

Compendium of Actinobacteria from Dr. Joachim M. Wink
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Strain		DSM 42139
Genus		<i>Streptomyces</i>
Species		<i>vulcanius</i>
Status		
Risk group		1 (provisional classification by DSMZ)
Type strain		CGMCC 4.7177, NEAU-C3
Genebank accession numbers		16S rRNA gene: KF956803
Reference		
Author		Jia, F., Liu, C., Zhao, J., Zhang, Y., Li, L., Zhou, S., Shen, Y., Wang, X., Xiang, W.
Title		<i>Streptomyces vulcanius</i> sp. nov., a novel actinomycete isolated from volcanic sediment
Journal		<i>Antonie Van Leeuwenhoek</i>
Volume		107 (1)
Page		15-21
Year		2015
Morphology		
Agar	ISP 2 - growth/G	good
Agar	ISP 2 - colony color/R	brown beige (1011)
Agar	ISP 2 - aerial mycelium/A	none
Agar	ISP 2 - soluble pigment/S	none
Agar	ISP 3 - G	good
Agar	ISP 3 - R	ocher brown (8001), fawn brown (8007)
Agar	ISP 3 - A	silk grey (7044), sparse
Agar	ISP 3 - S	brown beige /(1011)
Agar	ISP 4 - G	sparse
Agar	ISP 4 - R	mouse grey (7005)
Agar	ISP 4 - A	none
Agar	ISP 4 - S	none
Agar	ISP 5 - G	sparse- good
Agar	ISP 5 - R	pale brown (8025)
Agar	ISP 5 - A	none
Agar	ISP 5 - S	beige (1001)
Agar	ISP 6 - G	sparse
Agar	ISP 6 - R	grey beige (1019)
Agar	ISP 6 - A	none
Agar	ISP 6 - S	none
Agar	ISP 7 - G	good
Agar	ISP 7 - R	olive brown (8008), sepia brown (8014)
Agar	ISP 7 - A	cream (9001), sparse

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Agar	ISP 7 - S	ochre yellow (1024)
Agar	suter with tyrosine - G	sparse
Agar	suter with tyrosine - R	ivory (1014), ochre yellow (1024)
Agar	suter with tyrosine - A	none
Agar	suter with tyrosine - S	none
Agar	suter without tyrosine - G	sparse
Agar	suter without tyrosine - R	ivory (1014), ochre yellow (1024)
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	5
Api zym	Esterase (C4)	3
Api zym	Esterase Lipase (C8)	2
Api zym	Lipase (C14)	0
Api zym	Leucin arylamidase	5
Api zym	Valine arylamidase	2
Api zym	Cystine arylamidase	1
Api zym	Trypsin	4
Api zym	Chymotrypsin	0
Api zym	Phosphatase acid	5
Api zym	Naphtol-AS-BI-phosphohydrolase	5
Api zym	alpha galactosidase	2
Api zym	beta galactosidase	5
Api zym	beta glucuronidase	0
Api zym	alpha glucosidase	3
Api zym	beta glucosidase	4

Api zym	N-acetyl-beta-glucoseamidase	1
Api zym	alpha mannosidase	4
Api zym	alpha fucosidase	3
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 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



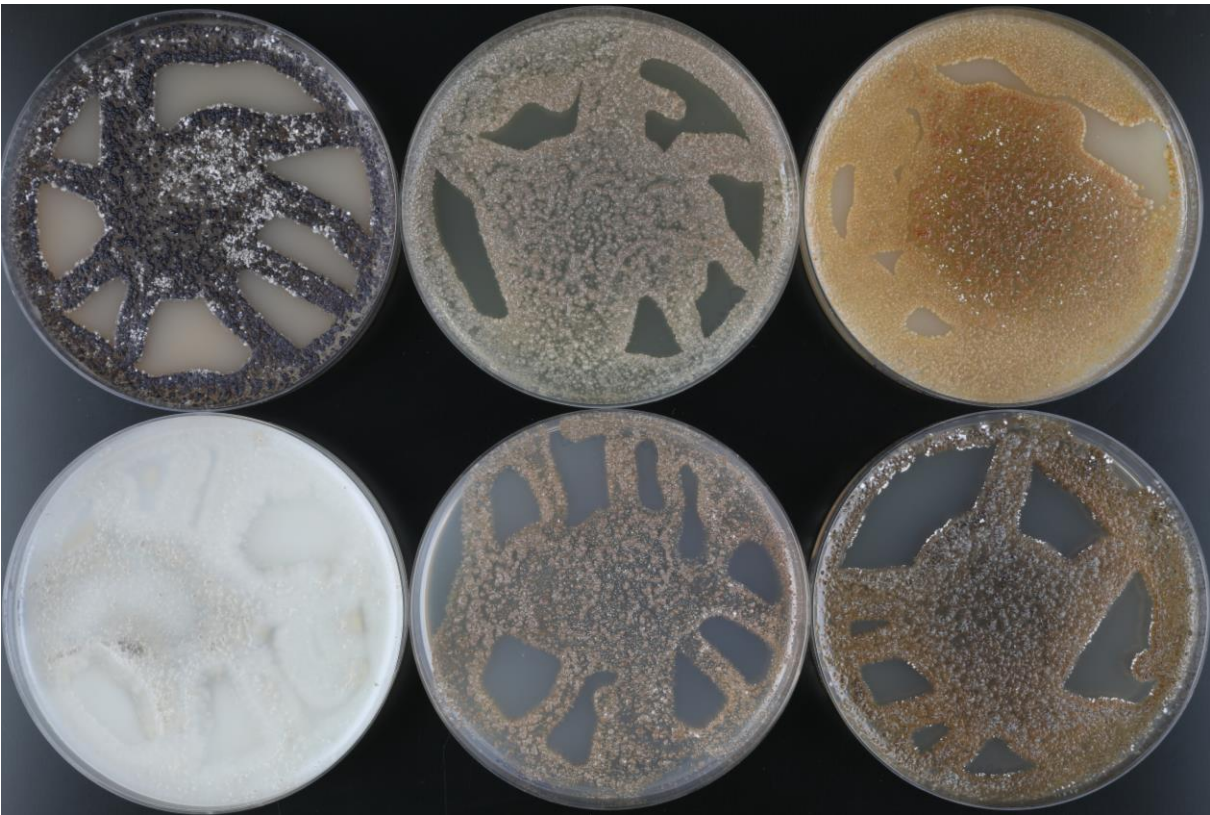
Abbildung 1: Apicoryne-Teststreifen mit Keim DSM 42139.

Apizym

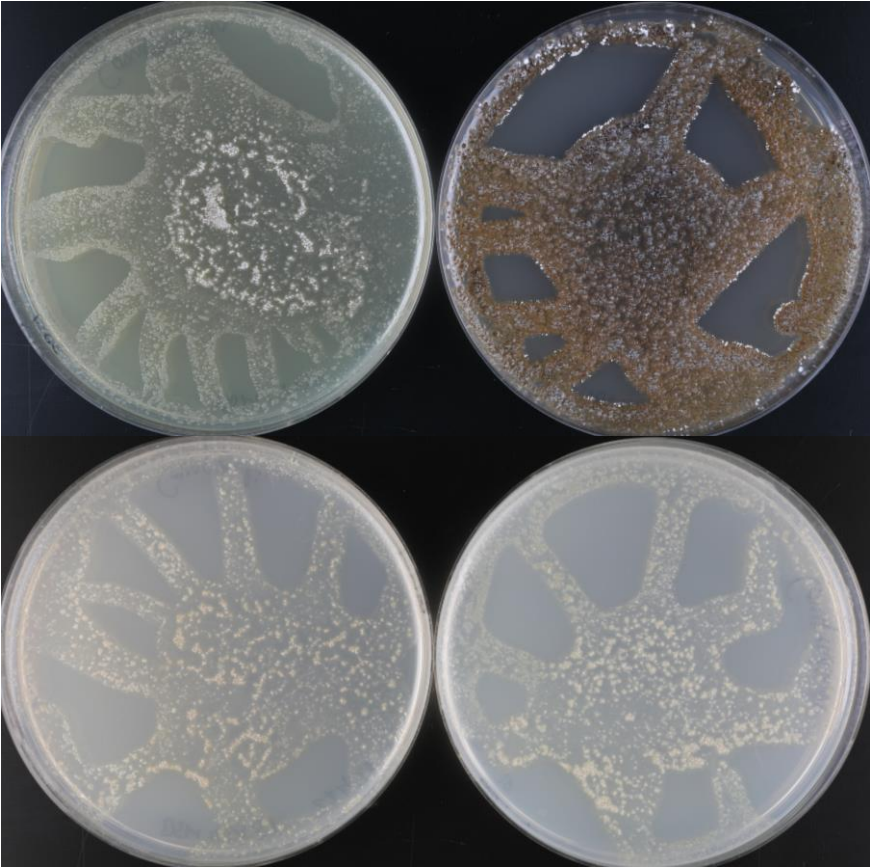
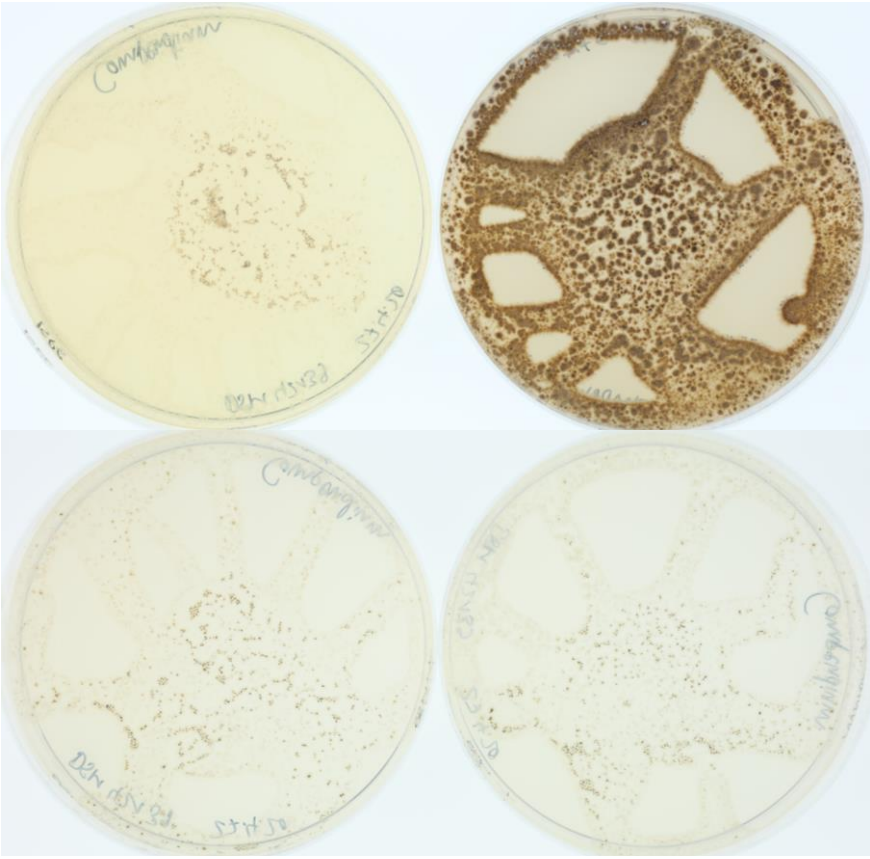


Abbildung 2: Apizym-Teststreifen mit Keim DSM 42139.

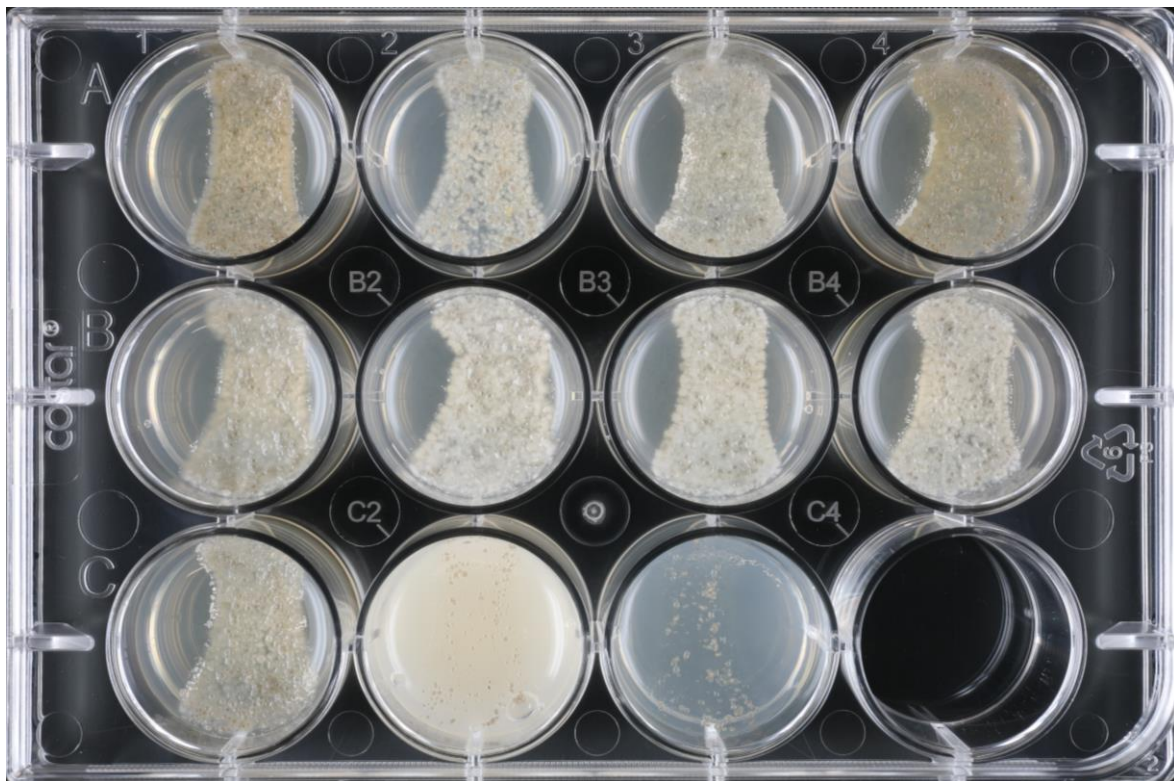
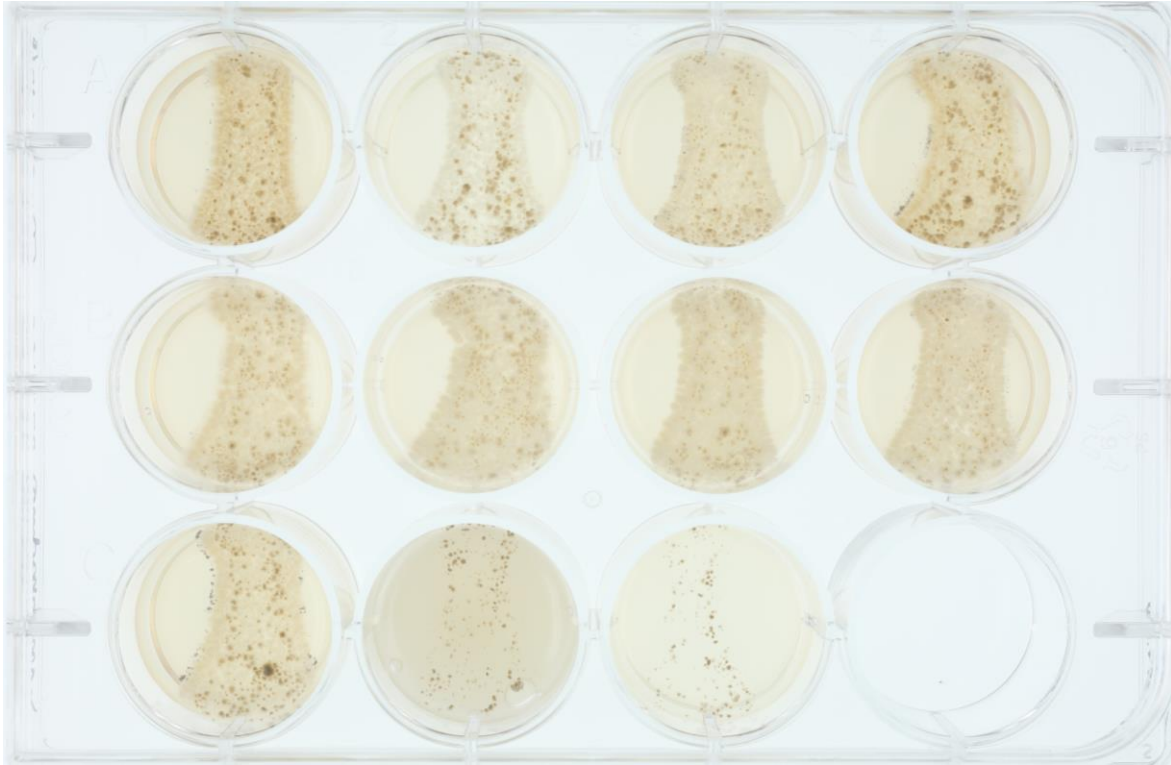
Plates (65, ISP2, ISP3, ISP4, ISP5, ISP7)



(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%)

