Schimmelpilze

Diagnostische Probleme

21.06.2016, Königswinter

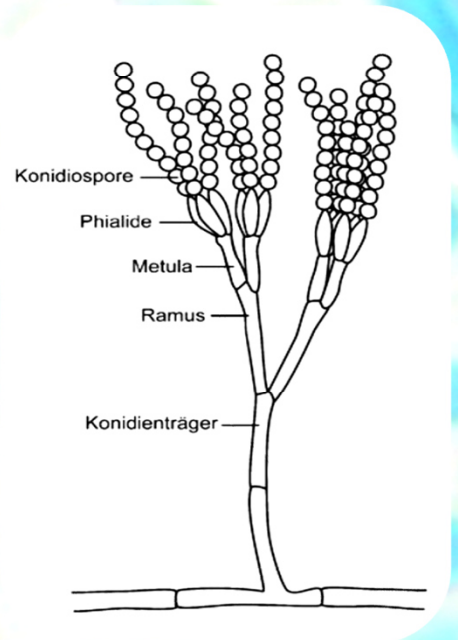
Dr. habil. Anna Salek, domatec GmbH

Schimmelpilze

Dendrogramme des BIOLOG-Systems

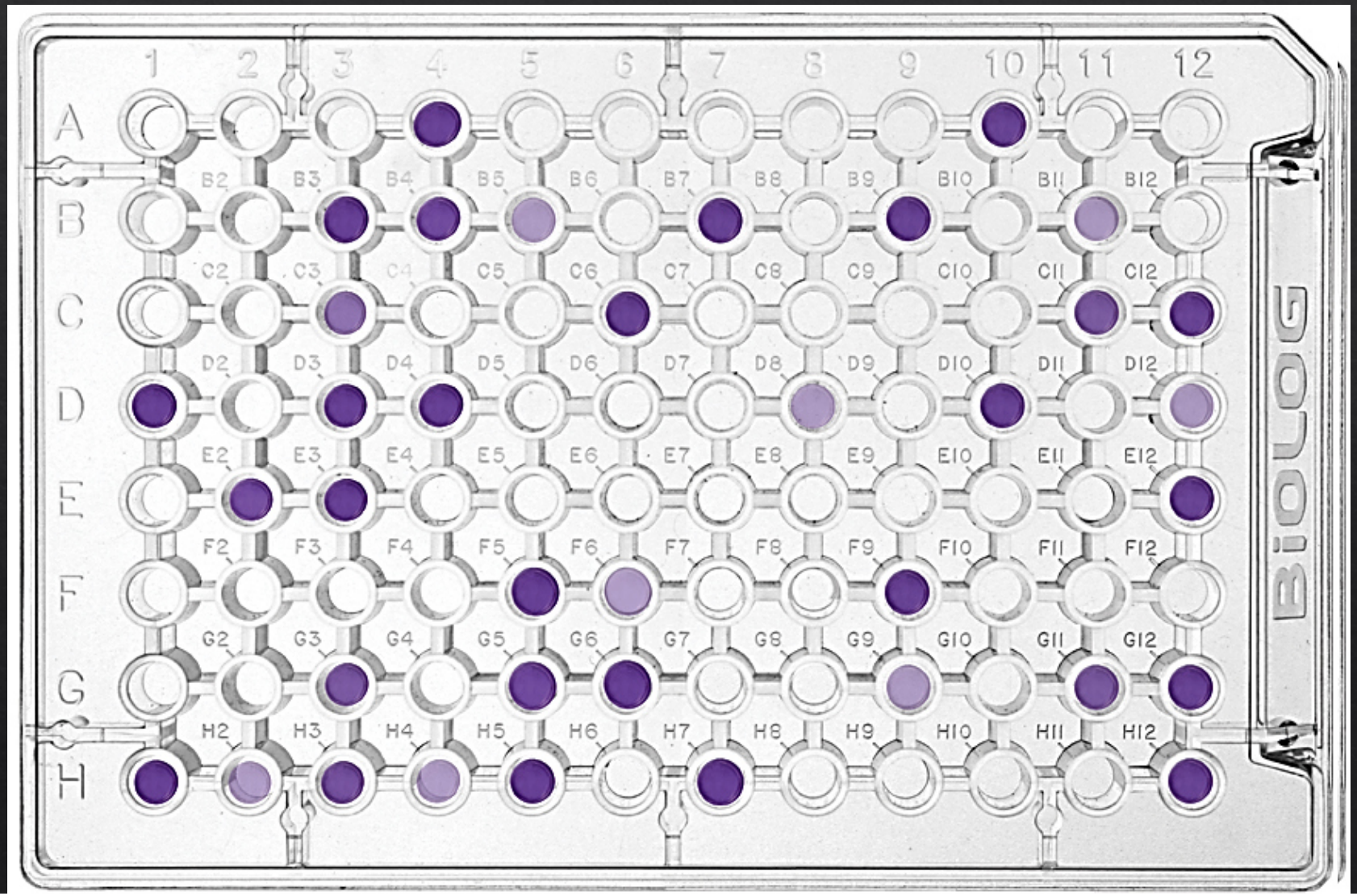
Dr. habil. Anna Salek, domatec GmbH

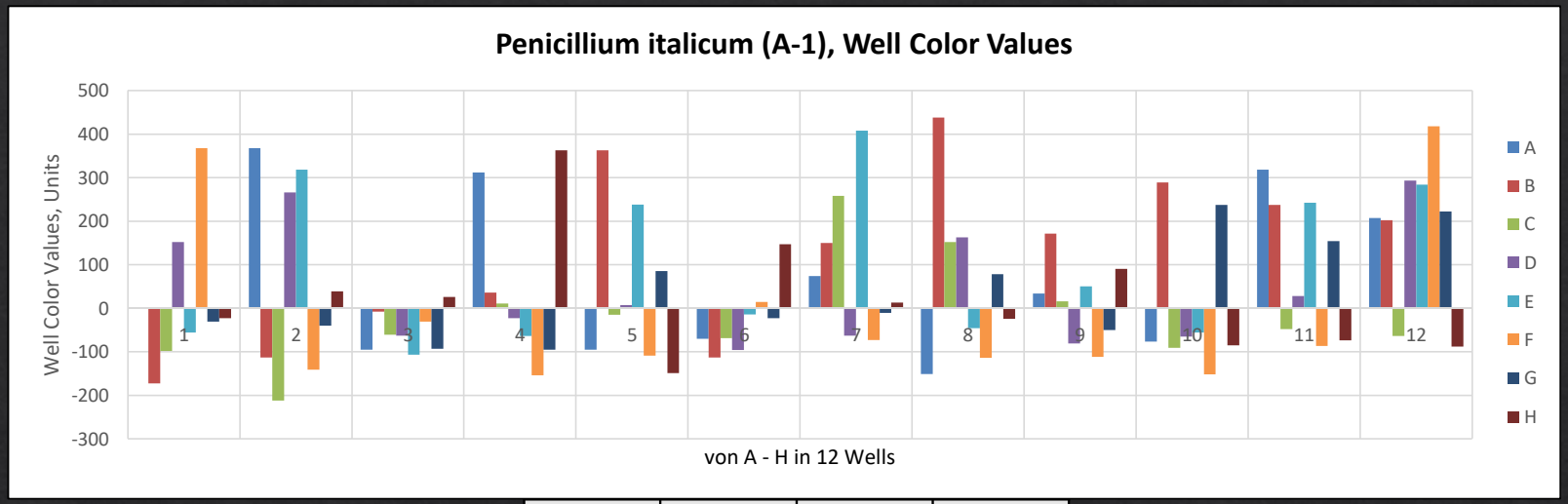
Schimmelpilze A / RV 2015



Penicillium italicum

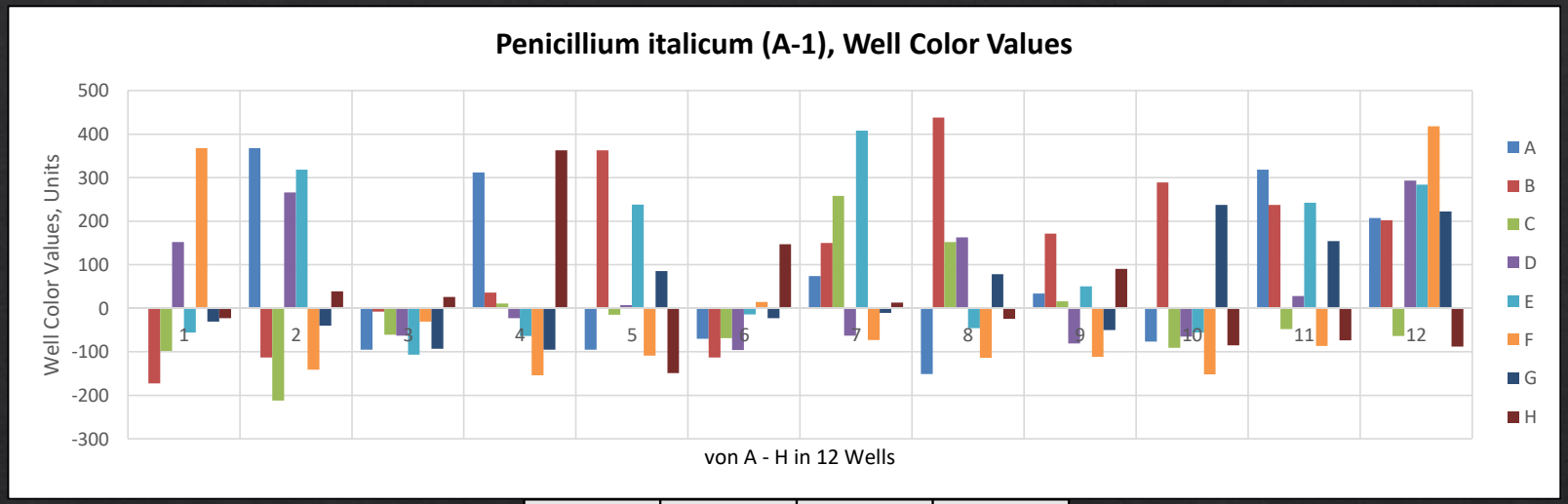
BIOLOG: FF MicroPlate™





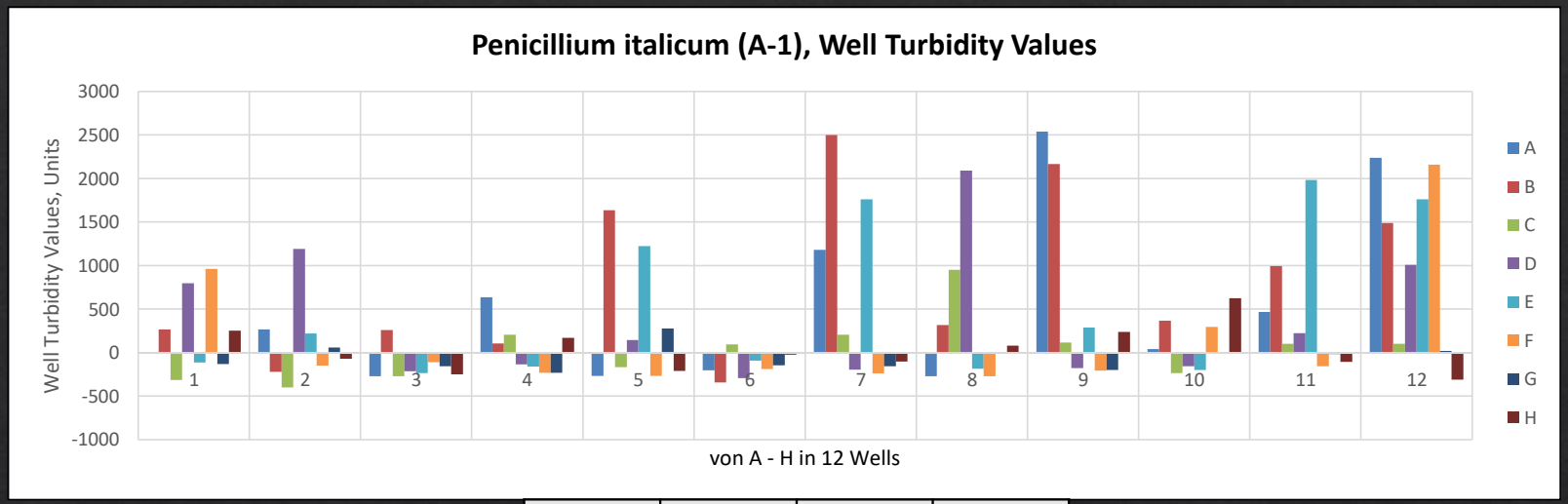
PROB	SIM	DIST	Zeit
0,00	0,493	8,137	96 h

	1	2	3	4	5	6	7	8	9	10	11	12
A	Water	Tween 80	N-Acetyl-Galactosamine	N-Acetyl-Glucosamine	N-Acetyl-Mannosamine	Adonitol	Amygdalin	D-Arabinose	L-Arabinose	Arabitol	Arbutin	Cellobiose
B	α-Cyclodextrin	β-Cyclodextrin	Dextrin	i-Erythritol	D-Fructose	L-Fucose	Galactose	Galacturonic Acid	Gentiobiose	Gluconic Acid	Glucosamine	Glucose
C	Glucose-1-phosphate	Glucuron-amide	Glucuronic Acid	Glycerol	Glycogen	Inositol	2-Keto-Gluconic Acid	Lactose	Lactulose	Maltitol	Maltose	Maltotriose
D	Mannitol	Mannose	Melezitose	Melibiose	α-Methyl-Galactoside	β-Methyl-Galactoside	α-Methyl-Glucoside	β-Methyl-Glucoside	Palatinose	Psicose	Raffinose	Rhamnose
E	Ribose	Salicin	Sedo-heptulosan	Sorbitol	Sorbose	Stachyose	Sucrose	Tagatose	Trehalose	Turanose	Xylitol	Xylose
F	Amino-butyric Acid	Bromosuccinic Acid	Fumaric Acid	β-Hydroxy-butyric Acid	γ-Hydroxy-butyric Acid	P-Hydroxy-phenylacetic Acid	α-Ketoglutaric Acid	Lactic Acid Methyl Ester	Lactic Acid	D-Malic Acid	L-Malic Acid	Qunic Acid
G	Saccharic Acid	Sebacic Acid	Succinamic Acid	Succinic Acid	Succinic Acid Mono-Methyl Ester	Acetyl-Glutamic Acid	Alaninamide	Alanine	Alanyl-Glycine	Asparagine	Aspartic Acid	Glutamic Acid
H	Glycyl-Glutamic Acid	Ornithine	Phenylalanine	Proline	Pyroglutamic Acid	Serine	Threonine	Amino Ethanol	Putrescine	Adenosine	Uridine	Adenosine-Monophos-phate



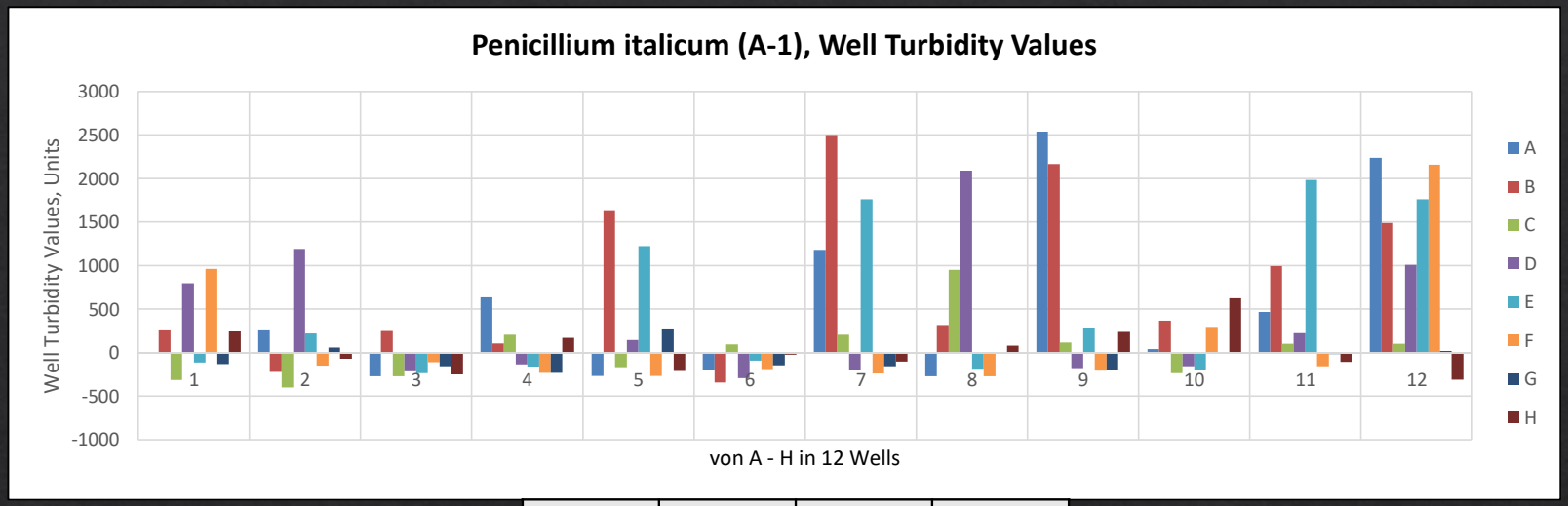
PROB	SIM	DIST	Zeit
0,00	0,493	8,137	96 h

.	1	2	3	4	5	6	7	8	9	10	11	12
A	0	368	-95	312	-95	-70	74	-151	34	-77	318	207
B	-173	-113	-8	36	363	-113	150	438	171	289	237	202
C	-98	-212	-61	11	-15	-69	258	152	16	-91	-48	-64
D	152	266	-63	-23	7	-96	-63	163	-81	-65	28	293
E	-56	318	-107	-64	238	-14	408	-46	50	-56	242	284
F	368	-141	-31	-154	-109	14	-73	-114	-112	-152	-87	418
G	-31	-40	-93	-95	85	-23	-11	78	-50	237	154	222
H	-23	39	26	363	-149	147	13	-24	90	-85	-74	-88



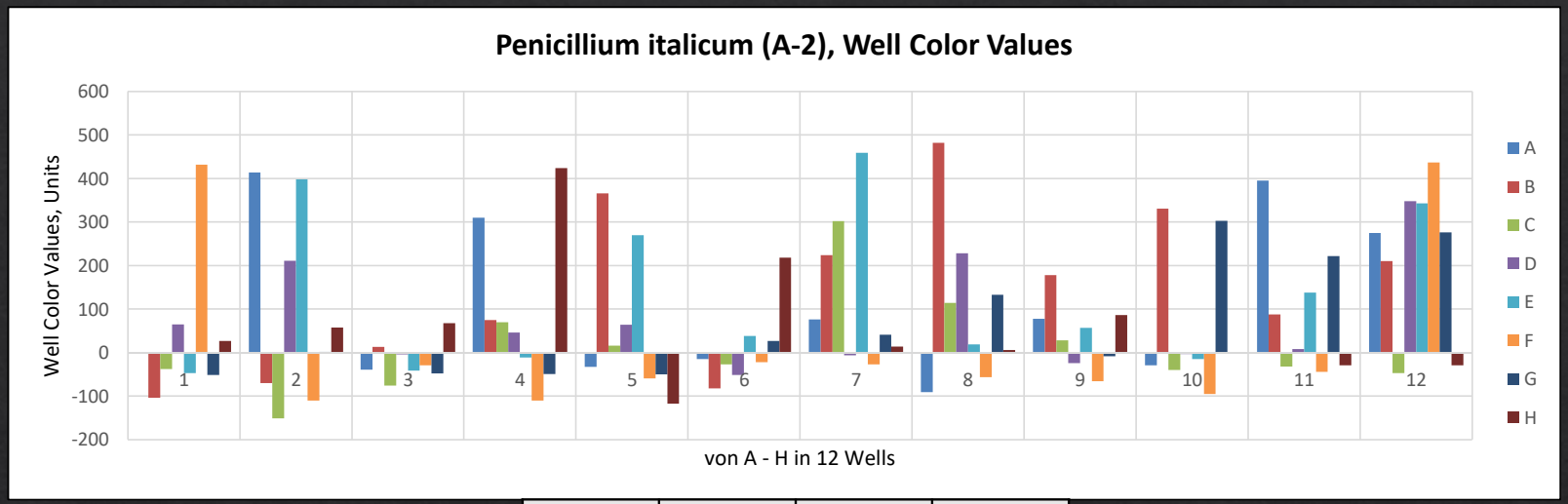
PROB	SIM	DIST	Zeit
0,00	0,493	8,137	96 h

	1	2	3	4	5	6	7	8	9	10	11	12
A	Water	Tween 80	N-Acetyl-Galactosamine	N-Acetyl-Glucosamine	N-Acetyl-Mannosamine	Adonitol	Amygdalin	D-Arabinose	L-Arabinose	Arabitol	Arbutin	Cellobiose
B	α-Cyclodextrin	β-Cyclodextrin	Dextrin	i-Erythritol	D-Fructose	L-Fucose	Galactose	Galacturonic Acid	Gentiobiose	Gluconic Acid	Glucosamine	Glucose
C	Glucose-1-phosphate	Glucuron-amide	Glucuronic Acid	Glycerol	Glycogen	Inositol	2-Keto-Gluconic Acid	Lactose	Lactulose	Maltitol	Maltose	Maltotriose
D	Mannitol	Mannose	Melezitose	Melibiose	α-Methyl-Galactoside	β-Methyl-Galactoside	α-Methyl-Glucoside	β-Methyl-Glucoside	Palatinose	Psicose	Raffinose	Rhamnose
E	Ribose	Salicin	Sedo-heptulosan	Sorbitol	Sorbose	Stachyose	Sucrose	Tagatose	Trehalose	Turanose	Xylitol	Xylose
F	Amino-butyric Acid	Bromosuccinic Acid	Fumaric Acid	β-Hydroxy-butyric Acid	γ-Hydroxy-butyric Acid	P-Hydroxy-phenylacetic Acid	α-Ketoglutaric Acid	Lactic Acid Methyl Ester	Lactic Acid	D-Malic Acid	L-Malic Acid	Qunic Acid
G	Saccharic Acid	Sebacic Acid	Succinamic Acid	Succinic Acid	Succinic Acid Mono-Methyl Ester	Acetyl-Glutamic Acid	Alaninamide	Alanine	Alanyl-Glycine	Asparagine	Aspartic Acid	Glutamic Acid
H	Glycyl-Glutamic Acid	Ornithine	Phenylalanine	Proline	Pyroglutamic Acid	Serine	Threonine	Amino Ethanol	Putrescine	Adenosine	Uridine	Adenosine-Monophos-phate



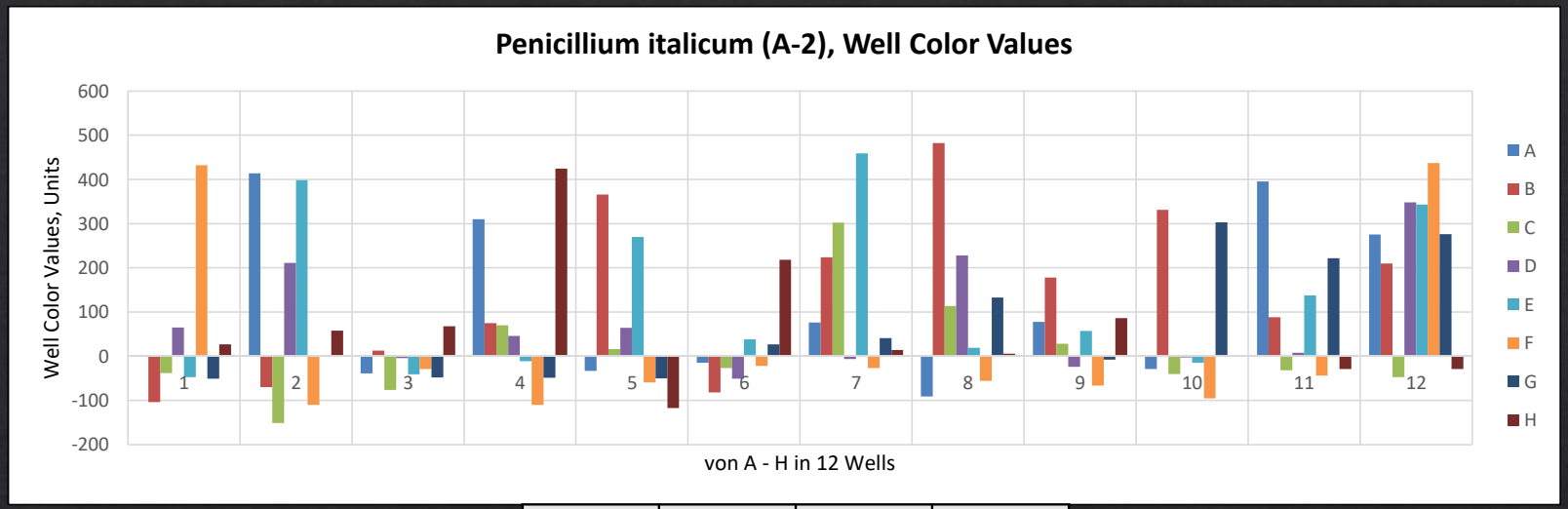
PROB	SIM	DIST	Zeit
0,00	0,493	8,137	96 h

.	1	2	3	4	5	6	7	8	9	10	11	12
A	0	267	-272	635	-267	-203	1179	-270	2539	40	469	2238
B	266	-222	258	107	1637	-344	2501	318	2168	368	994	1490
C	-314	-400	-272	205	-167	93	205	950	117	-235	102	102
D	798	1190	-213	-134	146	-293	-197	2090	-178	-155	224	1010
E	-114	219	-234	-160	1224	-90	1763	-185	290	-200	1985	1763
F	962	-150	-109	-230	-269	-189	-240	-270	-206	294	-158	2160
G	-130	58	-155	-232	278	-147	-157	-3	-198	0	-18	18
H	251	-70	-248	171	-210	-22	-101	80	238	626	-106	-309



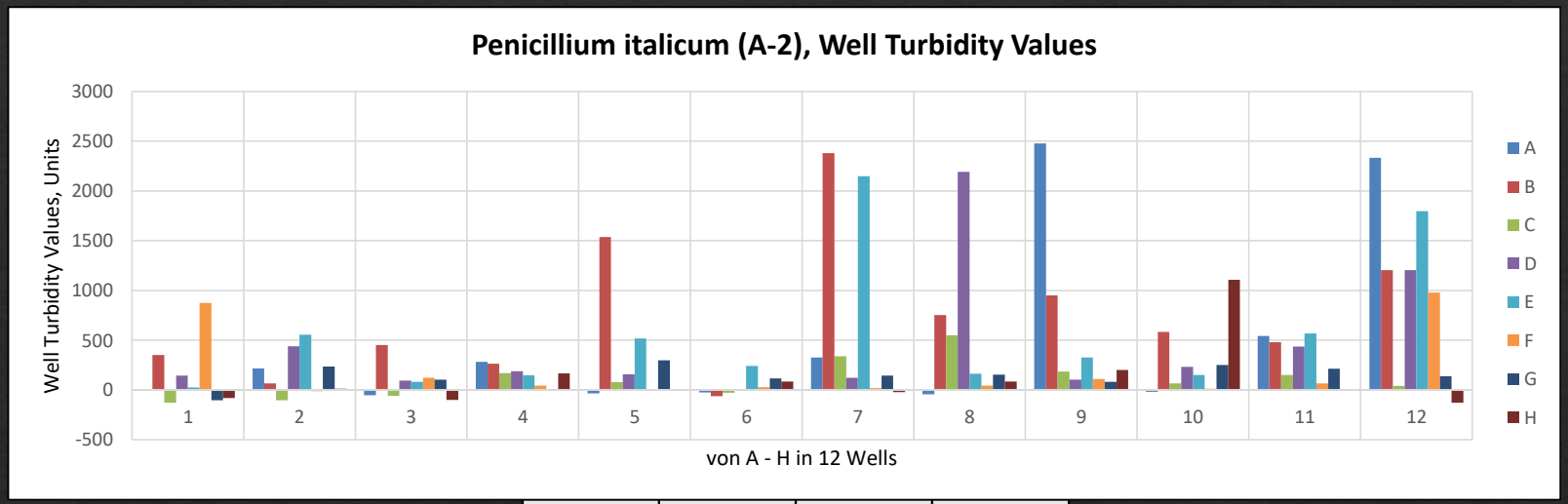
PROB	SIM	DIST	Zeit
0,00	0,564	6,839	72 h

	1	2	3	4	5	6	7	8	9	10	11	12
A	Water	Tween 80	N-Acetyl-Galactosamine	N-Acetyl-Glucosamine	N-Acetyl-Mannosamine	Adonitol	Amygdalin	D-Arabinose	L-Arabinose	Arabitol	Arbutin	Cellobiose
B	α-Cyclodextrin	β-Cyclodextrin	Dextrin	i-Erythritol	D-Fructose	L-Fucose	Galactose	Galacturonic Acid	Gentiobiose	Gluconic Acid	Glucosamine	Glucose
C	Glucose-1-phosphate	Glucuron-amide	Glucuronic Acid	Glycerol	Glycogen	Inositol	2-Keto-Gluconic Acid	Lactose	Lactulose	Maltitol	Maltose	Maltotriose
D	Mannitol	Mannose	Melezitose	Melibiose	α-Methyl-Galactoside	β-Methyl-Galactoside	α-Methyl-Glucoside	β-Methyl-Glucoside	Palatinose	Psicose	Raffinose	Rhamnose
E	Ribose	Salicin	Sedo-heptulosan	Sorbitol	Sorbose	Stachyose	Sucrose	Tagatose	Trehalose	Turanose	Xylitol	Xylose
F	Amino-butyric Acid	Bromosuccinic Acid	Fumaric Acid	β-Hydroxy-butyric Acid	γ-Hydroxy-butyric Acid	P-Hydroxy-phenylacetic Acid	α-Ketoglutaric Acid	Lactic Acid Methyl Ester	Lactic Acid	D-Malic Acid	L-Malic Acid	Qunic Acid
G	Saccharic Acid	Sebacic Acid	Succinamic Acid	Succinic Acid	Succinic Acid Mono-Methyl Ester	Acetyl-Glutamic Acid	Alaninamide	Alanine	Alanyl-Glycine	Asparagine	Aspartic Acid	Glutamic Acid
H	Glycyl-Glutamic Acid	Ornithine	Phenylalanine	Proline	Pyroglutamic Acid	Serine	Threonine	Amino Ethanol	Putrescine	Adenosine	Uridine	Adenosine-Monophos-phate



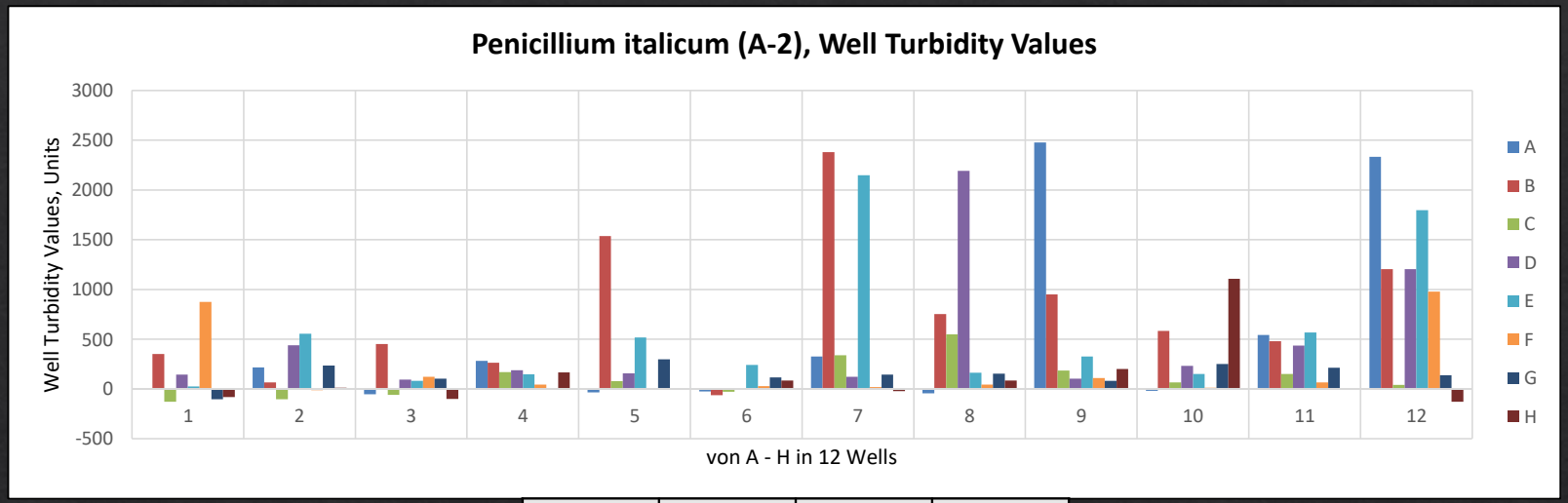
PROB	SIM	DIST	Zeit
0,00	0,564	6,839	72 h

.	1	2	3	4	5	6	7	8	9	10	11	12
A	0	414	-39	310	-33	-15	76	-91	78	-29	395	275
B	-104	-70	13	75	366	-82	224	482	178	331	88	210
C	-38	-151	-76	70	16	-27	302	114	28	-40	-32	-47
D	65	211	-4	46	64	-51	-6	228	-24	-3	8	348
E	-47	398	-41	-11	270	38	459	19	57	-15	138	343
F	432	-110	-29	-110	-59	-22	-27	-56	-66	-95	-44	437
G	-51	2	-48	-49	-50	27	41	133	-8	303	222	276
H	27	58	68	424	-117	218	14	6	86	-1	-29	-29



PROB	SIM	DIST	Zeit
0,00	0,564	6,839	72 h

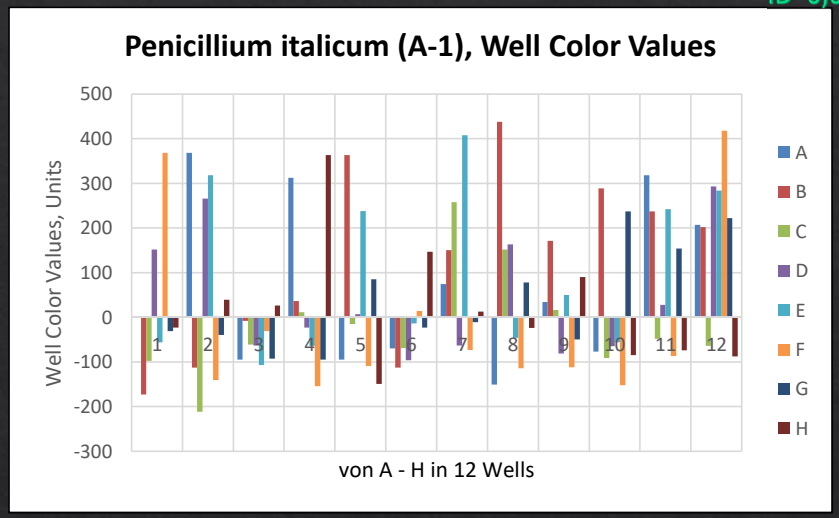
	1	2	3	4	5	6	7	8	9	10	11	12
A	Water	Tween 80	N-Acetyl-Galactosamine	N-Acetyl-Glucosamine	N-Acetyl-Mannosamine	Adonitol	Amygdalin	D-Arabinose	L-Arabinose	Arabitol	Arbutin	Cellobiose
B	α-Cyclodextrin	β-Cyclodextrin	Dextrin	i-Erythritol	D-Fructose	L-Fucose	Galactose	Galacturonic Acid	Gentiobiose	Gluconic Acid	Glucosamine	Glucose
C	Glucose-1-phosphate	Glucuron-amide	Glucuronic Acid	Glycerol	Glycogen	Inositol	2-Keto-Gluconic Acid	Lactose	Lactulose	Maltitol	Maltose	Maltotriose
D	Mannitol	Mannose	Melezitose	Melibiose	α-Methyl-Galactoside	β-Methyl-Galactoside	α-Methyl-Glucoside	β-Methyl-Glucoside	Palatinose	Psicose	Raffinose	Rhamnose
E	Ribose	Salicin	Sedo-heptulosan	Sorbitol	Sorbose	Stachyose	Sucrose	Tagatose	Trehalose	Turanose	Xylitol	Xylose
F	Amino-butyric Acid	Bromosuccinic Acid	Fumaric Acid	β-Hydroxy-butyric Acid	γ-Hydroxy-butyric Acid	P-Hydroxy-phenylacetic Acid	α-Ketoglutaric Acid	Lactic Acid Methyl Ester	Lactic Acid	D-Malic Acid	L-Malic Acid	Qunic Acid
G	Saccharic Acid	Sebacic Acid	Succinamic Acid	Succinic Acid	Succinic Acid Mono-Methyl Ester	Acetyl-Glutamic Acid	Alaninamide	Alanine	Alanyl-Glycine	Asparagine	Aspartic Acid	Glutamic Acid
H	Glycyl-Glutamic Acid	Ornithine	Phenylalanine	Proline	Pyroglutamic Acid	Serine	Threonine	Amino Ethanol	Putrescine	Adenosine	Uridine	Adenosine-Monophos-phate

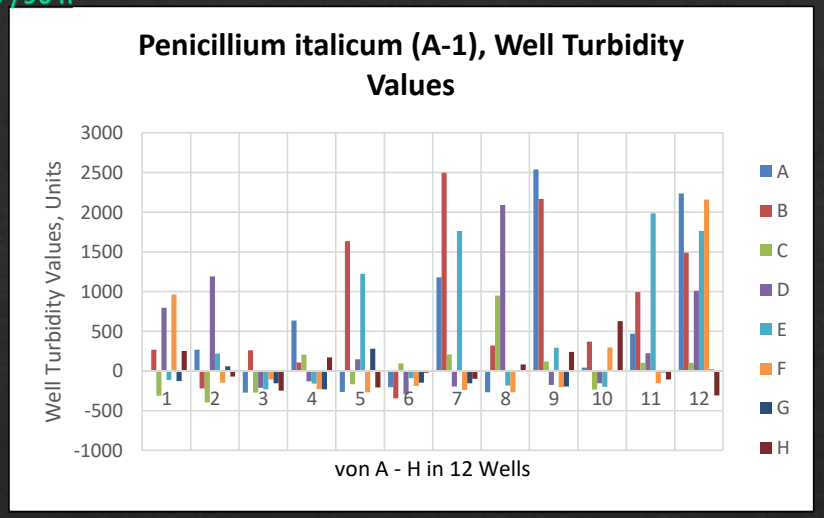


PROB	SIM	DIST	Zeit
0,00	0,564	6,839	72 h

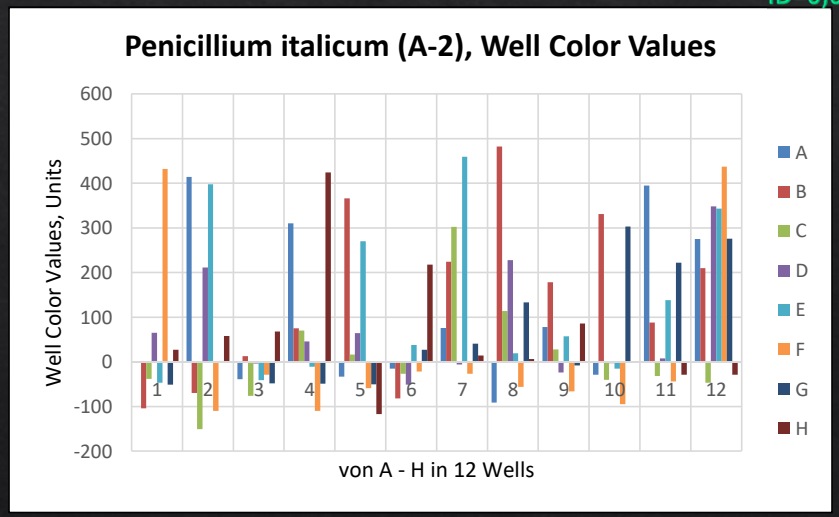
.	1	2	3	4	5	6	7	8	9	10	11	12
A	0	216	-53	283	-35	-24	325	-45	2478	-19	542	2333
B	350	67	451	264	1536	-64	2379	752	950	584	480	1203
C	-128	-102	-61	170	78	-29	338	549	184	67	152	42
D	144	438	93	187	158	-5	122	2192	102	232	437	1205
E	26	555	83	147	518	242	2147	162	326	149	568	1797
F	874	-13	123	45	-3	27	19	43	109	13	66	979
G	-104	234	104	6	299	115	144	154	82	250	214	138
H	-82	14	-99	166	0	85	-21	85	200	1106	10	-130

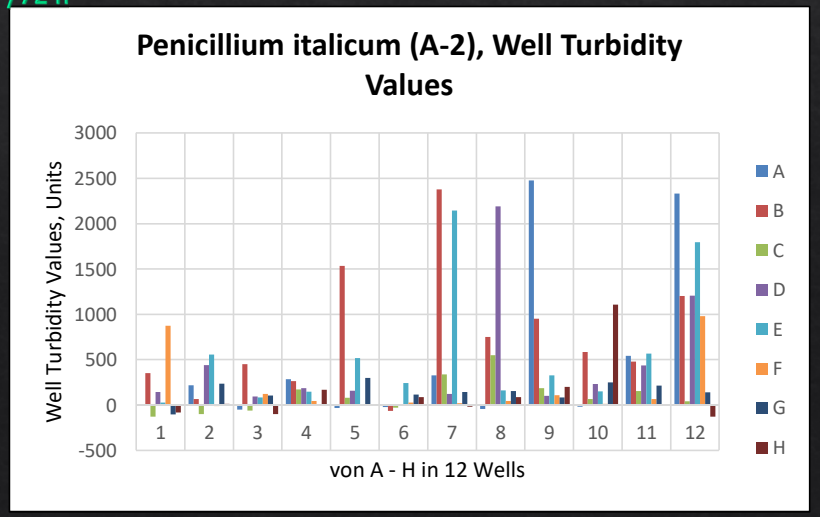
ID=0,0 /96 h



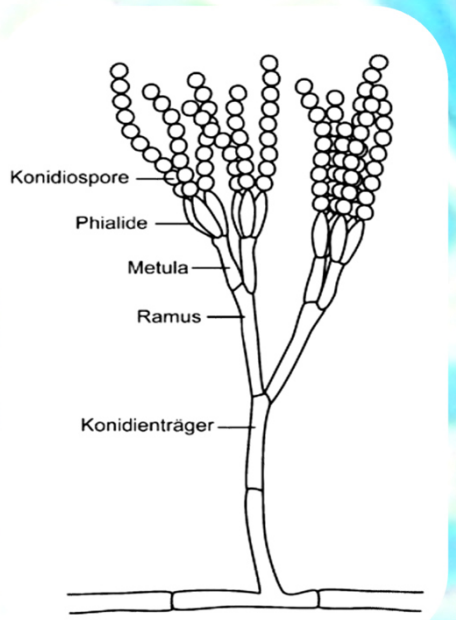


ID=0,0 /72 h

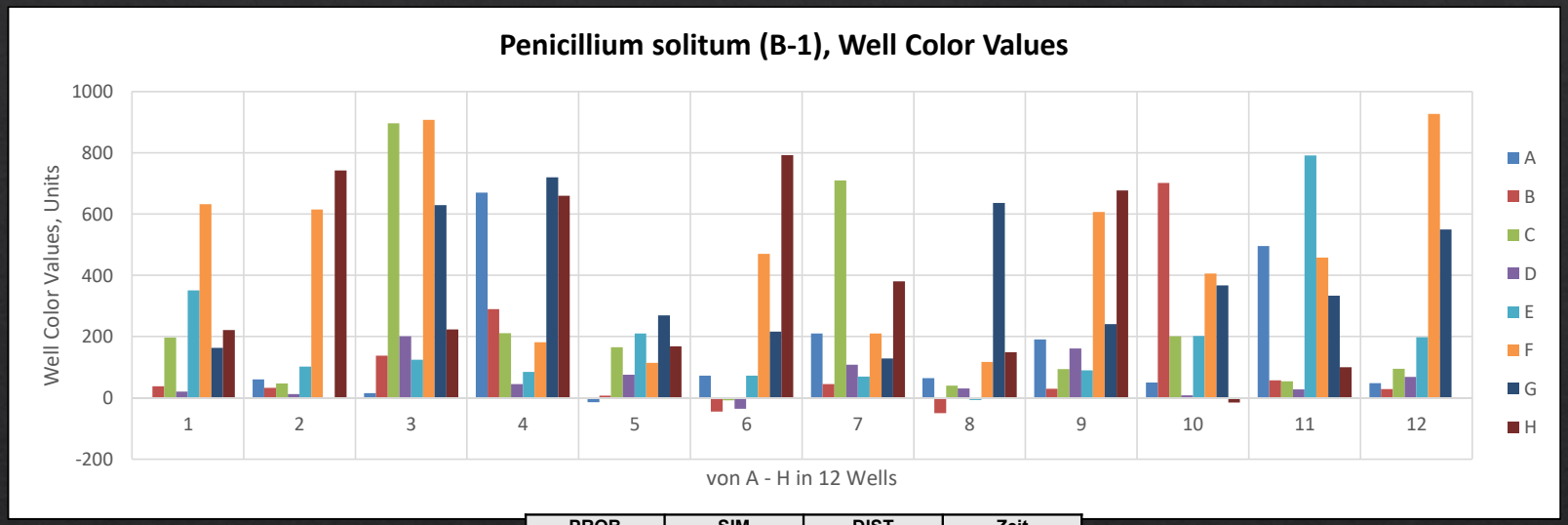




Schimmelpilze B / RV 2015

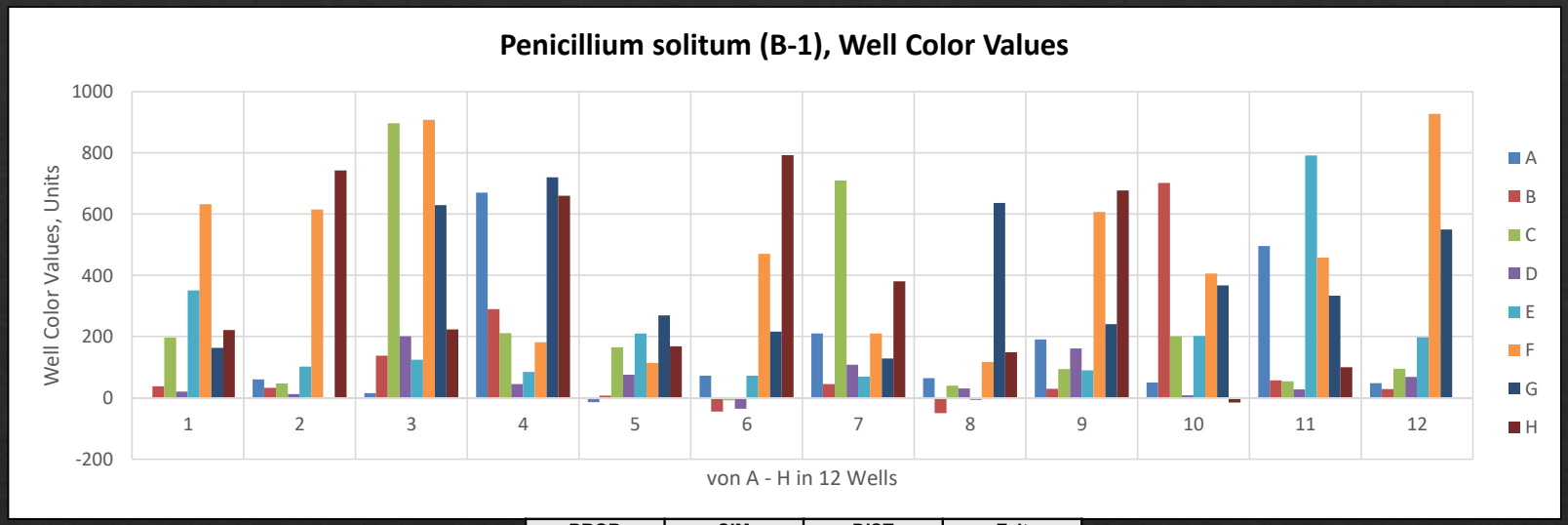


Penicillium solitum



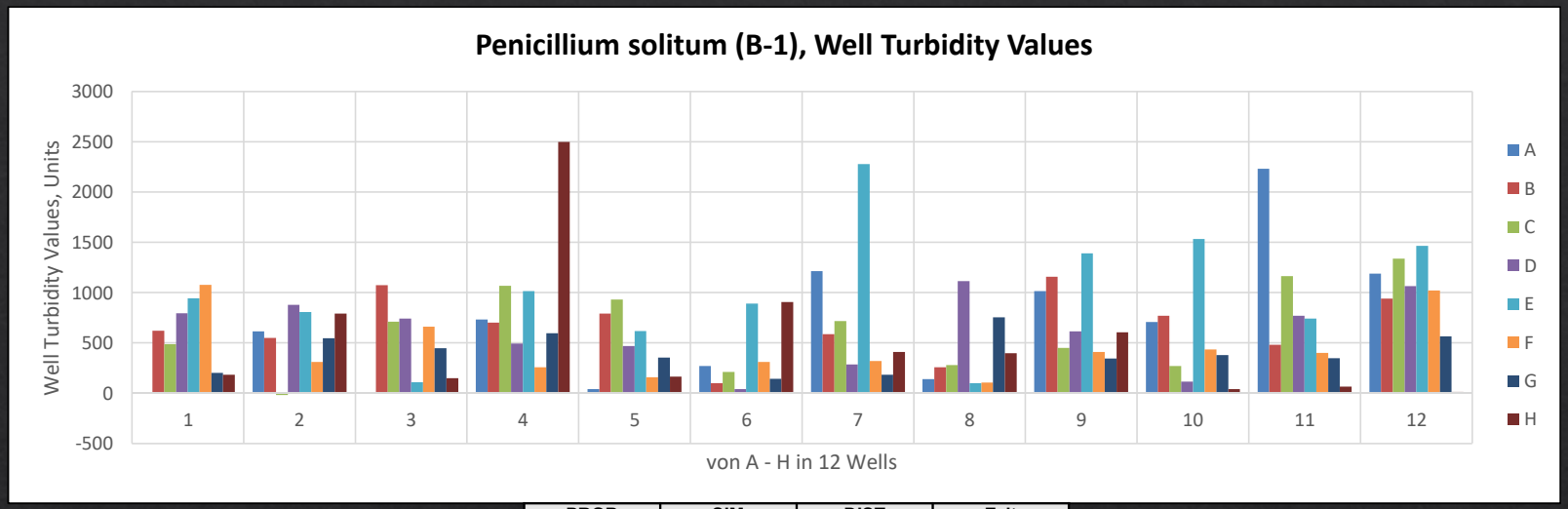
PROB	SIM	DIST	Zeit
0,998	0,745	3,826	168 h

	1	2	3	4	5	6	7	8	9	10	11	12
A	Water	Tween 80	N-Acetyl-Galactosamine	N-Acetyl-Glucosamine	N-Acetyl-Mannosamine	Adonitol	Amygdalin	D-Arabinose	L-Arabinose	Arabitol	Arbutin	Cellobiose
B	α-Cyclodextrin	β-Cyclodextrin	Dextrin	i-Erythritol	D-Fructose	L-Fucose	Galactose	Galacturonic Acid	Gentiobiose	Gluconic Acid	Glucosamine	Glucose
C	Glucose-1-phosphate	Glucuron-amide	Glucuronic Acid	Glycerol	Glycogen	Inositol	2-Keto-Gluconic Acid	Lactose	Lactulose	Maltitol	Maltose	Maltotriose
D	Mannitol	Mannose	Melezitose	Melibiose	α-Methyl-Galactoside	β-Methyl-Galactoside	α-Methyl-Glucoside	β-Methyl-Glucoside	Palatinose	Psicose	Raffinose	Rhamnose
E	Ribose	Salicin	Sedo-heptulosan	Sorbitol	Sorbose	Stachyose	Sucrose	Tagatose	Trehalose	Turanose	Xylitol	Xylose
F	Amino-butyric Acid	Bromosuccinic Acid	Fumaric Acid	β-Hydroxy-butyric Acid	γ-Hydroxy-butyric Acid	P-Hydroxy-phenylacetic Acid	α-Ketoglutaric Acid	Lactic Acid Methyl Ester	Lactic Acid	D-Malic Acid	L-Malic Acid	Quinic Acid
G	Saccharic Acid	Sebacic Acid	Succinamic Acid	Succinic Acid	Succinic Acid Mono-Methyl Ester	Acetyl-Glutamic Acid	Alaninamide	Alanine	Alanyl-Glycine	Asparagine	Aspartic Acid	Glutamic Acid
H	Glycyl-Glutamic Acid	Ornithine	Phenylalanine	Proline	Pyroglutamic Acid	Serine	Threonine	Amino Ethanol	Putrescine	Adenosine	Uridine	Adenosine-Monophos-phate



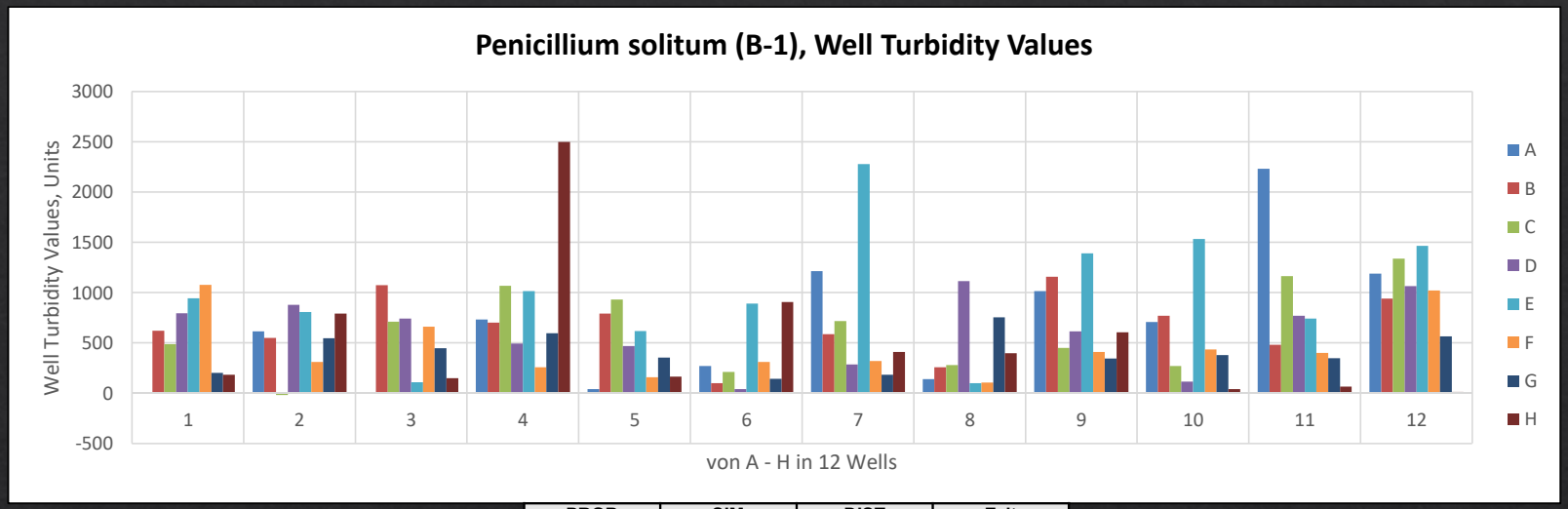
PROB	SIM	DIST	Zeit
0,998	0,745	3,826	168 h

.	1	2	3	4	5	6	7	8	9	10	11	12
A	0	60	15	670	-14	72	210	64	191	50	495	48
B	38	32	137	289	7	-45	45	-50	29	701	57	28
C	197	47	896	211	165	-8	709	40	94	201	54	95
D	20	12	201	45	75	-36	108	30	161	8	27	68
E	351	102	124	84	210	72	69	-7	90	202	791	198
F	632	615	907	181	114	470	210	117	606	406	458	927
G	163	1	629	720	269	216	128	636	240	367	333	549
H	221	742	223	660	168	792	380	149	677	-15	100	1



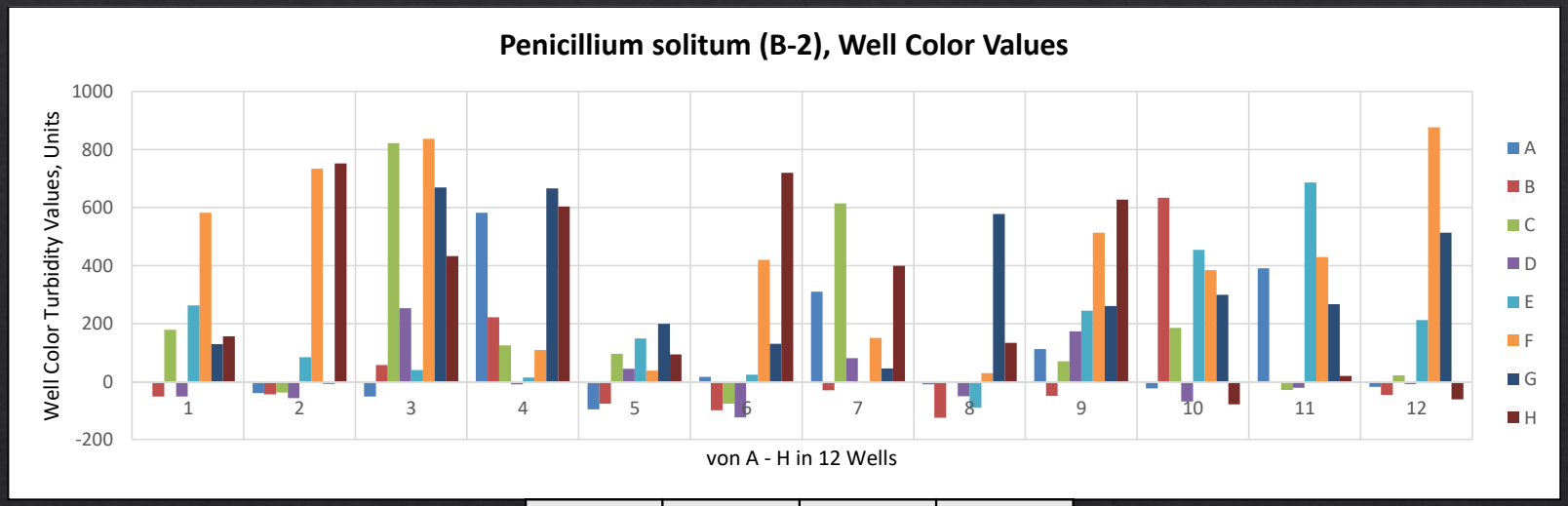
PROB	SIM	DIST	Zeit
0,998	0,745	3,826	168 h

	1	2	3	4	5	6	7	8	9	10	11	12
A	Water	Tween 80	N-Acetyl-Galactosamine	N-Acetyl-Glucosamine	N-Acetyl-Mannosamine	Adonitol	Amygdalin	D-Arabinose	L-Arabinose	Arabitol	Arbutin	Cellobiose
B	α-Cyclodextrin	β-Cyclodextrin	Dextrin	i-Erythritol	D-Fructose	L-Fucose	Galactose	Galacturonic Acid	Gentiobiose	Gluconic Acid	Glucosamine	Glucose
C	Glucose-1-phosphate	Glucuron-amide	Glucuronic Acid	Glycerol	Glycogen	Inositol	2-Keto-Gluconic Acid	Lactose	Lactulose	Maltitol	Maltose	Maltotriose
D	Mannitol	Mannose	Melezitose	Melibiose	α-Methyl-Galactoside	β-Methyl-Galactoside	α-Methyl-Glucoside	β-Methyl-Glucoside	Palatinose	Psicose	Raffinose	Rhamnose
E	Ribose	Salicin	Sedo-heptulosan	Sorbitol	Sorbose	Stachyose	Sucrose	Tagatose	Trehalose	Turanose	Xylitol	Xylose
F	Amino-butyric Acid	Bromosuccinic Acid	Fumaric Acid	β-Hydroxy-butyric Acid	γ-Hydroxy-butyric Acid	P-Hydroxy-phenylacetic Acid	α-Ketoglutaric Acid	Lactic Acid Methyl Ester	Lactic Acid	D-Malic Acid	L-Malic Acid	Quinic Acid
G	Saccharic Acid	Sebacic Acid	Succinamic Acid	Succinic Acid	Succinic Acid Mono-Methyl Ester	Acetyl-Glutamic Acid	Alaninamide	Alanine	Alanyl-Glycine	Asparagine	Aspartic Acid	Glutamic Acid
H	Glycyl-Glutamic Acid	Ornithine	Phenylalanine	Proline	Pyroglutamic Acid	Serine	Threonine	Amino Ethanol	Putrescine	Adenosine	Uridine	Adenosine-Monophos-phate



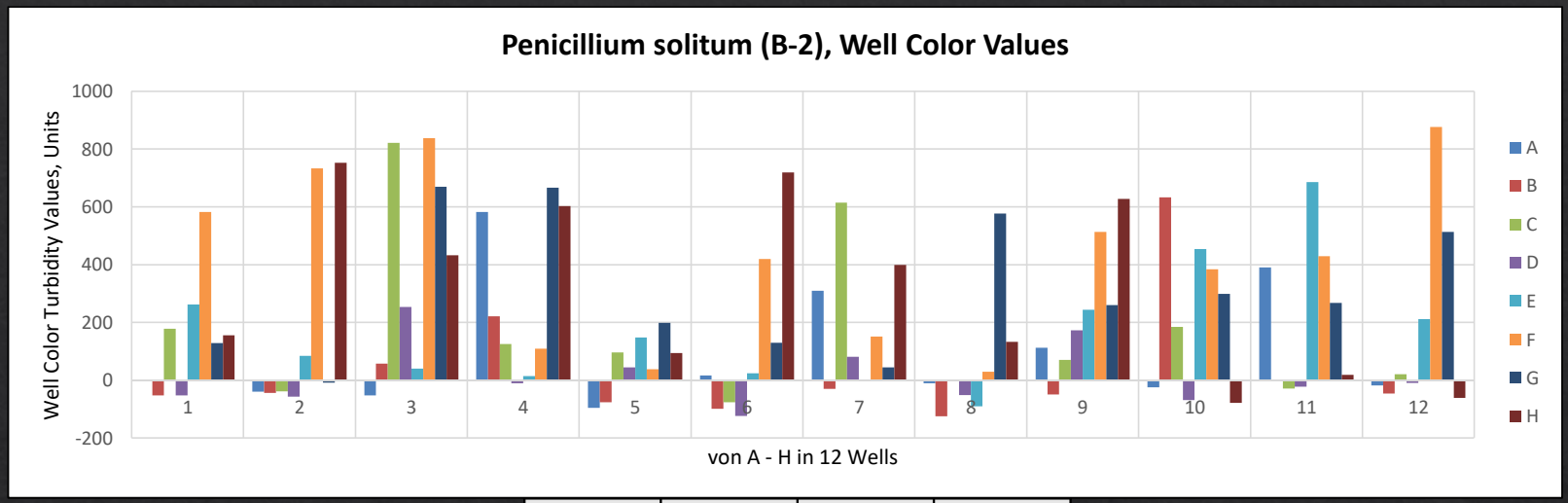
PROB	SIM	DIST	Zeit
0,998	0,745	3,826	168 h

.	1	2	3	4	5	6	7	8	9	10	11	12
A	0	614	8	733	40	270	1214	139	1014	706	2230	1189
B	621	549	1074	702	792	98	585	256	1157	770	482	939
C	488	-18	710	1067	931	211	718	278	451	269	1163	1338
D	795	877	742	494	469	40	285	1114	614	115	768	1064
E	944	808	109	1014	616	891	2277	99	1389	1534	741	1464
F	1075	309	662	256	158	310	318	106	408	434	400	1022
G	202	547	446	594	354	141	182	754	344	379	346	563
H	182	792	149	2499	165	907	408	397	606	40	64	11



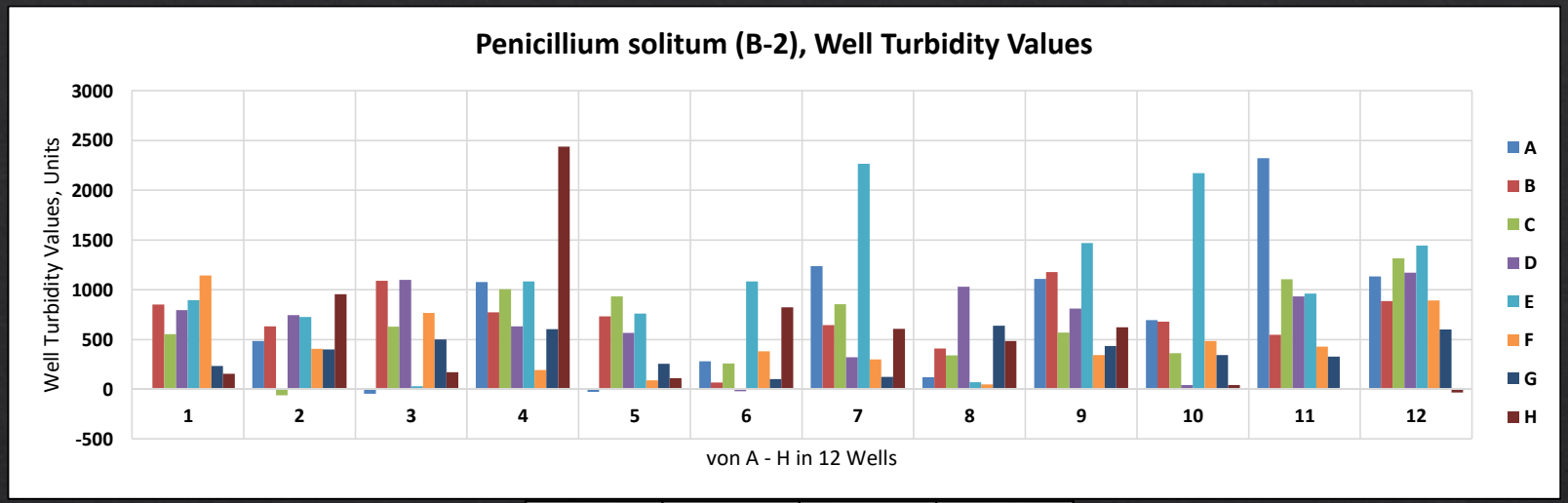
PROB	SIM	DIST	Zeit
1,00	0,651	5,367	192 h

	1	2	3	4	5	6	7	8	9	10	11	12
A	Water	Tween 80	N-Acetyl-Galactosamine	N-Acetyl-Glucosamine	N-Acetyl-Mannosamine	Adonitol	Amygdalin	D-Arabinose	L-Arabinose	Arabitol	Arbutin	Cellobiose
B	α-Cyclodextrin	β-Cyclodextrin	Dextrin	i-Erythritol	D-Fructose	L-Fucose	Galactose	Galacturonic Acid	Gentiobiose	Gluconic Acid	Glucosamine	Glucose
C	Glucose-1-phosphate	Glucuron-amide	Glucuronic Acid	Glycerol	Glycogen	Inositol	2-Keto-Gluconic Acid	Lactose	Lactulose	Maltitol	Maltose	Maltotriose
D	Mannitol	Mannose	Melezitose	Melibiose	α-Methyl-Galactoside	β-Methyl-Galactoside	α-Methyl-Glucoside	β-Methyl-Glucoside	Palatinose	Psicose	Raffinose	Rhamnose
E	Ribose	Salicin	Sedo-heptulosan	Sorbitol	Sorbose	Stachyose	Sucrose	Tagatose	Trehalose	Turanose	Xylitol	Xylose
F	Amino-butyric Acid	Bromosuccinic Acid	Fumaric Acid	β-Hydroxy-butyric Acid	γ-Hydroxy-butyric Acid	P-Hydroxy-phenylacetic Acid	α-Ketoglutaric Acid	Lactic Acid Methyl Ester	Lactic Acid	D-Malic Acid	L-Malic Acid	Quinic Acid
G	Saccharic Acid	Sebacic Acid	Succinamic Acid	Succinic Acid	Succinic Acid Mono-Methyl Ester	Acetyl-Glutamic Acid	Alaninamide	Alanine	Alanyl-Glycine	Asparagine	Aspartic Acid	Glutamic Acid
H	Glycyl-Glutamic Acid	Ornithine	Phenylalanine	Proline	Pyroglutamic Acid	Serine	Threonine	Amino Ethanol	Putrescine	Adenosine	Uridine	Adenosine-Monophos-phate



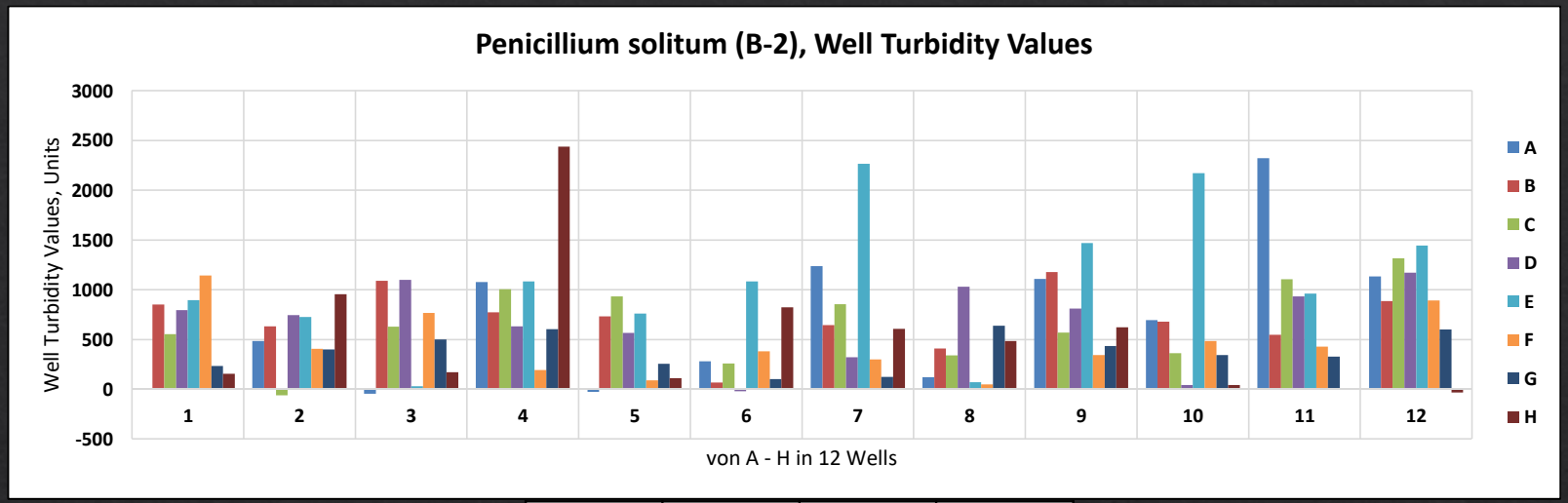
PROB	SIM	DIST	Zeit
1,00	0,651	5,367	192 h

.	1	2	3	4	5	6	7	8	9	10	11	12
A	0	486	-46	1077	-27	282	1236	120	1109	696	2322	1134
B	851	632	1091	773	731	68	645	408	1179	680	546	886
C	555	-61	630	1006	933	258	854	339	568	362	1107	1315
D	795	746	1098	632	565	-21	322	1030	811	43	934	1171
E	896	726	30	1082	762	1083	2266	72	1470	2173	962	1443
F	1142	406	766	192	90	381	298	50	344	486	429	893
G	234	401	499	603	254	102	125	638	434	344	328	600
H	155	954	171	2438	112	822	608	483	621	43	6	-32



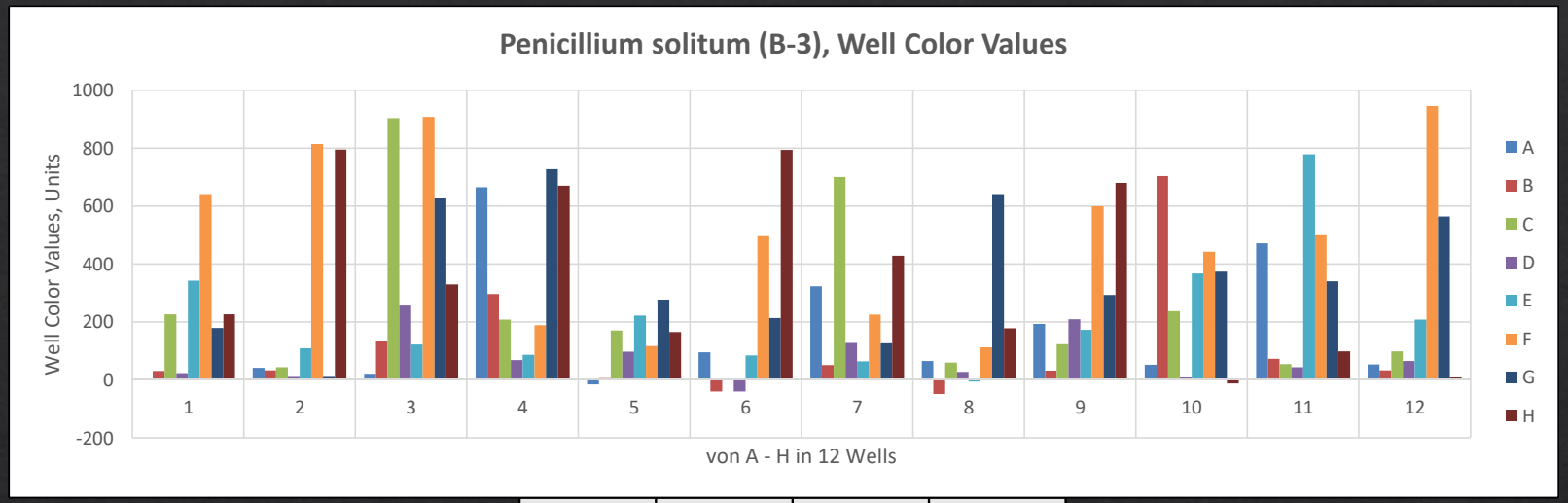
PROB	SIM	DIST	Zeit
1,00	0,651	5,367	192 h

	1	2	3	4	5	6	7	8	9	10	11	12
A	Water	Tween 80	N-Acetyl-Galactosamine	N-Acetyl-Glucosamine	N-Acetyl-Mannosamine	Adonitol	Amygdalin	D-Arabinose	L-Arabinose	Arabitol	Arbutin	Cellobiose
B	α-Cyclodextrin	β-Cyclodextrin	Dextrin	i-Erythritol	D-Fructose	L-Fucose	Galactose	Galacturonic Acid	Gentiobiose	Gluconic Acid	Glucosamine	Glucose
C	Glucose-1-phosphate	Glucuron-amide	Glucuronic Acid	Glycerol	Glycogen	Inositol	2-Keto-Gluconic Acid	Lactose	Lactulose	Maltitol	Maltose	Maltotriose
D	Mannitol	Mannose	Melezitose	Melibiose	α-Methyl-Galactoside	β-Methyl-Galactoside	α-Methyl-Glucoside	β-Methyl-Glucoside	Palatinose	Psicose	Raffinose	Rhamnose
E	Ribose	Salicin	Sedo-heptulosan	Sorbitol	Sorbose	Stachyose	Sucrose	Tagatose	Trehalose	Turanose	Xylitol	Xylose
F	Amino-butyric Acid	Bromosuccinic Acid	Fumaric Acid	β-Hydroxy-butyric Acid	γ-Hydroxy-butyric Acid	P-Hydroxy-phenylacetic Acid	α-Ketoglutaric Acid	Lactic Acid Methyl Ester	Lactic Acid	D-Malic Acid	L-Malic Acid	Qunic Acid
G	Saccharic Acid	Sebacic Acid	Succinamic Acid	Succinic Acid	Succinic Acid Mono-Methyl Ester	Acetyl-Glutamic Acid	Alaninamide	Alanine	Alanyl-Glycine	Asparagine	Aspartic Acid	Glutamic Acid
H	Glycyl-Glutamic Acid	Ornithine	Phenylalanine	Proline	Pyroglutamic Acid	Serine	Threonine	Amino Ethanol	Putrescine	Adenosine	Uridine	Adenosine-Monophos-phate



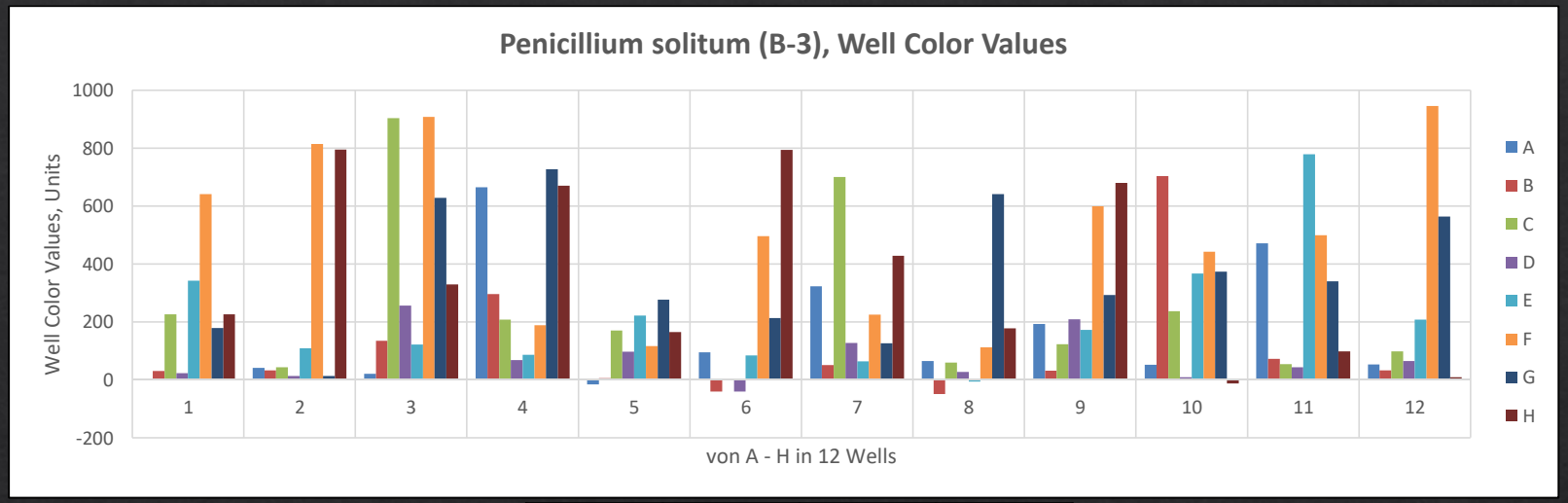
PROB	SIM	DIST	Zeit
1,00	0,651	5,367	192 h

.	1	2	3	4	5	6	7	8	9	10	11	12
A	0	486	-46	1077	-27	282	1236	120	1109	696	2322	1134
B	851	632	1091	773	731	68	645	408	1179	680	546	886
C	555	-61	630	1006	933	258	854	339	568	362	1107	1315
D	795	746	1098	632	565	-21	322	1030	811	43	934	1171
E	896	726	30	1082	762	1083	2266	72	1470	2173	962	1443
F	1142	406	766	192	90	381	298	50	344	486	429	893
G	234	401	499	603	254	102	125	638	434	344	328	600
H	155	954	171	2438	112	822	608	483	621	43	6	-32



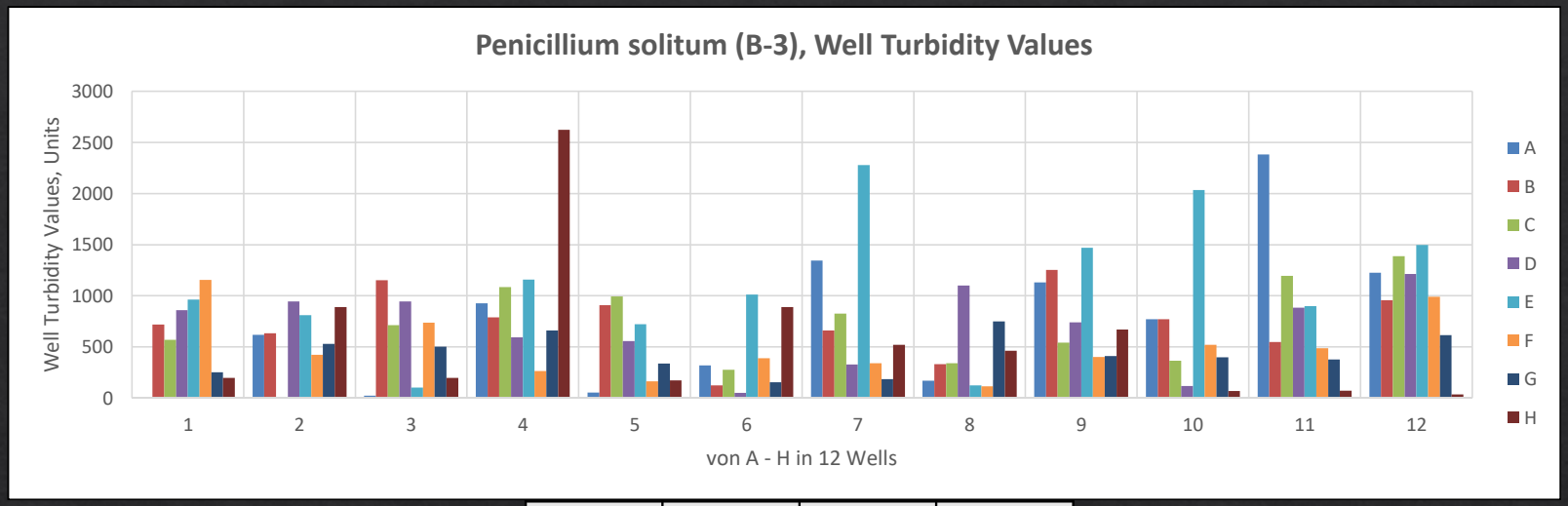
PROB	SIM	DIST	Zeit
1,00	0,651	5,367	192 h

	1	2	3	4	5	6	7	8	9	10	11	12
A	Water	Tween 80	N-Acetyl-Galactosamine	N-Acetyl-Glucosamine	N-Acetyl-Mannosamine	Adonitol	Amygdalin	D-Arabinose	L-Arabinose	Arabitol	Arbutin	Cellobiose
B	α-Cyclodextrin	β-Cyclodextrin	Dextrin	i-Erythritol	D-Fructose	L-Fucose	Galactose	Galacturonic Acid	Gentiobiose	Gluconic Acid	Glucosamine	Glucose
C	Glucose-1-phosphate	Glucuron-amide	Glucuronic Acid	Glycerol	Glycogen	Inositol	2-Keto-Gluconic Acid	Lactose	Lactulose	Maltitol	Maltose	Maltotriose
D	Mannitol	Mannose	Melezitose	Melibiose	α-Methyl-Galactoside	β-Methyl-Galactoside	α-Methyl-Glucoside	β-Methyl-Glucoside	Palatinose	Psicose	Raffinose	Rhamnose
E	Ribose	Salicin	Sedo-heptulosan	Sorbitol	Sorbose	Stachyose	Sucrose	Tagatose	Trehalose	Turanose	Xylitol	Xylose
F	Amino-butyric Acid	Bromosuccinic Acid	Fumaric Acid	β-Hydroxy-butyric Acid	γ-Hydroxy-butyric Acid	P-Hydroxy-phenylacetic Acid	α-Ketoglutaric Acid	Lactic Acid Methyl Ester	Lactic Acid	D-Malic Acid	L-Malic Acid	Quinic Acid
G	Saccharic Acid	Sebacic Acid	Succinamic Acid	Succinic Acid	Succinic Acid Mono-Methyl Ester	Acetyl-Glutamic Acid	Alaninamide	Alanine	Alanyl-Glycine	Asparagine	Aspartic Acid	Glutamic Acid
H	Glycyl-Glutamic Acid	Ornithine	Phenylalanine	Proline	Pyroglutamic Acid	Serine	Threonine	Amino Ethanol	Putrescine	Adenosine	Uridine	Adenosine-Monophos-phate



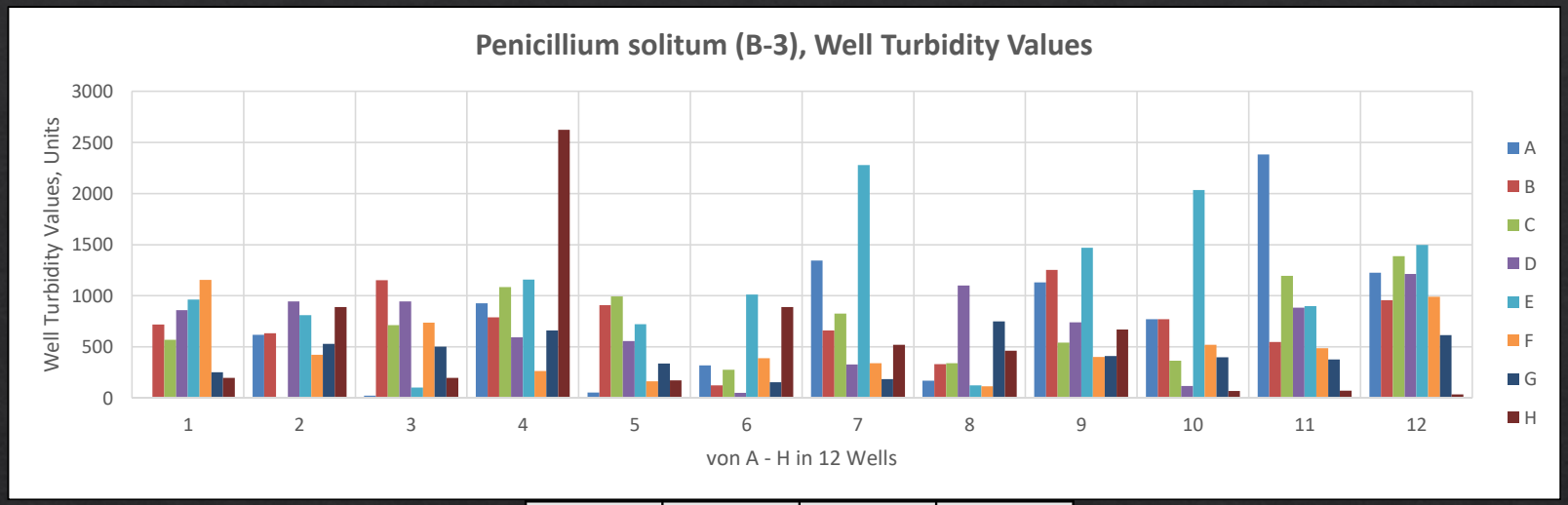
PROB	SIM	DIST	Zeit
1,00	0,651	5,367	192 h

.	1	2	3	4	5	6	7	8	9	10	11	12
A	0	42	21	666	-15	96	324	66	193	53	472	54
B	31	33	135	297	6	-40	52	-48	32	704	73	33
C	227	44	904	209	171	0	701	60	124	237	55	99
D	24	14	257	69	98	-40	128	28	210	10	44	66
E	343	110	122	87	223	85	64	-5	173	368	779	209
F	642	815	908	189	117	497	226	113	600	443	500	946
G	179	14	629	728	277	214	127	642	293	374	341	564
H	227	796	330	671	165	794	429	178	681	-12	99	10



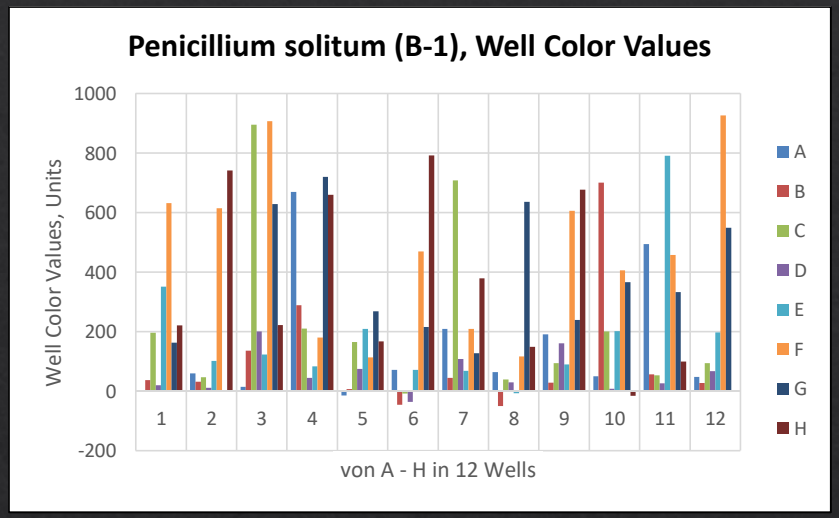
PROB	SIM	DIST	Zeit
1,00	0,651	5,367	192 h

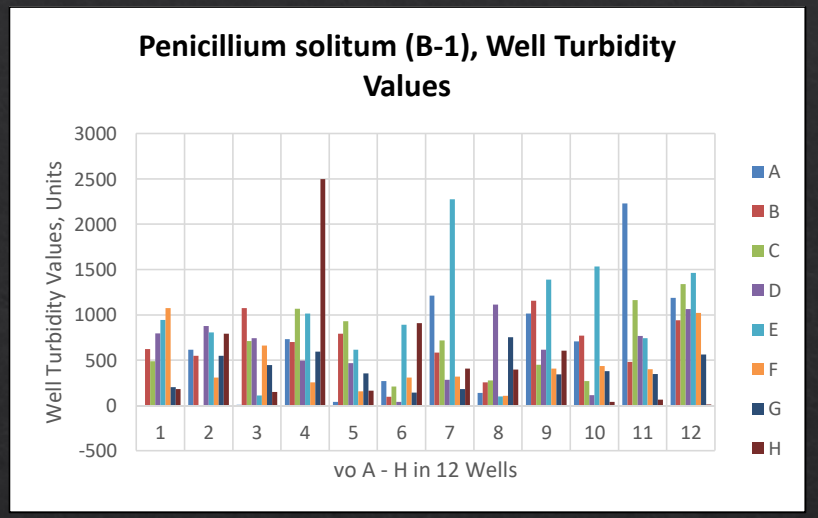
	1	2	3	4	5	6	7	8	9	10	11	12
A	Water	Tween 80	N-Acetyl-Galactosamine	N-Acetyl-Glucosamine	N-Acetyl-Mannosamine	Adonitol	Amygdalin	D-Arabinose	L-Arabinose	Arabitol	Arbutin	Cellobiose
B	α-Cyclodextrin	β-Cyclodextrin	Dextrin	i-Erythritol	D-Fructose	L-Fucose	Galactose	Galacturonic Acid	Gentiobiose	Gluconic Acid	Glucosamine	Glucose
C	Glucose-1-phosphate	Glucuron-amide	Glucuronic Acid	Glycerol	Glycogen	Inositol	2-Keto-Gluconic Acid	Lactose	Lactulose	Maltitol	Maltose	Maltotriose
D	Mannitol	Mannose	Melezitose	Melibiose	α-Methyl-Galactoside	β-Methyl-Galactoside	α-Methyl-Glucoside	β-Methyl-Glucoside	Palatinose	Psicose	Raffinose	Rhamnose
E	Ribose	Salicin	Sedo-heptulosan	Sorbitol	Sorbose	Stachyose	Sucrose	Tagatose	Trehalose	Turanose	Xylitol	Xylose
F	Amino-butyric Acid	Bromosuccinic Acid	Fumaric Acid	β-Hydroxy-butyric Acid	γ-Hydroxy-butyric Acid	P-Hydroxy-phenylacetic Acid	α-Ketoglutaric Acid	Lactic Acid Methyl Ester	Lactic Acid	D-Malic Acid	L-Malic Acid	Quinic Acid
G	Saccharic Acid	Sebacic Acid	Succinamic Acid	Succinic Acid	Succinic Acid Mono-Methyl Ester	Acetyl-Glutamic Acid	Alaninamide	Alanine	Alanyl-Glycine	Asparagine	Aspartic Acid	Glutamic Acid
H	Glycyl-Glutamic Acid	Ornithine	Phenylalanine	Proline	Pyroglutamic Acid	Serine	Threonine	Amino Ethanol	Putrescine	Adenosine	Uridine	Adenosine-Monophos-phate



PROB	SIM	DIST	Zeit
1,00	0,651	5,367	192 h

.	1	2	3	4	5	6	7	8	9	10	11	12
A	0	619	22	928	53	318	1344	170	1130	771	2381	1226
B	720	635	1154	790	908	123	660	333	1253	771	549	957
C	570	0	712	1085	994	277	827	342	542	366	1196	1386
D	859	946	946	595	558	51	328	1102	741	118	883	1213
E	964	810	104	1158	723	1013	2280	125	1469	2035	899	1496
F	1155	424	738	264	163	390	341	115	402	522	488	992
G	251	530	501	661	339	155	184	749	410	400	378	614
H	197	891	198	2623	173	891	522	462	670	70	72	35





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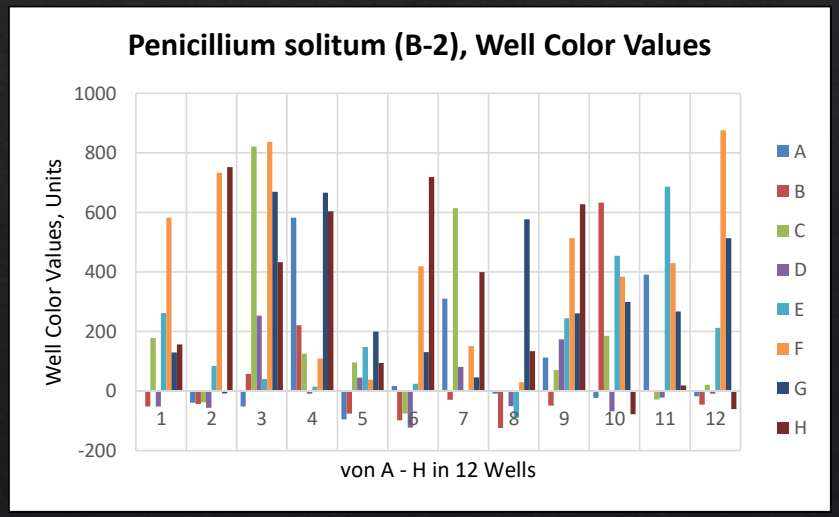
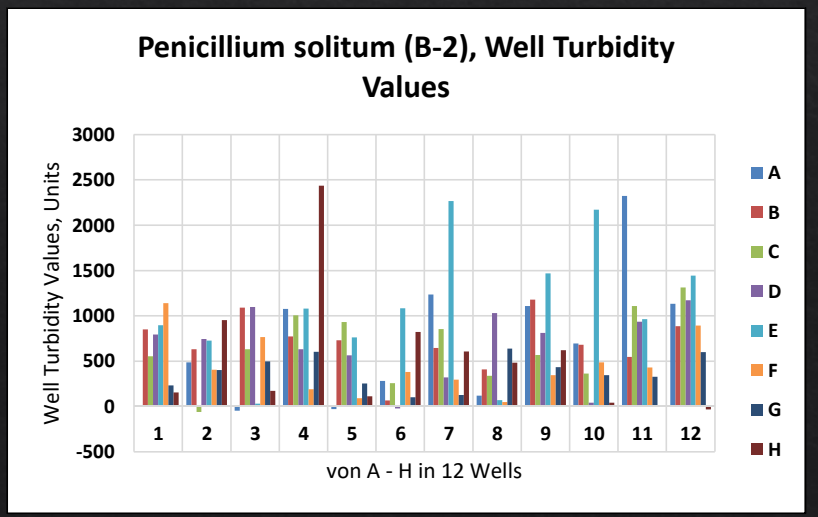
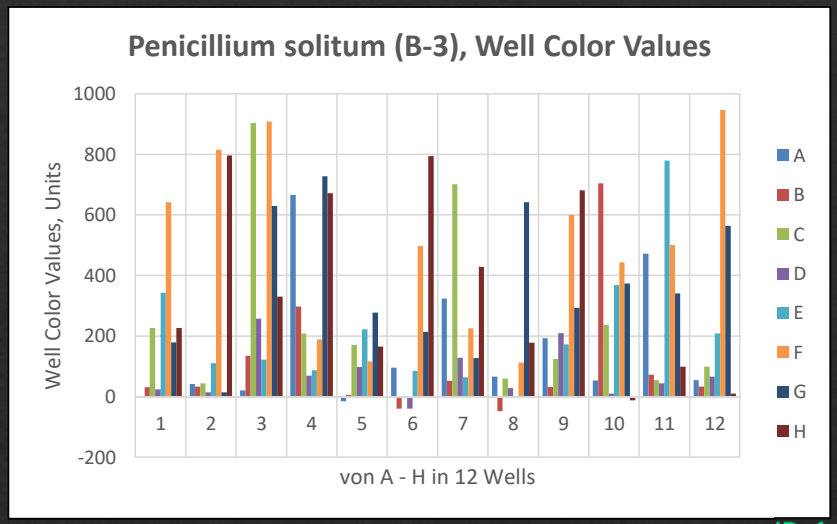
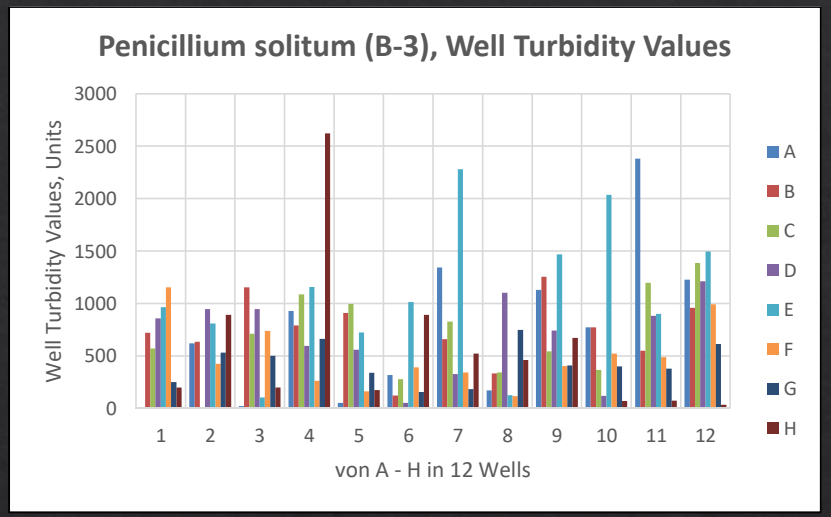


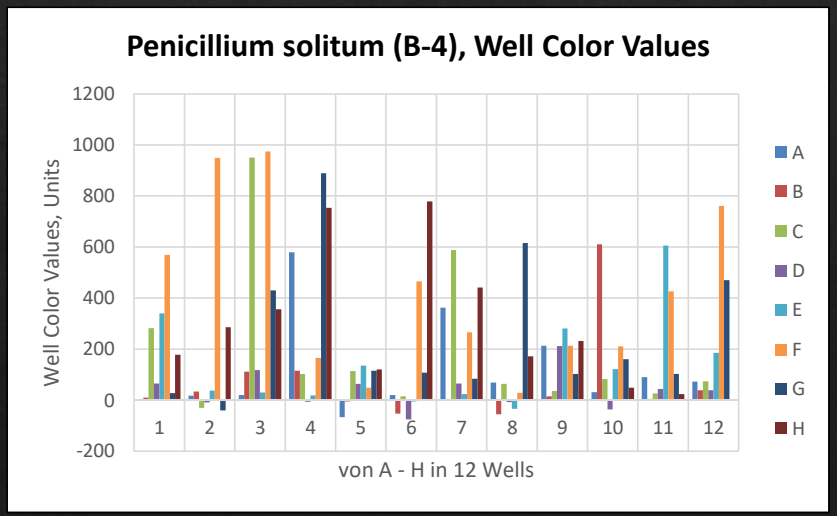


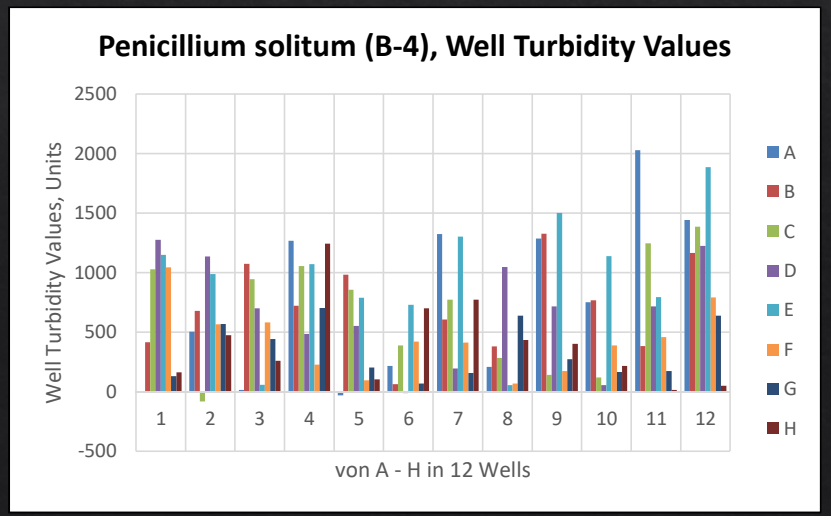
ID=1,00/192 h





ID=1,00/192 h





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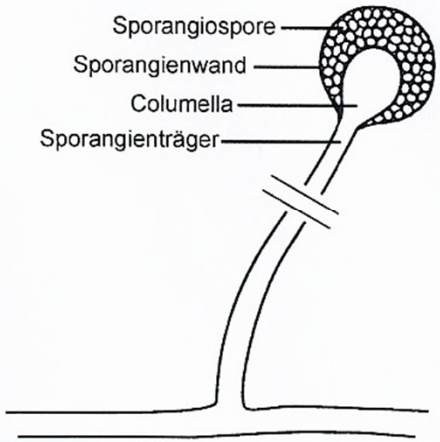
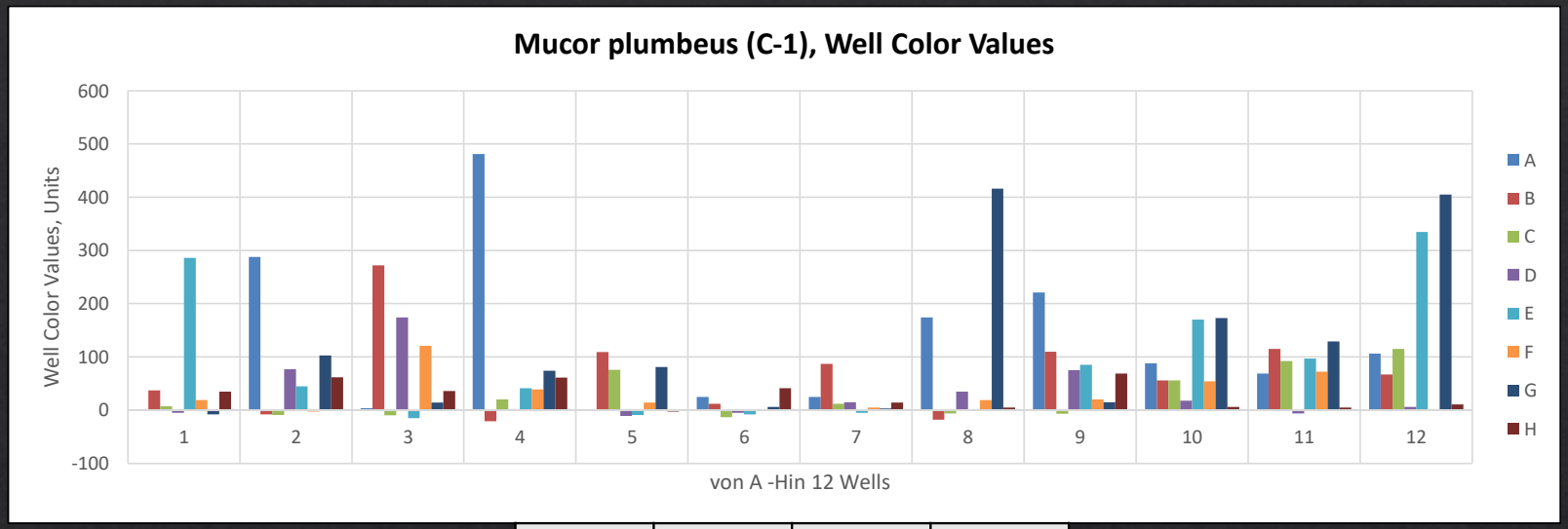
Schimmelpilze C / RV 2015

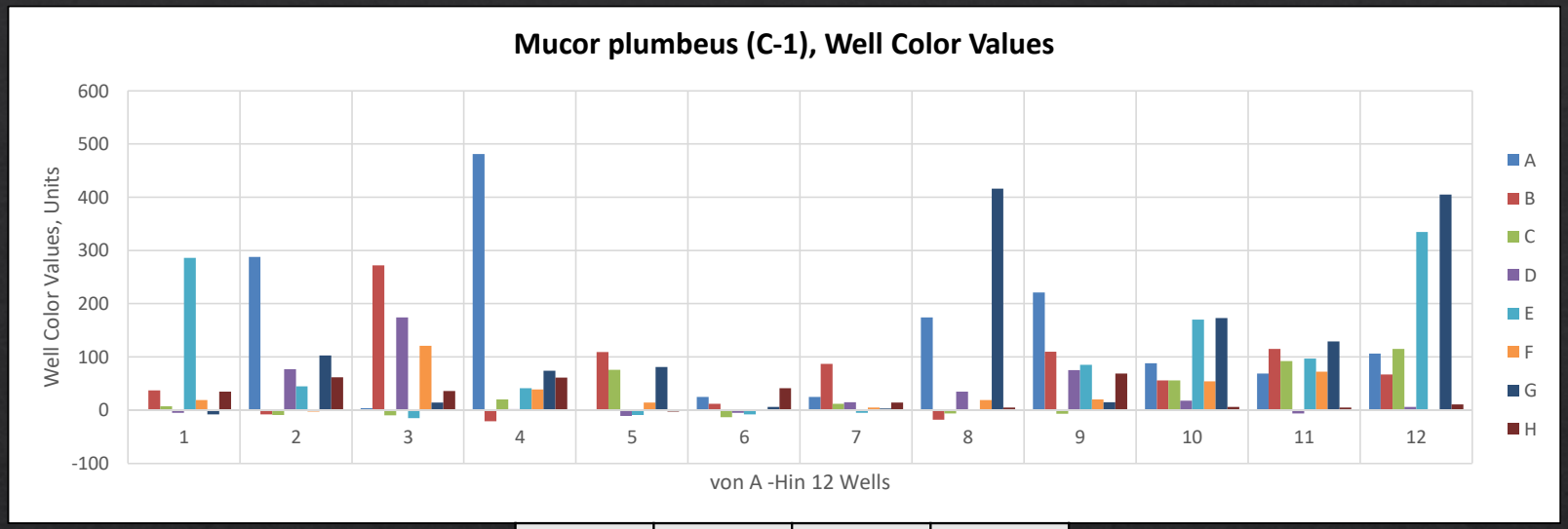
Mucor plumbeus





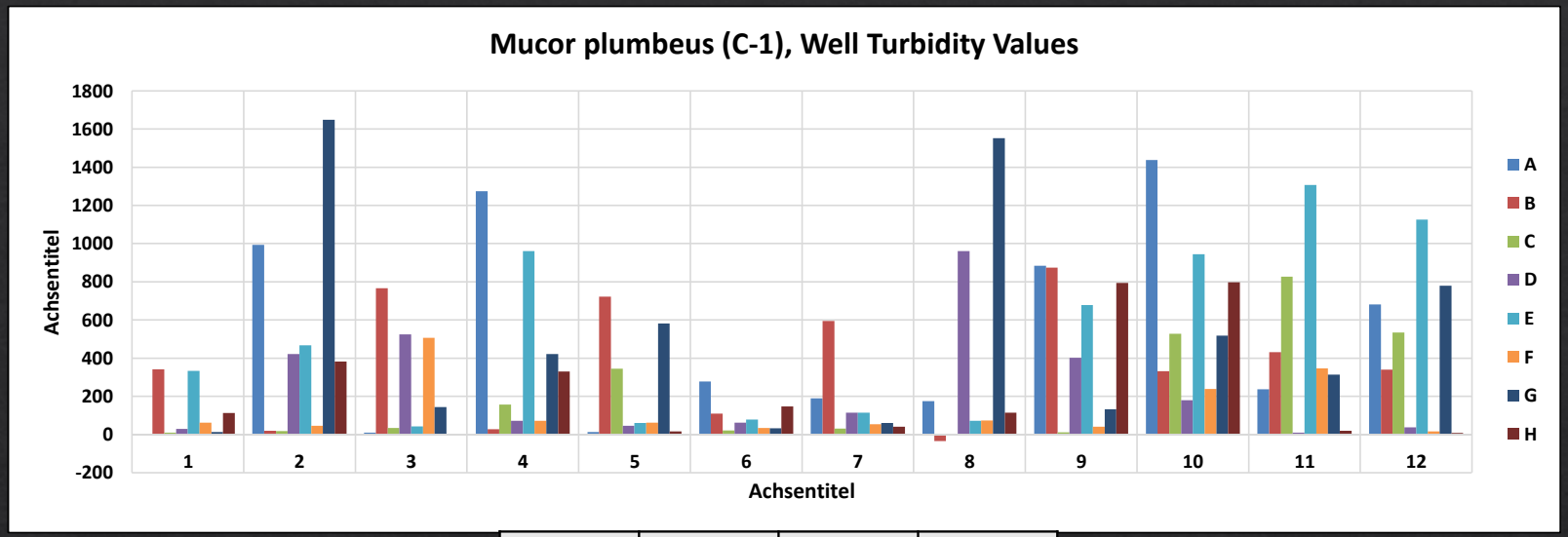
PROB	SIM	DIST	Zeit
0,00	0,379	10,405	168 h

	1	2	3	4	5	6	7	8	9	10	11	12
A	Water	Tween 80	N-Acetyl-Galactosamine	N-Acetyl-Glucosamine	N-Acetyl-Mannosamine	Adonitol	Amygdalin	D-Arabinose	L-Arabinose	Arabitol	Arbutin	Cellobiose
B	α-Cyclodextrin	β-Cyclodextrin	Dextrin	i-Erythritol	D-Fructose	L-Fucose	Galactose	Galacturonic Acid	Gentiobiose	Gluconic Acid	Glucosamine	Glucose
C	Glucose-1-phosphate	Glucuron-amide	Glucuronic Acid	Glycerol	Glycogen	Inositol	2-Keto-Gluconic Acid	Lactose	Lactulose	Maltitol	Maltose	Maltotriose
D	Mannitol	Mannose	Melezitose	Melibiose	α-Methyl-Galactoside	β-Methyl-Galactoside	α-Methyl-Glucoside	β-Methyl-Glucoside	Palatinose	Psicose	Raffinose	Rhamnose
E	Ribose	Salicin	Sedo-heptulosan	Sorbitol	Sorbose	Stachyose	Sucrose	Tagatose	Trehalose	Turanose	Xylitol	Xylose
F	Amino-butyric Acid	Bromosuccinic Acid	Fumaric Acid	β-Hydroxy-butyric Acid	γ-Hydroxy-butyric Acid	P-Hydroxy-phenylacetic Acid	α-Ketoglutaric Acid	Lactic Acid Methyl Ester	Lactic Acid	D-Malic Acid	L-Malic Acid	Quinic Acid
G	Saccharic Acid	Sebacic Acid	Succinamic Acid	Succinic Acid	Succinic Acid Mono-Methyl Ester	Acetyl-Glutamic Acid	Alaninamide	Alanine	Alanyl-Glycine	Asparagine	Aspartic Acid	Glutamic Acid
H	Glycyl-Glutamic Acid	Ornithine	Phenylalanine	Proline	Pyroglutamic Acid	Serine	Threonine	Amino Ethanol	Putrescine	Adenosine	Uridine	Adenosine-Monophos-phate



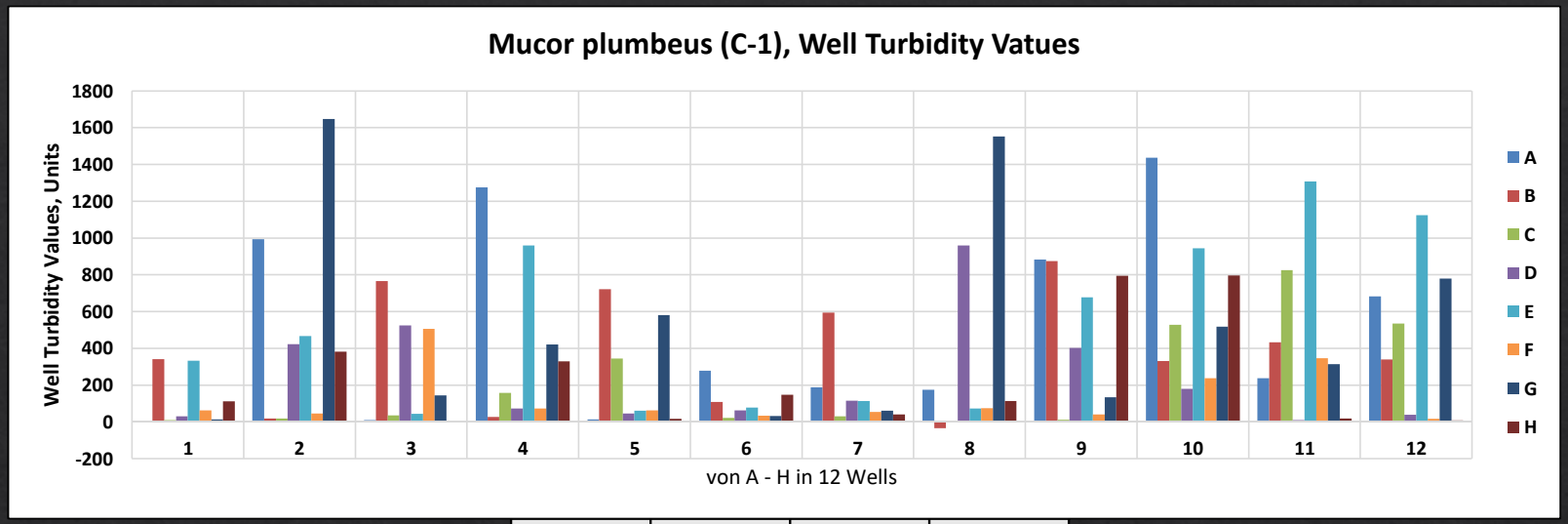
PROB	SIM	DIST	Zeit
0,00	0,379	10,405	168 h

.	1	2	3	4	5	6	7	8	9	10	11	12
A	0	288	4	481	1	25	25	174	221	88	69	106
B	37	-8	272	-21	109	12	87	-18	110	56	115	67
C	7	-9	-10	20	76	-13	12	-6	-7	56	92	115
D	-5	77	174	2	-11	-5	15	35	75	18	-6	6
E	286	45	-15	41	-9	-8	-5	-1	85	170	97	335
F	19	-3	121	39	14	1	5	19	20	54	72	1
G	-8	103	14	74	81	6	3	416	15	173	129	405
H	35	62	36	61	-3	41	14	5	69	6	5	11



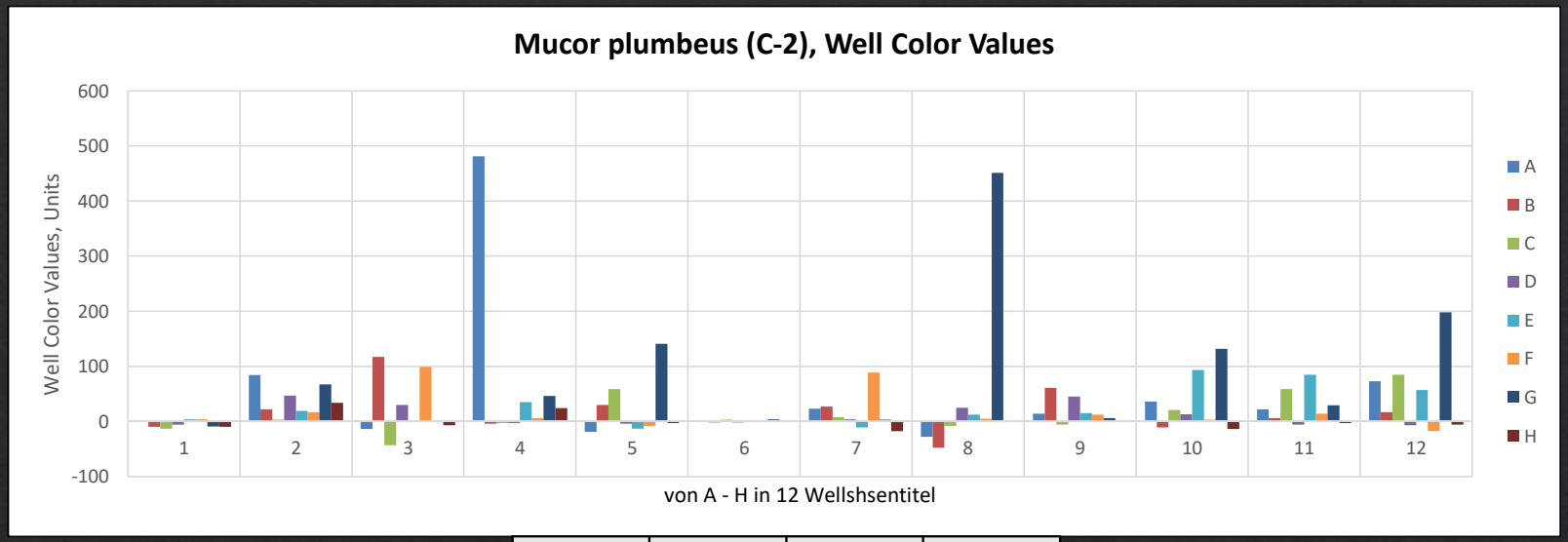
PROB	SIM	DIST	Zeit
0,00	0,379	10,405	168 h

	1	2	3	4	5	6	7	8	9	10	11	12
A	Water	Tween 80	N-Acetyl-Galactosamine	N-Acetyl-Glucosamine	N-Acetyl-Mannosamine	Adonitol	Amygdalin	D-Arabinose	L-Arabinose	Arabitol	Arbutin	Cellobiose
B	α-Cyclodextrin	β-Cyclodextrin	Dextrin	i-Erythritol	D-Fructose	L-Fucose	Galactose	Galacturonic Acid	Gentiobiose	Gluconic Acid	Glucosamine	Glucose
C	Glucose-1-phosphate	Glucuron-amide	Glucuronic Acid	Glycerol	Glycogen	Inositol	2-Keto-Gluconic Acid	Lactose	Lactulose	Maltitol	Maltose	Maltotriose
D	Mannitol	Mannose	Melezitose	Melibiose	α-Methyl-Galactoside	β-Methyl-Galactoside	α-Methyl-Glucoside	β-Methyl-Glucoside	Palatinose	Psicose	Raffinose	Rhamnose
E	Ribose	Salicin	Sedo-heptulosan	Sorbitol	Sorbose	Stachyose	Sucrose	Tagatose	Trehalose	Turanose	Xylitol	Xylose
F	Amino-butyric Acid	Bromosuccinic Acid	Fumaric Acid	β-Hydroxy-butyric Acid	γ-Hydroxy-butyric Acid	P-Hydroxy-phenylacetic Acid	α-Ketoglutaric Acid	Lactic Acid Methyl Ester	Lactic Acid	D-Malic Acid	L-Malic Acid	Qunic Acid
G	Saccharic Acid	Sebacic Acid	Succinamic Acid	Succinic Acid	Succinic Acid Mono-Methyl Ester	Acetyl-Glutamic Acid	Alaninamide	Alanine	Alanyl-Glycine	Asparagine	Aspartic Acid	Glutamic Acid
H	Glycyl-Glutamic Acid	Ornithine	Phenylalanine	Proline	Pyroglutamic Acid	Serine	Threonine	Amino Ethanol	Putrescine	Adenosine	Uridine	Adenosine-Monophos-phate



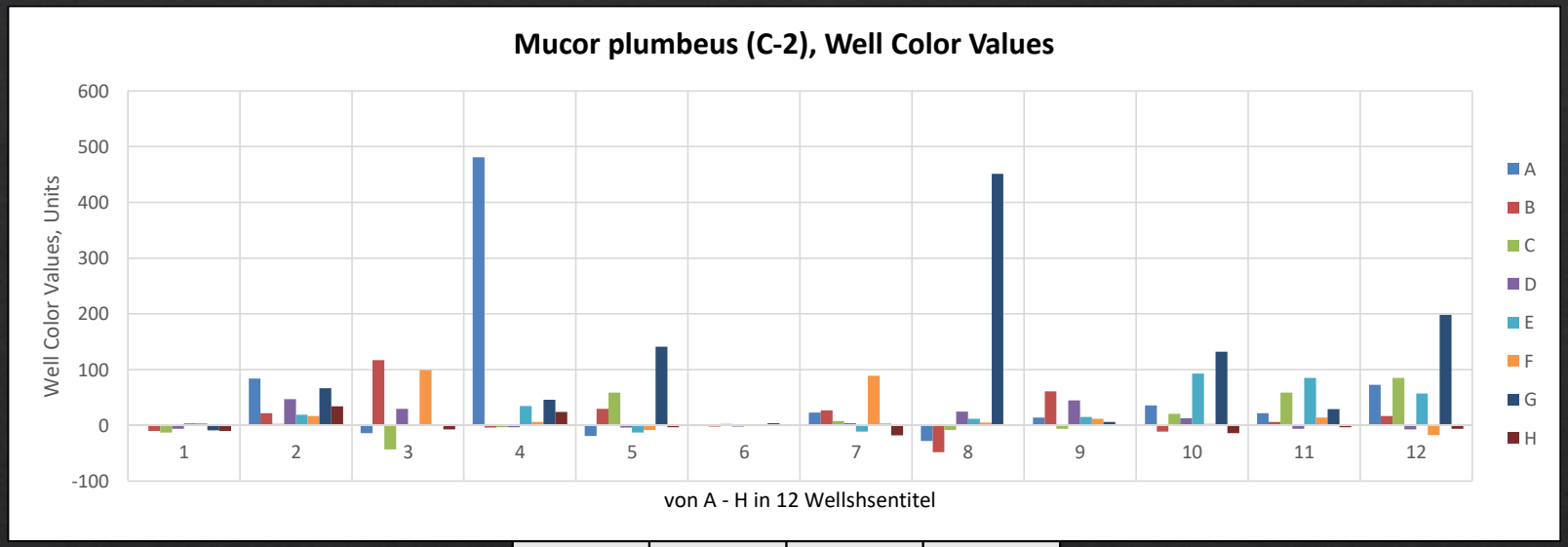
PROB	SIM	DIST	Zeit
0,00	0,379	10,405	168 h

.	1	2	3	4	5	6	7	8	9	10	11	12
A	0	994	10	1275	13	278	189	174	883	1437	237	682
B	341	19	766	27	722	109	594	-35	874	331	432	339
C	10	18	35	157	344	22	31	3	11	528	826	534
D	30	422	525	72	45	62	115	960	402	179	10	38
E	333	467	43	960	61	78	114	72	678	944	1307	1125
F	62	46	506	72	62	34	54	74	40	238	346	16
G	13	1648	144	421	581	32	61	1552	133	518	314	779
H	112	382	2	330	16	147	40	114	794	797	19	8



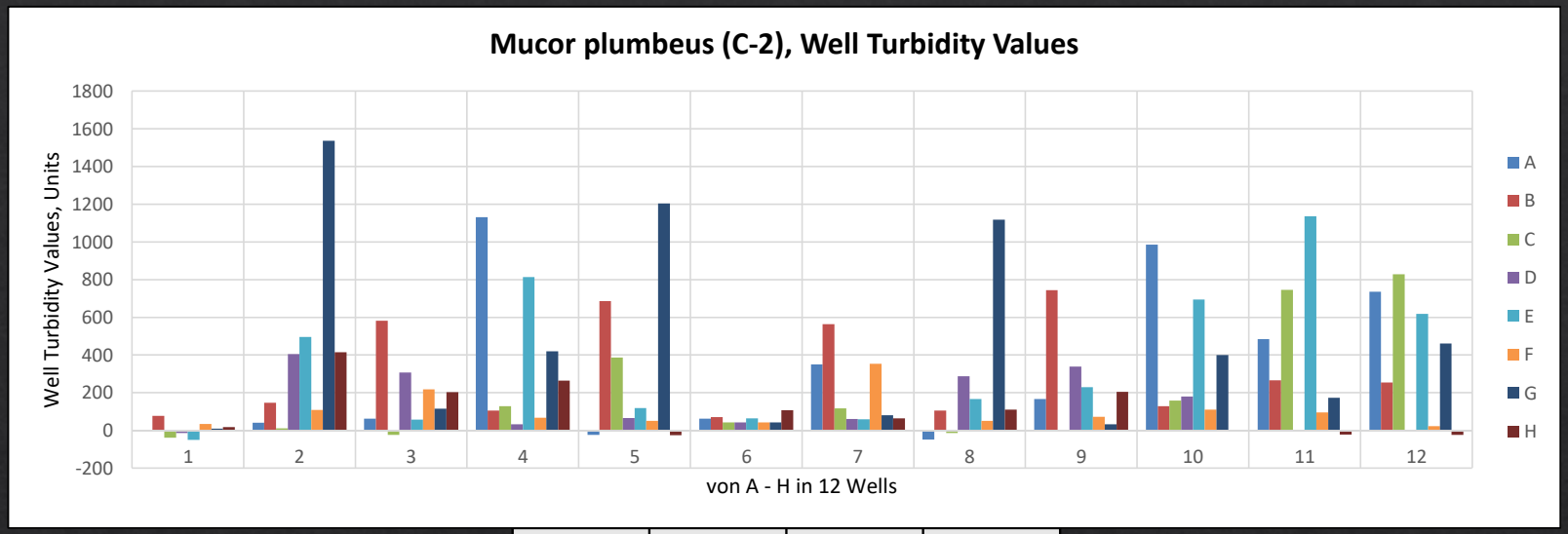
PROB	SIM	DIST	Zeit
1,00	0,656	5,275	96 h

	1	2	3	4	5	6	7	8	9	10	11	12
A	Water	Tween 80	N-Acetyl-Galactosamine	N-Acetyl-Glucosamine	N-Acetyl-Mannosamine	Adonitol	Amygdalin	D-Arabinose	L-Arabinose	Arabitol	Arbutin	Cellobiose
B	α-Cyclodextrin	β-Cyclodextrin	Dextrin	i-Erythritol	D-Fructose	L-Fucose	Galactose	Galacturonic Acid	Gentiobiose	Gluconic Acid	Glucosamine	Glucose
C	Glucose-1-phosphate	Glucuron-amide	Glucuronic Acid	Glycerol	Glycogen	Inositol	2-Keto-Gluconic Acid	Lactose	Lactulose	Maltitol	Maltose	Maltotriose
D	Mannitol	Mannose	Melezitose	Melibiose	α-Methyl-Galactoside	β-Methyl-Galactoside	α-Methyl-Glucoside	β-Methyl-Glucoside	Palatinose	Psicose	Raffinose	Rhamnose
E	Ribose	Salicin	Sedo-heptulosan	Sorbitol	Sorbose	Stachyose	Sucrose	Tagatose	Trehalose	Turanose	Xylitol	Xylose
F	Amino-butyric Acid	Bromosuccinic Acid	Fumaric Acid	β-Hydroxy-butyric Acid	γ-Hydroxy-butyric Acid	P-Hydroxy-phenylacetic Acid	α-Ketoglutaric Acid	Lactic Acid Methyl Ester	Lactic Acid	D-Malic Acid	L-Malic Acid	Qunic Acid
G	Saccharic Acid	Sebacic Acid	Succinamic Acid	Succinic Acid	Succinic Acid Mono-Methyl Ester	Acetyl-Glutamic Acid	Alaninamide	Alanine	Alanyl-Glycine	Asparagine	Aspartic Acid	Glutamic Acid
H	Glycyl-Glutamic Acid	Ornithine	Phenylalanine	Proline	Pyroglutamic Acid	Serine	Threonine	Amino Ethanol	Putrescine	Adenosine	Uridine	Adenosine-Monophos-phate



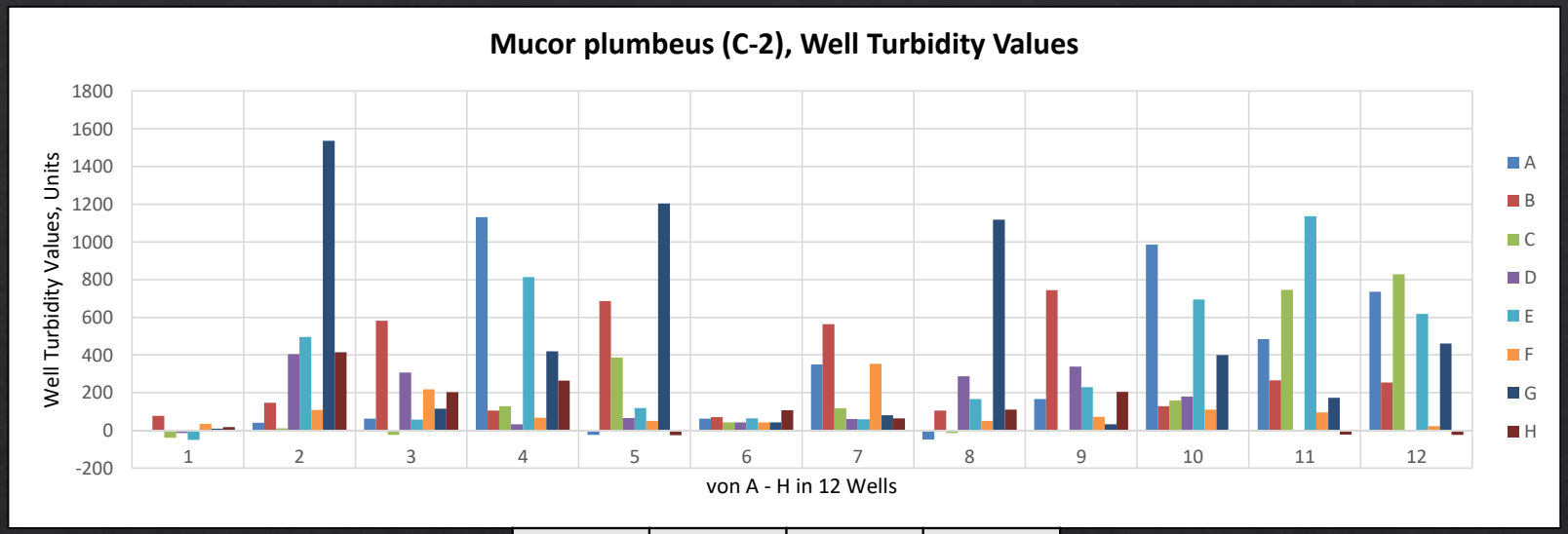
PROB	SIM	DIST	Zeit
1,00	0,656	5,275	96 h

.	1	2	3	4	5	6	7	8	9	10	11	12
A	0	41	62	1131	-24	62	350	-48	166	986	485	736
B	77	146	582	106	686	70	563	106	744	128	266	254
C	-38	11	-24	128	386	42	117	-13	3	158	746	829
D	-14	405	307	32	66	42	61	288	339	179	3	-5
E	-50	496	58	814	118	64	59	166	230	694	1136	619
F	35	109	218	67	50	42	354	51	72	110	96	22
G	10	1536	115	419	1203	43	80	1117	32	400	174	461
H	18	414	203	264	-26	107	64	110	205	-3	-22	-24



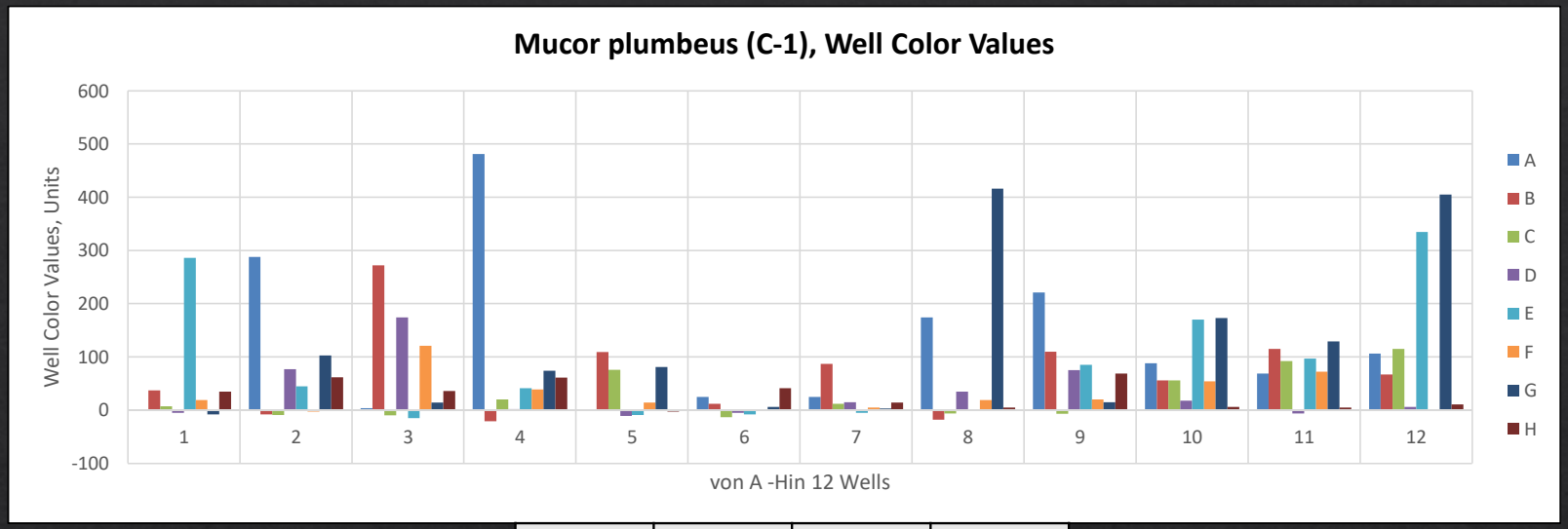
PROB	SIM	DIST	Zeit
1,00	0,656	5,275	96 h

	1	2	3	4	5	6	7	8	9	10	11	12
A	Water	Tween 80	N-Acetyl-Galactosamine	N-Acetyl-Glucosamine	N-Acetyl-Mannosamine	Adonitol	Amygdalin	D-Arabinose	L-Arabinose	Arabitol	Arbutin	Cellobiose
B	α-Cyclodextrin	β-Cyclodextrin	Dextrin	i-Erythritol	D-Fructose	L-Fucose	Galactose	Galacturonic Acid	Gentiobiose	Gluconic Acid	Glucosamine	Glucose
C	Glucose-1-phosphate	Glucuron-amide	Glucuronic Acid	Glycerol	Glycogen	Inositol	2-Keto-Gluconic Acid	Lactose	Lactulose	Maltitol	Maltose	Maltotriose
D	Mannitol	Mannose	Melezitose	Melibiose	α-Methyl-Galactoside	β-Methyl-Galactoside	α-Methyl-Glucoside	β-Methyl-Glucoside	Palatinose	Psicose	Raffinose	Rhamnose
E	Ribose	Salicin	Sedo-heptulosan	Sorbitol	Sorbose	Stachyose	Sucrose	Tagatose	Trehalose	Turanose	Xylitol	Xylose
F	Amino-butyric Acid	Bromosuccinic Acid	Fumaric Acid	β-Hydroxy-butyric Acid	γ-Hydroxy-butyric Acid	P-Hydroxy-phenylacetic Acid	α-Ketoglutaric Acid	Lactic Acid Methyl Ester	Lactic Acid	D-Malic Acid	L-Malic Acid	Qunic Acid
G	Saccharic Acid	Sebacic Acid	Succinamic Acid	Succinic Acid	Succinic Acid Mono-Methyl Ester	Acetyl-Glutamic Acid	Alaninamide	Alanine	Alanyl-Glycine	Asparagine	Aspartic Acid	Glutamic Acid
H	Glycyl-Glutamic Acid	Ornithine	Phenylalanine	Proline	Pyroglutamic Acid	Serine	Threonine	Amino Ethanol	Putrescine	Adenosine	Uridine	Adenosine-Monophos-phate



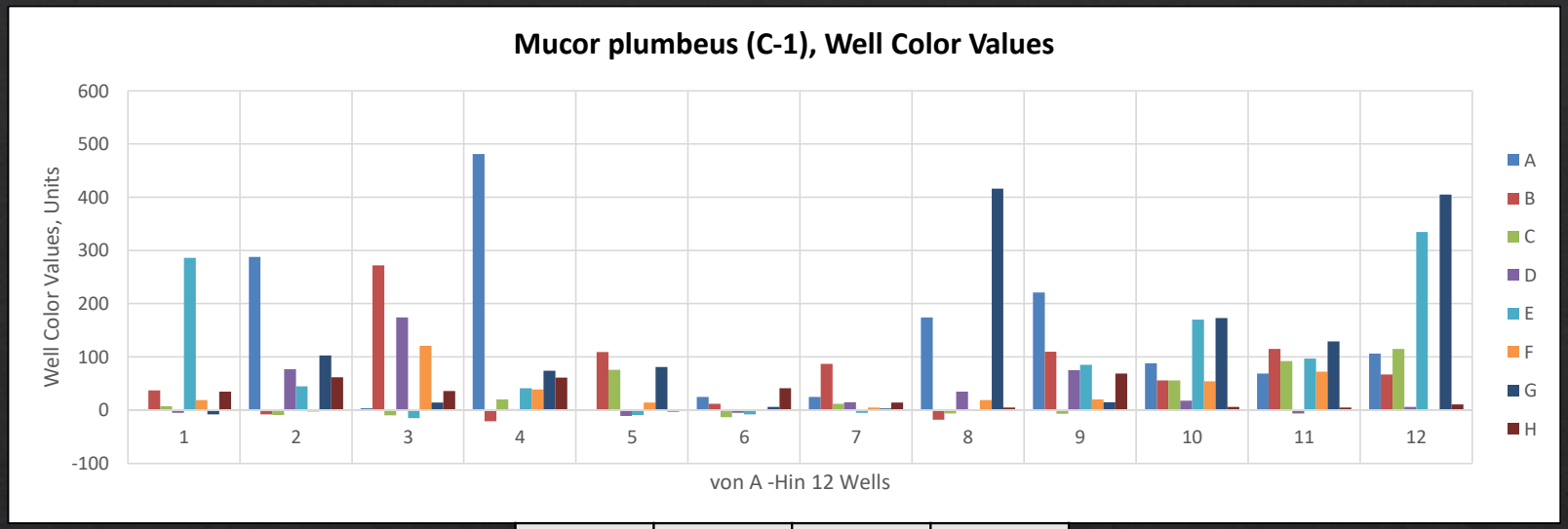
PROB	SIM	DIST	Zeit
1,00	0,656	5,275	96 h

.	1	2	3	4	5	6	7	8	9	10	11	12
A	0	41	62	1131	-24	62	350	-48	166	986	485	736
B	77	146	582	106	686	70	563	106	744	128	266	254
C	-38	11	-24	128	386	42	117	-13	3	158	746	829
D	-14	405	307	32	66	42	61	288	339	179	3	-5
E	-50	496	58	814	118	64	59	166	230	694	1136	619
F	35	109	218	67	50	42	354	51	72	110	96	22
G	10	1536	115	419	1203	43	80	1117	32	400	174	461
H	18	414	203	264	-26	107	64	110	205	-3	-22	-24



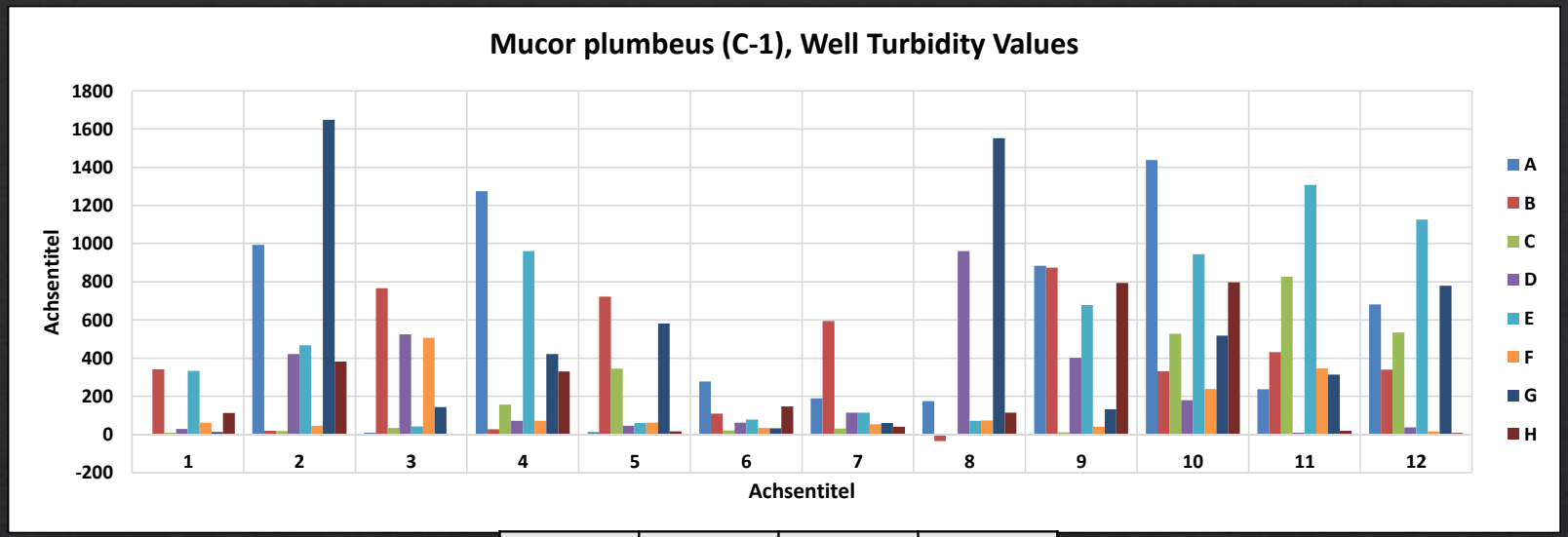
PROB	SIM	DIST	Zeit
0,00	0,379	10,405	168 h

	1	2	3	4	5	6	7	8	9	10	11	12
A	Water	Tween 80	N-Acetyl-Galactosamine	N-Acetyl-Glucosamine	N-Acetyl-Mannosamine	Adonitol	Amygdalin	D-Arabinose	L-Arabinose	Arabitol	Arbutin	Cellobiose
B	α-Cyclodextrin	β-Cyclodextrin	Dextrin	i-Erythritol	D-Fructose	L-Fucose	Galactose	Galacturonic Acid	Gentiobiose	Gluconic Acid	Glucosamine	Glucose
C	Glucose-1-phosphate	Glucuron-amide	Glucuronic Acid	Glycerol	Glycogen	Inositol	2-Keto-Gluconic Acid	Lactose	Lactulose	Maltitol	Maltose	Maltotriose
D	Mannitol	Mannose	Melezitose	Melibiose	α-Methyl-Galactoside	β-Methyl-Galactoside	α-Methyl-Glucoside	β-Methyl-Glucoside	Palatinose	Psicose	Raffinose	Rhamnose
E	Ribose	Salicin	Sedo-heptulosan	Sorbitol	Sorbose	Stachyose	Sucrose	Tagatose	Trehalose	Turanose	Xylitol	Xylose
F	Amino-butyric Acid	Bromosuccinic Acid	Fumaric Acid	β-Hydroxy-butyric Acid	γ-Hydroxy-butyric Acid	P-Hydroxy-phenylacetic Acid	α-Ketoglutaric Acid	Lactic Acid Methyl Ester	Lactic Acid	D-Malic Acid	L-Malic Acid	Quinic Acid
G	Saccharic Acid	Sebacic Acid	Succinamic Acid	Succinic Acid	Succinic Acid Mono-Methyl Ester	Acetyl-Glutamic Acid	Alaninamide	Alanine	Alanyl-Glycine	Asparagine	Aspartic Acid	Glutamic Acid
H	Glycyl-Glutamic Acid	Ornithine	Phenylalanine	Proline	Pyroglutamic Acid	Serine	Threonine	Amino Ethanol	Putrescine	Adenosine	Uridine	Adenosine-Monophos-phate



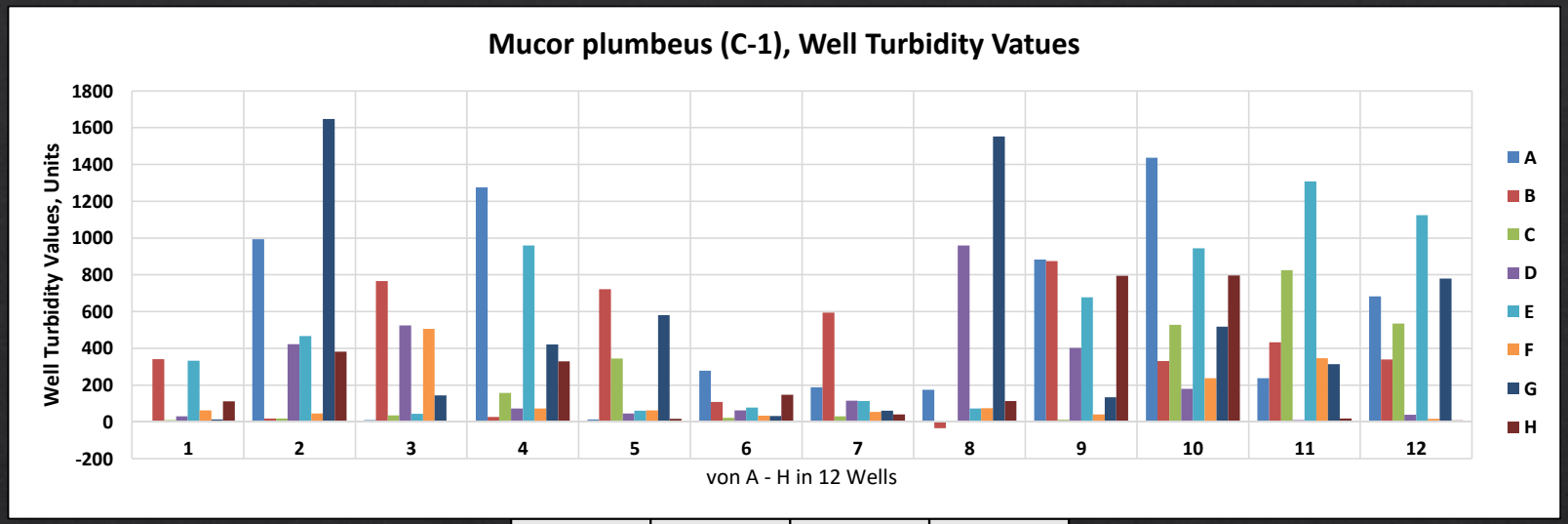
PROB	SIM	DIST	Zeit
0,00	0,379	10,405	168 h

.	1	2	3	4	5	6	7	8	9	10	11	12
A	0	288	4	481	1	25	25	174	221	88	69	106
B	37	-8	272	-21	109	12	87	-18	110	56	115	67
C	7	-9	-10	20	76	-13	12	-6	-7	56	92	115
D	-5	77	174	2	-11	-5	15	35	75	18	-6	6
E	286	45	-15	41	-9	-8	-5	-1	85	170	97	335
F	19	-3	121	39	14	1	5	19	20	54	72	1
G	-8	103	14	74	81	6	3	416	15	173	129	405
H	35	62	36	61	-3	41	14	5	69	6	5	11



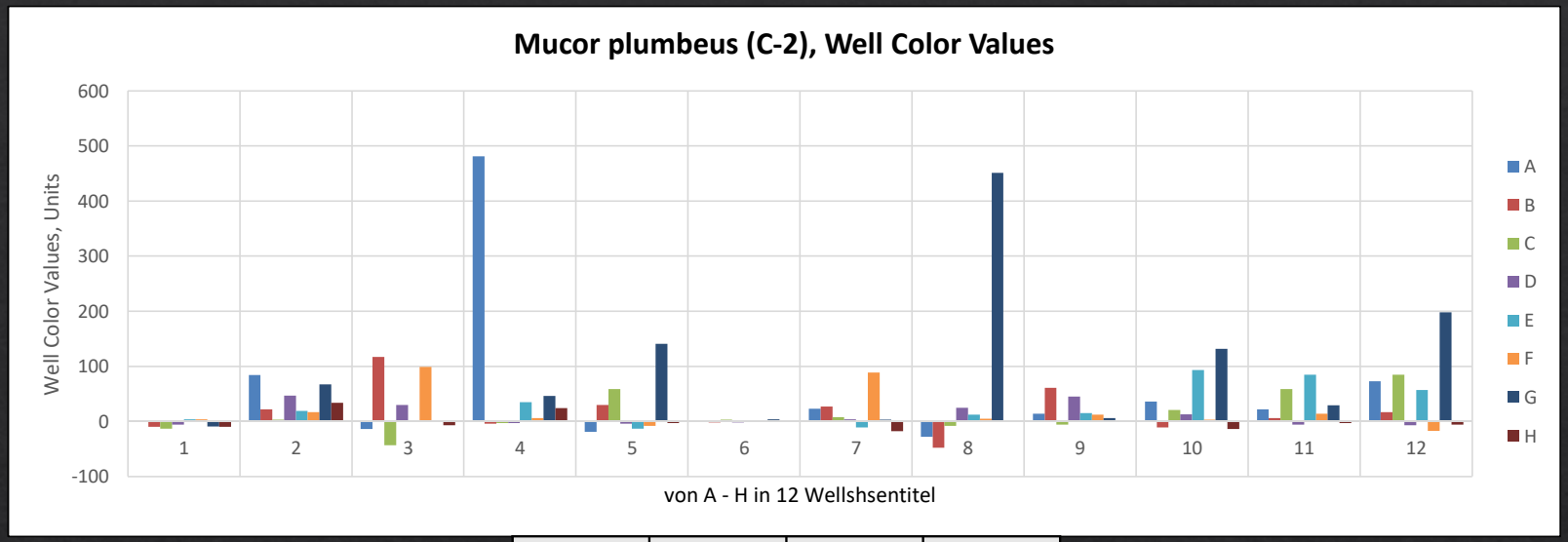
PROB	SIM	DIST	Zeit
0,00	0,379	10,405	168 h

	1	2	3	4	5	6	7	8	9	10	11	12
A	Water	Tween 80	N-Acetyl-Galactosamine	N-Acetyl-Glucosamine	N-Acetyl-Mannosamine	Adonitol	Amygdalin	D-Arabinose	L-Arabinose	Arabitol	Arbutin	Cellobiose
B	α-Cyclodextrin	β-Cyclodextrin	Dextrin	i-Erythritol	D-Fructose	L-Fucose	Galactose	Galacturonic Acid	Gentiobiose	Gluconic Acid	Glucosamine	Glucose
C	Glucose-1-phosphate	Glucuron-amide	Glucuronic Acid	Glycerol	Glycogen	Inositol	2-Keto-Gluconic Acid	Lactose	Lactulose	Maltitol	Maltose	Maltotriose
D	Mannitol	Mannose	Melezitose	Melibiose	α-Methyl-Galactoside	β-Methyl-Galactoside	α-Methyl-Glucoside	β-Methyl-Glucoside	Palatinose	Psicose	Raffinose	Rhamnose
E	Ribose	Salicin	Sedo-heptulosan	Sorbitol	Sorbose	Stachyose	Sucrose	Tagatose	Trehalose	Turanose	Xylitol	Xylose
F	Amino-butyric Acid	Bromosuccinic Acid	Fumaric Acid	β-Hydroxy-butyric Acid	γ-Hydroxy-butyric Acid	P-Hydroxy-phenylacetic Acid	α-Ketoglutaric Acid	Lactic Acid Methyl Ester	Lactic Acid	D-Malic Acid	L-Malic Acid	Qunic Acid
G	Saccharic Acid	Sebacic Acid	Succinamic Acid	Succinic Acid	Succinic Acid Mono-Methyl Ester	Acetyl-Glutamic Acid	Alaninamide	Alanine	Alanyl-Glycine	Asparagine	Aspartic Acid	Glutamic Acid
H	Glycyl-Glutamic Acid	Ornithine	Phenylalanine	Proline	Pyroglutamic Acid	Serine	Threonine	Amino Ethanol	Putrescine	Adenosine	Uridine	Adenosine-Monophos-phate



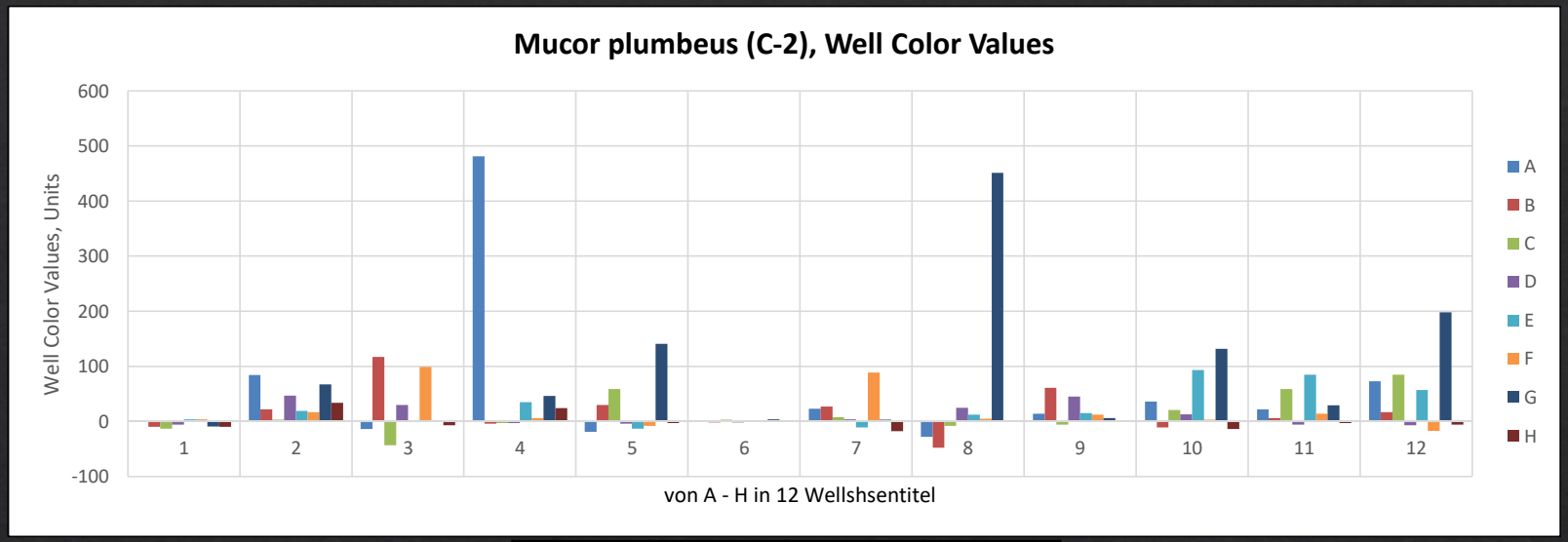
PROB	SIM	DIST	Zeit
0,00	0,379	10,405	168 h

.	1	2	3	4	5	6	7	8	9	10	11	12
A	0	994	10	1275	13	278	189	174	883	1437	237	682
B	341	19	766	27	722	109	594	-35	874	331	432	339
C	10	18	35	157	344	22	31	3	11	528	826	534
D	30	422	525	72	45	62	115	960	402	179	10	38
E	333	467	43	960	61	78	114	72	678	944	1307	1125
F	62	46	506	72	62	34	54	74	40	238	346	16
G	13	1648	144	421	581	32	61	1552	133	518	314	779
H	112	382	2	330	16	147	40	114	794	797	19	8



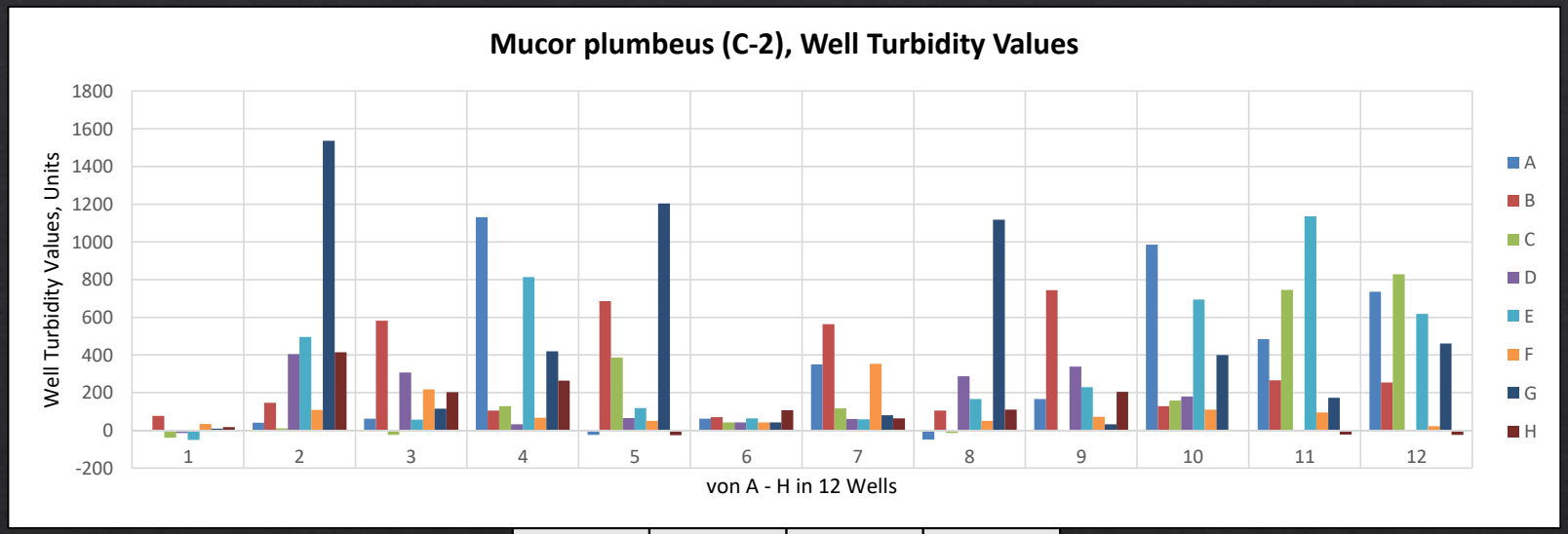
PROB	SIM	DIST	Zeit
1,00	0,656	5,275	96 h

	1	2	3	4	5	6	7	8	9	10	11	12
A	Water	Tween 80	N-Acetyl-Galactosamine	N-Acetyl-Glucosamine	N-Acetyl-Mannosamine	Adonitol	Amygdalin	D-Arabinose	L-Arabinose	Arabitol	Arbutin	Cellobiose
B	α-Cyclodextrin	β-Cyclodextrin	Dextrin	i-Erythritol	D-Fructose	L-Fucose	Galactose	Galacturonic Acid	Gentiobiose	Gluconic Acid	Glucosamine	Glucose
C	Glucose-1-phosphate	Glucuron-amide	Glucuronic Acid	Glycerol	Glycogen	Inositol	2-Keto-Gluconic Acid	Lactose	Lactulose	Maltitol	Maltose	Maltotriose
D	Mannitol	Mannose	Melezitose	Melibiose	α-Methyl-Galactoside	β-Methyl-Galactoside	α-Methyl-Glucoside	β-Methyl-Glucoside	Palatinose	Psicose	Raffinose	Rhamnose
E	Ribose	Salicin	Sedo-heptulosan	Sorbitol	Sorbose	Stachyose	Sucrose	Tagatose	Trehalose	Turanose	Xylitol	Xylose
F	Amino-butyric Acid	Bromosuccinic Acid	Fumaric Acid	β-Hydroxy-butyric Acid	γ-Hydroxy-butyric Acid	P-Hydroxy-phenylacetic Acid	α-Ketoglutaric Acid	Lactic Acid Methyl Ester	Lactic Acid	D-Malic Acid	L-Malic Acid	Quinic Acid
G	Saccharic Acid	Sebacic Acid	Succinamic Acid	Succinic Acid	Succinic Acid Mono-Methyl Ester	Acetyl-Glutamic Acid	Alaninamide	Alanine	Alanyl-Glycine	Asparagine	Aspartic Acid	Glutamic Acid
H	Glycyl-Glutamic Acid	Ornithine	Phenylalanine	Proline	Pyroglutamic Acid	Serine	Threonine	Amino Ethanol	Putrescine	Adenosine	Uridine	Adenosine-Monophos-phate



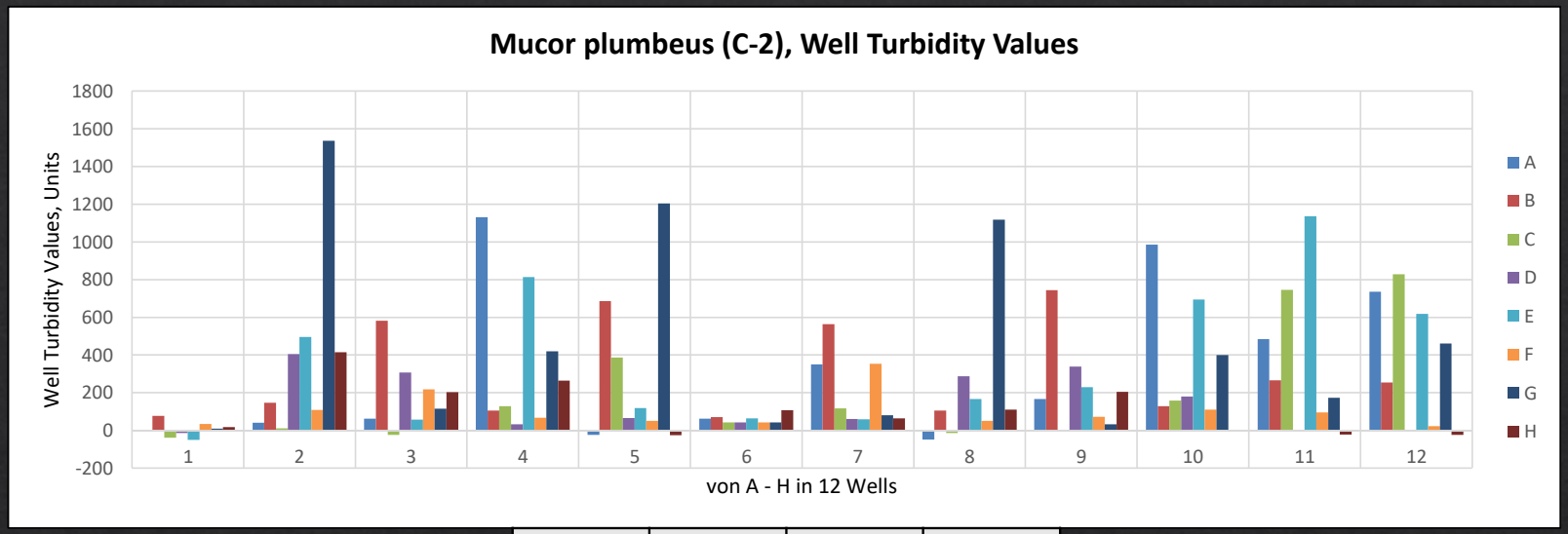
PROB	SIM	DIST	Zeit
1,00	0,656	5,275	96 h

.	1	2	3	4	5	6	7	8	9	10	11	12
A	0	41	62	1131	-24	62	350	-48	166	986	485	736
B	77	146	582	106	686	70	563	106	744	128	266	254
C	-38	11	-24	128	386	42	117	-13	3	158	746	829
D	-14	405	307	32	66	42	61	288	339	179	3	-5
E	-50	496	58	814	118	64	59	166	230	694	1136	619
F	35	109	218	67	50	42	354	51	72	110	96	22
G	10	1536	115	419	1203	43	80	1117	32	400	174	461
H	18	414	203	264	-26	107	64	110	205	-3	-22	-24



PROB	SIM	DIST	Zeit
1,00	0,656	5,275	96 h

	1	2	3	4	5	6	7	8	9	10	11	12
A	Water	Tween 80	N-Acetyl-Galactosamine	N-Acetyl-Glucosamine	N-Acetyl-Mannosamine	Adonitol	Amygdalin	D-Arabinose	L-Arabinose	Arabitol	Arbutin	Cellobiose
B	α-Cyclodextrin	β-Cyclodextrin	Dextrin	i-Erythritol	D-Fructose	L-Fucose	Galactose	Galacturonic Acid	Gentiobiose	Gluconic Acid	Glucosamine	Glucose
C	Glucose-1-phosphate	Glucuron-amide	Glucuronic Acid	Glycerol	Glycogen	Inositol	2-Keto-Gluconic Acid	Lactose	Lactulose	Maltitol	Maltose	Maltotriose
D	Mannitol	Mannose	Melezitose	Melibiose	α-Methyl-Galactoside	β-Methyl-Galactoside	α-Methyl-Glucoside	β-Methyl-Glucoside	Palatinose	Psicose	Raffinose	Rhamnose
E	Ribose	Salicin	Sedo-heptulosan	Sorbitol	Sorbose	Stachyose	Sucrose	Tagatose	Trehalose	Turanose	Xylitol	Xylose
F	Amino-butyric Acid	Bromosuccinic Acid	Fumaric Acid	β-Hydroxy-butyric Acid	γ-Hydroxy-butyric Acid	P-Hydroxy-phenylacetic Acid	α-Ketoglutaric Acid	Lactic Acid Methyl Ester	Lactic Acid	D-Malic Acid	L-Malic Acid	Qunic Acid
G	Saccharic Acid	Sebacic Acid	Succinamic Acid	Succinic Acid	Succinic Acid Mono-Methyl Ester	Acetyl-Glutamic Acid	Alaninamide	Alanine	Alanyl-Glycine	Asparagine	Aspartic Acid	Glutamic Acid
H	Glycyl-Glutamic Acid	Ornithine	Phenylalanine	Proline	Pyroglutamic Acid	Serine	Threonine	Amino Ethanol	Putrescine	Adenosine	Uridine	Adenosine-Monophos-phate



PROB	SIM	DIST	Zeit
1,00	0,656	5,275	96 h

.	1	2	3	4	5	6	7	8	9	10	11	12
A	0	41	62	1131	-24	62	350	-48	166	986	485	736
B	77	146	582	106	686	70	563	106	744	128	266	254
C	-38	11	-24	128	386	42	117	-13	3	158	746	829
D	-14	405	307	32	66	42	61	288	339	179	3	-5
E	-50	496	58	814	118	64	59	166	230	694	1136	619
F	35	109	218	67	50	42	354	51	72	110	96	22
G	10	1536	115	419	1203	43	80	1117	32	400	174	461
H	18	414	203	264	-26	107	64	110	205	-3	-22	-24

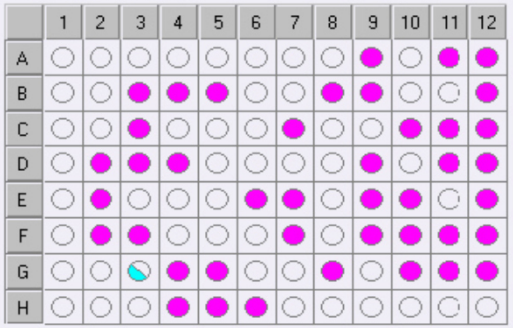
Schimmelpilze D / RV 2015

Aureobasidium pullulans

Organism Type	Other
Species	Aureobasidium pullulans var pullulans (deBarry) G.Arnaud BGB

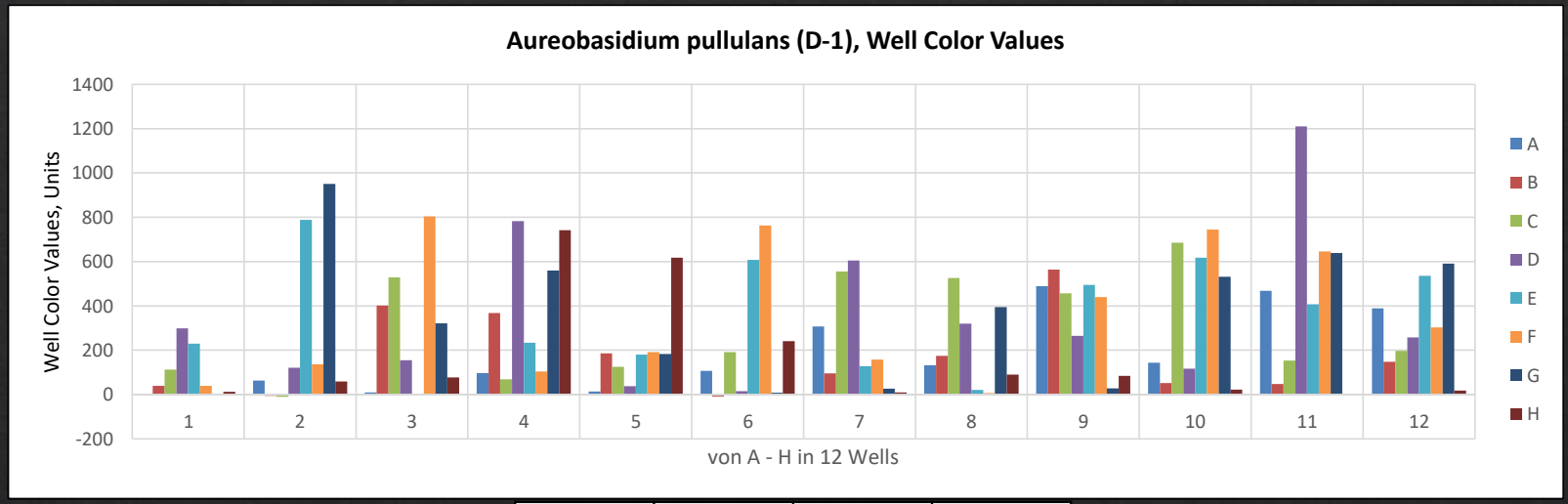
Color | Turbidity

Threshold Values (55/45 Cutoff)



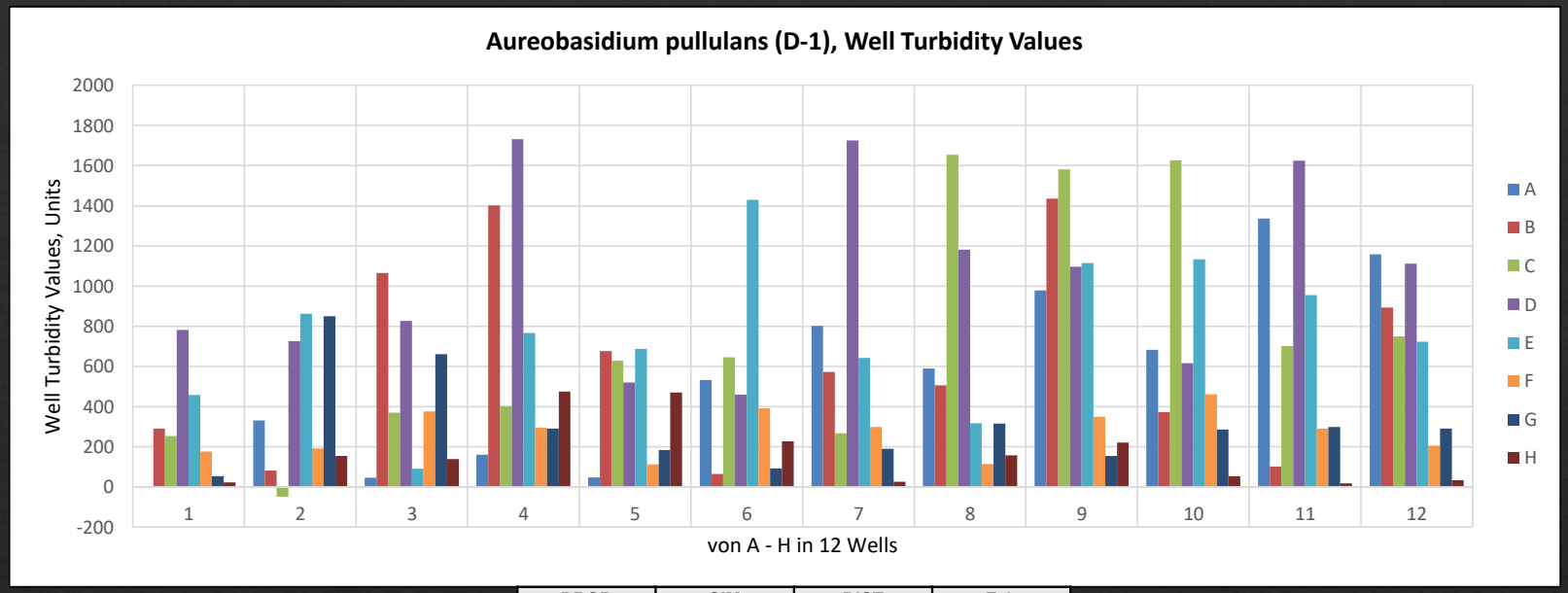
Percent Positive Values

	1	2	3	4	5	6	7	8	9	10	11	12
A	Water	Tween 80	N-Acetyl-Galactosamine	N-Acetyl-Glucosamine	N-Acetyl-Mannosamine	Adonitol	Amygdalin	D-Arabinose	L-Arabinose	Arabitol	Arbutin	Cellobiose
B	α-Cyclodextrin	β-Cyclodextrin	Dextrin	i-Erythritol	D-Fructose	L-Fucose	Galactose	Galacturonic Acid	Gentiobiose	Gluconic Acid	Glucosamine	Glucose
C	Glucose-1-phosphate	Glucuron-amide	Glucuronic Acid	Glycerol	Glycogen	Inositol	2-Keto-Gluconic Acid	Lactose	Lactulose	Maltitol	Maltose	Maltotriose
D	Mannitol	Mannose	Melezitose	Melibiose	α-Methyl-Galactoside	β-Methyl-Galactoside	α-Methyl-Glucoside	β-Methyl-Glucoside	Palatinose	Psicose	Raffinose	Rhamnose
E	Ribose	Salicin	Sedo-heptulosan	Sorbitol	Sorbose	Stachyose	Sucrose	Tagatose	Trehalose	Turanose	Xylitol	Xylose
F	Amino-butyric Acid	Bromosuccinic Acid	Fumaric Acid	β-Hydroxy-butyric Acid	γ-Hydroxy-butyric Acid	P-Hydroxy-phenylacetic Acid	α-Ketoglutaric Acid	Lactic Acid Methyl Ester	Lactic Acid	D-Malic Acid	L-Malic Acid	Qunic Acid
G	Saccharic Acid	Sebacic Acid	Succinamic Acid	Succinic Acid	Succinic Acid Mono-Methyl Ester	Acetyl-Glutamic Acid	Alaninamide	Alanine	Alanyl-Glycine	Asparagine	Aspartic Acid	Glutamic Acid
H	Glycyl-Glutamic Acid	Ornithine	Phenylalanine	Proline	Pyroglutamic Acid	Serine	Threonine	Amino Ethanol	Putrescine	Adenosine	Uridine	Adenosine-Monophos-phate



PROB	SIM	DIST	Zeit
0,977	0,769	3,190	168 h

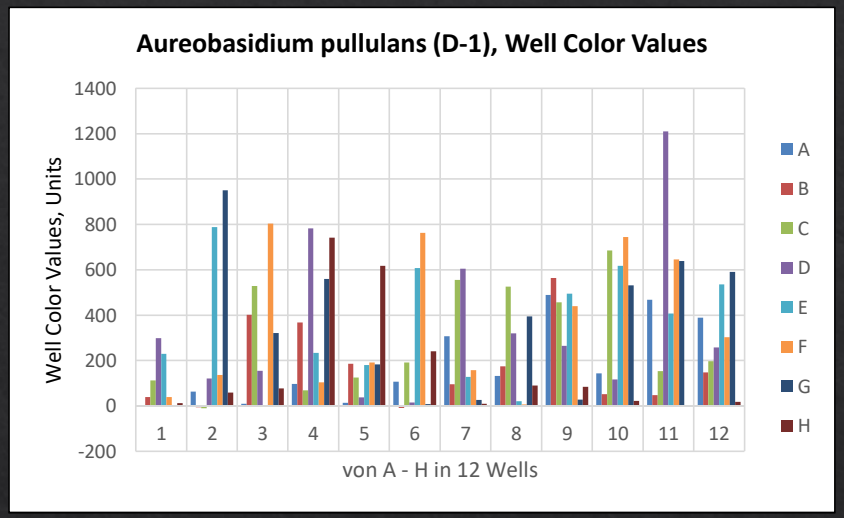
.	1	2	3	4	5	6	7	8	9	10	11	12
A	0	63	9	96	14	107	307	132	489	143	468	389
B	39	-6	401	367	185	-9	95	174	563	52	47	147
C	112	-10	529	68	125	191	555	526	457	685	153	197
D	298	120	154	782	38	15	604	319	264	117	1210	258
E	229	788	-5	233	180	607	127	21	495	617	407	535
F	39	136	803	103	191	763	157	6	440	744	646	303
G	-2	951	321	560	182	7	26	395	28	531	639	590
H	12	59	77	741	618	241	9	89	84	22	3	17

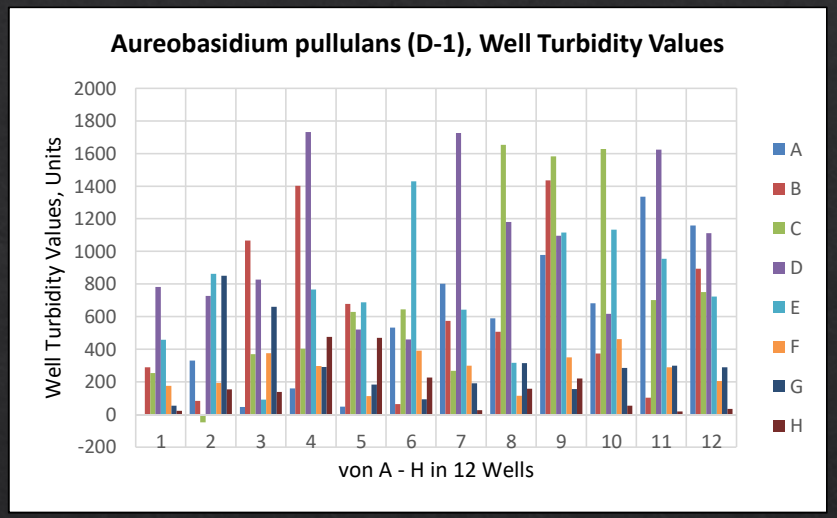


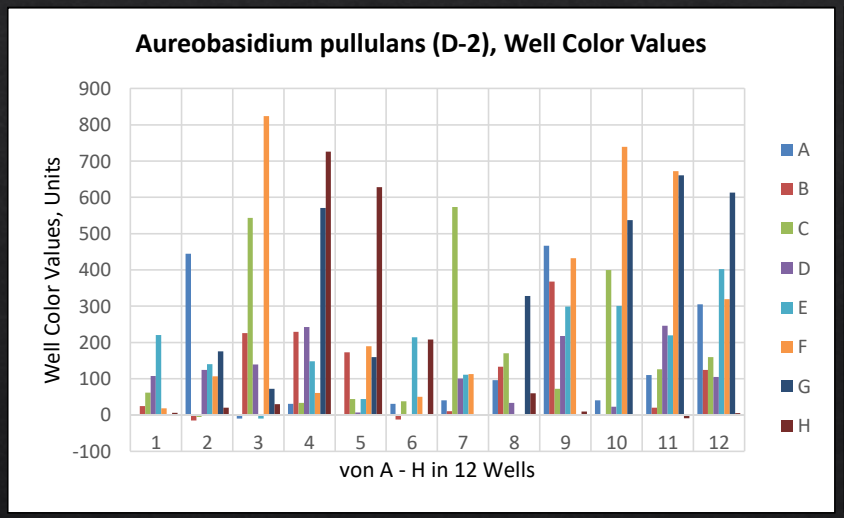
PROB	SIM	DIST	Zeit
0,977	0,769	3,190	168 h

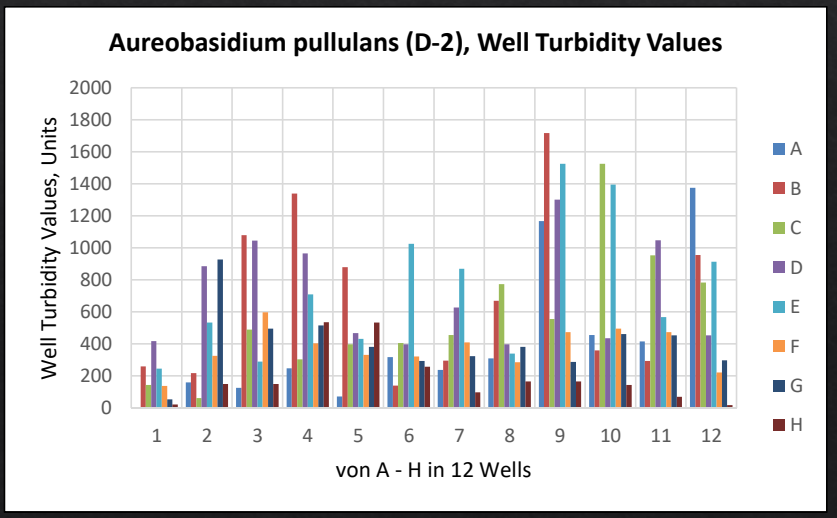
.	1	2	3	4	5	6	7	8	9	10	11	12
A	**0**	**331**	**46**	**160**	**48**	**533**	**802**	**590**	**978**	**682**	**1336**	**1158**
B	**290**	**82**	**1066**	**1402**	**677**	**64**	**573**	**506**	**1435**	**373**	**102**	**893**
C	**254**	**-48**	**370**	**402**	**629**	**645**	**267**	**1654**	**1582**	**1627**	**701**	**750**
D	**782**	**726**	**827**	**1731**	**520**	**459**	**1725**	**1181**	**1096**	**616**	**1624**	**1112**
E	**458**	**862**	**91**	**766**	**688**	**1429**	**642**	**317**	**1115**	**1133**	**955**	**723**
F	**176**	**192**	**376**	**296**	**112**	**392**	**298**	**114**	**349**	**461**	**290**	**205**
G	**54**	**850**	**661**	**291**	**184**	**93**	**190**	**315**	**155**	**286**	**298**	**290**
H	**22**	**154**	**138**	**475**	**470**	**227**	**26**	**157**	**221**	**53**	**18**	**34**

ID=0,977 / 168 h





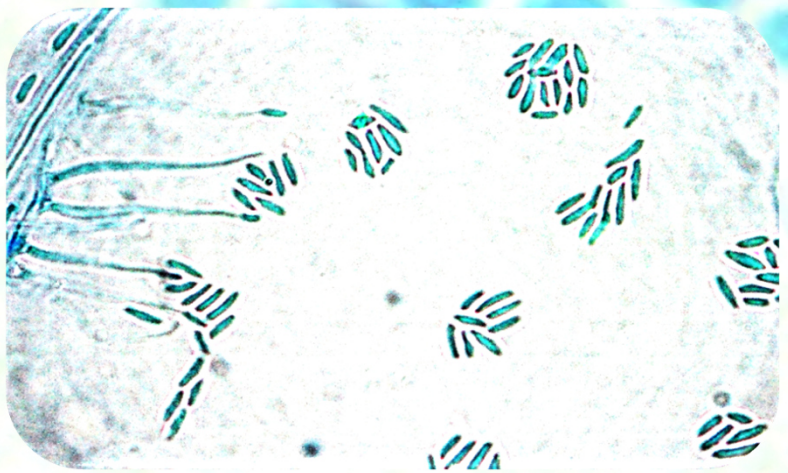


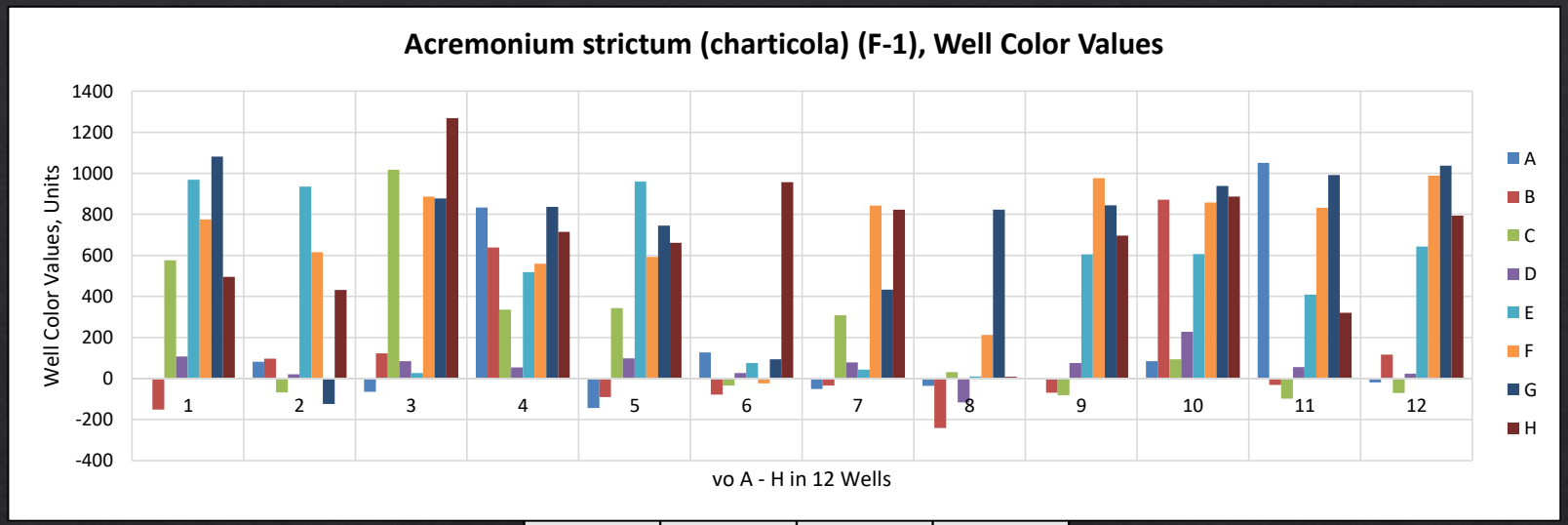


ID=0,00 / 72 h

Schimmelpilze F / RV 2015

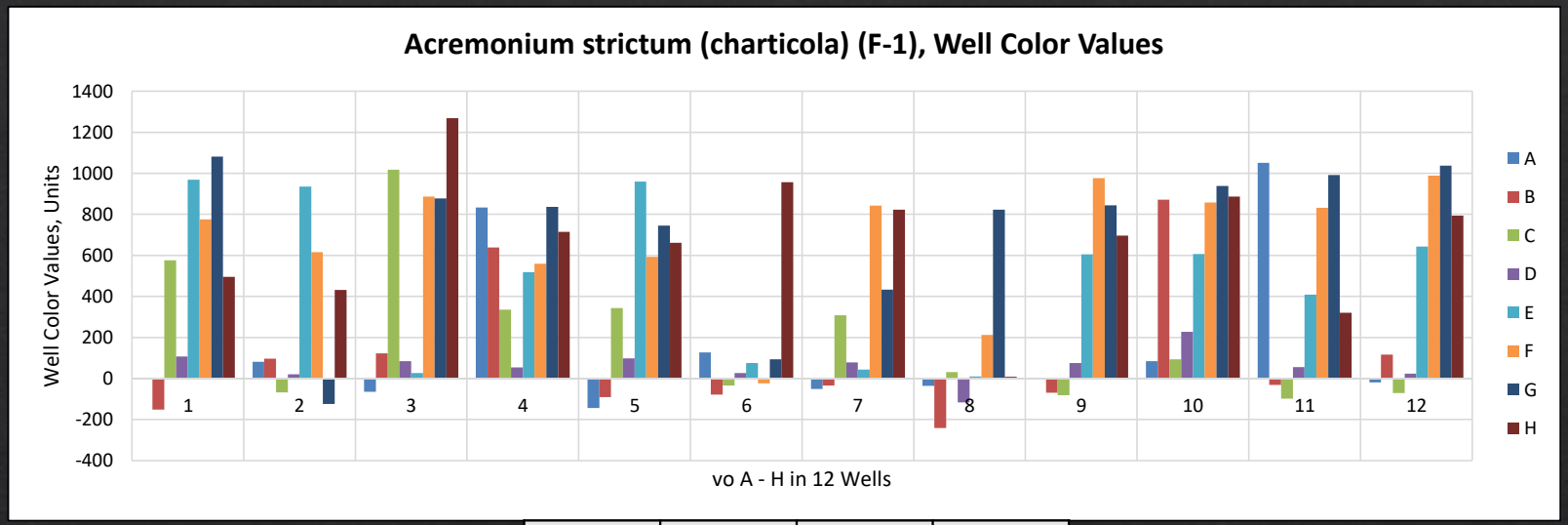
Acremonium strictum (charticola)





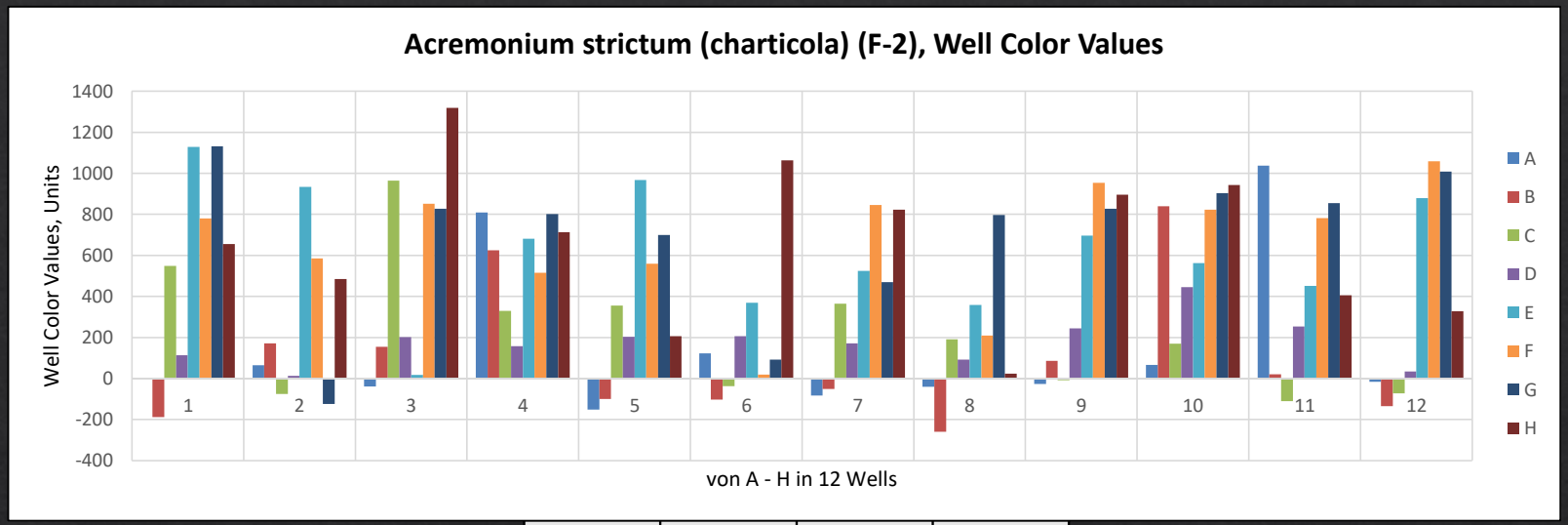
PROB	SIM	DIST	Zeit
1,00	0,705	4,482	96 h

	1	2	3	4	5	6	7	8	9	10	11	12
A	Water	Tween 80	N-Acetyl-Galactosamine	N-Acetyl-Glucosamine	N-Acetyl-Mannosamine	Adonitol	Amygdalin	D-Arabinose	L-Arabinose	Arabitol	Arbutin	Cellobiose
B	α-Cyclodextrin	β-Cyclodextrin	Dextrin	i-Erythritol	D-Fructose	L-Fucose	Galactose	Galacturonic Acid	Gentiobiose	Gluconic Acid	Glucosamine	Glucose
C	Glucose-1-phosphate	Glucuron-amide	Glucuronic Acid	Glycerol	Glycogen	Inositol	2-Keto-Gluconic Acid	Lactose	Lactulose	Maltitol	Maltose	Maltotriose
D	Mannitol	Mannose	Melezitose	Melibiose	α-Methyl-Galactoside	β-Methyl-Galactoside	α-Methyl-Glucoside	β-Methyl-Glucoside	Palatinose	Psicose	Raffinose	Rhamnose
E	Ribose	Salicin	Sedo-heptulosan	Sorbitol	Sorbose	Stachyose	Sucrose	Tagatose	Trehalose	Turanose	Xylitol	Xylose
F	Amino-butyric Acid	Bromosuccinic Acid	Fumaric Acid	β-Hydroxy-butyric Acid	γ-Hydroxy-butyric Acid	P-Hydroxy-phenylacetic Acid	α-Ketoglutaric Acid	Lactic Acid Methyl Ester	Lactic Acid	D-Malic Acid	L-Malic Acid	Qunic Acid
G	Saccharic Acid	Sebacic Acid	Succinamic Acid	Succinic Acid	Succinic Acid Mono-Methyl Ester	Acetyl-Glutamic Acid	Alaninamide	Alanine	Alanyl-Glycine	Asparagine	Aspartic Acid	Glutamic Acid
H	Glycyl-Glutamic Acid	Ornithine	Phenylalanine	Proline	Pyroglutamic Acid	Serine	Threonine	Amino Ethanol	Putrescine	Adenosine	Uridine	Adenosine-Monophos-phate



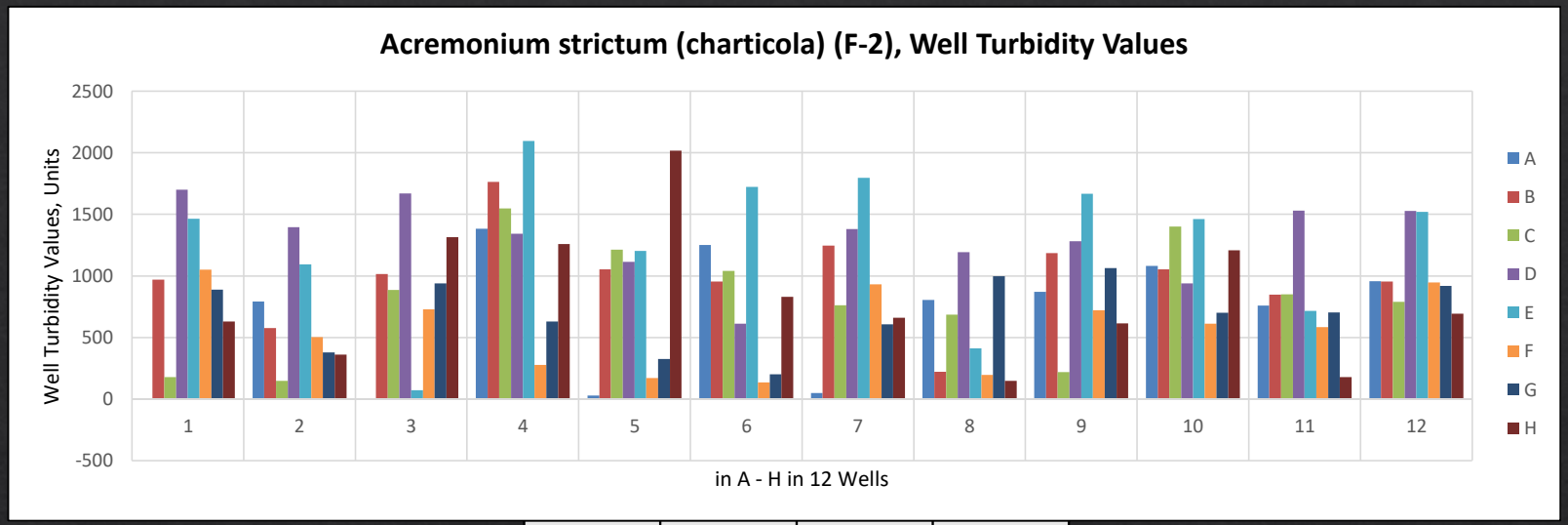
PROB	SIM	DIST	Zeit
1,00	0,705	4,482	96 h

.	1	2	3	4	5	6	7	8	9	10	11	12
A	0	82	-64	834	-143	127	-51	-36	-4	84	1051	-19
B	-151	97	123	638	-90	-79	-34	-241	-69	872	-31	117
C	576	-67	1018	336	344	-34	308	32	-82	93	-98	-71
D	107	21	85	54	98	27	79	-117	75	227	56	24
E	969	936	26	519	959	75	44	10	605	607	408	643
F	776	615	887	559	593	-23	842	213	977	858	832	989
G	1082	-124	878	837	745	94	433	822	844	939	991	1037
H	496	432	1269	715	661	957	823	9	696	886	321	793



PROB	SIM	DIST	Zeit
1,00	0,705	4,482	96 h

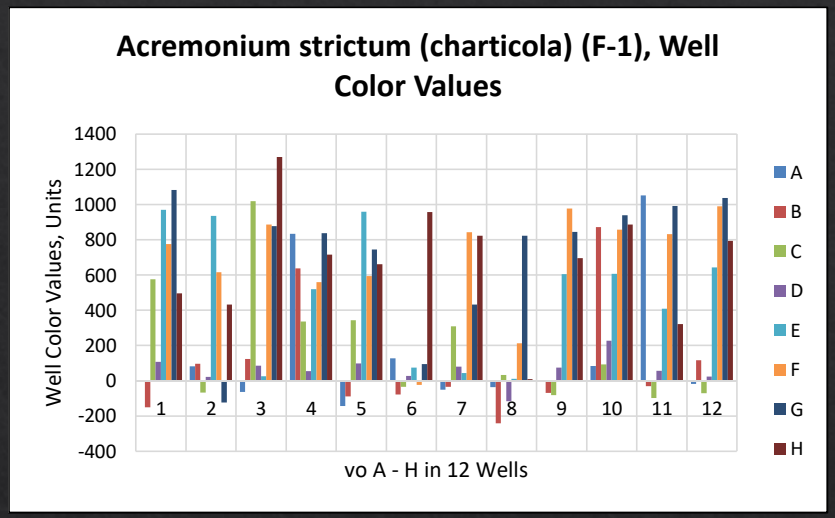
	1	2	3	4	5	6	7	8	9	10	11	12
A	Water	Tween 80	N-Acetyl-Galactosamine	N-Acetyl-Glucosamine	N-Acetyl-Mannosamine	Adonitol	Amygdalin	D-Arabinose	L-Arabinose	Arabitol	Arbutin	Cellobiose
B	α-Cyclodextrin	β-Cyclodextrin	Dextrin	i-Erythritol	D-Fructose	L-Fucose	Galactose	Galacturonic Acid	Gentiobiose	Gluconic Acid	Glucosamine	Glucose
C	Glucose-1-phosphate	Glucuron-amide	Glucuronic Acid	Glycerol	Glycogen	Inositol	2-Keto-Gluconic Acid	Lactose	Lactulose	Maltitol	Maltose	Maltotriose
D	Mannitol	Mannose	Melezitose	Melibiose	α-Methyl-Galactoside	β-Methyl-Galactoside	α-Methyl-Glucoside	β-Methyl-Glucoside	Palatinose	Psicose	Raffinose	Rhamnose
E	Ribose	Salicin	Sedo-heptulosan	Sorbitol	Sorbose	Stachyose	Sucrose	Tagatose	Trehalose	Turanose	Xylitol	Xylose
F	Amino-butyric Acid	Bromosuccinic Acid	Fumaric Acid	β-Hydroxy-butyric Acid	γ-Hydroxy-butyric Acid	P-Hydroxy-phenylacetic Acid	α-Ketoglutaric Acid	Lactic Acid Methyl Ester	Lactic Acid	D-Malic Acid	L-Malic Acid	Qunic Acid
G	Saccharic Acid	Sebacic Acid	Succinamic Acid	Succinic Acid	Succinic Acid Mono-Methyl Ester	Acetyl-Glutamic Acid	Alaninamide	Alanine	Alanyl-Glycine	Asparagine	Aspartic Acid	Glutamic Acid
H	Glycyl-Glutamic Acid	Ornithine	Phenylalanine	Proline	Pyroglutamic Acid	Serine	Threonine	Amino Ethanol	Putrescine	Adenosine	Uridine	Adenosine-Monophos-phate

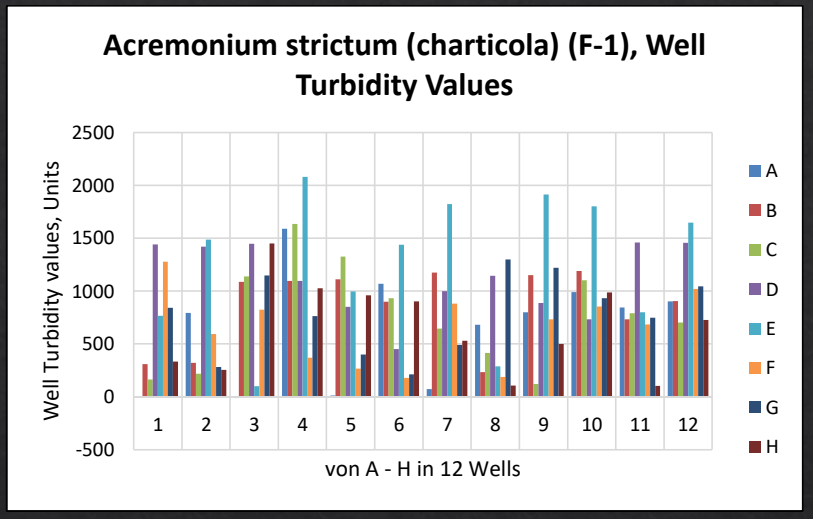


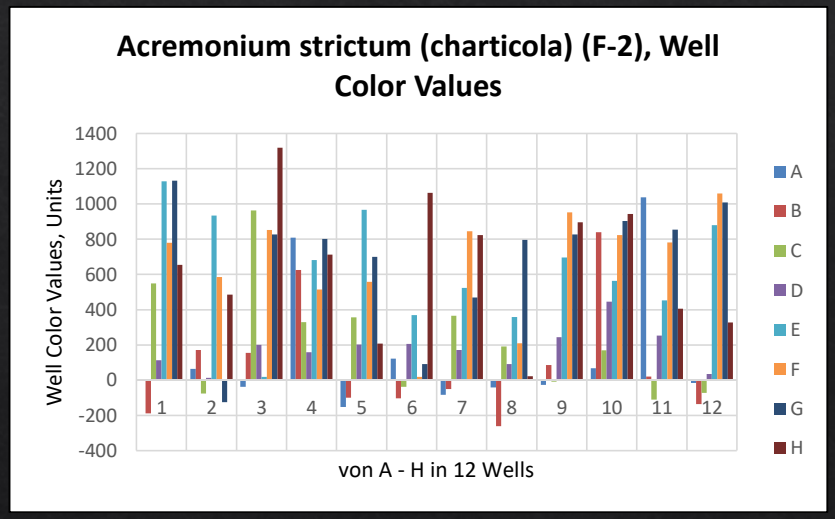
PROB	SIM	DIST	Zeit
0,00	0,524	6,498	168 h

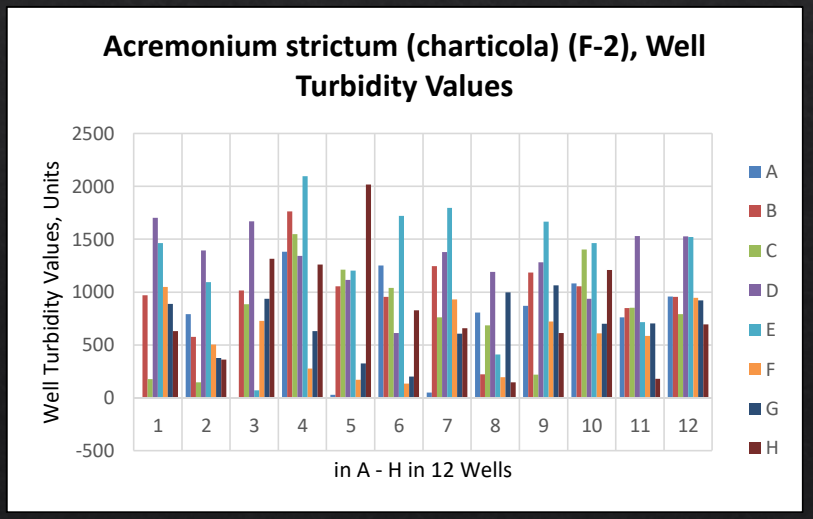
.	1	2	3	4	5	6	7	8	9	10	11	12
A	0	792	-6	1382	29	1250	50	805	870	1082	760	957
B	970	576	1014	1763	1054	954	1245	222	1186	1054	848	954
C	178	148	885	1549	1213	1040	762	685	218	1402	851	790
D	1701	1395	1669	1342	1114	613	1380	1192	1282	938	1530	1528
E	1464	1093	72	2096	1202	1722	1796	411	1666	1462	715	1520
F	1050	504	728	278	170	134	931	195	722	611	584	947
G	888	378	938	630	326	200	608	997	1064	701	704	920
H	630	362	1315	1259	2016	829	659	147	614	1208	179	694

ID=1,00 / 96 h



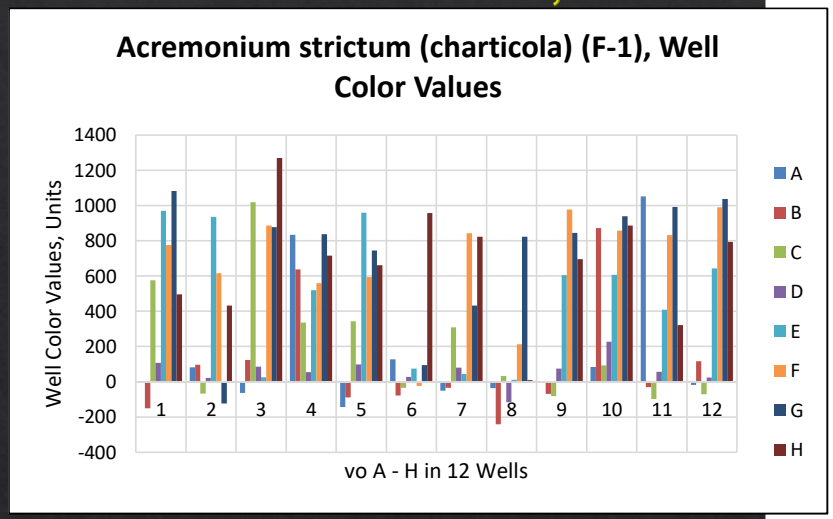


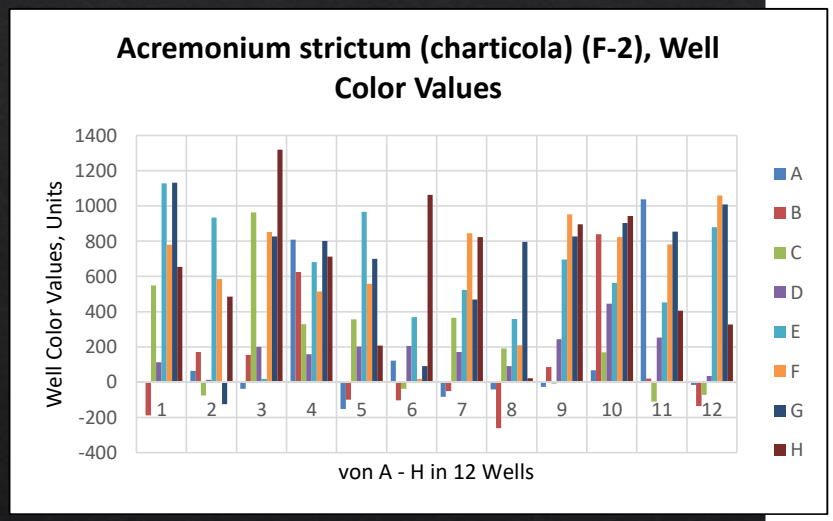




ID=0,00 / 168 h

ID=1,00 / 96 h



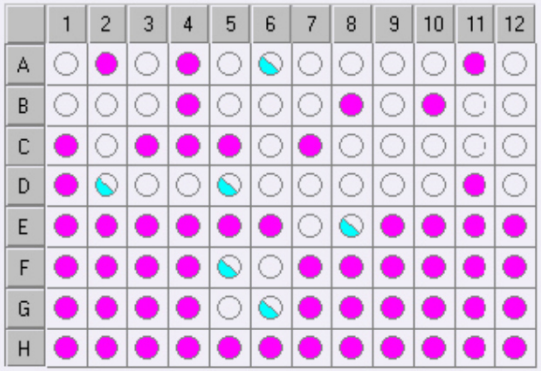


ID=0,00 / 168 h

Organism Type	Other
Species	Acremonium charticola (_indau) W.Gams

Color | Turbidity

Threshold Values (55/45 Cutoff)



Percent Positive Values

	1	2	3	4	5	6	7	8	9	10	11	12
A	0	94	6	100	0	50	37	6	19	6	100	6
B	0	0	37	75	0	6	0	100	0	100	37	0
C	62	0	100	87	100	12	100	0	12	31	37	19
D	62	50	44	25	50	6	25	25	19	25	56	19
E	62	100	62	87	100	56	37	50	87	100	94	94
F	100	100	100	100	50	31	87	81	75	100	100	100
G	100	87	62	100	37	50	100	100	100	100	100	100
H	100	75	100	100	100	100	100	62	81	87	81	87

Validierung des BIOLOG-System: Schimmelpilze

Nr. Plate	Art Schimmelpilze	RV, Nr. /Jahr	BIOLOG System, FF			
	2011 und 2015		Nach 4 oder 5 Tage	ID / SIM	Nach 7 Tage	ID / SIM
1.	Penicillium citrinum	21. A/2011	-	-	Penicillium citrinum	0 / 0,279
2.	Penicillium corylophilum	21. C/2011	-	-	Penicillium melinii	0,999 / 0,718
3.	Penicillium italicum	27. A/2015	-	-	Penicillium italicum	0 / 0,495
4.	Mucor plumbeus	27. C/2015	Mucor plumbeus	1,000 / 0,656	Mucor plumbeus	1,000 / 0,763
5.	Aureobasidium pullulans	27. D/2015	Aureobasidium pullulans	1,000 / 0,832	Aureobasidium pullulans	1,000 / 0,855

	2012, 2013, 2014		Nach 4 oder 5 Tage	ID / SIM	Nach 7 Tage	ID / SIM
6.	Penicilium brevicompactum	27. E/2015	Penicillium brevicompactum	0 / 0,547	Penicillium simplicissimum	0 / 0,444
7.	Curvularia lunata	23. A/2012	-	-	Ulocladium atrum	0 / 0,230
8.	Penicillium olsonii	23. F/2012	Penicillium thomii	0 / 0,588	Penicillium thomii	0 / 0,495
9.	Talaromyces funiculosus	25. A/2013	Eupenicillum merdianum	0 / 0,400	Engyodontium album	0 / 0,397
10.	Geotrichum candidum	25. C/2013	-	-	Hypocrea lixii ?	0 / 0,008
11.	Aspergillus westerdijkiae	25. D/2013	Aspergillus ostianus	0 / 0,565	Aspergillus ostianus	0 / 0,554
12.	Penicillium nalgiovense	25. E/2013	Aspergillus malignus	0 / 0,380	Aspergillus malignus	0 / 0,483

	2011, 2012, 2013, 2015		Nach 4 oder 5 Tage	ID / SIM	Nach 7 Tage	ID / SIM
13.	Aspergillus glaucus	25. F/2014	Penicillium simplicissimum	0 / 0,274	Aspergillus versicolor	0 / 0,361
14.	Scopulariopsis brumptii	21. B/2011	Aspergillus versicolor	0 / 0,524	Aspergillus versicolor	0,482
15.	Clonostachys rosea	23. B/2012	Nectria ochroleuca	0,888 / 0,646	Gliocladium calenulatum ?	0 / 0,451
16.	Botrysporium longibrachiatum	23. C/2012	-	-	Botrysporium longibrachiatum	0 / 0,575
17.	Eurotium chevalieri	23. D/2012	Eurotium chevalieri	0 / 0,193	Eurotium chevalieri	0 / 0,340
18.	Geomyces pannorum	23. B/2013	Geomyces pannorum	1,000 / 0,600	-	-
19.	Penicillium solitum	27. B/2015	Penicillium solitum	0 / 0,445	Penicillium solitum	0 / 0,467

	2011 und 2014		Nach 4 oder 5 Tage	ID / SIM	Nach 7 Tage	ID / SIM
20.	Acremonium strictum (charticola?)	27. F/2015	Acremonium charticola	1,000 / 0,681	Acremonium charticola	1,000 / 0,640
21.	Penicillium citrinum	21. A/2011	-	-	Penicillium thomii	0 / 0,290
22.	Penicillium brevicompactum	27. E/2015	-	-	Penicilium simplicissimum	0 / 0,253
23.	Penicillium italicum	27. A/2015	-	-	Penicillium italicum	0 / 0,495
24.	Penicillium solitum	27. B/2015	Penicillium solitum	0 / 0,445	Penicillium solitum	0 / 0,467
25.	Mucor plumbeus	27. C/2015	Mucor plumbeus	1,000 / 0,656	Mucor plumbeus	1,000 / 0,763
26.	Aureobasidium pullulans	27. D/2015	Aureobasidium pullulans	1,000 / 0,832	Aureobasidium pullulans	1,000 / 0,855

	2015		Nach 4 oder 5 Tage	ID / SIM	Nach 7 Tage	ID / SIM
27.	Penicillium italicum	27. A/2015	-	-	Penicillium italicum	0 / 0,495
28.	Penicillium solitum	27. B/2015	Penicillium solitum	0 / 0,445	Penicillium solitum	0 / 0,467
29.	Mucor plumbeus	27. C/2015	Mucor plumbeus	1,000 / 0,656	Mucor plumbeus	1,000 / 0,763
30.	Aureobasidium pullulans	27. D/2015	Aureobasidium pullulans	1,000 / 0,832	Aureobasidium pullulans	1,000 / 0,855
31.	Penicillium brevicompactum	27. E/2015	-	-	Penicilium simplicissimum	0 / 0,253
32.	Penicilium brevicompactum	27. E/2015	Penicillium brevicompactum	0 / 0,547	Penicillium simplicissimum	0 / 0,444
33.	Acremonium strictum	27. F/2015	Acremonium strictum (charticola?)	1,000 / 0,681	Acremonium charticola	1,000 / 0,640

	2015		Nach 4 oder 5 Tage	ID / SIM	Nach 7 Tage	ID / SIM
34.	Penicillium italicum	27. A/2015	-	-	Penicillium italicum	0 / 0,495
35.	Penicillium solitum	27. B/2015	Penicillium solitum	0 / 0,445	Penicillium solitum	0 / 0,467
36.	Mucor plumbeus	27. C/2015	Mucor plumbeus	1,000 / 0,656	Mucor plumbeus	1,000 / 0,763
37.	Aureobasidium pullulans	27. D/2015	Aureobasidium pullulans	1,000 / 0,832	Aureobasidium pullulans	1,000 / 0,855
38.	Penicillium italicum	27. A/ 2015	Penicillium italicum	0 / 0,280	Penicillium italicum	0 / 0,211
39.	Penicillium solitum	27. B/2015	Penicillium solitum	0 / 0,299	Penicillium solitum	0,998 / 0,745
40.	Mucor plumbeus	27. C/2015	-	-	Mucor plumbeus	0 / 0,379

	2015		Nach 4 oder 5 Tage	ID / SIM	Nach 7 Tage	ID / SIM
41.	Auerobasidium pullulans	27.D /2015	-	-	Aureobasidium pullulans	0,977 / 0,769
42.	Penicillium brevicompactum	27. E/2015	Penicillium brevicompactum	0 / 0,180	Penicillium brevicompactum	0,987 / 0,653
43.	Penicillium brevicompactum	27. E/2015	-	-	Penicillium brevicompactum	0 / 0,584
44.	Acremonium strictum	27. F/2015	-	-	Acremonium charticola (strictum?)	0 / 0,584

Aufmerksamkeit!

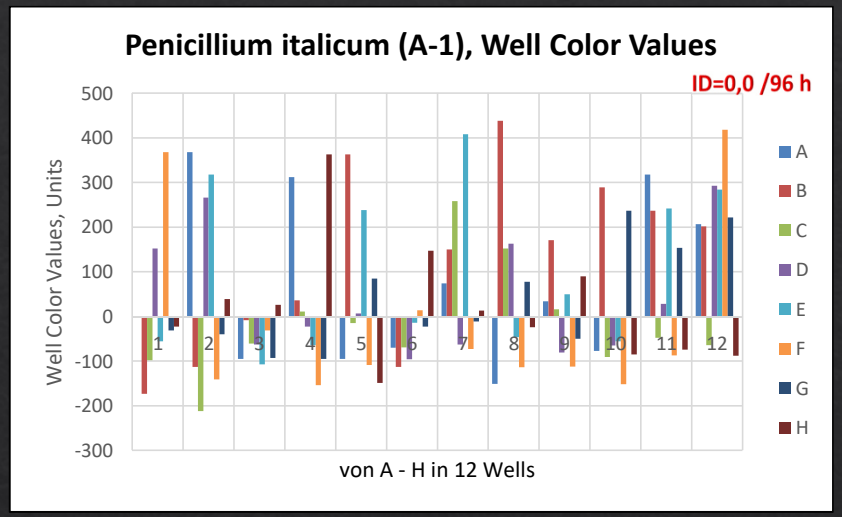
Sehr gute ID / SIM und Art wie in RV	Keine ID / SIM, aber Art richtig, wie in RV	Sehr gute ID / SIM, aber Art ganz andere als RV
34% richtig ID & Art	**36% richtig nur Art**	**3% nur gut ID**

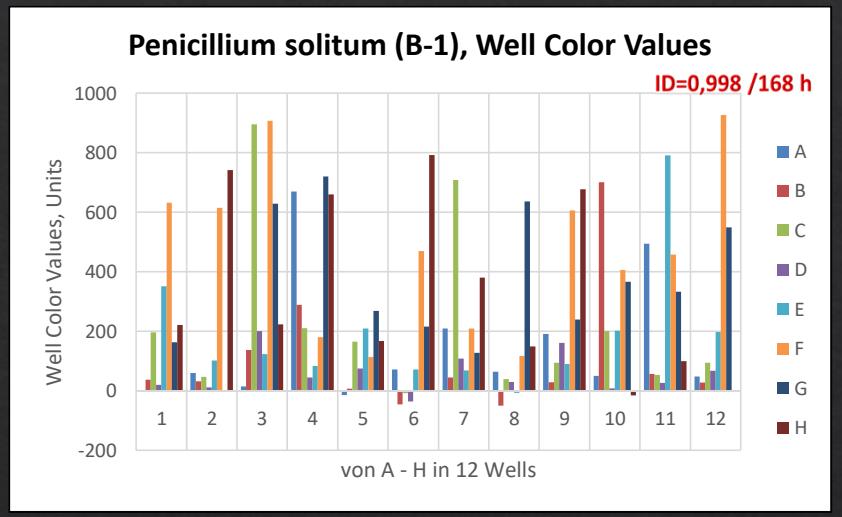
27% nicht identifizieren

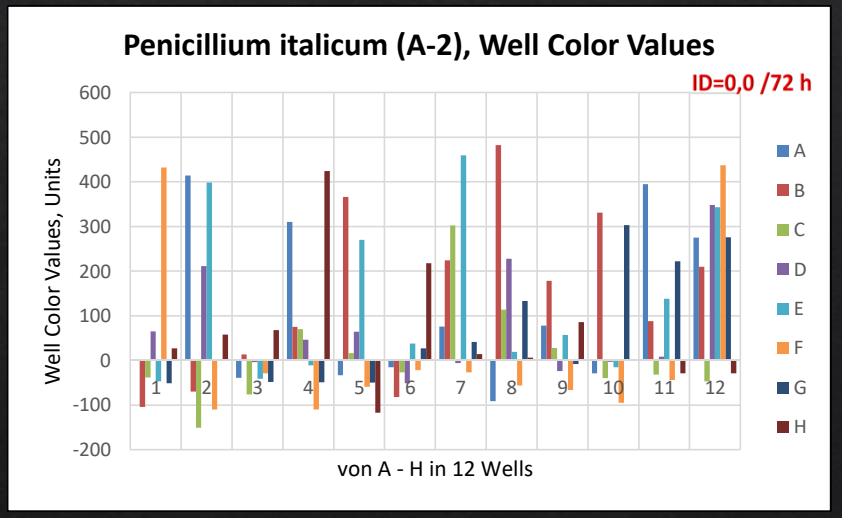
- Schimmelpilze –

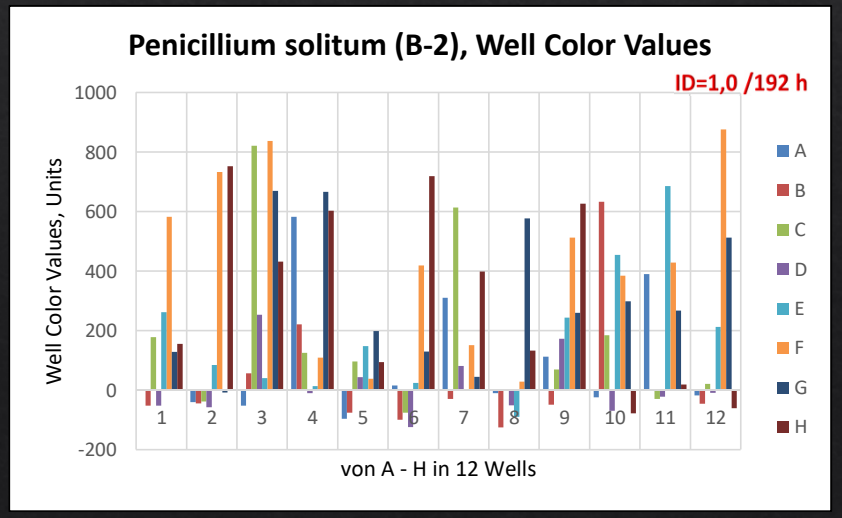
Zusammenfasung der Dendrogramme

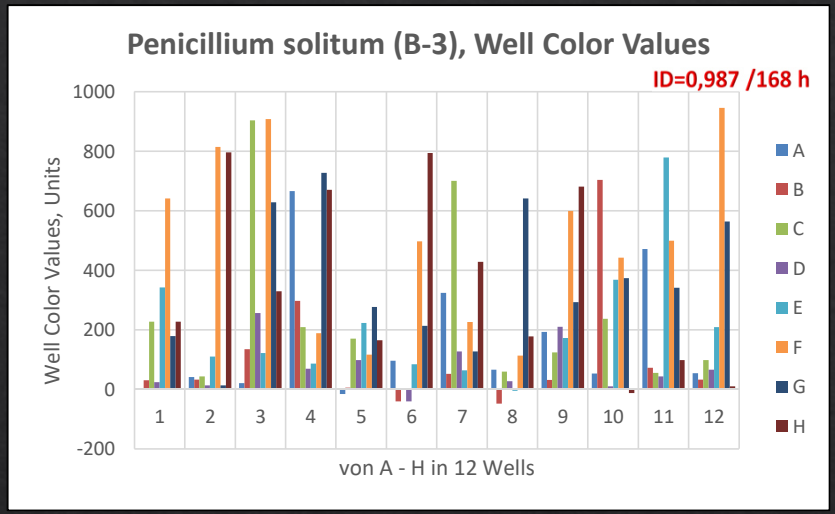
Dr. habil. Anna Salek, domatec GmbH

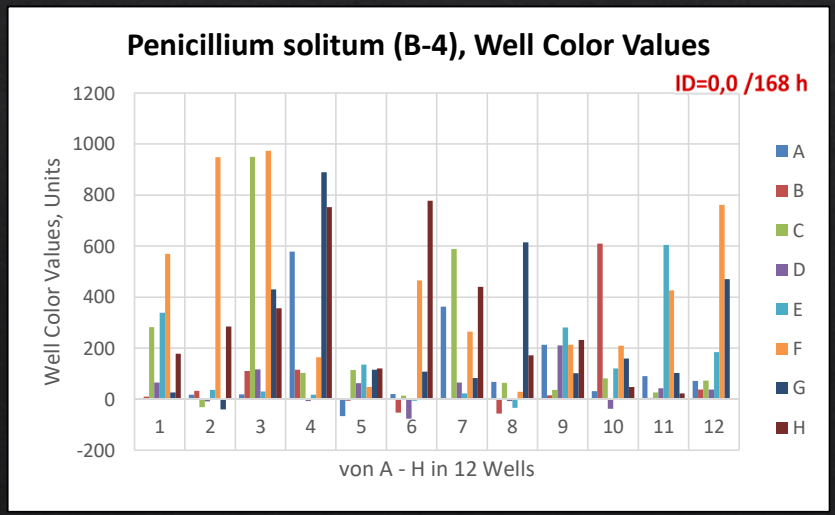

Penicillium italicum (A-1), Well Color Values
ID=0,0 /96 h
Well Color Values, Units
500
400
300
200
100
0
-100
-200
-300
1
2
3
4
5
6
7
8
9
10
11
12
A
B
C
D
E
F
G
H
von A - H in 12 Wells

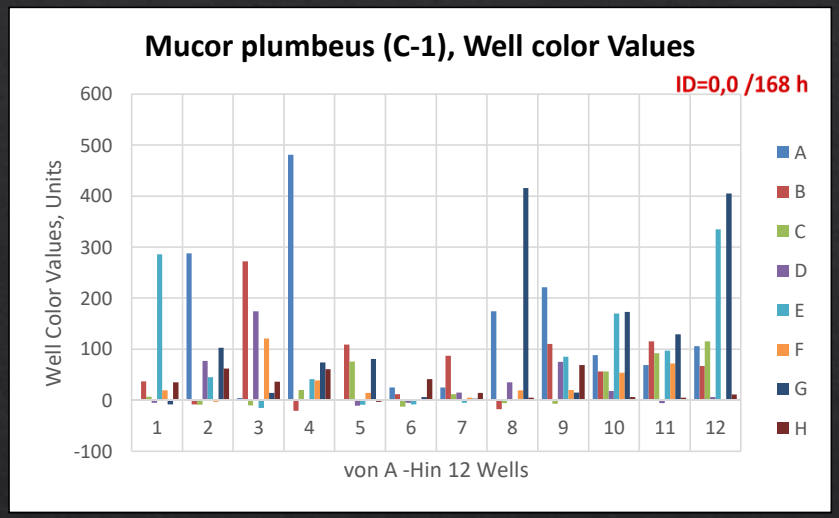

Penicillium solitum (B-1), Well Color Values
ID=0,998 /168 h
Well Color Values, Units
1000
800
600
400
200
0
-200
1
2
3
4
5
6
7
8
9
10
11
12
A
B
C
D
E
F
G
H
von A - H in 12 Wells

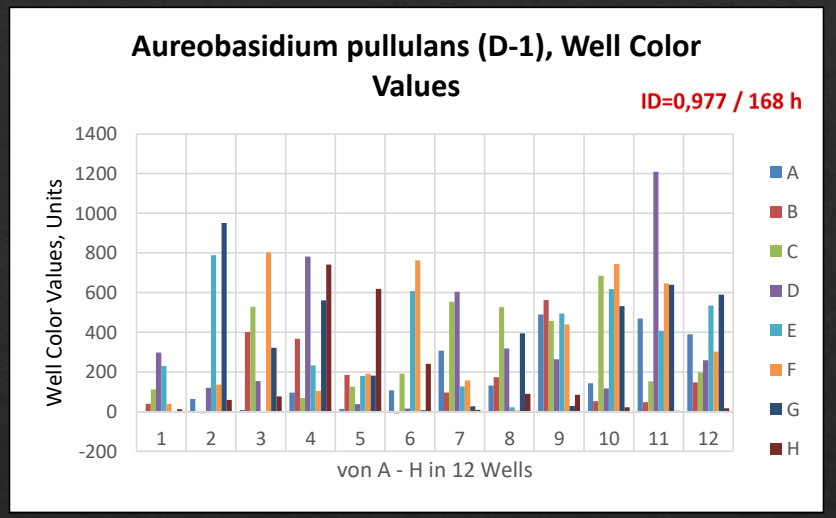

Penicillium italicum (A-2), Well Color Values
ID=0,0 /72 h
Well Color Values, Units
600
500
400
300
200
100
0
-100
-200
1
2
3
4
5
6
7
8
9
10
11
12
A
B
C
D
E
F
G
H
von A - H in 12 Wells

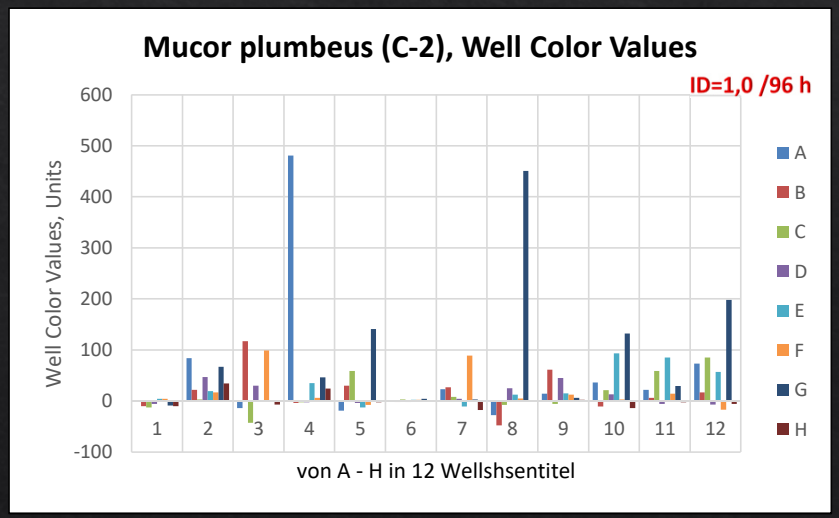

Penicillium solitum (B-2), Well Color Values
ID=1,0 /192 h
Well Color Values, Units
1000
800
600
400
200
0
-200
1
2
3
4
5
6
7
8
9
10
11
12
A
B
C
D
E
F
G
H
von A - H in 12 Wells

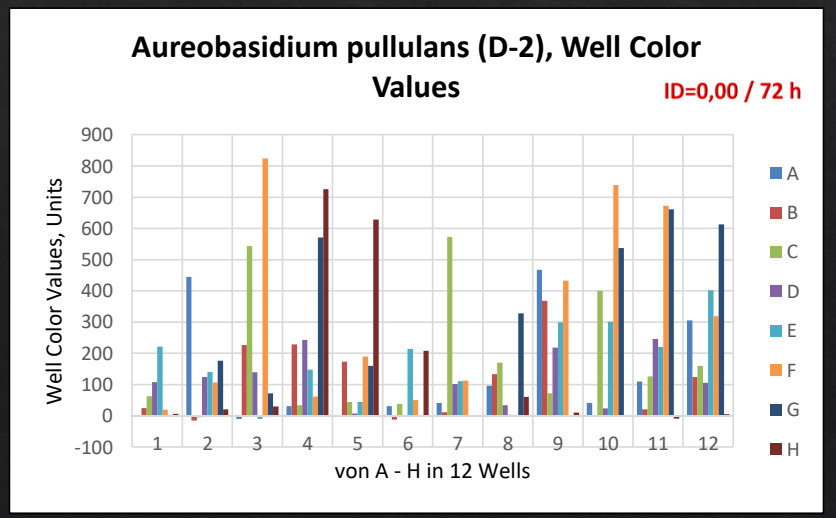

Penicillium solitum (B-3), Well Color Values
ID=0,987 /168 h
Well Color Values, Units
1000
800
600
400
200
0
-200
1
2
3
4
5
6
7
8
9
10
11
12
von A - H in 12 Wells
A
B
C
D
E
F
G
H


Penicillium solitum (B-4), Well Color Values
ID=0,0 /168 h
Well Color Values, Units
1200
1000
800
600
400
200
0
-200
1
2
3
4
5
6
7
8
9
10
11
12
von A - H in 12 Wells
A
B
C
D
E
F
G
H


Mucor plumbeus (C-1), Well color Values
ID=0,0 /168 h
Well Color Values, Units
600
500
400
300
200
100
0
-100
1 2 3 4 5 6 7 8 9 10 11 12
von A -Hin 12 Wells
A
B
C
D
E
F
G
H


Aureobasidium pullulans (D-1), Well Color Values
ID=0,977 / 168 h
Well Color Values, Units
1400
1200
1000
800
600
400
200
0
-200
1 2 3 4 5 6 7 8 9 10 11 12
von A - H in 12 Wells
A
B
C
D
E
F
G
H


Mucor plumbeus (C-2), Well Color Values
ID=1,0 /96 h
Well Color Values, Units
600
500
400
300
200
100
0
-100
1 2 3 4 5 6 7 8 9 10 11 12
von A - H in 12 Wellshsentitel
A
B
C
D
E
F
G
H


Aureobasidium pullulans (D-2), Well Color Values
ID=0,00 / 72 h
Well Color Values, Units
900
800
700
600
500
400
300
200
100
0
-100
1 2 3 4 5 6 7 8 9 10 11 12
von A - H in 12 Wells
A
B
C
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F
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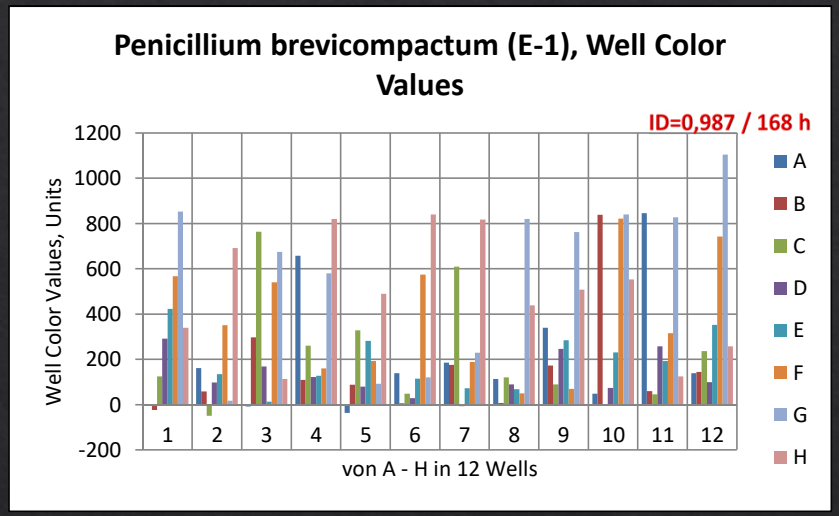
Penicillium brevicompactum (E-1), Well Color Values
ID=0,987 / 168 h
Well Color Values, Units
1200
1000
800
600
400
200
0
-200
1 2 3 4 5 6 7 8 9 10 11 12
von A - H in 12 Wells
A
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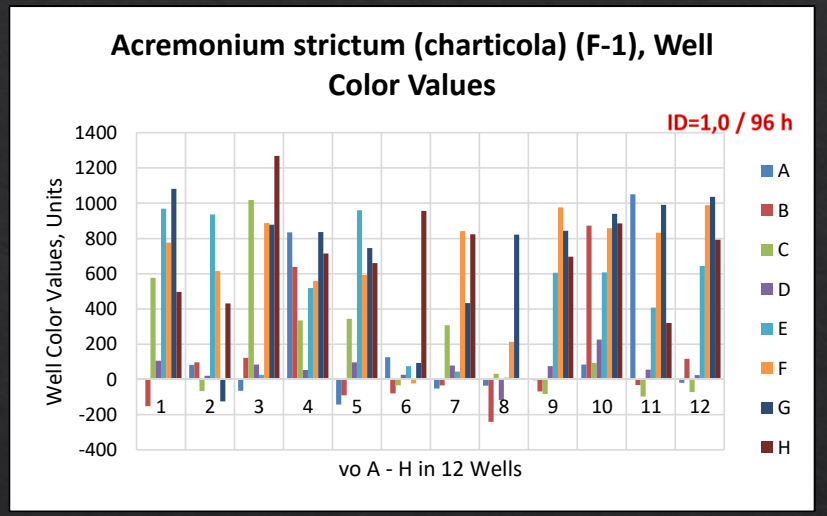
Acremonium strictum (charticola) (F-1), Well Color Values
ID=1,0 / 96 h
Well Color Values, Units
1400
1200
1000
800
600
400
200
0
-200
-400
1 2 3 4 5 6 7 8 9 10 11 12
vo A - H in 12 Wells
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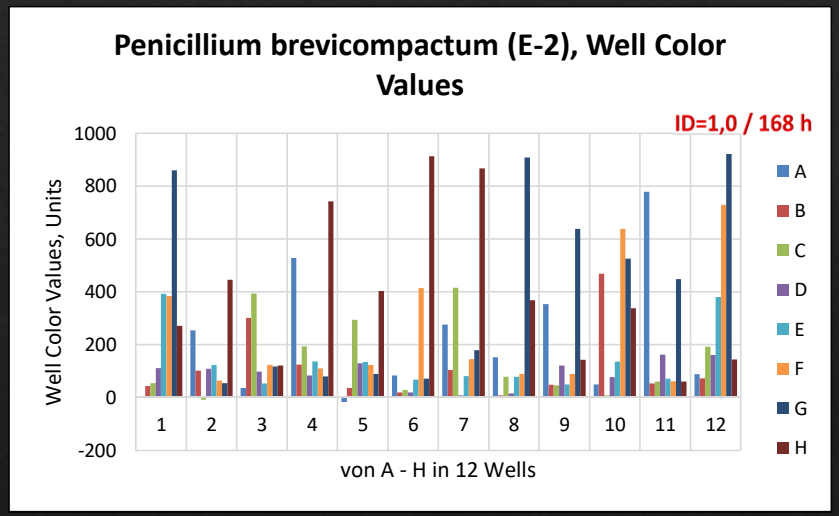
H


Penicillium brevicompactum (E-2), Well Color Values
ID=1,0 / 168 h
Well Color Values, Units
1000
800
600
400
200
0
-200
1 2 3 4 5 6 7 8 9 10 11 12
von A - H in 12 Wells
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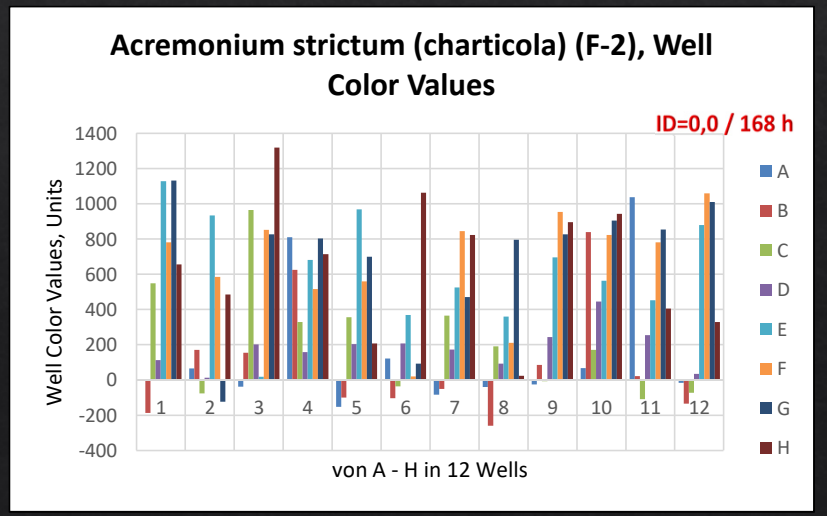
Acremonium strictum (charticola) (F-2), Well Color Values
ID=0,0 / 168 h
Well Color Values, Units
1400
1200
1000
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-200
-400
1 2 3 4 5 6 7 8 9 10 11 12
von A - H in 12 Wells
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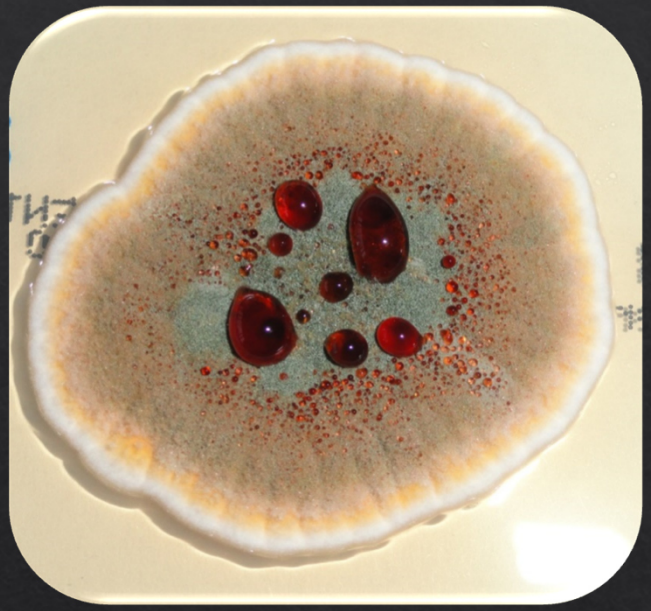

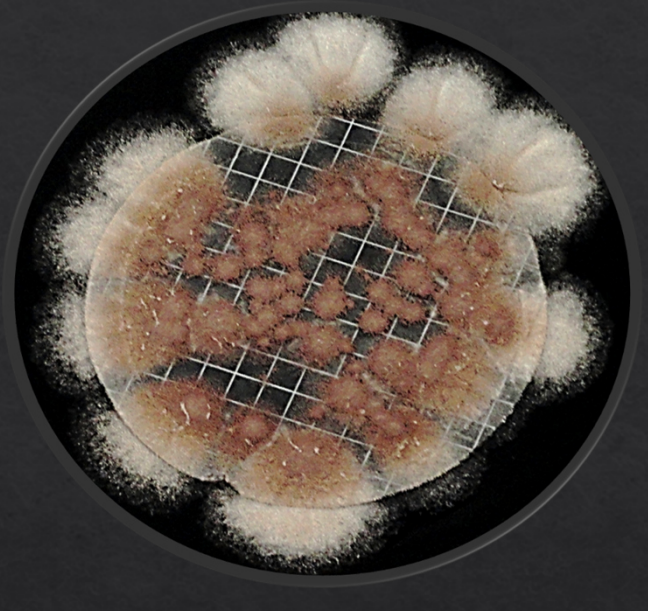

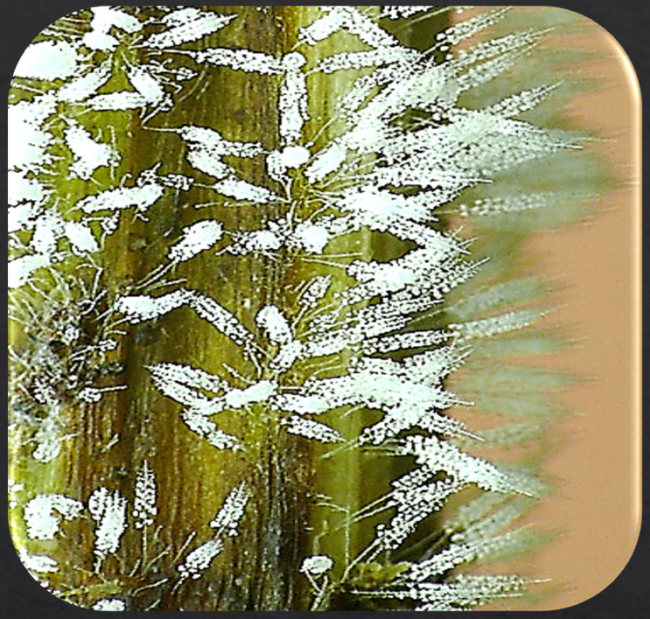

Vielen Dank für Ihre Aufmerksamkeit !

Dr. habil. Anna Salek

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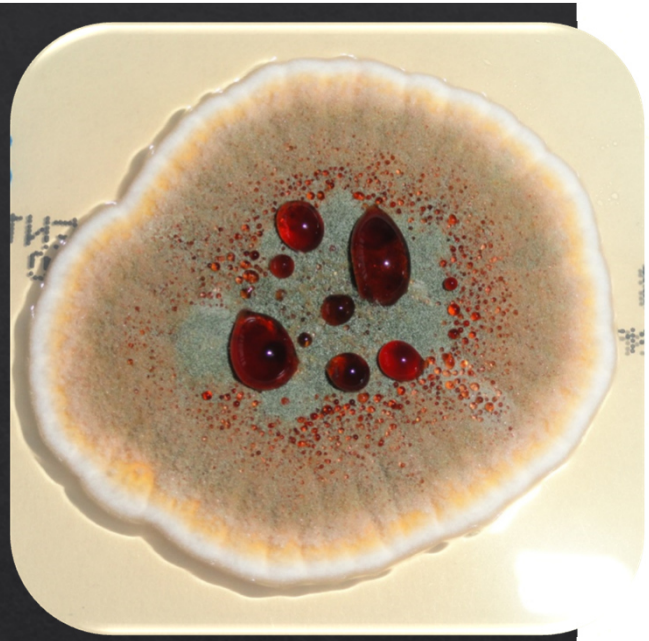

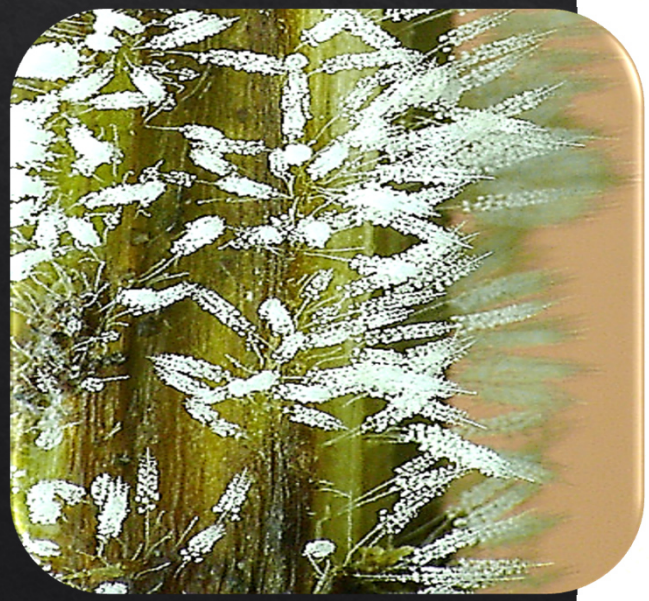

Baden-Württemberg
LANDESGESUNDHEITSAMT BADEN-WÜRTTEMBERG
IM REGIERUNGSPRÄSIDIUM STUTTGART

Zertifikat

zum Ringversuch
„Identifizierung von Schimmelpilzen
in Innenräumen und Lebensmitteln“
- Reinkulturen -

Frau
Dr. habil. Anna Salek
Domatek GmbH
Menninger Str. 1
84570 Polling-Weiding

hat am **27. Ringversuch** „Identifizierung von Schimmelpilzen in Innenräumen und Lebensmitteln - Reinkulturen -“

mit Erfolg teilgenommen

Von den folgenden sechs Reinkulturen mussten mindestens **vier** richtig identifiziert werden:

Penicillium italicum, Penicillium solitum, Mucor plumbeus, Aureobasidium pullulans (var. melanigenum), Penicillium brevicompactum, Sarocladium strictum.

Das Labor hat 6 Stämme auf Artebene richtig identifiziert. Die Eignung der ausgewählten Stämme bezüglich der Eindeutigkeit, der Reinheit, der Relevanz für den Innenraum und des Schweregrades war zuvor von fünf Referenzlaboren überprüft worden.

Das Zertifikat ist bis zum 30. April 2016 gültig.

Stuttgart, 15.04.2015

Dr. Christiane Baschien
Externe wiss. Beraterin
Umweltbundesamt, Berlin

Dr. Guido Fischer
Ringversuchsleiter

Dr. med. Peter Michael Bittighofer
Abteilungspräsident
Landesgesundheitsamt Baden-Württemberg
im Regierungspräsidium Stuttgart

Prof. Dr. Günter Schmolz
Abteilungspräsident

Landesgesundheitsamt Baden-Württemberg
im Regierungspräsidium Stuttgart

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