

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

Strain		DSM 22421
Genus		<i>Microbacterium</i>
Species		<i>arthrosphaerae</i>
Status		
Risk group		L1
Type strain		CC-VM-Y, VM-Y, CCM 7681, DSM 22421
Reference		
Author		Kämpfer, P., Rekha, P. D., Schumann, P., Arun, A. B., Young, C. C., Chen, W. M., Sridhar, K. R.
Title		<i>Microbacterium arthrosphaerae</i> sp. nov., isolated from the faeces of the pill millipede <i>Arthrosphaera magna</i> Attems.
Journal		<i>Int J Syst Evol Microbiol</i>
Volume		61 (Pt 6)
Page		1334-1337
Year		2011
Morphology		
Agar	ISP 2 - growth/G	good – decreased
Agar	ISP 2 - colony color/R	traffic yellow (1023)
Agar	ISP 2 - aerial mycelium/A	none
Agar	ISP 2 - soluble pigment/S	none
Agar	ISP 3 - G	good
Agar	ISP 3 - R	rape yellow (1021)
Agar	ISP 3 - A	none
Agar	ISP 3 - S	none
Agar	ISP 4 - G	good
Agar	ISP 4 - R	rape yellow (1021)
Agar	ISP 4 - A	none
Agar	ISP 4 - S	none
Agar	ISP 5 - G	good
Agar	ISP 5 - R	rape yellow (1021)
Agar	ISP 5 - A	none
Agar	ISP 5 - S	none
Agar	ISP 6 - G	good
Agar	ISP 6 - R	honey yellow (1005)
Agar	ISP 6 - A	none
Agar	ISP 6 - S	none
Agar	ISP 7 - G	good
Agar	ISP 7 - R	zinc yellow (1018)
Agar	ISP 7 - A	none
Agar	ISP 7 - S	none
Agar	suter with tyrosine - G	good
Agar	suter with tyrosine - R	lemon yellow (1012) / ivory (1014)

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

Agar	suter with tyrosine - A	none
Agar	suter with tyrosine - S	none
Agar	suter without tyrosine - G	good
Agar	suter without tyrosine - R	traffic yellow (1023) / light ivory (1015)
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 alcaline	0
Api zym	Esterase (C4)	2
Api zym	Esterase Lipase (C8)	3
Api zym	Lipase (C14)	0
Api zym	Leucin arylamidase	5
Api zym	Valine arylamidase	3
Api zym	Cystine arylamidase	2
Api zym	Trypsin	5
Api zym	Chymotrypsin	2
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-glucosaminidase	5
Api zym	alpha mannosidase	4

Api zym	alpha fucosidase	5
Api coryne	nitrate reduction	+
Api coryne	Pyraziamidase	(+)
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 glucosaminidase	+
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	-

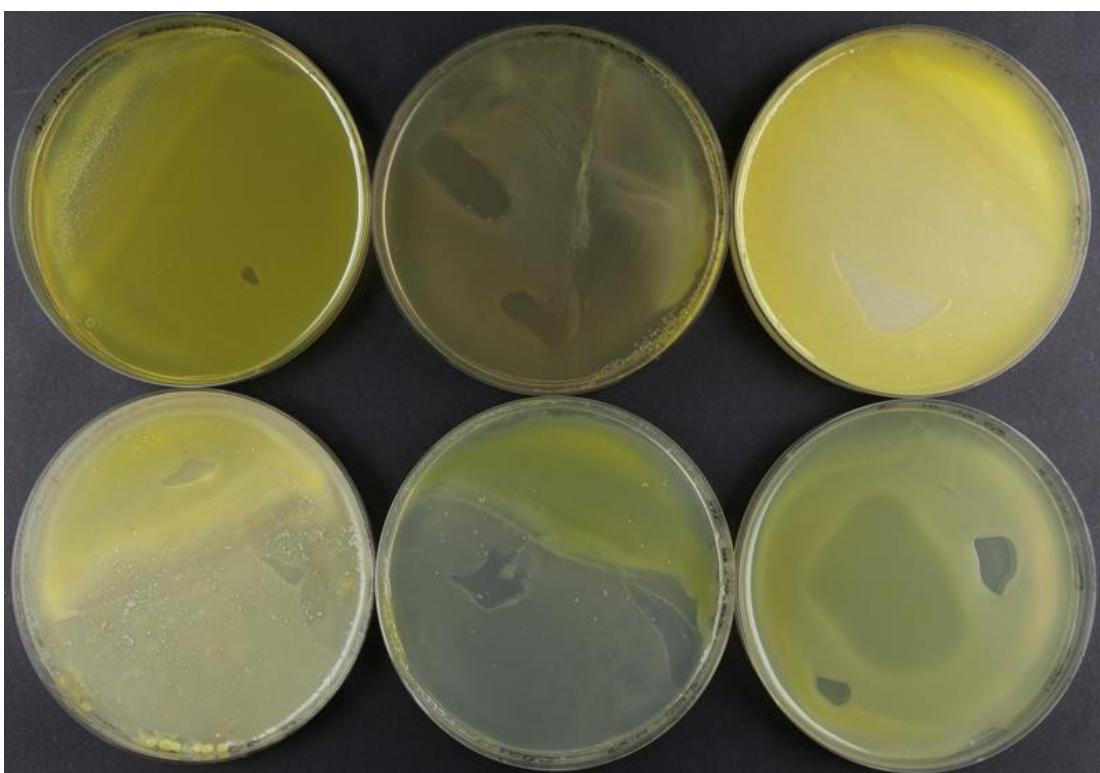
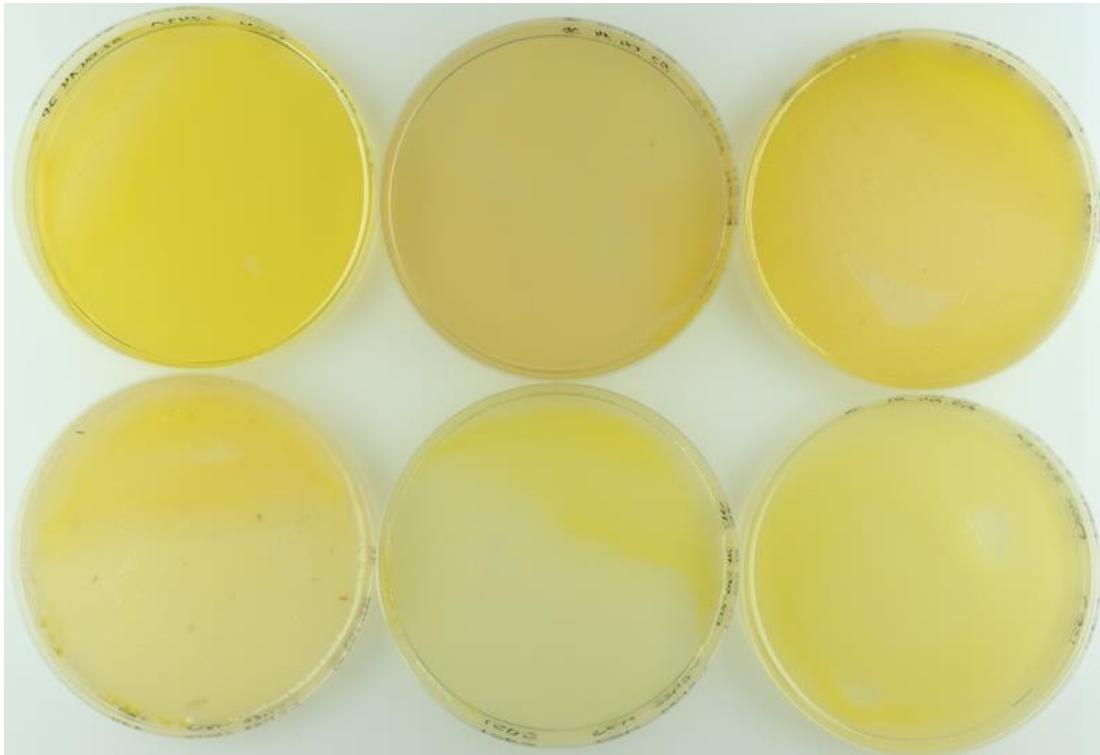
Apicoryne



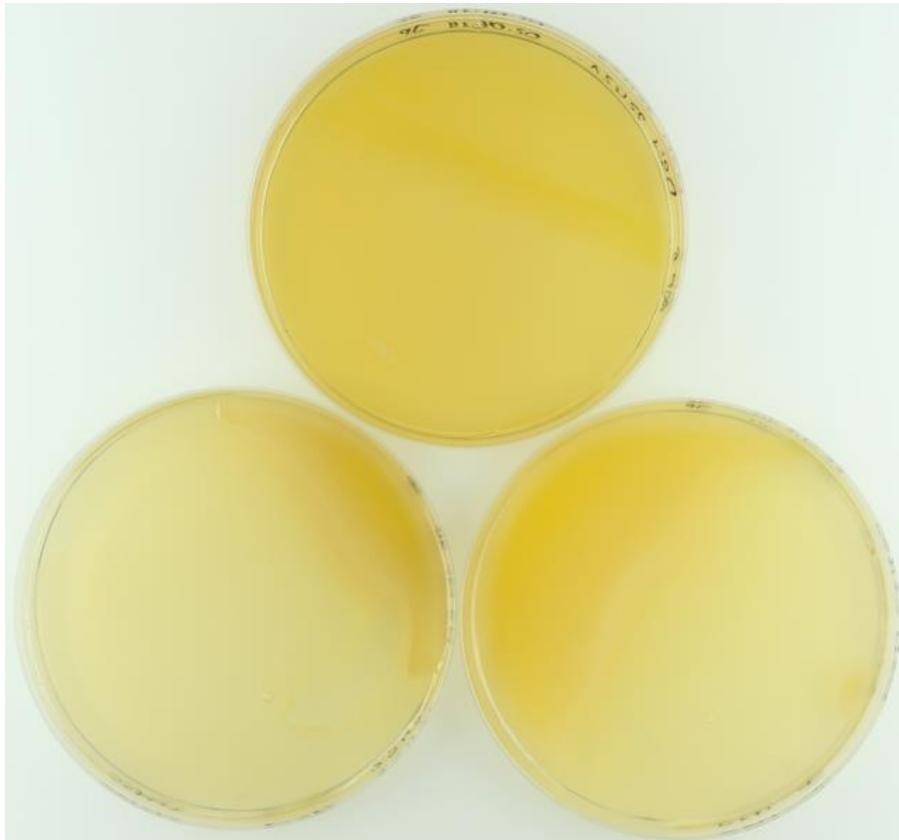
Apizym



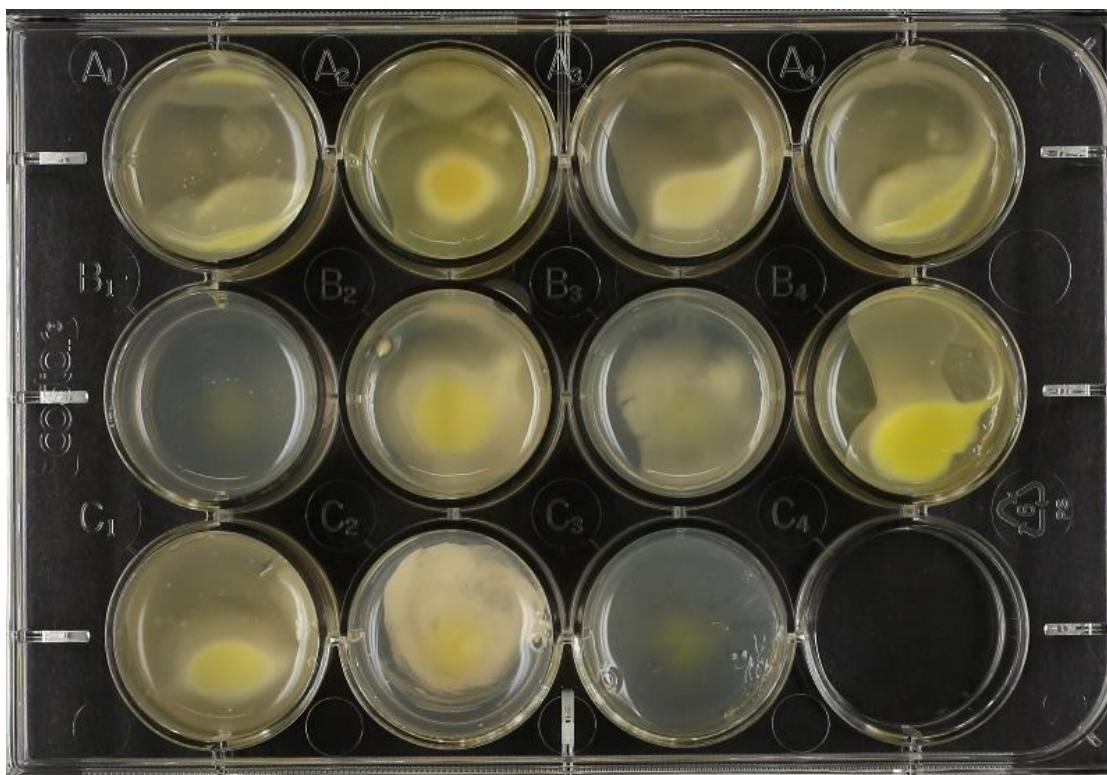
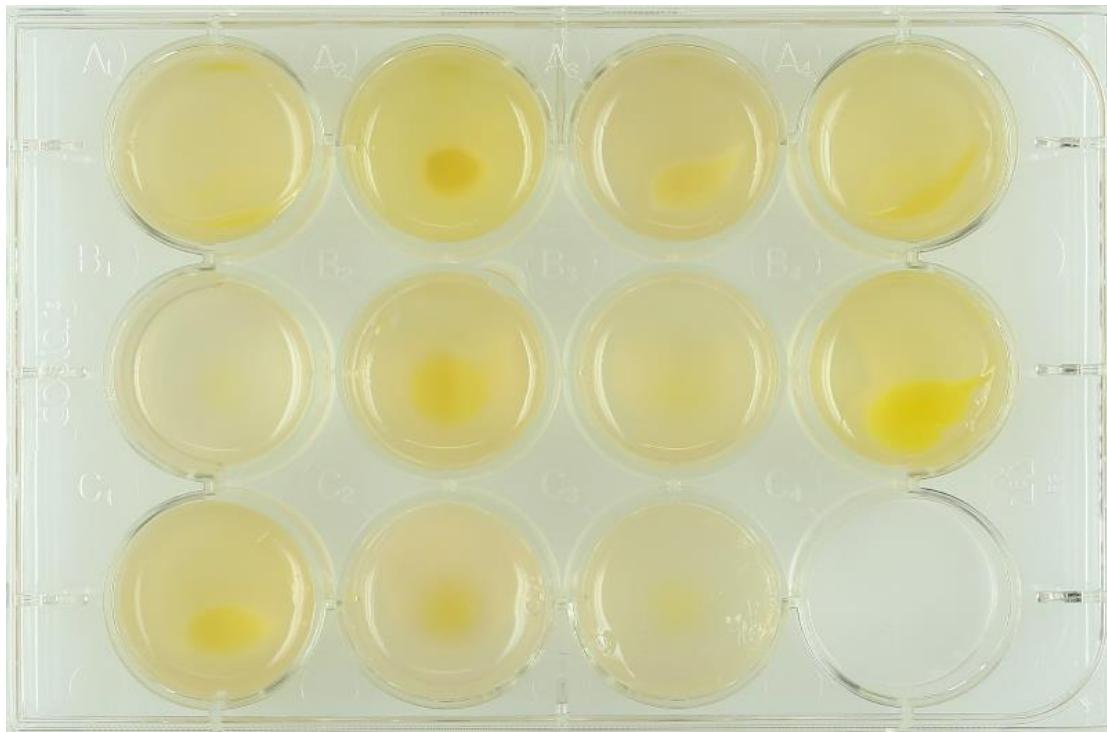
Plates (GYM, ISP2, ISP3, ISP4, ISP5, ISP7)



(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%)

