

① 研究論文(学術論文)

氏名(全著者名)	論文題目(タイトル)	学協会誌名、巻数、号数、掲載頁、発行年月
K. Yamamoto Y. Oku A. Ina A. Izumi M. Doya S. Ebata Y. Asano	Purification and characterization of a novel enone reductase from <i>Sporidiobolus salmonicolor</i> TPU 2001 reacting with large monocyclic enones	ChemCatChem, 9, 3697–3704 (2017)
S. Yamasaki-Yashiki H. Komeda K. Hoshino Y. Asano	Characterization and gene cloning of L-xylulose reductase involved in L-arabinose catabolism from the pentose-fermenting fungus <i>Rhizomucor pusillus</i>	Bioscience, Biotechnology, and Biochemistry, 81 (8), 1612–1618 (2017)
K. Yamamoto Y. Asano	Genome sequence of <i>Microbacterium</i> sp. strain TPU 3598, a lumichrome producer	Genome Announcements, 5 (16), e00204–17 (2017)
Y. Kuwahara T. Tanabe Y. Asano	Defensive allomone components of an unidentified myrmecophilous millipede in the genus <i>Ampelodesmus</i> (“hagayasude” in Japanese) [Polydesmida: Pyrgodesmidae]	Japanese Journal of Environmental Entomology and Zoology, 28 (2), 55–62 (2017)
Y. Kuwahara T. Tanabe Y. Asano	Defensive allomone components of the millipede <i>Cryptocorpha kumamotoensis</i> (Murakami, 1966) [Polydesmida: Pyrgodesmidae] and two related <i>Cryptocorpha</i>	Japanese Journal of Environmental Entomology and Zoology, 28 (2), 63–69 (2017)
D. Matsui S. Nakano M. Dadashpour Y. Asano	Rational identification of aggregation hotspots based on secondary structure and amino acid hydrophobicity	Scientific Reports, 7, 9558 (2017)
Y. Kuwahara M. Morita Y. Ichiki T. Tanabe Y. Asano	1-Phenyl-2-pentanone and methyl salicylate: new defense allomone components and their content shift during ontogenetic development of the millipede <i>Nedyopus tambanus mangaesinus</i> (Polydesmida:	Applied Entomology and Zoology, 52, 447–455 (2017)
D. Matsui K. Fuhshuku S. Nagamori M. Takata Y. Asano	Isolation and characterization of racemase from <i>Ensifer</i> sp. 23-3 that acts on α -aminolactams and α -amino acid amides	Journal of Industrial Microbiology and Biotechnology, 44, 1503–1510 (2017)
T. Betke P. Rommelmann K. Oike Y. Asano H. Groger	Cyanide-free and broadly applicable enantioselective synthetic platform for chiral nitriles through a biocatalytic approach	Angewandte Chemie International Edition, 56 (40), 12361–12366 (2017)
T. Motoyama S. Nakano Y. Yamamoto H. Tokiwa Y. Asano S. Ito	Product release mechanism associated with structural changes in monomeric L-threonine 3-dehydrogenase	Biochemistry, 56 (43), 5758–5770 (2017)
F. Motojima A. Nuylert Y. Asano	The crystal structure and catalytic mechanism of hydroxynitrile lyase from passion fruit, <i>Passiflora edulis</i>	The FEBS Journal, 285, 313–324 (2018)
K. Isobe S. Miki R. Ueda S. Shichida D. Matsui Y. Oku Y. Asano	Characterization of two carbonyl reductases from <i>Ogataea polymorpha</i> NBRC 0799	Applied Microbiology and Biotechnology, 102 (3), 1307–1316 (2018)
S. Srinuanpan B. Cheirsilp P. Prasertsan Y. Kato Y. Asano	Strategies to increase the potential use of oleaginous microalgae as biodiesel feedstocks: Nutrient starvations and cost-effective harvesting process	Renewable Energy, 122, 507–516 (2018)
Dohyun Im D. Matsui T. Arakawa K. Isobe Y. Asano S. Fushinobu	Ligand complex structures of L-amino acid oxidase/monooxygenase from <i>Pseudomonas</i> sp. AIU 813 and its conformational change	FEBS Open Bio, 8 (3), 314–324 (2018)

T. Yamaguchi A. Nuylert A. Ina T. Tanabe Y. Asano	Hydroxynitrile lyases from cyanogenic millipedes: molecular cloning, heterologous expression, and whole-cell biocatalysis for the production of (R)-mandelonitrile	Scientific Reports, 8, 3051 (2018)
Y. Ishida V. Benno Meyer-Rochow Y. Asano	Comparison of DNA sequence encoding hydroxynitrile lyase from the invasive millipede, <i>Chamberlinius hualienensis</i> , collected at Kagoshima, Shizuoka, and Hachijo.	Bulletin of Toyama Prefectural University, 28, 35-40 (2018)
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M. Hibi K. Takahashi J. Kako Y. Wakita T. Kodera S. Shimizu K. Yokozeki J. Ogawa	Attempt to simultaneously generate three chiral centers in 4-hydroxyisoleucine with microbial carbonyl reductases	Bioorg. Med. Chem., 26, 1327-1332 (2018)
Y. Mitsukawa M. Hibi N. Matsutani N. Horinouchi S. Takahashi J. Ogawa	New nucleoside hydrolase with transribosylation activity from <i>Agromyces</i> sp. MM-1 and its application for enzymatic synthesis of 2'-O-methylribonucleosides	J. Biosci. Bioeng., 125, 38-45 (2018)
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H. Toda, N. Itoh	Development of a novel <i>E. coli</i> - <i>Kocuria</i> shuttle vector using the cryptic pKPAL3 plasmid from <i>K. palustris</i> IPUFS-1 and its utilization in producing enantiopure (S)-styrene oxide.	Frontiers in Microbiology, 8, Article2313 (2017).
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N. Itoh, J. Kurokawa, H. Toda, K. Konishi	Identification and characterization of a novel (-)-vibo-quercitol 1-dehydrogenase from <i>Burkholderia terrae</i> suitable for production of (-)-vibo-quercitol from 2-deoxy-scylo-	Applied Microbiology and Biotechnology, 101, 7545-7555 (2017).
H. Toda, T. Koyanagi, T. Enomoto, N. Itoh	Characterization of two cryptic plasmids from <i>Kocuria palustris</i> IPUFS-1 and construction of novel <i>Escherichia coli</i> - <i>Kocuria</i> shuttle vector for biocatalysis.	Journal of Bioscience and Bioengineering, 124, 255-262 (2017).
戸田 弘	環境中に眠る有用遺伝子を探せ	日本生物工学会誌, 95巻, 6号, P337 (2017)

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H. Komaki A. Hosoyama A. Kimura N. Ichikawa Y. Igarashi	Draft genome sequence of an anicemycin producer, <i>Streptomyces</i> sp. TP-A0648	Genome Announcement 5, e01468-16 (2017)
Z. Zang Y. K. Gong Q. Zhou Y. Hu H. M. Ma Y. S. Chen Y. Igarashi G. L. Tang	Hydroxyl regioisomerization of anthracycline catalyzed by a four-enzyme cascade	Proceedings of National Academy Science USA, 114, 1554-1559 (2017)
E. Harunari H. Komaki Y. Igarashi*	Biosynthetic origin of butyrolactol A, an antifungal polyketide produced by a marine-derived <i>Streptomyces</i>	Beilstein Journal of Organic Chemistry, 13, 441-450 (2017)
S. Saito, T. Fujimaki W. Panbangred R. Sawa Y. Igarashi* M. Imoto	Antarlides F-H, new members of the antarlide family produced by <i>Streptomyces</i> sp. BB47	Journal of Antibiotics, 70, 595-600 (2017)
Y. Igarashi* N. Matsuoka Y. In T. Kataura E. Tashiro I. Saiki Y. Sudoh K. Duangmal A. Thamchaipenet	Nonthmicin, a polyether polyketide bearing a halogen-modified tetronate with neuroprotective and antiinvasive activity from <i>Actinomadura</i> sp.	Organic Letters, 19, 1406-1409 (2017)
N. Oku S. Hana M. Matsumoto K. Yonejima K. Tansei Y. Isogai Y. Igarashi*	Two new sacrolide-class oxylipins from the edible cyanobacterium <i>Aphanothece sacrum</i>	Journal of Antibiotics, 70, 708-709 (2017)
T. Hayashi T. Yamashita H. Okada N. Oishi H. Sunagozaka K. Nio T. Hayashi Y. Hara Y. Asahina M. Yoshida T. Hashiba T. Suda T. Shirasaki Y. Igarashi K. Miyanouchi T. Yamashita M. Honda S. Kaneko	A novel mTOR inhibitor: anthracimycin for the treatment of human hepatocellular carcinoma	Anticancer Research 37, 3397-3403 (2017)
Y. Nakagawa Y. Sawaki T. Kimura T. Tomura Y. Igarashi M. Ojika	Quinocidin, a cytotoxic antibiotic with an unusual 3,4-dihydroquinolizinium ring and Michael acceptor reactivity toward thiols	Chemistry 23, 17894-17897 (2017)

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T. Terahara K. Yamada Y. Ikegami Y. Igarashi C. Imada	Highlighting bacterial communities in strikingly clean deep seawater	Deep Ocean Water Research, 18, 208–209 (2017)
E. Harunari H. Komaki N. Ichikawa A. Hosoyama A. Kimura M. Hamada Y. Igarashi*	Draft genome sequence of Streptomyces hyaluromycini MBPO13T, a hyaluromycin producer	Standards in Genomic Science, 13, 2 (2018)
T. Shimoyama M. Miyoshi T. Nehira A. Motojima T. Oikawa O. Laurence Y. Igarashi*	Two new secondary metabolites from a fungus of the genus Robillarda	Journal of. Antibiotics, 71, 432–437 (2018)
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S. Hashimoto S. Katoh T. Kato D. Urabe M. Inoue	Total synthesis of resiniferatoxin enabled by radical-mediated three-component coupling and 7-endo cyclization	Journal of the American Chemical Society, 139, 16420–16429 (2017).
K. Minagawa D. Urabe M. Inoue	A three-component coupling approach to the ACE-ring substructure of C19-diterpene alkaloids	The Journal of Antibiotics, 71, 326–332 (2018).
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井上将行・長友優典 占部大介	ラジカル反応を基盤とした高酸化度天然物の収束的合成戦略	ファルマシア, 53, 860–864 (2017).

K. Yasuda Y. Yogo H. Sugimoto T. Takita H. Mano M. Kamakura M. Ohta S. Ikushiro K. Yasukawa Y. Shiro T. Sakaki	Production of an active form of vitamin D2 by genetically engineered CYP105A1	Biochemical and Biophysical Research Communications 486, 336-341 (2017)
A. Kurita Y. Miyauchi S. Ikushiro P.I. Mackenzie H. Yamada Y. Ishii	Comprehensive Characterization of Mouse UDP- Glucuronosyltransferase (Ugt) belonging to the Ugt2b Subfamily: Identification of Ugt2b36 as the Predominant Isoform Involved in Morphine Glucuronidation	Journal of Pharmacology and Experimental Therapeutics, 361, 199-208 (2017)
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K. Yasuda H. Sugimoto K. Hayashi T. Takita K. Yasukawa M. Ohta M. Kamakura S. Ikushiro Y. Shiro T. Sakaki	Protein engineering of CYP105s for their industrial uses.	Biochim Biophys Acta. 1866, 23-31 (2018)
榑利之・安田佳織 西川美宇・生城真一	セサミンの代謝および医薬品との相互作用	YAKUGAKU ZASSHI 138, 357-363 (2018)
T. Nomura A. Ueno S. Ogita Y. Kato	Molecular diversity of tuliposide B-converting enzyme in tulip (Tulipa gesneriana): Identification of the root-specific isozyme	Bioscience, Biotechnology, and Biochemistry 81, 1185-1193 (2017)
T. Nomura R. Kuchida N. Kitaoka Y. Kato	Molecular diversity of tuliposide B-converting enzyme in tulip (Tulipa gesneriana): identification of the third isozyme with a distinct expression profile	Bioscience, Biotechnology, and Biochemistry, 82, 810-820 (2018)
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K. Nishino S. Takahashi H. Nishida	Comparison of gene expression levels of appA, ppsR, and EL368 in <i>Erythrobacter litoralis</i> spheroplasts under aerobic and anaerobic conditions, and under blue light, red light, and dark conditions	Journal of General and Applied Microbiology 64 [advance publication] (2018)
M. Nakazawa H. Nishida	Effects of light and oxygen on the enlargement of spheroplasts of the facultative anaerobic anoxygenic photosynthetic bacterium <i>Rhodospirillum rubrum</i>	Jacobs Journal of Biotechnology and Bioengineering 3, 014 (2017)
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K. Nishino H. Nishida	Blue light inhibits the enlargement of <i>Erythrobacter litoralis</i> spheroplasts	Journal of General and Applied Microbiology 63, 203–206 (2017)
H. Nakamiya S. Ijima H. Nishida	Changes in nucleosome formation at gene promoters in the archiascomycetous yeast <i>Saitoella complicata</i>	AIMS Microbiology 3, 136–142 (2017)
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(2) 専門書等の執筆

書籍の名称(題目)	著者名	出版社名(発行所)	発行年月
Enzymes in aldoxime-nitrile pathway: versatile tools in biocatalysis, Tomoko Matsuda (ed.), In Future directions in biocatalysis, ver 2, Chapter 9, pp.173–187	Y. Asano S. Okazaki	Elsevier, New York, U.S.A., Ed.	2017
Metagenomics for improved biocatalysis, In Future Directions in Biocatalysis 2nd ed. (ed. by T. Matsuda) pp.375–399	N. Itoh	Elsevier	2017