2.5	12

#	ARTICLE	IF	CITATIONS
19	Enzymatic Synthesis of Aliphatic Acylolins Catalyzed by Thermostable Transketolase. <i>ChemCatChem</i> , 2020, 12, 5772-5779.	3.7	10
20	One-Pot Cascade Synthesis of (3S)-Hydroxyketones Catalyzed by Transketolase via Hydroxypyruvate Generated in situ from Serine by $\alpha$ -Amino Acid Oxidase. <i>Advanced Synthesis and Catalysis</i> , 2019, 361, 2550-2557.	4.3	7
21	Convergent in situ Generation of Both Transketolase Substrates via Transaminase and Aldolase Reactions for Sequential One-Pot, Three-Step Cascade Synthesis of Ketoses. <i>ChemCatChem</i> , 2020, 12, 812-817.	3.7	7
22	Donor-Promiskuität einer thermostabilen Transketolase durch gelenkte Evolution – effektive Komplementierung der 1-Desoxy- $\alpha$ -xylulose-5-phosphat-Synthase-Aktivität. <i>Angewandte Chemie</i> , 6 2017, 129, 5442-5447.	5.5	6
23	QM/MM Study of Human Transketolase: Thiamine Diphosphate Activation Mechanism and Complete Catalytic Cycle. <i>Journal of Chemical Information and Modeling</i> , 2021, 61, 3502-3515.	5.4	4
24	$\alpha$ -Serine as a Key Building Block: Enzymatic Process Development and Smart Applications within the Cascade Enzymatic Concept. <i>Organic Process Research and Development</i> , 2020, 24, 769-775.	2.7	3
25	Transketolase Catalyzed Synthesis of <i>N</i> -Aryl Hydroxamic Acids. <i>Advanced Synthesis and Catalysis</i> , 2022, 364, 612-621.	4.3	3
26	High-Throughput Solid-Phase Assay for Substrate Profiling and Directed Evolution of Transketolase. <i>ChemBioChem</i> , 2021, 22, 2814-2820.	2.6	2
27	Cleavage of Aliphatic $\beta$ -Hydroxy Ketones by Evolved Transketolase from <i>Geobacillus stearothermophilus</i> . <i>ACS Catalysis</i> , 2022, 12, 3566-3576.	11.2	1