

希少糖動植物・物性分野等論文等リスト

分類1 糖	分類2 機能	発表年	発表タイトル	発表先・掲載号	著者名
アルロース	植物	2022	農業資材としての希少糖D-ブシコース (D-アルロース)・D-アロースの可能性	日本農薬学会誌 47(2), 60	望月進, 何森健, 秋光和也
タガトース	植物	2021	The rare sugar d-tagatose protects plants from downy mildews and is a safe fungicidal agrochemical.	Commun. Biol. 3, 1-15	Mochizuki S., Fukumoto T., Ohara T., Ohtani K., Yoshihara A., Shigematsu Y., Tanaka K., Ebihara K., Tajima S., Gomi K.,
アロース	植物	2020	D-allose is a critical regulator of inducible plant immunity in tomato.	Physiol. Mol. Plant Pathol. 111, 101507	Zhang H., Jiang M., Song F.
希少糖アル コール	物性	2020	Single Crystal X-ray Structural Analysis and Electronic Theory of Sugar Molecules	IOP Conference Series: Materials Science and Engineering 835(1),012023	Taniguchi, N., Ishii, T., Huy, B.Q., Sakane, G.
アルロース アロース	物性	2020	Single-Crystal X-Ray Structural Analysis and Electronic Structures Calculation of Rare Sugar	IOP Conference Series: Materials Science and Engineering 835(1),012015	Huy, B.Q., Ishii, T., Taniguchi, N., Nagayama, N., Sakane, G.
アルロース	物性	2020	Supramolecular Rare Sugar	IOP Conference Series: Materials Science and Engineering 835(1),012002	Ishii, T., Senoo, T., Taguchi, H., (...), Nagayama, N., Sakane, G.
ソルボース	物性	2020	Ordering phase transition with symmetry-breaking from disorder over non-equivalent sites: Calorimetric and crystallographic study of crystalline d-sorbose Open Access	Crystals, 10(5),361	Iwagaki, S., Kakuta, H., Yamamura, Y., (...), Fukada, K., Saito, K.
タガトース	植物	2020	The rare sugar tagatose differentially inhibits the growth of Phytophthora infestans and Phytophthora cinnamomi by interfering with mitochondrial processes	Front. Microbiol. 11, 1-12	Chahed A., Nesler A., Navazio L., Baldan B., Busato I., Ait Barka E., Pertot I., Puopolo G., Perazzolli M.
タガトース	植物	2020	Ecological impact of a rare sugar on grapevine phyllosphere microbial communities	Microbiol. Res. 232, 126387.	Perazzolli M., Nesler A., Giovannini O., Antonielli L., Puopolo G., Pertot I.

タガトース	植物	2020	The rare sugar D-tagatose protects plants from downy mildews and is a safe fungicidal agrochemical	Communications Biology 3, Article number: 423	S. Mochizuki, T. Fukumoto, T. Ohara, K. Ohtani, A. Yoshihara, Y. Shigematsu, K. Tanaka, K. Ebihara, S. Tajima, K. Gomi, K. Ichimura, K. Izumori, K. Akimitsu
アルロース タガトース	物性	2019	Heat capacity and standard thermodynamic functions of three ketohexoses in monosaccharides including rare sugars: D-fructose, D-psicose, and D-tagatose	J. Chemical Thermodynamics 131, 420-430	Yamamura, Y., Iwagaki, S., Hishida, M., (...), Fukada, K., Saito, K.
希少糖	植物	2019	Cyanobacterial antimetabolite 7-deoxy-sedoheptulose blocks the shikimate pathway to inhibit the growth of prototrophic organisms.	Nat. Commun. 10, 545	Brilisauer K., Rapp J., Rath P., Schöllhorn A., Bleul L., Weiß E., Stahl M., Grond S., Forchhammer K.
アルロース	動物 線虫	2019	Growth inhibition by 1-deoxy-D-allulose, a novel bioactive deoxy sugar, screened using <i>Caenorhabditis elegans</i> assay.	Bioorg. Med. Chem. Lett. 29, 2483–2486	Yoshihara A., Sakoguchi H., Shintani T., Fleet G.W.J., Izumori K., Sato M.
アロース	植物	2018	Synthesis and inhibitory activity of deoxy-d-allose amide derivative against plant growth.	Biosci. Biotechnol. Biochem. 82, 775–779	Chowdhury T.I., Ando H., Yanagita R.C., Kawanami Y.
希少糖	植物	2017	A possibility of rare sugar applications for agro-usages.	Jpn. J. Pestic. Sci. 42, 99–103.	Akimitsu K., Matsudaira K., Aki A., Mochizuki S., Kano A., Yoshihara A., Gomi K., Ichimura K., Fukumoto T., Ohara T.
アルロース	動物 線虫	2017	d-Allulose, a stereoisomer of d-fructose, extends <i>Caenorhabditis elegans</i> lifespan through a dietary restriction mechanism: A new candidate dietary restriction mimetic	Biochem. Biophysic. Res. Com., 493: 1528-1533,	T. Shintani, H. Sakoguchi, A. Yoshihara, K. Izumori, M. Sato,
アルロース	動物 イヌ	2017	The long-term safety of D-allulose administration in healthy dogs	J. Vet. Med. Sci. 79(11): 1780–1784	N. Nishii, S. Takashima, Y. Kobatake, M. Tokuda, H. Kitagawa
デオキシケ トヘキソー ス	物性	2016	Evaluation of the equilibrium content of tautomers of deoxy-ketohexoses and their molar absorption coefficient of the carbonyl group in aqueous solution	Chemistry Letters 45(2), 113-115	Yoshihara, A., Sato, M., Fukada, K.
アロース	植物	2016	Syntheses and biological activities of deoxy-D-allose fatty acid ester analogs.	Biosci. Biotechnol. Biochem. 80, 676–681	Chowdhury M.T.I., Ando H., Yanagita R.C., Kawanami Y.
アルロース	動物 イヌ	2016	Effects of D-allulose on glucose metabolism after the administration of sugar or food in healthy dogs	J. Vet. Med. Sci. 78(11): 1657–1662	N. Nishii, T. Nomizo, S. Takashima, T. Matsubara, M. Tokuda, H. Kitagawa

アルロース	動物 イヌ	2016	Single oral dose safety of D-allulose in dogs	J. Vet. Med. Sci. 78(6): 1079–1083	N. Nishii, T. Nomizo, S. Takashima, T. Matsubara, M. Tokuda, H. Kitagawa
アロース	動物	2016	Screening of biologically active monosaccharides : growth inhibitory effects of D-allose, D-talose, and L-idose against the nematoda <i>Caenorhabditis elegans</i>	Biosci. Biotechnol. Biochem. 80(6) 1058-1061	H. Sakoguchi, A. Yoshihara, K Izumori, M Sato,
アラビノース	動物	2016	Growth inhibitory effect of D-arabinose against the nematoda <i>Caenorhabditis elegans</i> : Discovery of a novel bioactive monosaccharide	Bioorganic & Medicinal Chemistry Letters26(3) 726-729	H. Sakoguchi, A. Yoshihara, T. Shintani, K. Okuma, K Izumori, M Sato,
アルロース 酵素	物性	2016	X-ray structures of the <i>Pseudomonas cichorii</i> D-tagatose 3-epimerase mutant form C66S recognizing deoxy sugars as substrates	Applied Microbiology and Biotechnology 100(24), pp. 10403-10415	Yoshida, H., Yoshihara, A., Ishii, T., Izumori, K., Kamitori, S.
L-フラクトース	物性	2015	Crystal structure of $\beta$ -D-,L-fructose	Acta Cryst. E71, o719	T. Ishii, T. Senoo, A. Yoshihara, K. Fukada, G. Sakane
アルロース	物性	2015	Crystal structure of $\beta$ -D-,L-psiocese	Acta Cryst. E71, o289	T. Ishii, G. Sakane, A. Yoshihara, K. Fukada, T. Senoo
アロース	物性	2015	Crystal structure of $\beta$ -D-,L-allose	Acta Cryst. E71, o139	T. Ishii, T. Senoo, T. Kozaki, K. Fukada, G. Sakane
アルロース	物性	2015	Crystal structure of 6-deoxy- $\alpha$ -l-psiocofuranose	Acta Cryst. E: 71, o993-o994	Yoshihara, A., Ishii, T., Kamakura, T., Taguchi, H., Fukada, K.
アロース	物性	2015	Aqueous phase behavior of the rare monosaccharids D-allose and X-ray Crystallographic analysis of D-allose dihydrate	Bull. Chem. Soc. Jpn. 88(3) 465-470	T. Kozaki, K. Fukada, R. Kuwatori, T. Ishii, T. Senoo, G. Sakane
アルトロース_グロース	植物	2015	Synthesis of 6-O-decanoyl-d-altrose and 6-O-decanoyl-d-gulose and evaluation of their biological activity on plant growth.	Plant Growth Regul. 75, 707–713	Chowdhury M.T.I., Naito M., Yanagita R.C., Kawanami Y.
Rare Sugar	物性	2014	$\beta$ -D-Gulose	Acta Cryst. E70, o569	T. Ishii, S. Ohga, K. Fukada, K. Morimoto, G. Sakane
Rare Sugar	物性	2014	Emulsifying activity of bovinr $\beta$ -lactoglobulin conjugated with hexoses through the Maillard reaction	Colloids Surface, A.450, 148-155	N. Cheetangdee, K. Fukada
アロース	植物	2013	The rare sugar d-allose acts as a triggering molecule of rice defence via ROS generation	J. Exp. Bot. 264, 4939–4951	Kano A., Fukumoto T., Ohtani K., Yoshihara A., Ohara T., Tajima S., Izumori K., Tanaka K., Ohkouchi T., Ishida Y.

アロース	植物	2013	Phosphorylation of d-allose by hexokinase involved in regulation of OsABF1 expression for growth inhibition in <i>Oryza sativa</i> L.	Planta. 237, 1379–1391	Fukumoto T., Kano A., Ohtani K., Inoue M., Yoshihara A., Izumori K., Tajima S., Shigematsu Y., Tanaka K., Ohkouchi T.
アロース	植物	2011	Rare sugar d-allose suppresses gibberellin signaling through hexokinase-dependent pathway in <i>Oryza sativa</i> L.	Planta. 234, 1083–1095	Fukumoto T., Kano A., Ohtani K., Yamasaki-Kokudo Y., Kim B.G., Hosotani K., Saito M., Shirakawa C., Tajima S., Izumori K.
アロース	植物	2011	D-Psicose induces upregulation of defense-related genes and resistance in rice against bacterial blight	J. Plant Physiol., 168, 1852–1857	Kano A., Hosotani K., Gomi K., Yamasaki-Kokudo Y., Shirakawa C., Fukumoto T., Ohtani K., Tajima S., Izumori K., Tanaka K.
アロース	植物	2010	A rare sugar, D-allose, confers resistance to rice bacterial blight with upregulation of defense-related genes in <i>Oryza sativa</i>	Phytopathology. 100, 85–90.	Kano A., Gomi K., Yamasaki-Kokudo Y., Satoh M., Fukumoto T., Ohtani K., Tajima S., Izumori K., Tanaka K., Ishida Y, Akimitsu K.
アロース	植物	2010	Retarding activity of 6-O-Acyl-d-alloses against plant growth.	Biosci. Biotechnol. Biochem. 74, 216–217	Kobayashi M., Ueda M., Furumoto T., Kawanami Y.