

Compendium of Actinobacteria from Dr. Joachim M. Wink
University of Braunschweig

Strain		DSM 22512
Genus		<i>Cellulomonas</i>
Species		<i>phragmiteti</i>
Status		
Risk group		L1
Type strain		KB23, NCAIM B002303
Reference		
Author		Rusznayák, A., Tóth, E. M., Schumann, P., Spröer, C., Makk, J., Szabó, G., Vladár, P., Márialigeti, K., Borsodi, A. K.
Title		<i>Cellulomonas phragmiteti</i> sp. nov., a cellulolytic bacterium isolated from reed (<i>Phragmites australis</i>) periphyton in a shallow soda pond.
Journal		<i>Int J Syst Evol Microbiol</i>
Volume		61 (Pt 7)
Page		1662-1666
Year		2011
Morphology		
Agar	ISP 2 - growth/G	sparse
Agar	ISP 2 - colony color/R	n. d.
Agar	ISP 2 - aerial mycelium/A	none
Agar	ISP 2 - soluble pigment/S	none
Agar	ISP 3 - G	good
Agar	ISP 3 - R	dahlia yellow (1033)
Agar	ISP 3 - A	none
Agar	ISP 3 - S	none
Agar	ISP 4 - G	good
Agar	ISP 4 - R	dahlia yellow (1033)
Agar	ISP 4 - A	none
Agar	ISP 4 - S	none
Agar	ISP 5 - G	sparse
Agar	ISP 5 - R	daffodil yellow (1007)
Agar	ISP 5 - A	none
Agar	ISP 5 - S	none
Agar	ISP 6 - G	sparse
Agar	ISP 6 - R	n. d.
Agar	ISP 6 - A	none
Agar	ISP 6 - S	none
Agar	ISP 7 - G	decreased
Agar	ISP 7 - R	saffron yellow (1017)
Agar	ISP 7 - A	none
Agar	ISP 7 - S	none
Agar	suter with tyrosine - G	good
Agar	suter with tyrosine - R	melon yellow (1028)

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Agar	suter with tyrosine - A	none
Agar	suter with tyrosine - S	none
Agar	suter without tyrosine - G	good – decreased
Agar	suter without tyrosine - R	zinc yellow (1018)
Agar	suter without tyrosine - A	none
Agar	suter without tyrosine - S	none
	Sporechains/Sporangia	
Physiology		
Melanin		-
pH	range	
pH	optimum	
temperature	range	
temperature	optimum	
sodium chloride tolerance		5%
lysozyme tolerance		
use of carbohydrates	glucose	+
use of carbohydrates	arabinose	++
use of carbohydrates	sucrose	+
use of carbohydrates	xylose	+
use of carbohydrates	inositol	-
use of carbohydrates	mannose	++
use of carbohydrates	fructose	+
use of carbohydrates	rhamnose	-
use of carbohydrates	raffinose	+
use of carbohydrates	cellulose	-
Api zym	Phosphatase alkaline	0
Api zym	Esterase (C4)	2
Api zym	Esterase Lipase (C8)	2
Api zym	Lipase (C14)	0
Api zym	Leucin arylamidase	5
Api zym	Valine arylamidase	1
Api zym	Cystine arylamidase	2
Api zym	Trypsin	0
Api zym	Chymotrypsin	1
Api zym	Phosphatase acid	0
Api zym	Naphtol-AS-BI-phosphohydrolase	1
Api zym	alpha galactosidase	5
Api zym	beta galactosidase	4
Api zym	beta glucuronidase	0
Api zym	alpha glucosidase	5
Api zym	beta GLUCOSIDASE	5
Api zym	N-acetyl-beta-glucoseamidase	4
Api zym	alpha mannosidase	0
Api zym	alpha fucosidase	0

Api coryne	nitrate reduction	-
Api coryne	Pyrazinamidase	-
Api coryne	Pyrrolidonyl arylamidase	-
Api coryne	Alkaline phosphatase	-
Api coryne	beta glucuronidase	-
Api coryne	beta galactosidase	+
Api coryne	alpha glucosidase	+
Api coryne	N-acetyl -beta glucoseamidase	+
Api coryne	Esculin (beta glucosidase)	+
Api coryne	Urease	-
Api coryne	Gelatine(hydrolysis)	-
Api coryne	Glucose fermentation	+
Api coryne	Ribose fermentation	-
Api coryne	Xylose fermentation	+
Api coryne	Mannitol fermentation	+
Api coryne	Maltose fermentation	+
Api coryne	Lactose fermentation	-
Api coryne	Sucrose fermentation	+
Api coryne	Glycogen fermentation	+

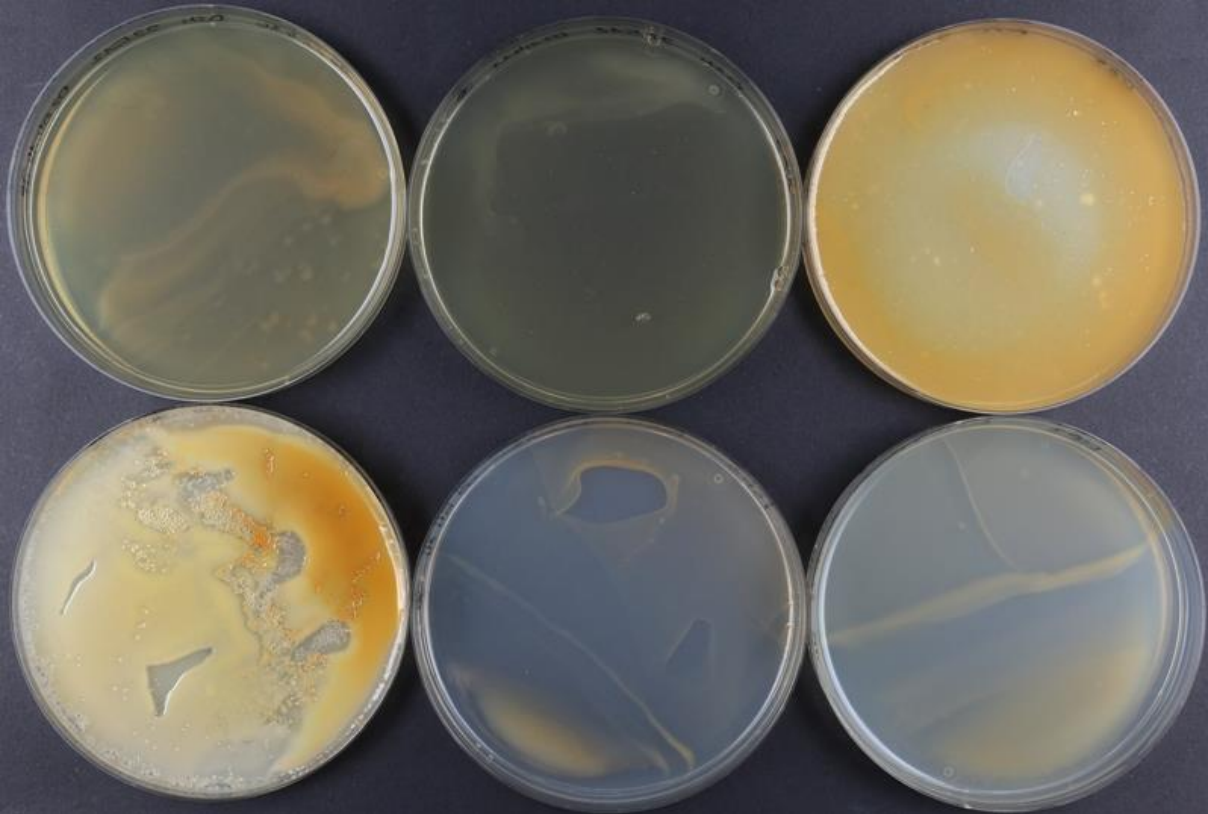
Apicoryne



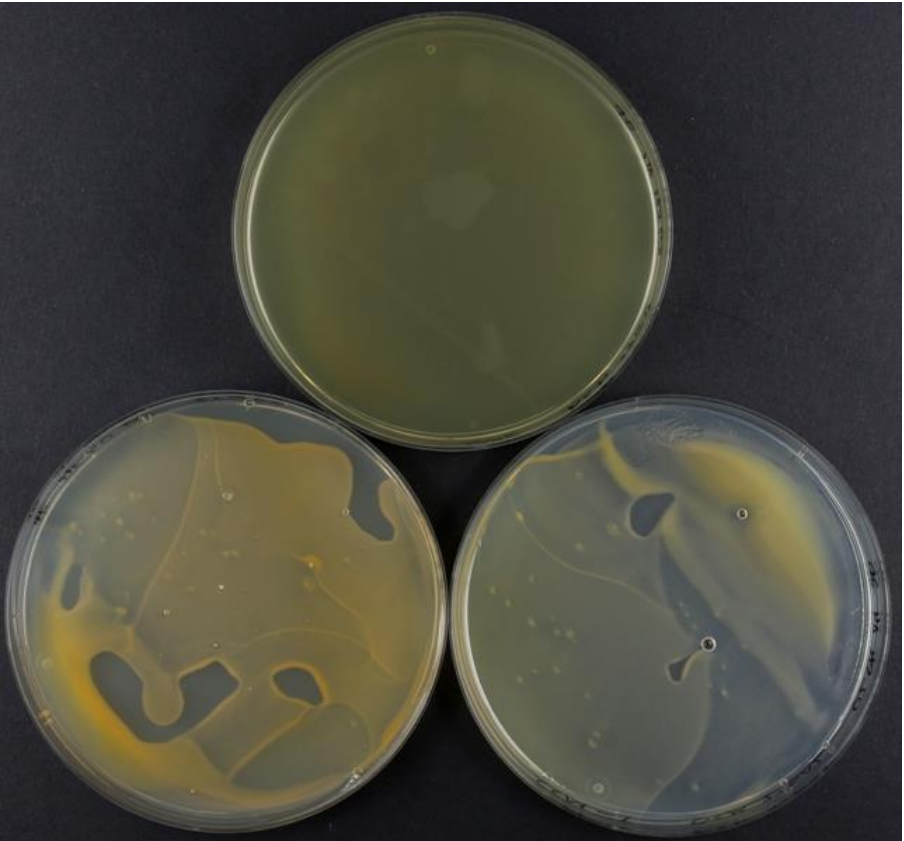
Apizym



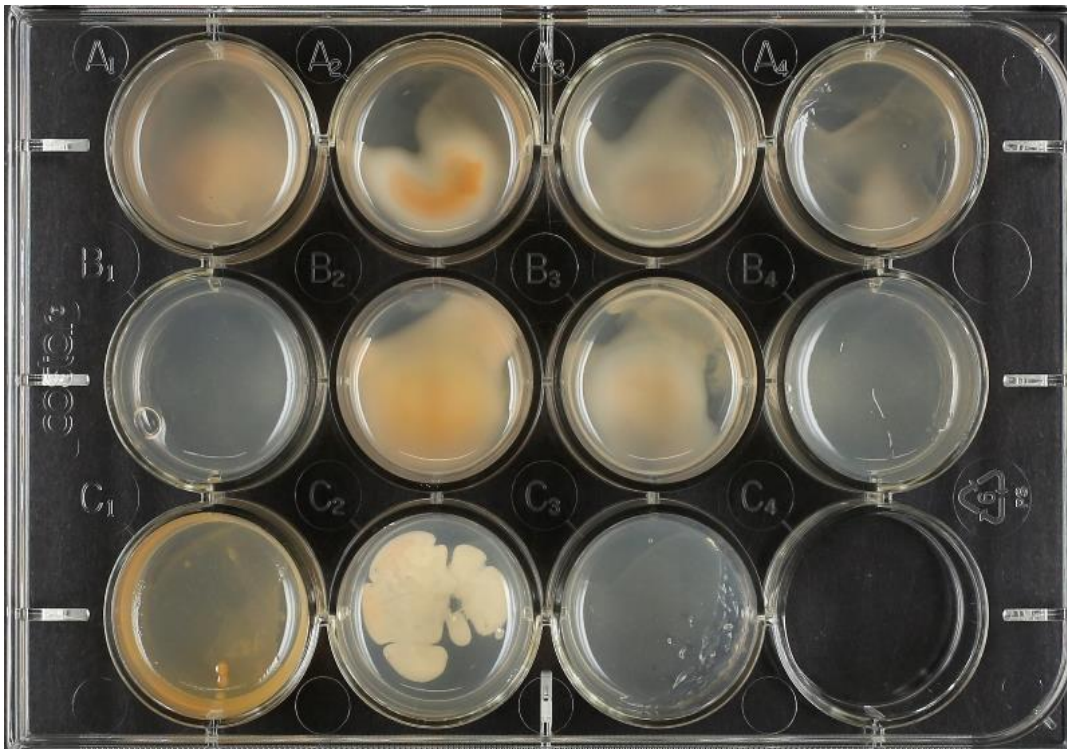
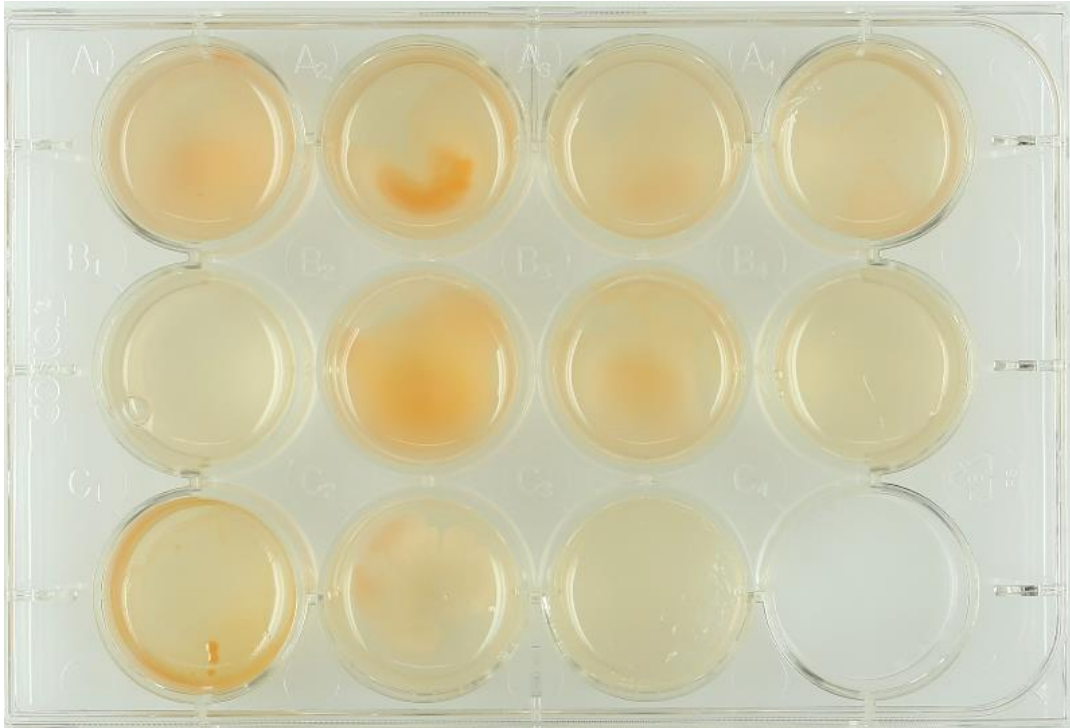
Plates (GYM, ISP2, ISP3, ISP4, ISP5, ISP7)



(ISP6, SSM+T, SSM-T)



Carbon utilization test (from top left to bottom right: glucose, arabinose, sucrose, xylose, inositol, mannose, fructose, rhamnose, raffinose, cellulose)



Sodium chloride tolerance test (from top left to bottom right: 0%, 2,5%, 5%, 7,5%, 10%)

