

Compendium of Actinobacteria from Dr. Joachim M. Wink
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Strain		DSM 42137
Genus		<i>Streptomyces</i>
Species		<i>maoxianensis</i>
Status		
Risk group		1 (provisional classification by DSMZ)
Type strain		NEAU-spg16, CGMCC 4.7139
Genbank accession numbers		16S rRNA gene: KF887908
Reference		
Author		Guan, X., Liu, C., Zhao, J., Fang, B., Zhang, Y., Li, L., Jin, P., Wang, X., Xiang, W.
Title		<i>Streptomyces maoxianensis</i> sp. nov., a novel actinomycete isolated from soil in Maoxian, China
Journal		<i>Antonie Van Leeuwenhoek</i>
Volume		107 (5)
Page		1119-26
Year		2015
Morphology		
Agar	ISP 2 - growth/G	good
Agar	ISP 2 - colony color/R	sand yellow (1002)
Agar	ISP 2 - aerial mycelium/A	silk grey (7044), traffic white (9016)
Agar	ISP 2 - soluble pigment/S	none
Agar	ISP 3 - G	good
Agar	ISP 3 - R	sand yellow (1002), ivory (1014)
Agar	ISP 3 - A	none
Agar	ISP 3 - S	maize yellow (1006)
Agar	ISP 4 - G	sparse
Agar	ISP 4 - R	beige (1001), light ivory (1015)
Agar	ISP 4 - A	none
Agar	ISP 4 - S	none
Agar	ISP 5 - G	sparse
Agar	ISP 5 - R	ivory (1014)
Agar	ISP 5 - A	none
Agar	ISP 5 - S	none
Agar	ISP 6 - G	sparse
Agar	ISP 6 - R	sand yellow (1002)
Agar	ISP 6 - A	none
Agar	ISP 6 - S	none
Agar	ISP 7 - G	good
Agar	ISP 7 - R	brown beige (1011)
Agar	ISP 7 - A	grey white (9002), sparse
Agar	ISP 7 - S	brown beige (1011)
Agar	suter with tyrosine - G	sparse

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Agar	suter with tyrosine - R	brown beige (1011)
Agar	suter with tyrosine - A	none
Agar	suter with tyrosine - S	ochre yellow (1024)
Agar	suter without tyrosine - G	sparse
Agar	suter without tyrosine - R	ivory (1014)
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	+ (aerial mycelium)
use of carbohydrates	inositol	++ (aerial mycelium)
use of carbohydrates	mannose	++
use of carbohydrates	fructose	++ (aerial mycelium)
use of carbohydrates	rhamnose	(+)
use of carbohydrates	raffinose	(+) (aerial mycelium)
use of carbohydrates	cellulose	(+)
Api zym	Phosphatase alkaline	5
Api zym	Esterase (C4)	2
Api zym	Esterase Lipase (C8)	1
Api zym	Lipase (C14)	0
Api zym	Leucin arylamidase	5
Api zym	Valine arylamidase	5
Api zym	Cystine arylamidase	1
Api zym	Trypsin	1
Api zym	Chymotrypsin	1
Api zym	Phosphatase acid	5
Api zym	Naphtol-AS-BI-phosphohydrolase	5
Api zym	alpha galactosidase	3
Api zym	beta galactosidase	0
Api zym	beta glucuronidase	0
Api zym	alpha glucosidase	3
Api zym	beta glucosidase	5
Api zym	N-acetyl-beta-glucoseamidase	5
Api zym	alpha mannosidase	5

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



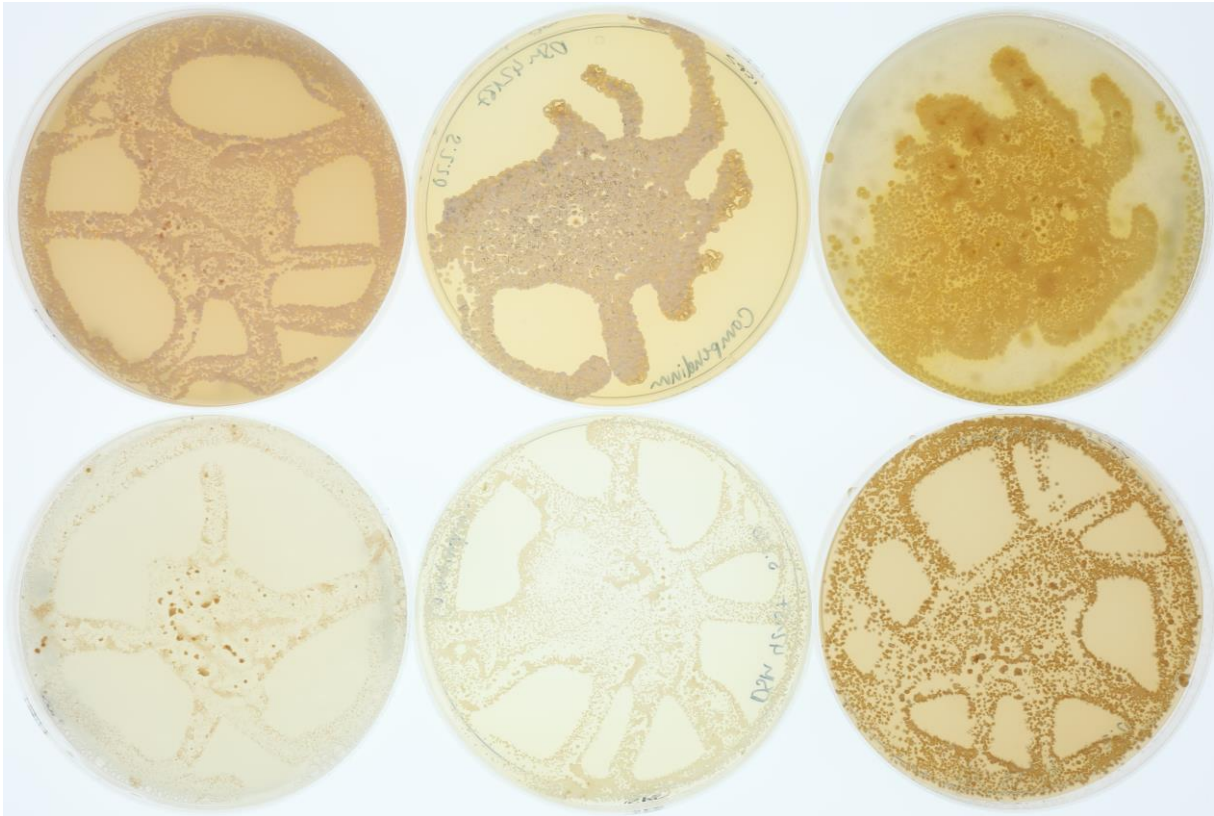
Abbildung 1: Apicoryne-Teststreifen mit Keim DSM 42137.

Apizym

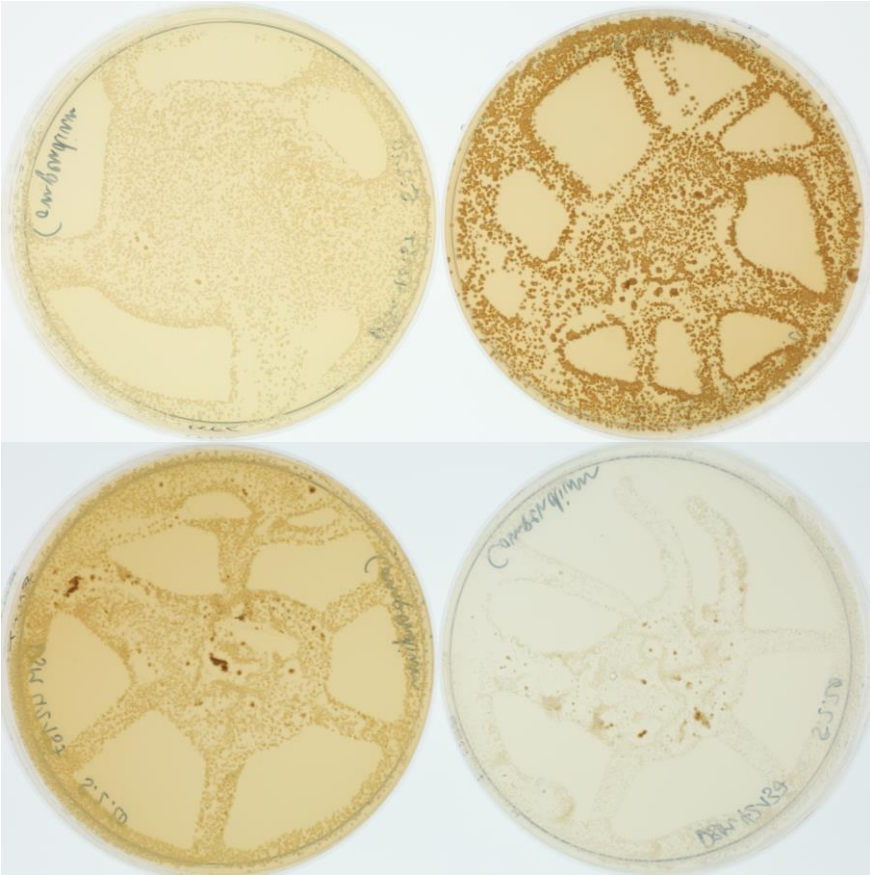


Abbildung 2: Apizym-Teststreifen mit Keim DSM 42137.

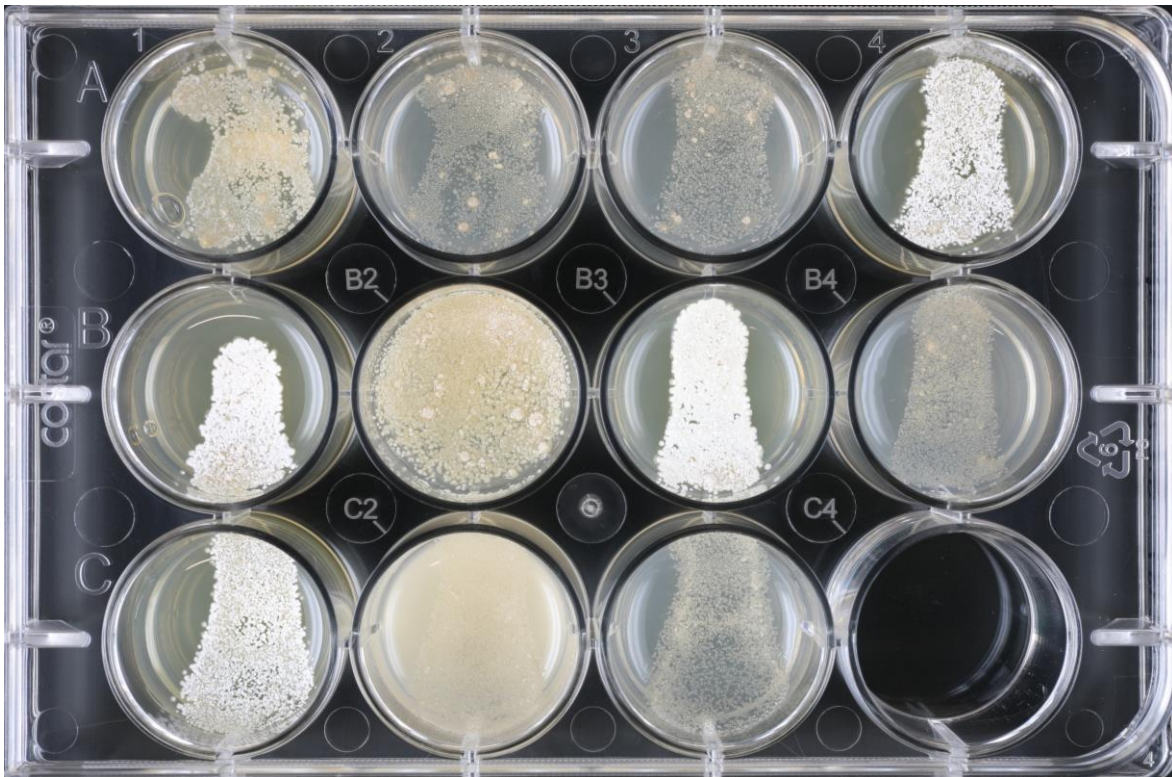
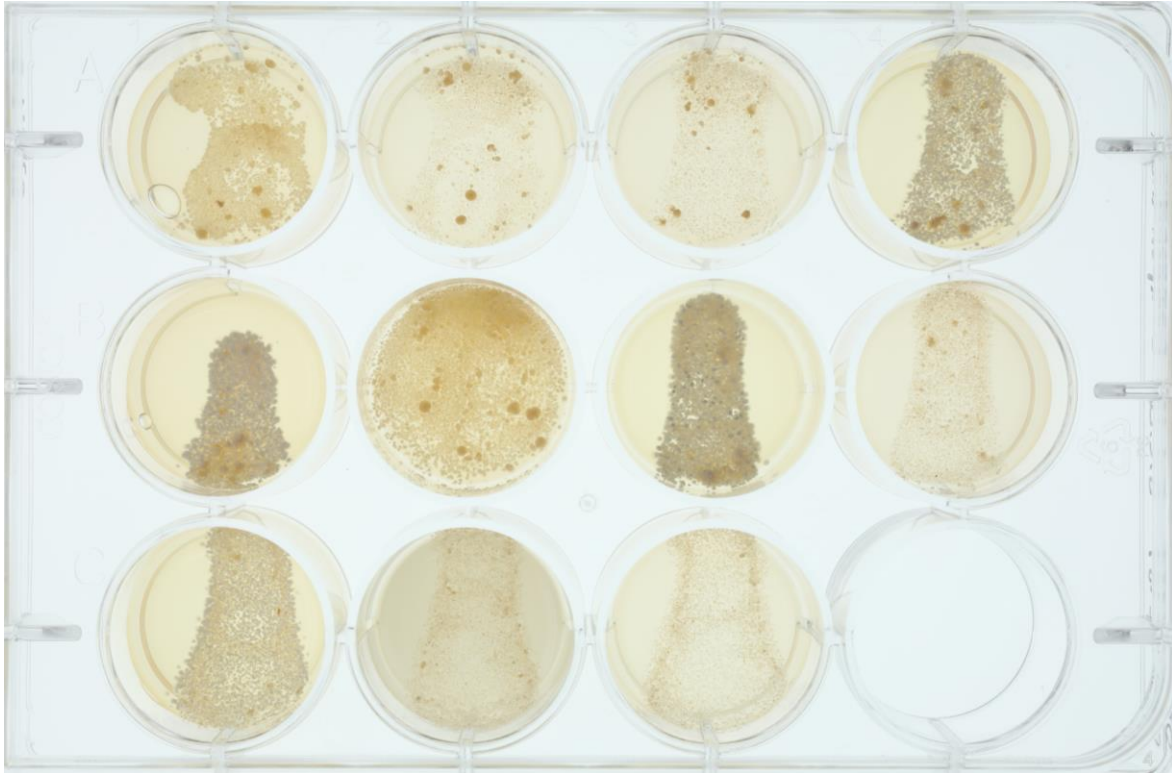
Plates (65, ISP2, ISP3, ISP4, ISP5, ISP7)



(ISP6, ISP7, 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%)**

