Strain		DSM 45392
Genus		***Corynebacterium***
Species		***humireducens***
Status		
Risk group		L1
Type strain		MFC-5, CGMCC-2452, NBRC 106098
Genbank accession number		16S rRNA gene: GQ421281
Reference		
Author		Wu, C. Y., Zhuang, L., Zhou, S. G., Li, F. B., He, J.
Title		Corynebacterium humireducens sp. nov., an alkaliphilic, humic acid-reducing bacterium isolated from a microbial fuel cell
Journal		Int J Syst Evol Microbiol
Volume		61(Pt4)
Page		882-887
Year		2011
Morphology		
Agar	ISP 2 - growth/G	Good
Agar	ISP 2 - colony colour/R	1014 ivory
Agar	ISP 2 - aerial mycelium/A	None
Agar	ISP 2 - soluble pigment/S	None
Agar	ISP 3 - G	Sparse
Agar	ISP 3 - R	1013 oyster white
Agar	ISP 3 - A	None
Agar	ISP 3 - S	None
Agar	ISP 4 - G	Sparse
Agar	ISP 4 - R	1013 oyster white
Agar	ISP 4 - A	None
Agar	ISP 4 - S	None
Agar	ISP 5 - G	Sparse
Agar	ISP 5 - R	1013 oyster white
Agar	ISP 5 - A	None
Agar	ISP 5 - S	None
Agar	ISP 6 - G	Good
Agar	ISP 6 - R	1002 sand yellow
Agar	ISP 6 - A	None
Agar	ISP 6 - S	None
Agar	ISP 7 - G	Good
Agar	ISP 7 - R	1013 oyster white, 1014 ivory
Agar	ISP 7 - A	None
Agar	ISP 7 - S	None

Agar	suter with tyrosine - G	Sparse
Agar	suter with tyrosine - R	1004 golden yellow, 1013 oyster white
Agar	suter with tyrosine - A	None
Agar	suter with tyrosine - S	None
Agar	suter without tyrosine - G	Sparse
Agar	suter without tyrosine - R	1004 golden yellow, 1013 oyster white
Agar	suter without tyrosine - A	None
Agar	suter without tyrosine - S	None
	Sporechains/Sporangia	
Physiology		
Melanin		0
pH	range	
pH	optimum	
temperature	range	
temperature	optimum	
sodium chloride tolerance		7,5%
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	1
Api zym	Esterase (C4)	3
Api zym	Esterase Lipase (C8)	3
Api zym	Lipase (C14)	0
Api zym	Leucin arylamidase	5
Api zym	Valine arylamidase	1
Api zym	Cystine arylamidase	1
Api zym	Trypsin	0
Api zym	Chymotrypsin	0
Api zym	Phosphatase acid	0
Api zym	Naphtol-AS-BI-phosphohydrolase	1
Api zym	alpha galactosidase	0
Api zym	beta galactosidase	0
Api zym	beta glucuronidase	0
Api zym	alpha glucosidase	0
Api zym	beta glucosidase	0

Api zym	N-acetyl-beta-glucoseamidase	0
Api zym	alpha mannosidase	0
Api zym	alpha fucosidase	0
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	-
Metabolites		
Antimicrobial	Staphylococcus aureus	
Antimicrobial	Escherichia coli	
Antimicrobial	Micrococcus luteus	
Antimicrobial	Pseudomonas aeruginosa	
Antimicrobial	Streptomyces murinus	
Antimicrobial	Bacillus subtilis	
Antimicrobial	Candida albicans	
Antimicrobial	Saccharomyces cerevisiae	
Antimicrobial	Aspergillus niger	

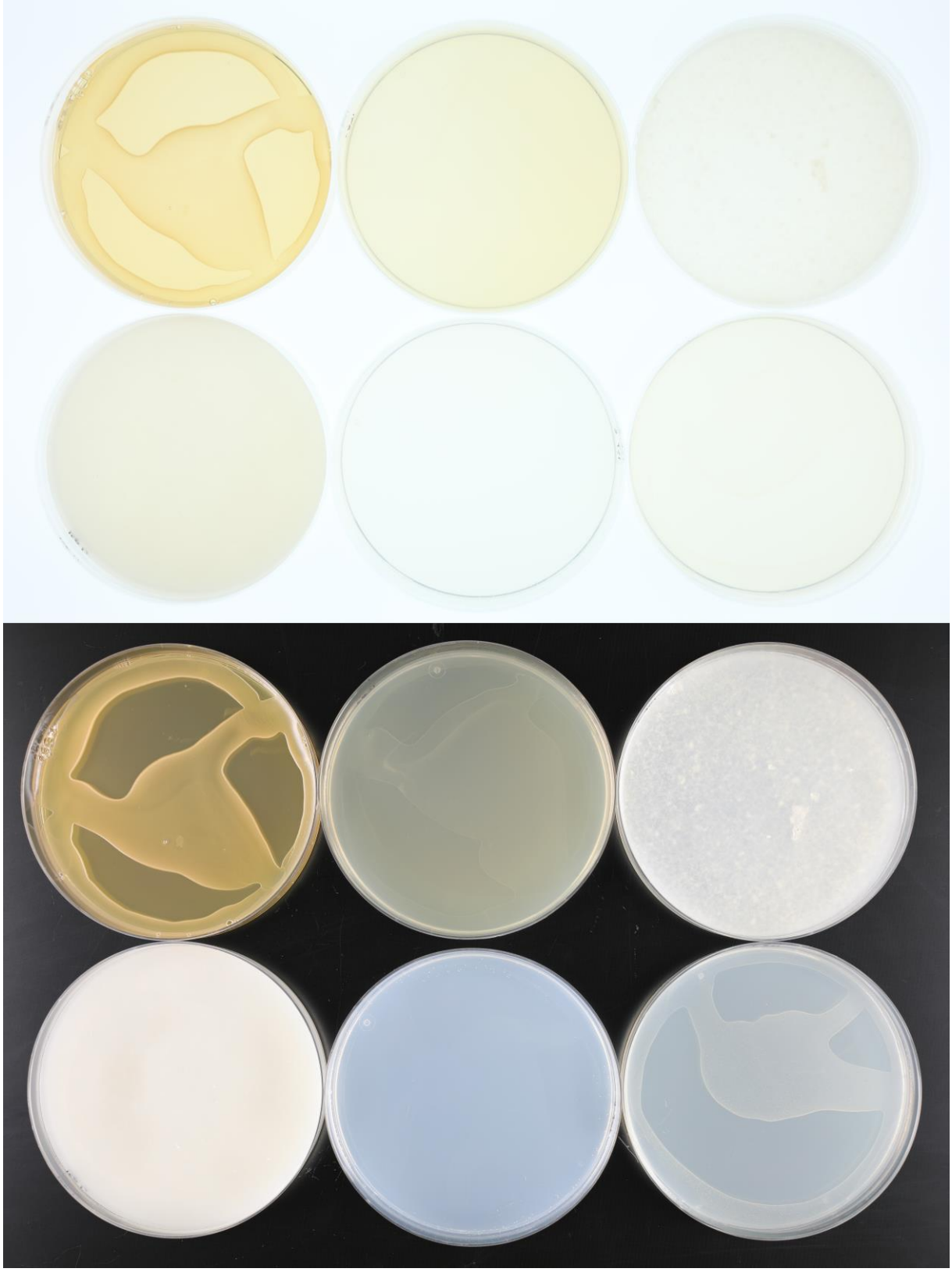
APIcoryne

Abbildung 1: Apicoryne-Teststreifen mit Keim DSM.

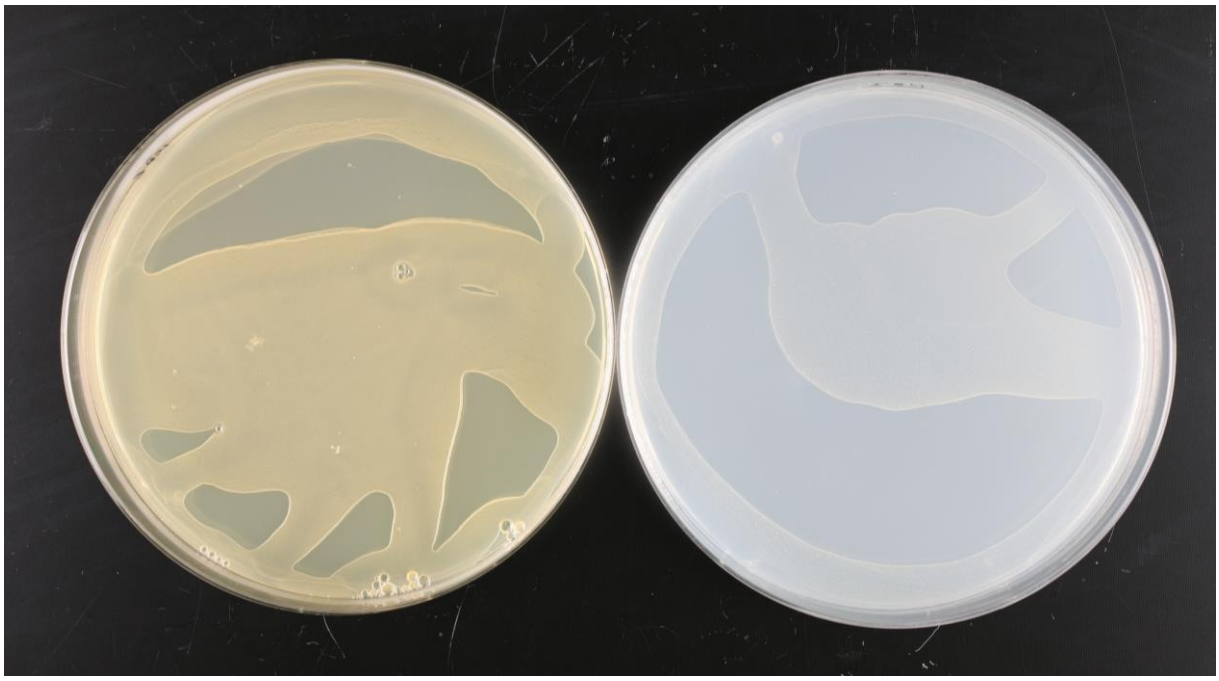
APIzym

Abbildung 2: Apizym-Teststreifen mit Keim DSM.

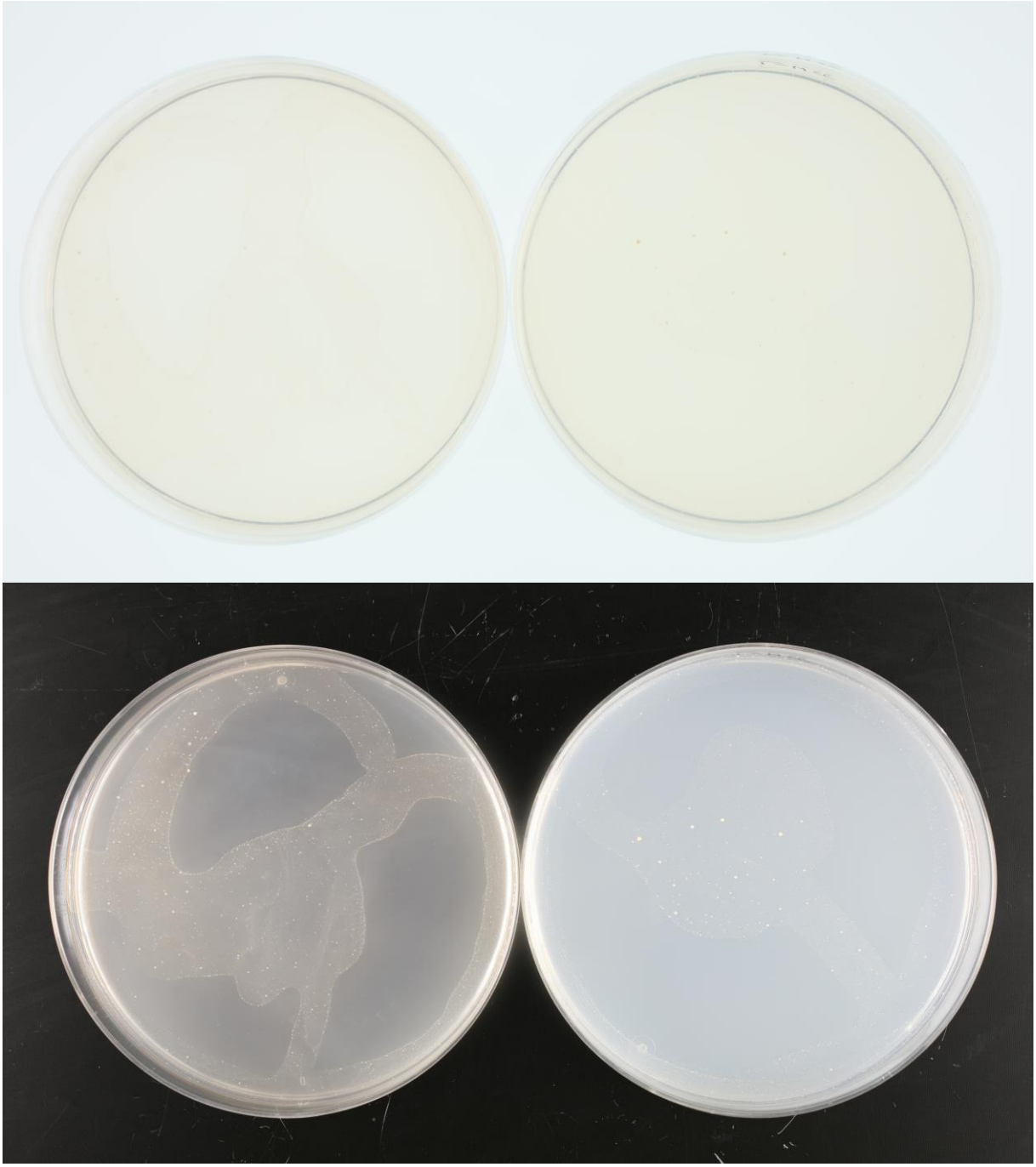
Plates (535, ISP2, ISP3, ISP4, ISP5, ISP7)



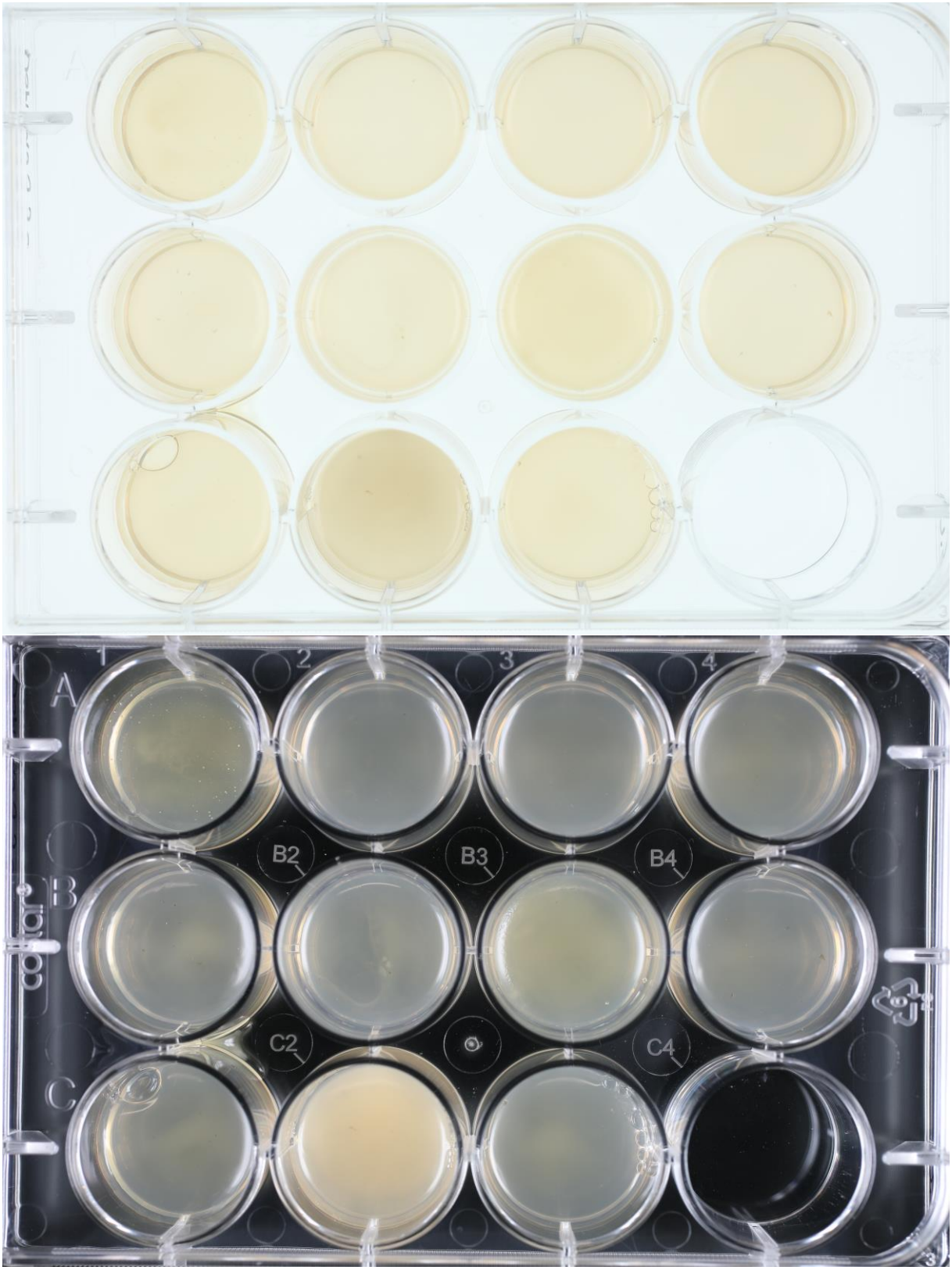
(ISP6, ISP7)



(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%)