

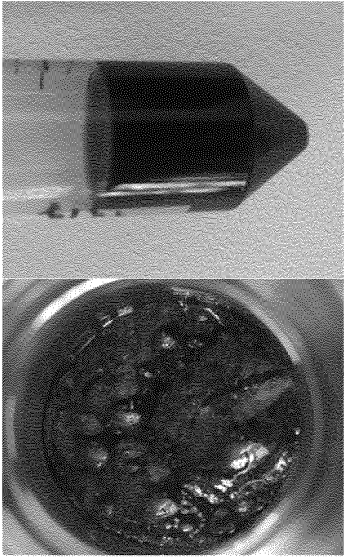


FIG. 1B

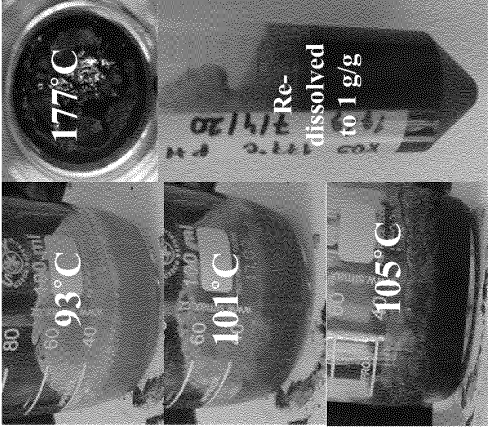


FIG. 1D

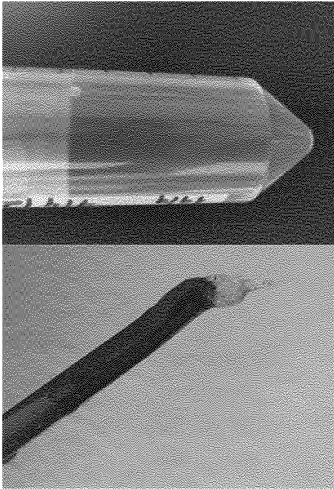


FIG. 1A

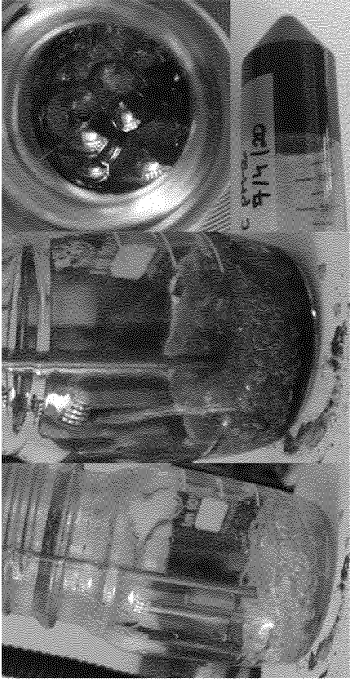


FIG. 1C



FIG. 2B

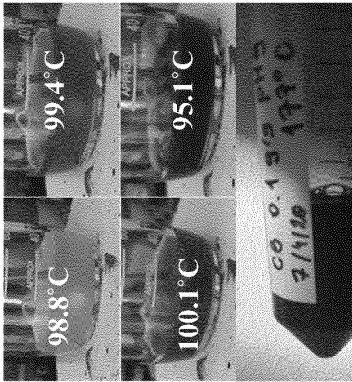


FIG. 2D

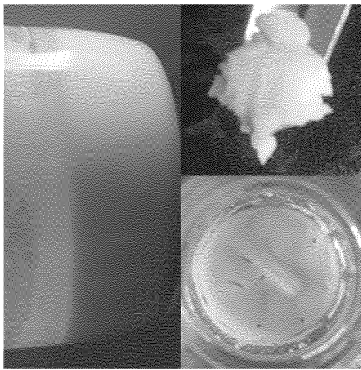


FIG. 2A

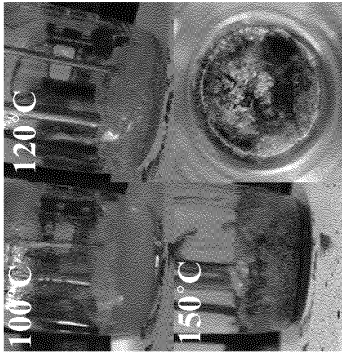


FIG. 2C

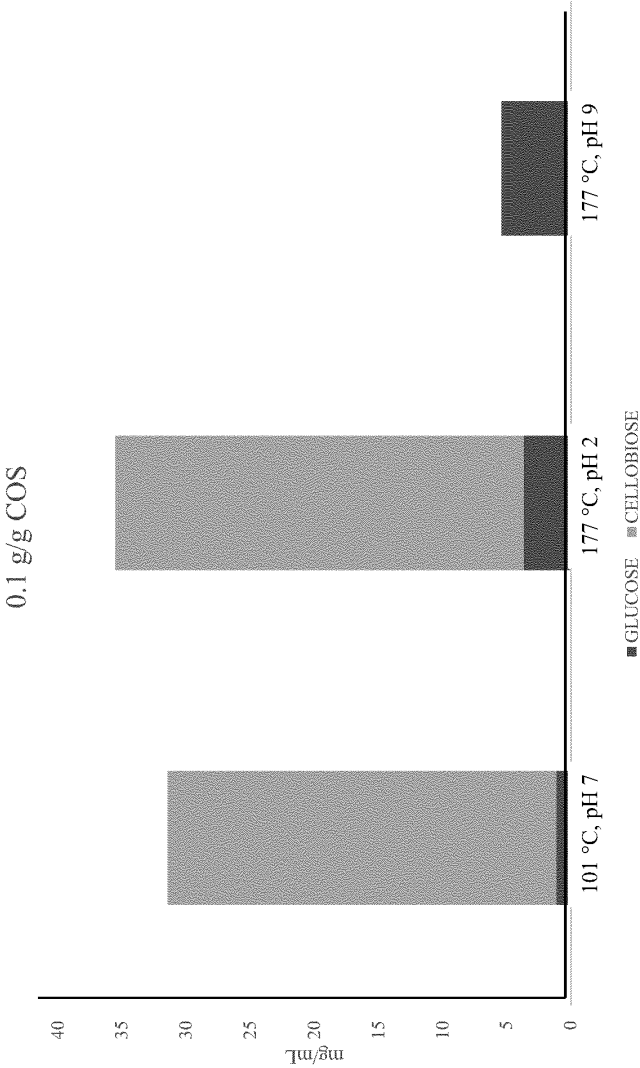


FIG. 3

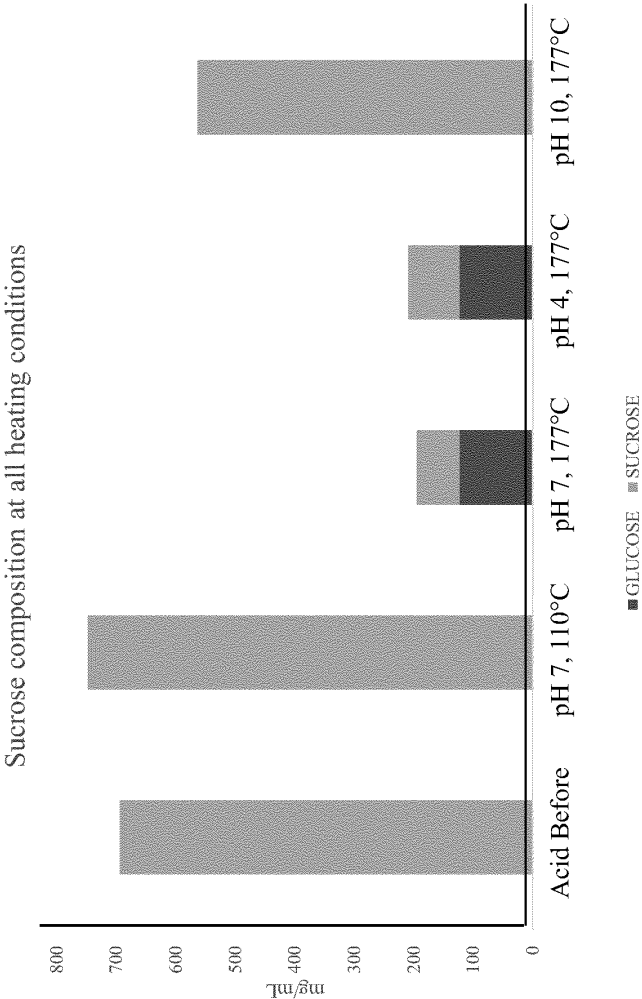


FIG. 4

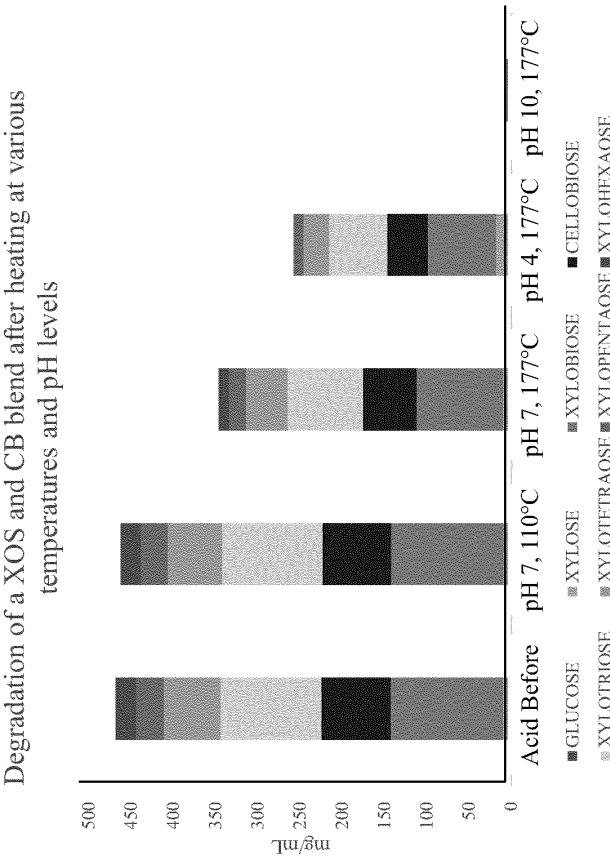


FIG. 5

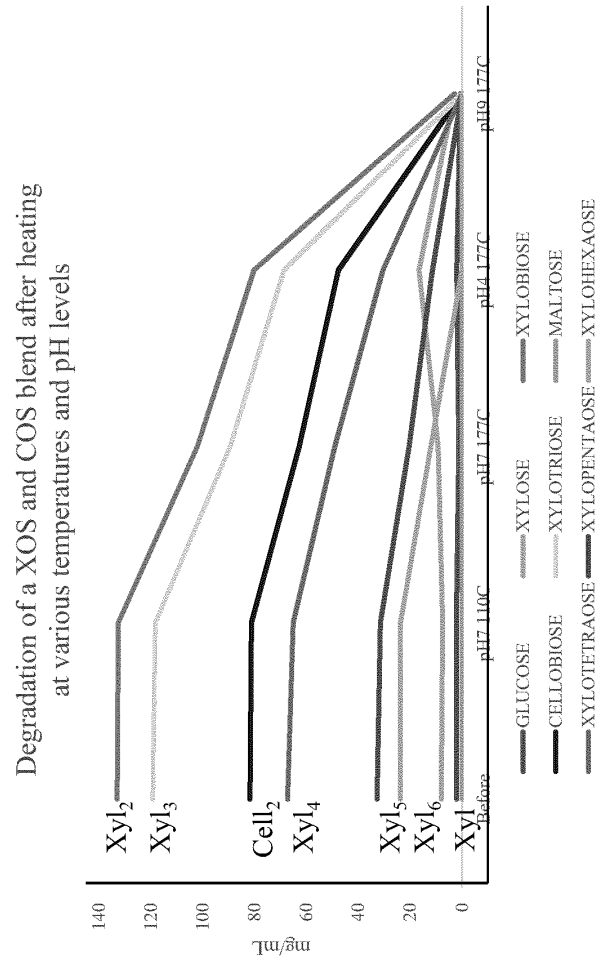


FIG. 6

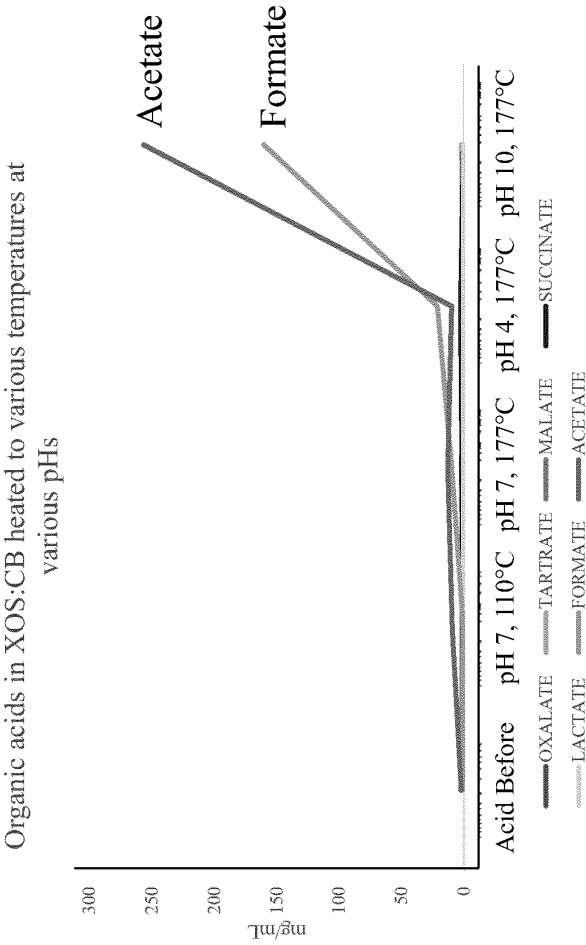


FIG. 7

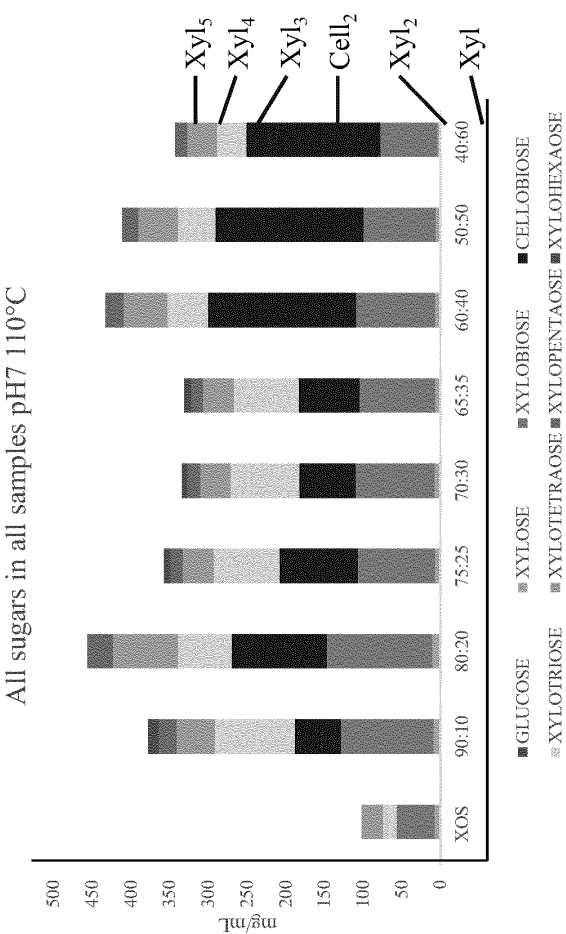


FIG. 8

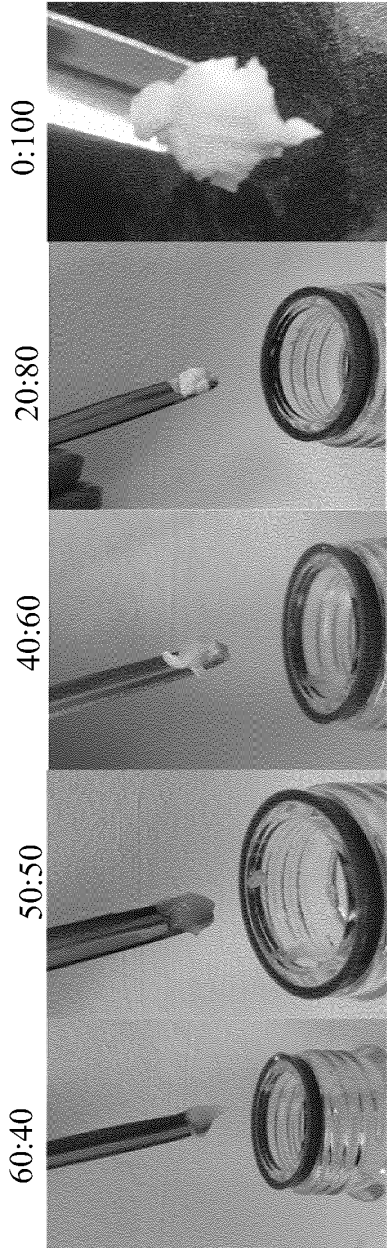
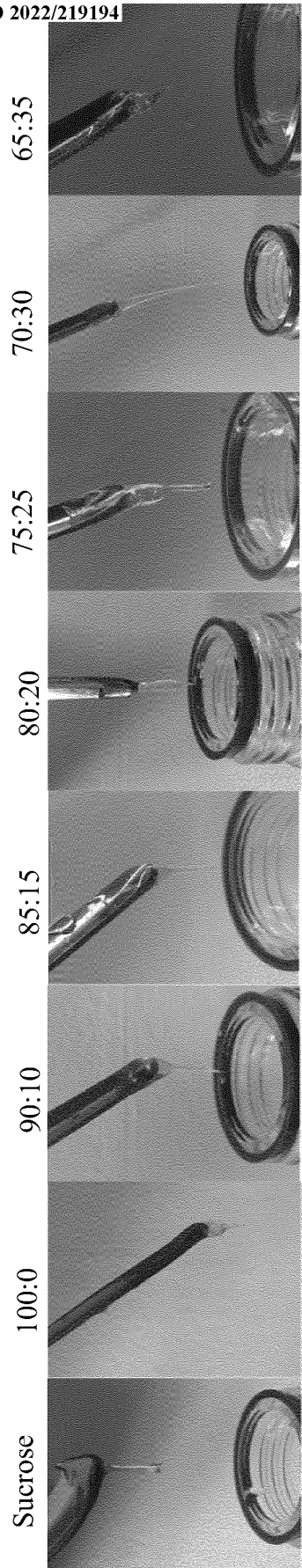


FIG. 9

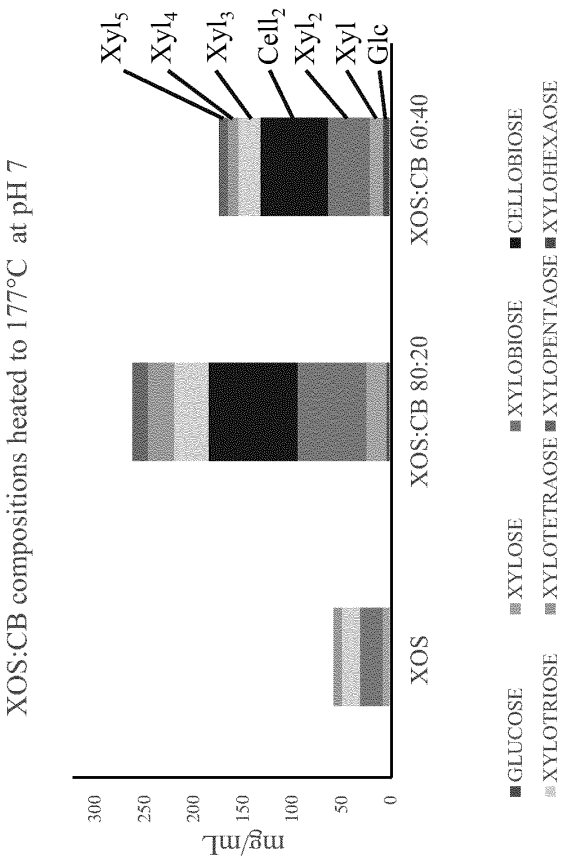


FIG. 10

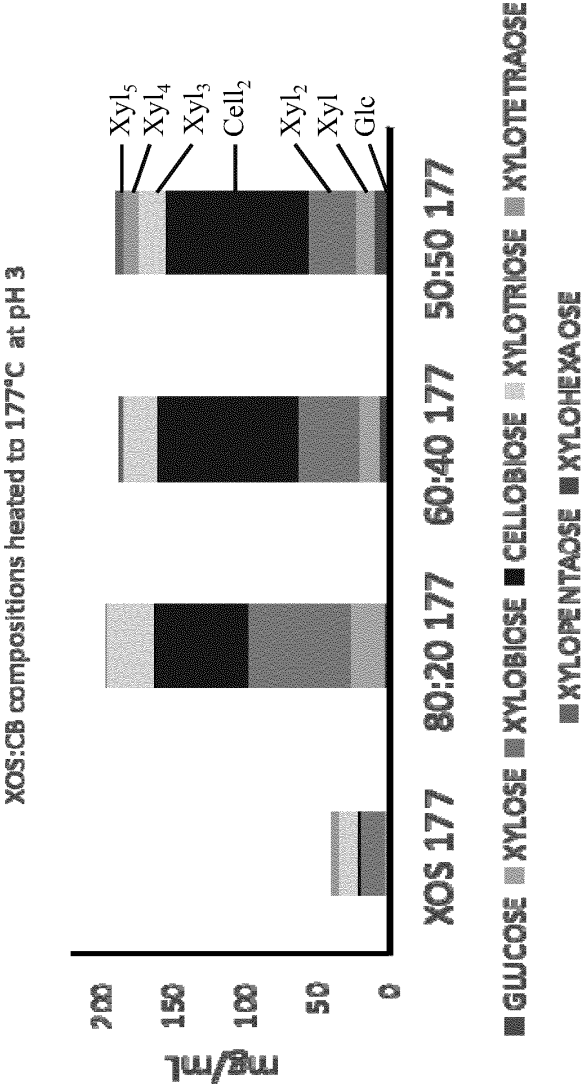


FIG. 11

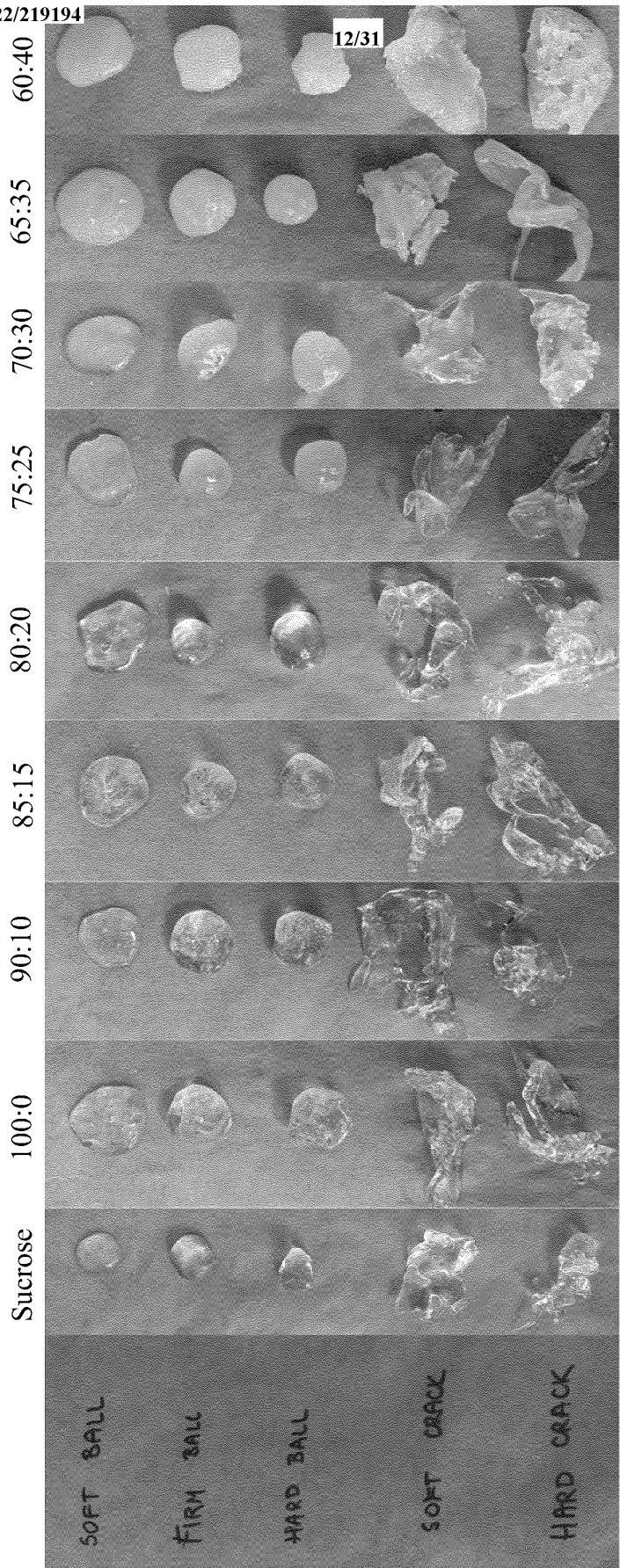


FIG. 12

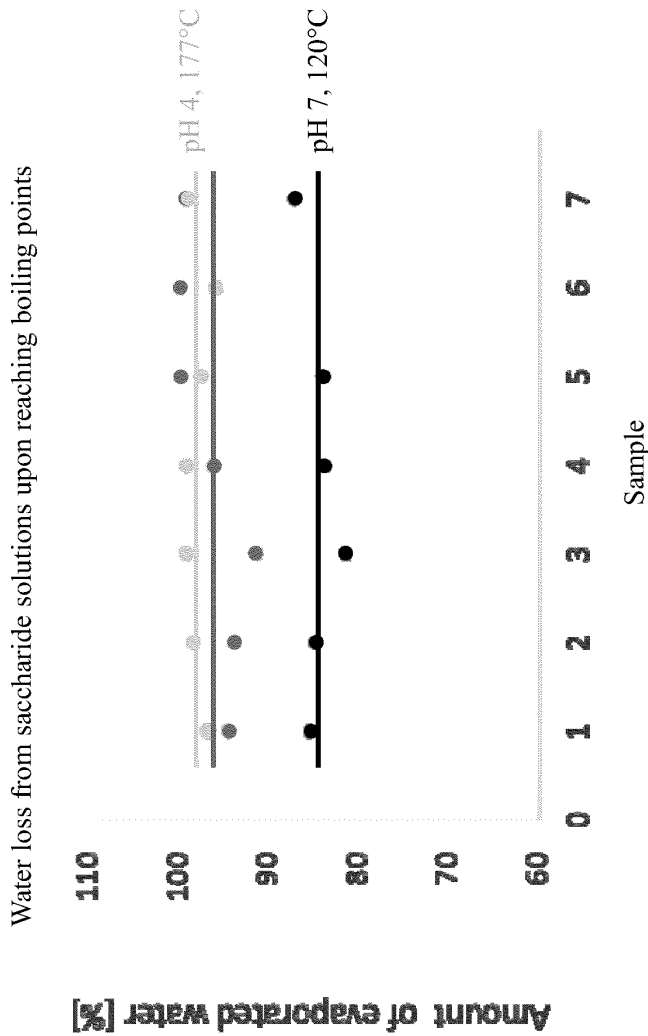


FIG. 13A

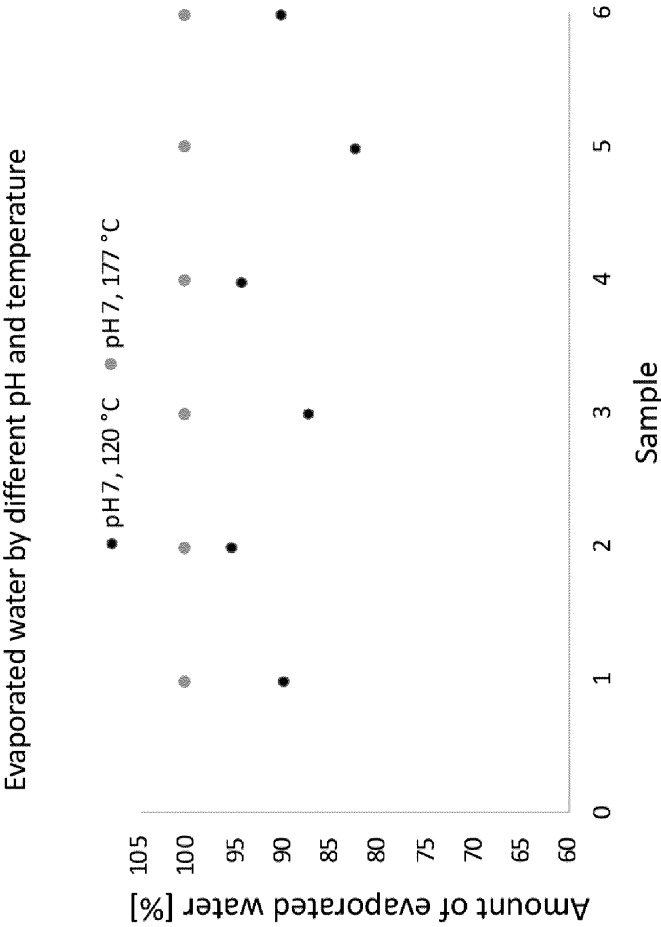


FIG. 13B

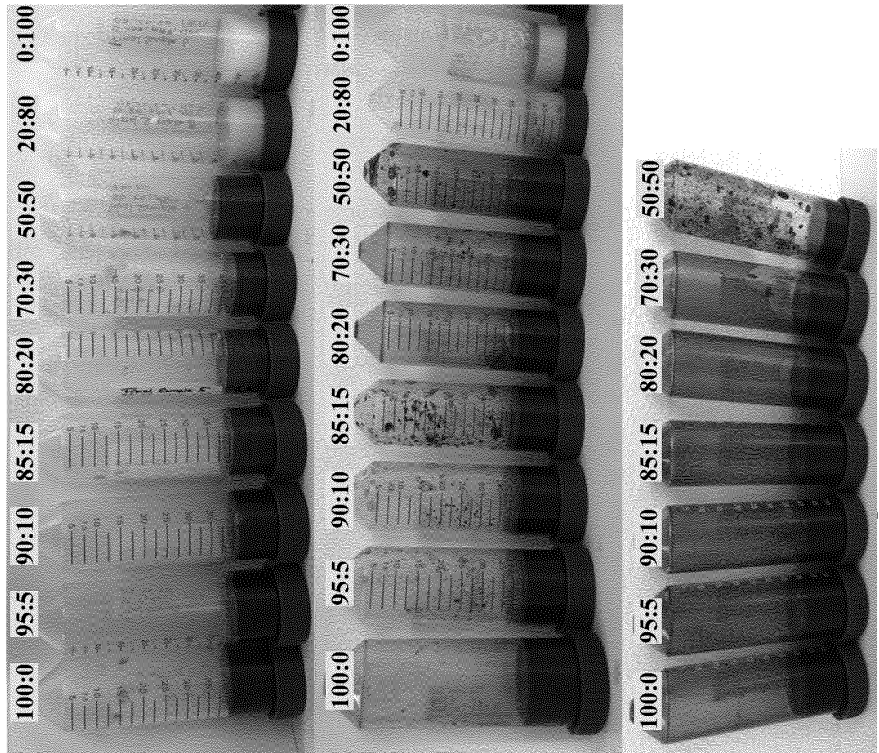


FIG. 14

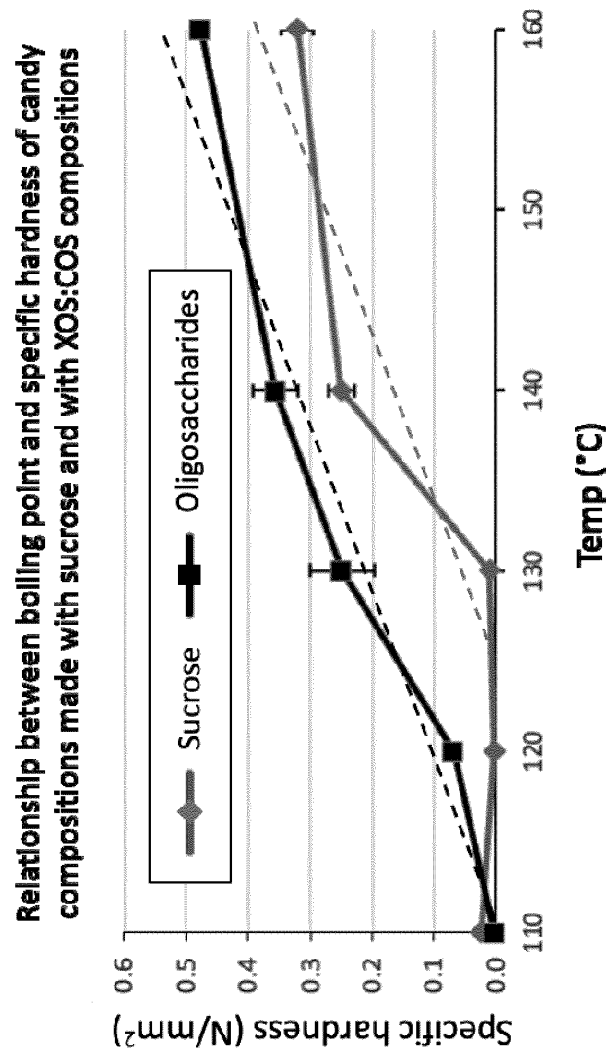
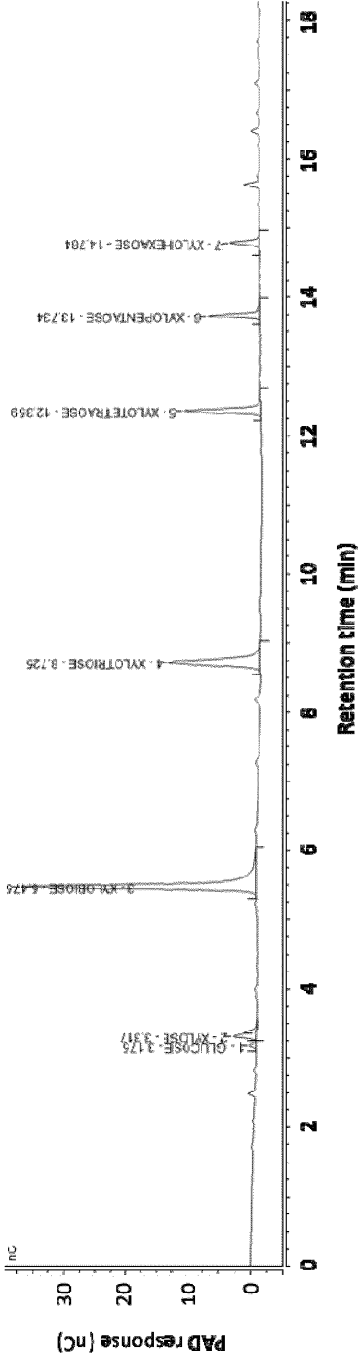


FIG. 15

a) Xylo-oligosaccharide (XOS)



b) Cello-oligosaccharide (COS)

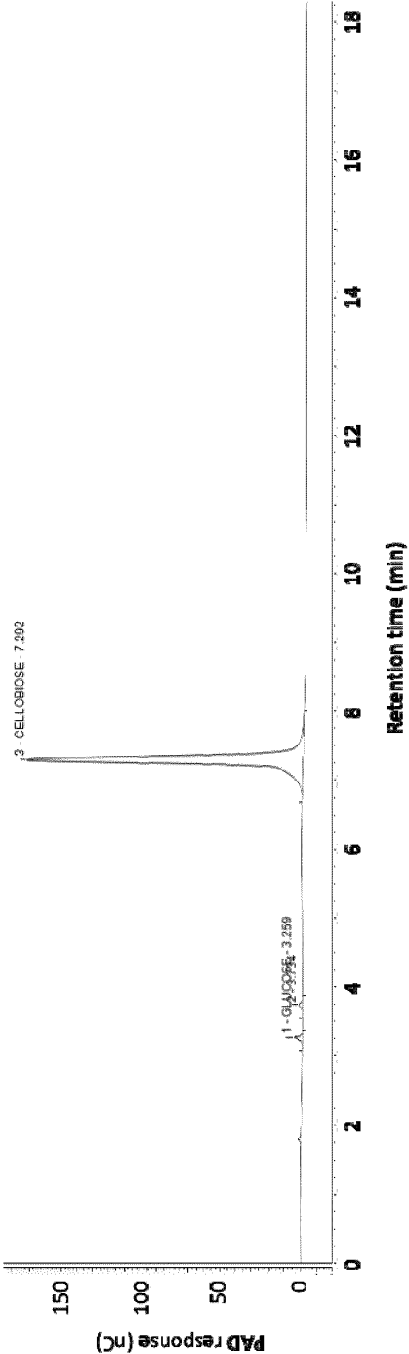


FIG. 16

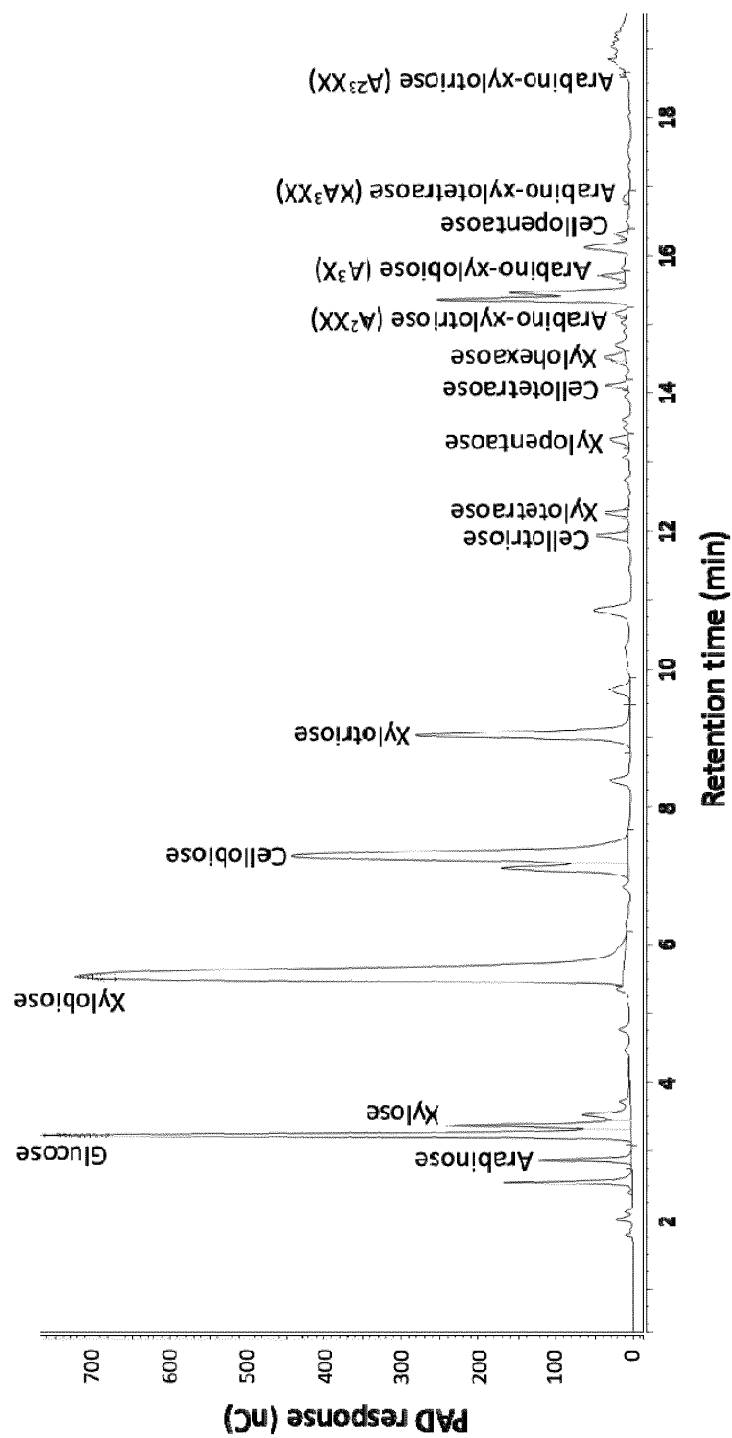


FIG. 17

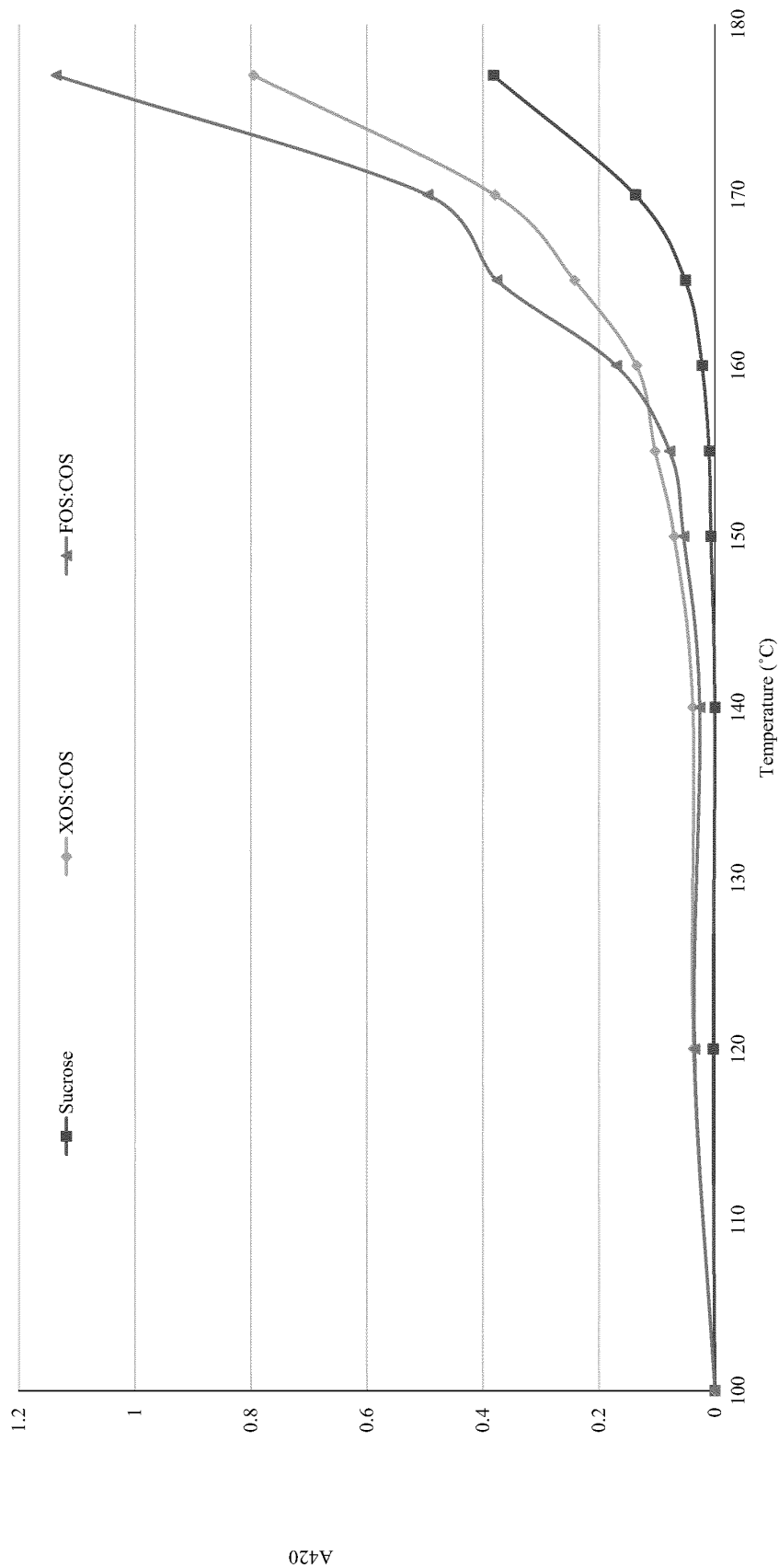
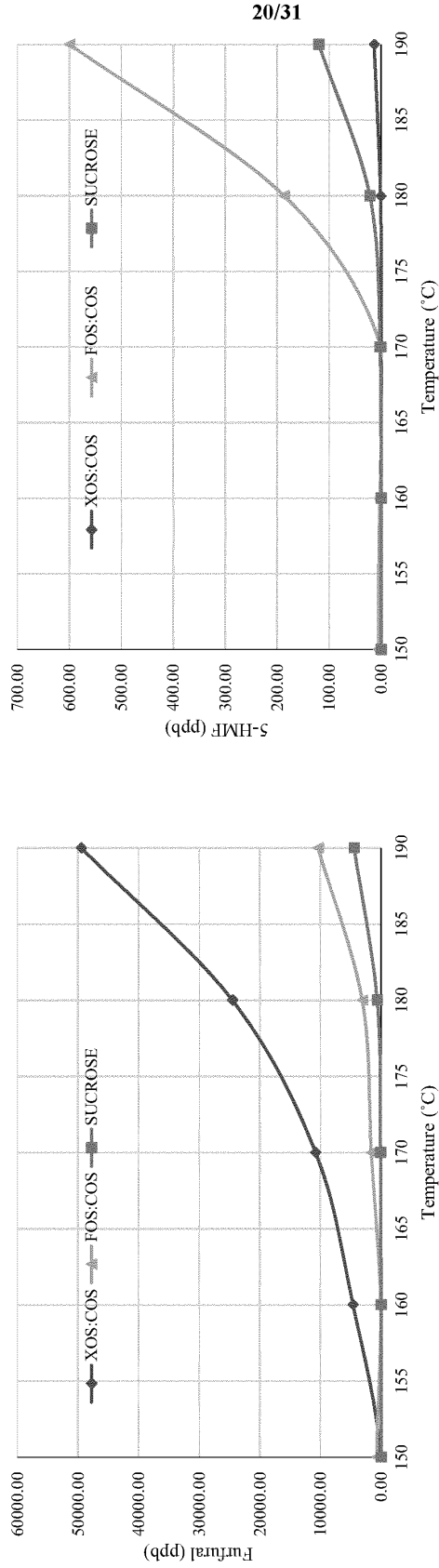


FIG. 18



B

A

FIG. 19

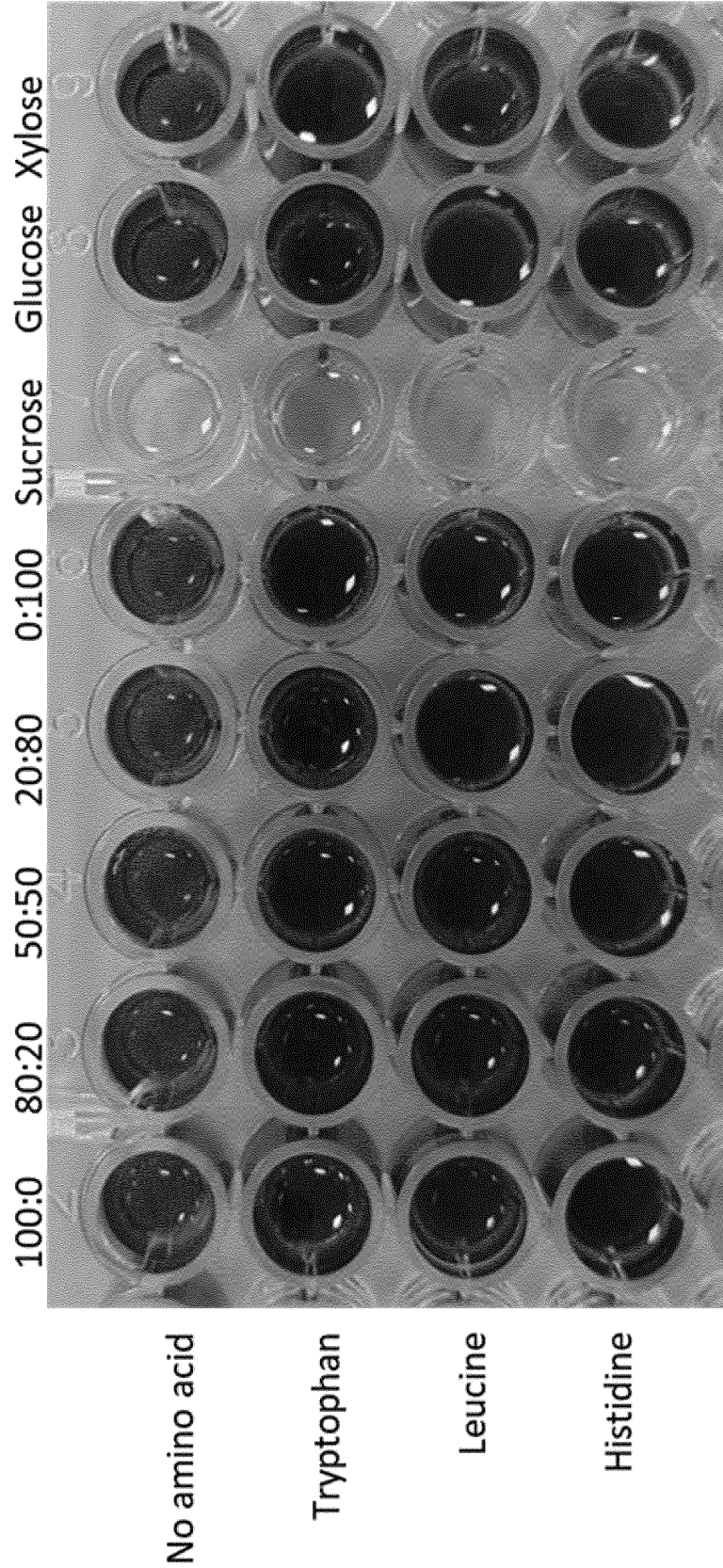


FIG. 20

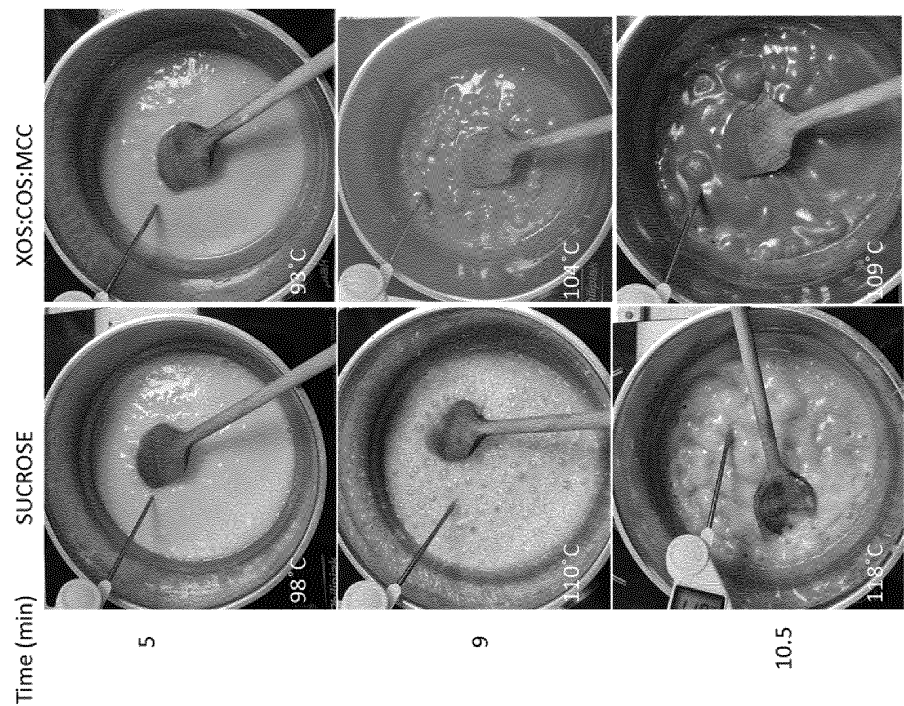
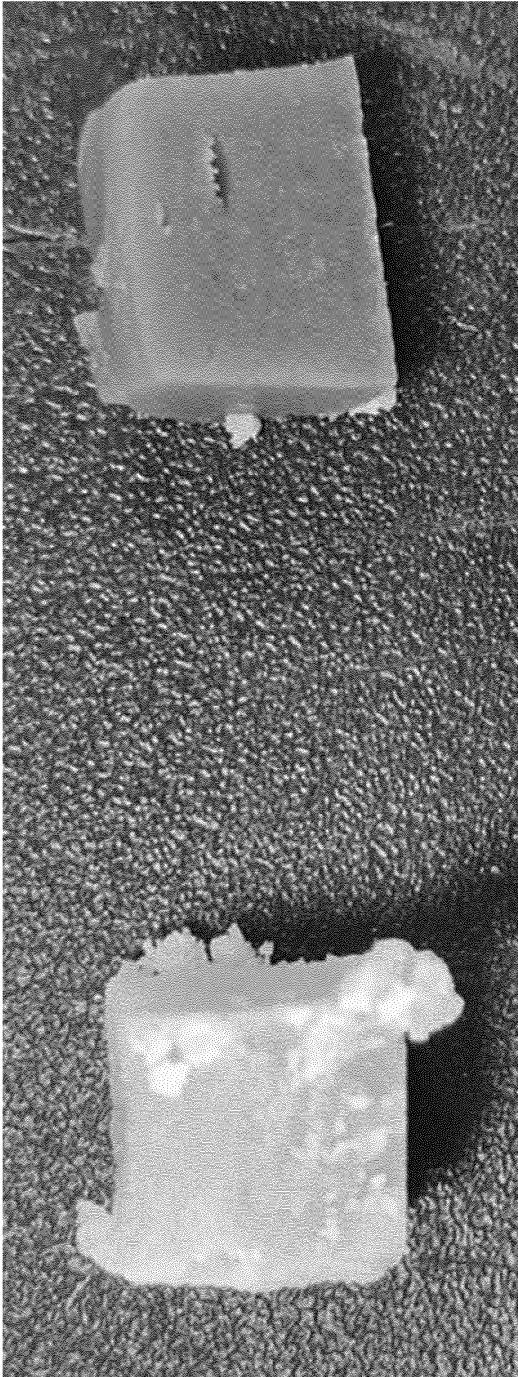


FIG. 21



A

B

FIG. 22

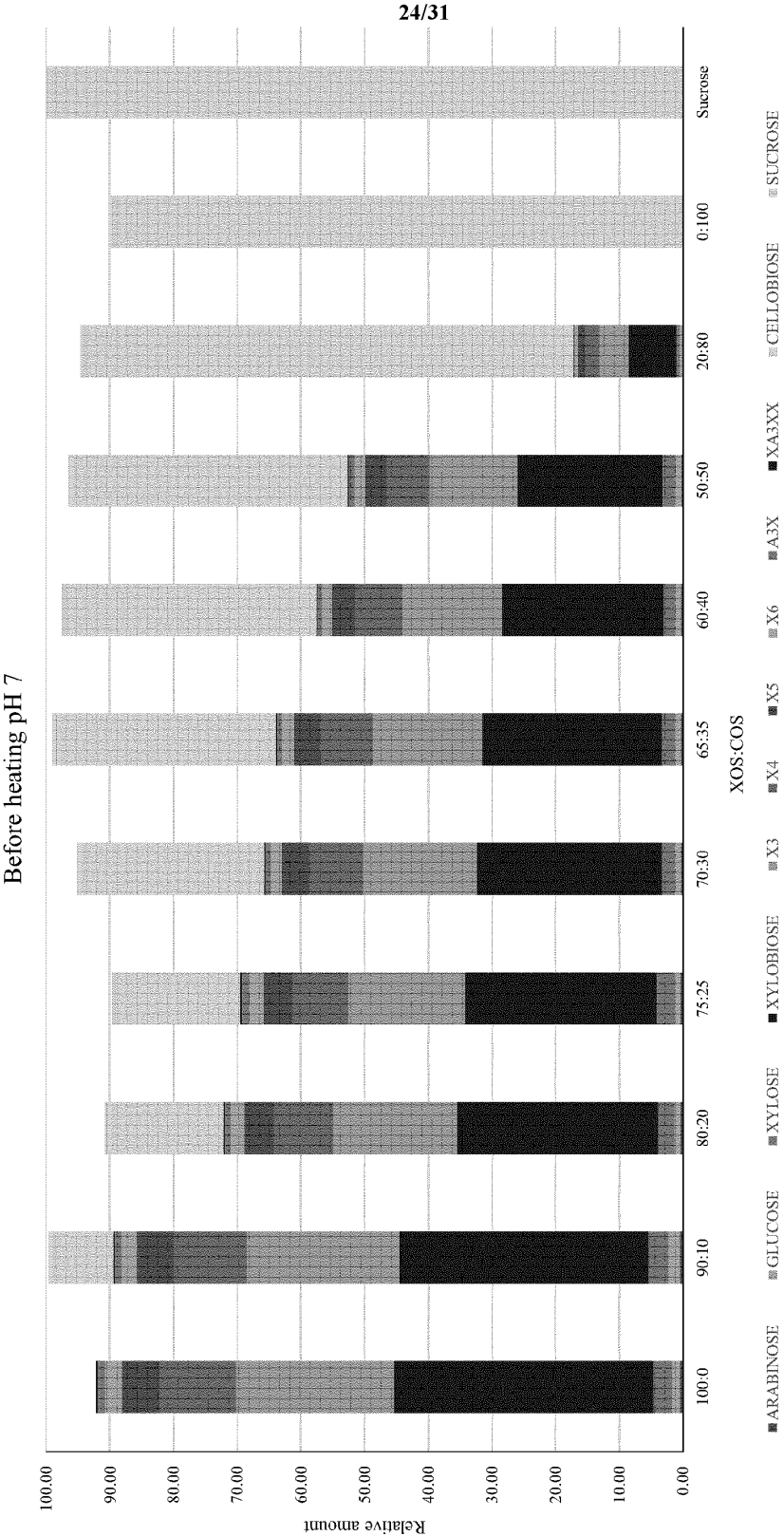


FIG. 23A

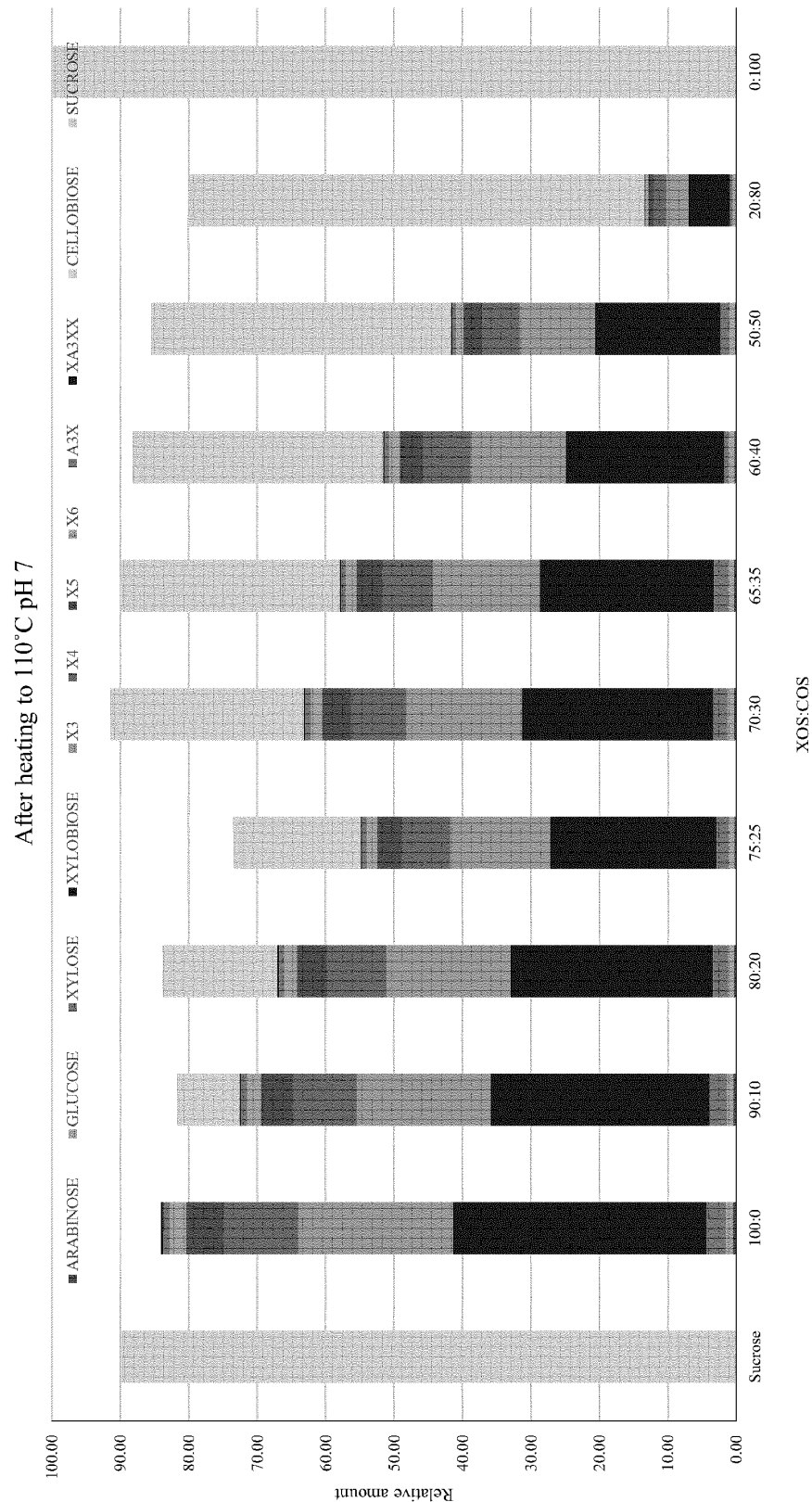


FIG. 23B

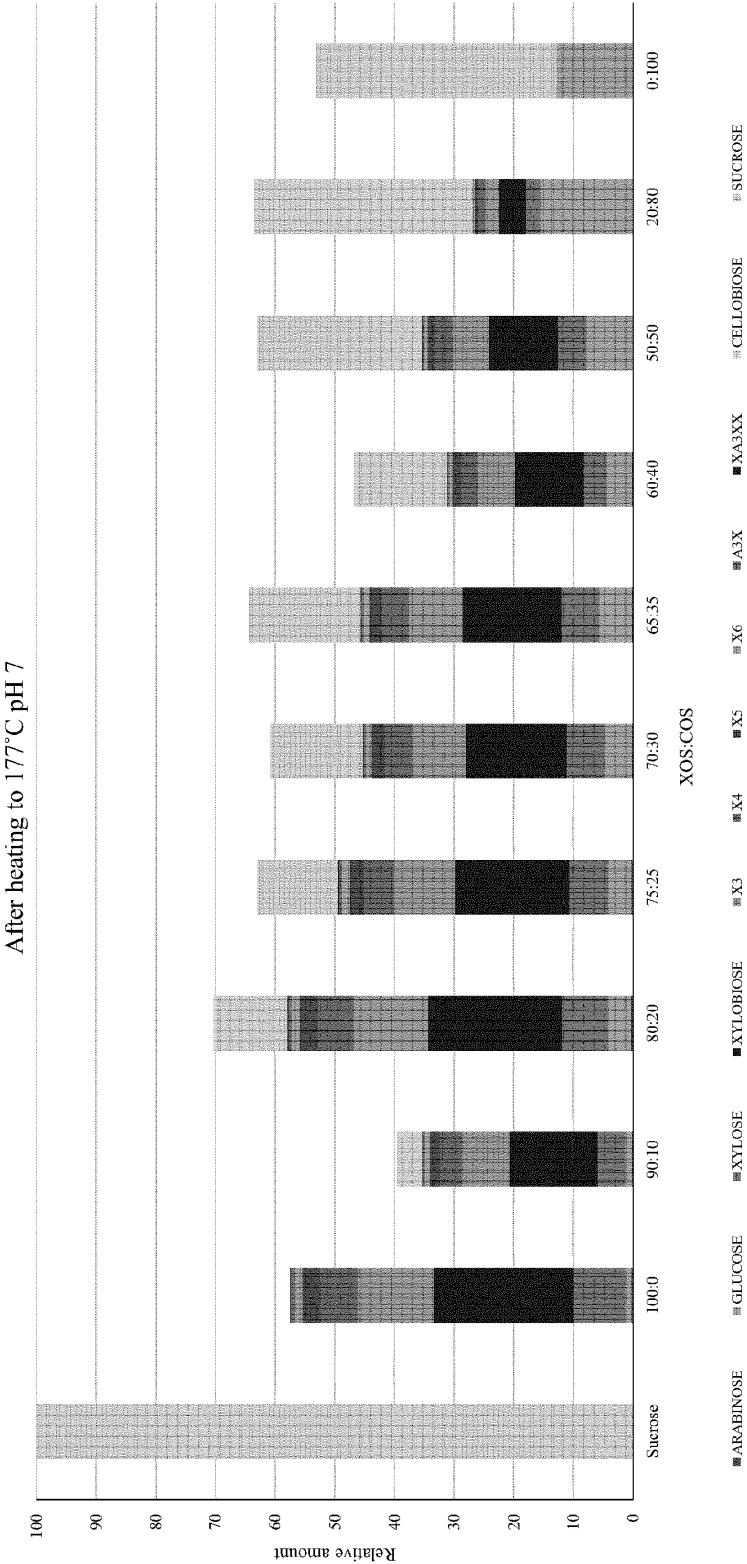


FIG. 24

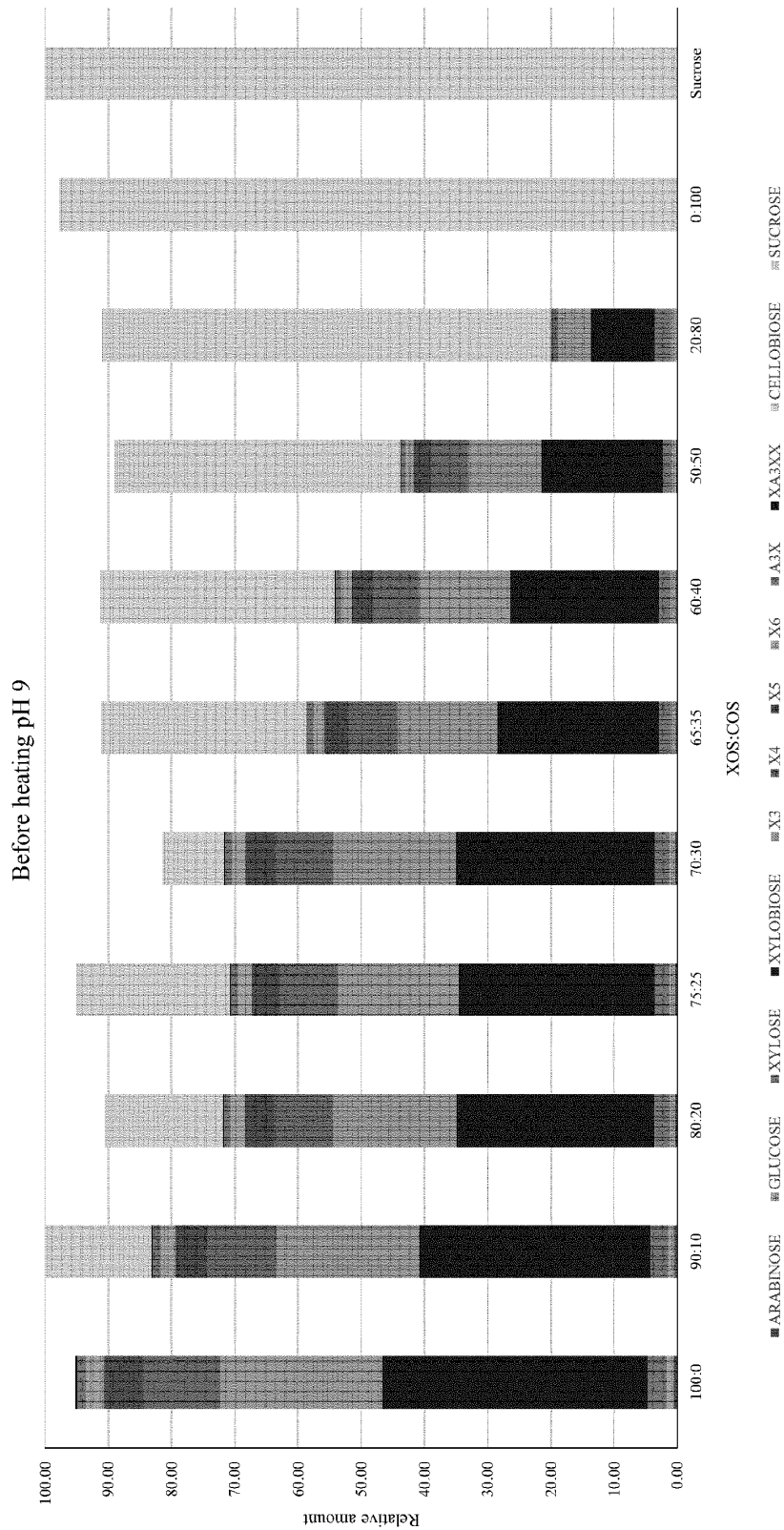


FIG. 25A

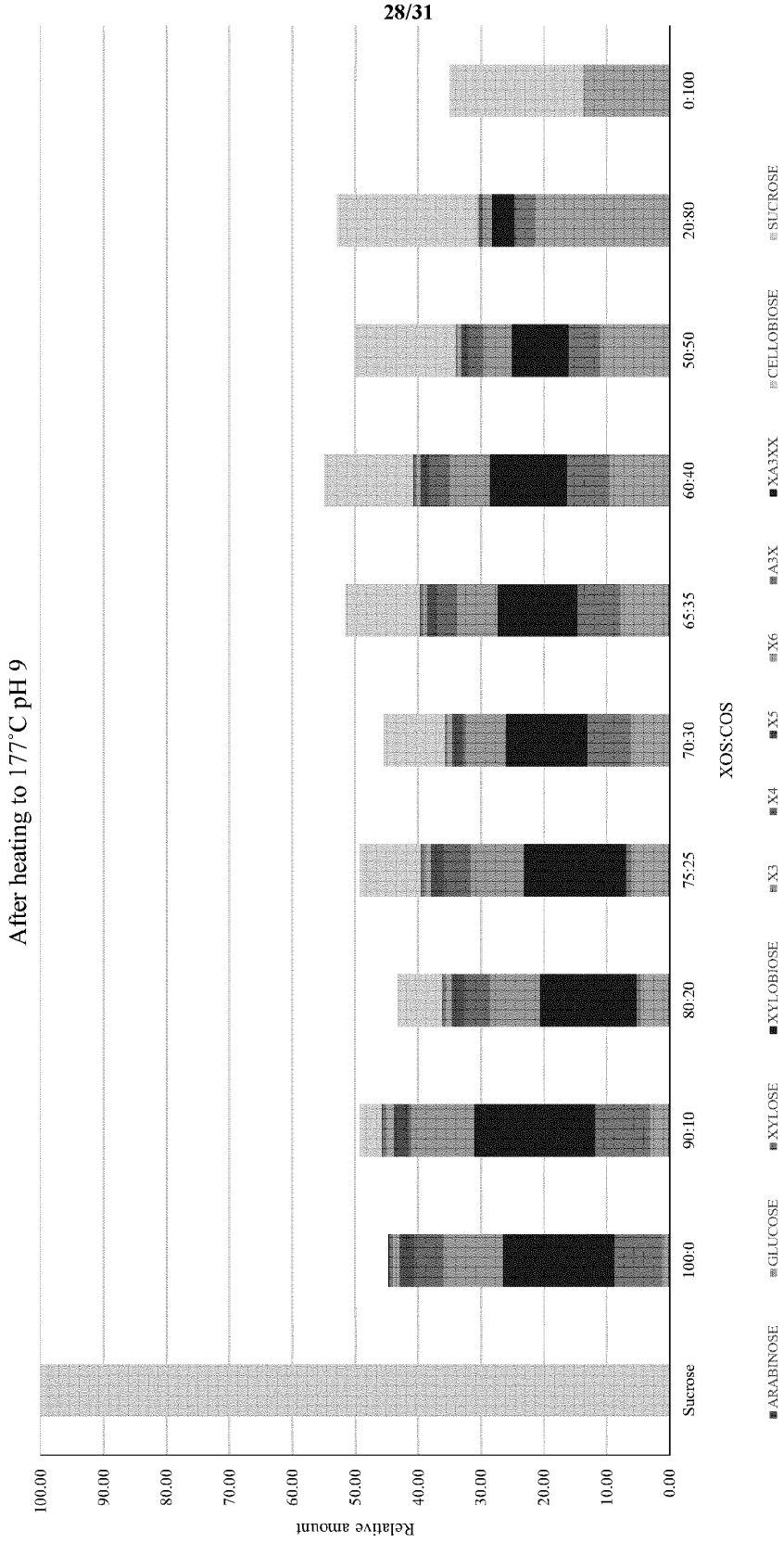


FIG. 25B

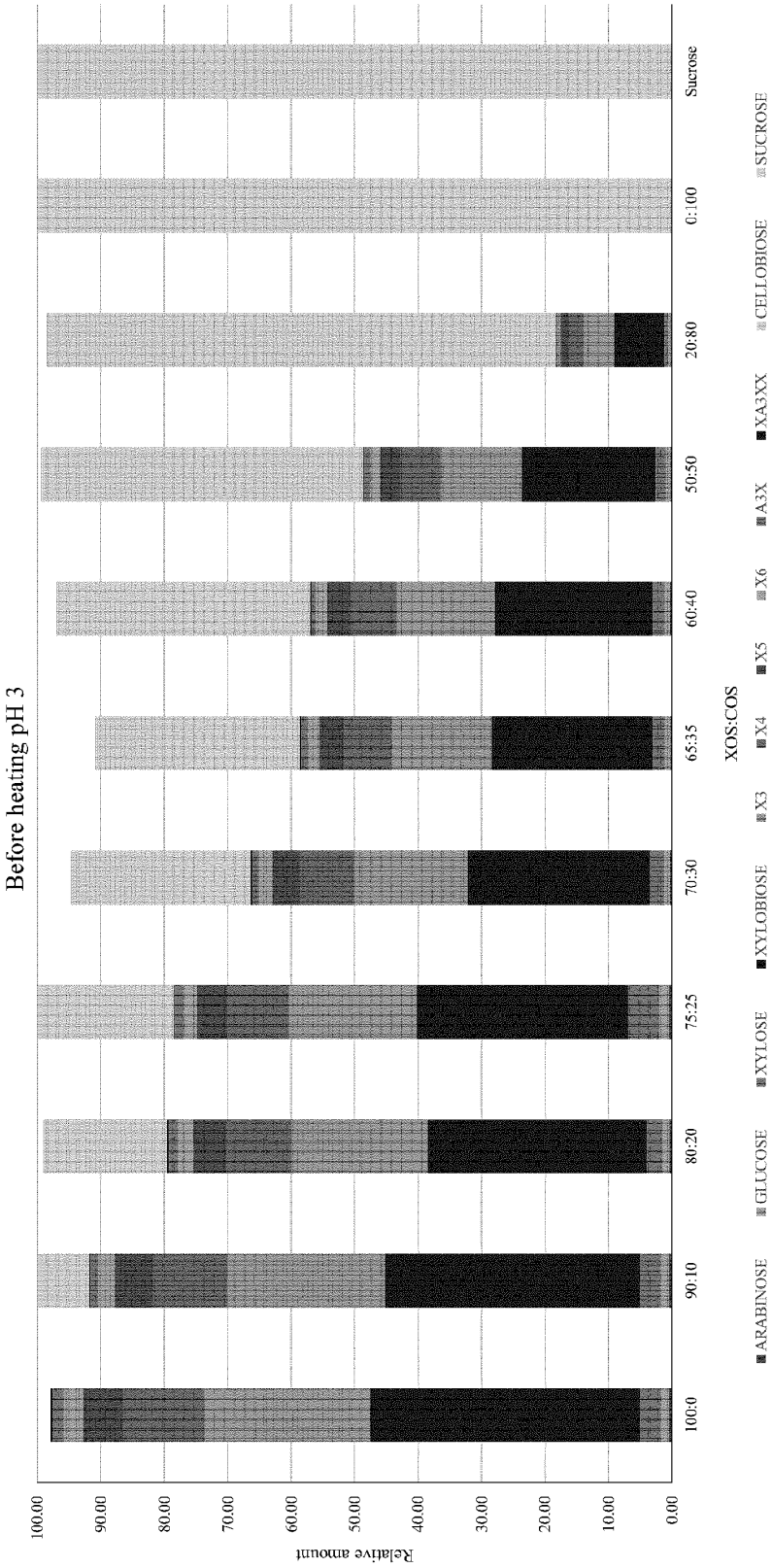


FIG. 26A

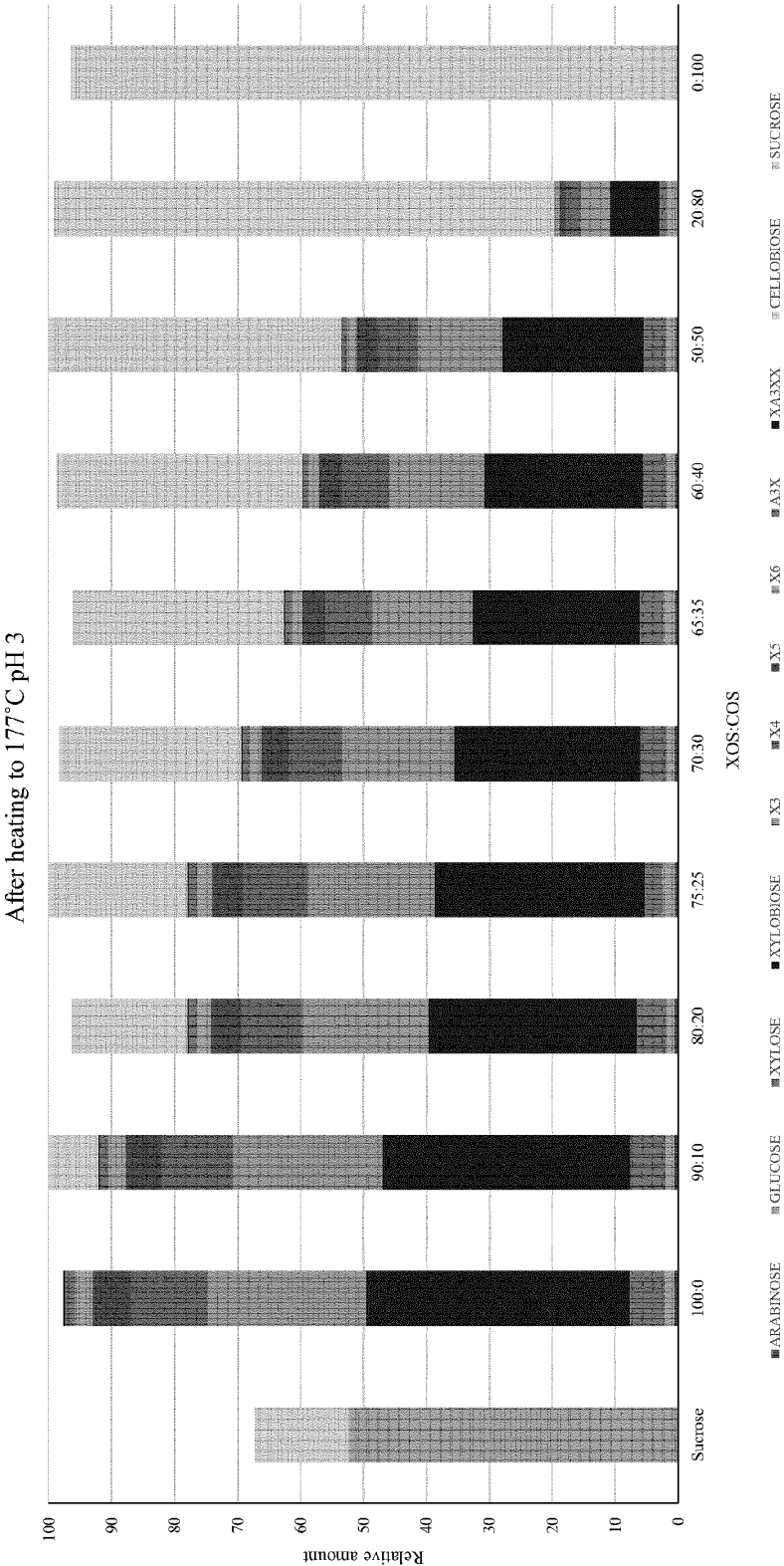


FIG. 26B

Compound	Carbonyls - Ketones		Strecker	Furans		Pyrazines				Aromatic
	Diacetyl (2,3,4-Butanone)	2-Propanone		Furan, 2-methyl furfural	5-methyl furfural	Pyrazine, 2-ethyl	Pyrazine, 2,5-ethyl	Pyrazine, 2-ethyl	Pyrazine, 2,5-ethyl	
RT (min)	1.885	1.944	2.578	7.90	11.05	16.94	10.888	11.031	14.178	23.25
Description	buttery sweet acetone ether pungent sweet	buttery sweet acetone ether pungent sweet	isovaleraldehyde	ethyl green cocoa nutty a sweet caramel fruity green earthy beany veg cocoa roasted peanut nutty coffee r nutty hazelnut pungent must	ethyl green cocoa nutty a sweet caramel fruity green earthy beany veg cocoa roasted peanut nutty coffee r nutty hazelnut pungent must	ethyl green cocoa nutty a sweet caramel fruity green earthy beany veg cocoa roasted peanut nutty coffee r nutty hazelnut pungent must	ethyl green cocoa nutty a sweet caramel fruity green earthy beany veg cocoa roasted peanut nutty coffee r nutty hazelnut pungent must	ethyl green cocoa nutty a sweet caramel fruity green earthy beany veg cocoa roasted peanut nutty coffee r nutty hazelnut pungent must	ethyl green cocoa nutty a sweet caramel fruity green earthy beany veg cocoa roasted peanut nutty coffee r nutty hazelnut pungent must	ethyl green cocoa nutty a sweet caramel fruity green earthy beany veg cocoa roasted peanut nutty coffee r nutty hazelnut pungent must
100:0	159.97	474.86	66.83	9.45	650.86	144.46	17.35	56.96	165.45	874.32
80:20	171.30	426.62	72.20	18.52	431.23	115.48	18.06	76.87	144.28	883.33
50:50	130.85	330.13	103.86	29.64	416.38	79.08	24.17	128.95	128.12	837.11
20:80	99.60	203.40	119.75	51.17	322.33	40.44	38.09	226.46	71.74	548.92
0:100	86.27	19.69	154.91	56.03	210.89	5.01	33.70	220.65	11.66	75.82
Sucrose	245.45	178.52	96.48	0.00	1.42	0.00	0.56	778.85	0.19	201.90
Glucose	185.97	56.54	163.63	5.62	18.26	12.06	64.33	1257.01	14.13	409.68
Xylose	267.18	75.30	196.36	7.83	65.56	27.19	59.72	751.39	13.61	394.72
100:0	204.69	297.53	3.05	15.59	288.77	46.42	0.00	0.00	0.00	0.26
80:20	354.28	285.98	127.53	54.14	208.55	31.32	0.00	0.00	0.00	0.00
50:50	130.28	240.48	153.52	82.43	286.25	20.75	0.00	0.00	0.00	0.00
20:80	114.33	125.47	156.20	82.33	207.60	5.30	0.00	0.00	0.00	0.00
0:100	127.54	19.44	194.15	129.52	178.85	0.04	0.00	0.00	0.00	0.00
Sucrose	6.99	3.16	20.48	0.25	0.03	0.03	0.00	0.00	0.00	0.00
Glucose	140.39	47.09	267.47	16.64	5.67	0.17	0.00	0.00	0.00	0.00
Xylose	55.57	70.81	227.11	52.32	0.15	6.28	0.00	0.00	0.00	0.00
Tryptophan	2.08	0.56	0.05	0.00	0.02	0.03	0.00	0.00	0.00	0.00
100:0	466.83	921.76	352.34	58.73	1172.77	46.42	48.03	442.41	876.11	4534.20
80:20	853.96	820.44	383.22	140.14	1069.02	31.32	134.87	504.35	763.53	4103.71
50:50	581.28	660.78	431.44	203.49	925.92	20.75	289.06	859.69	712.70	4348.30
20:80	555.09	434.28	559.62	312.54	897.81	5.30	404.88	1336.00	423.44	2585.80
0:100	436.23	435.64	655.20	347.86	695.69	0.04	459.20	1634.34	0.85	537.94
Sucrose	41.79	9.73	45.73	0.42	0.16	0.03	20.49	2111.75	8.80	554.43
Glucose	339.55	135.09	817.82	44.35	0.47	0.17	775.02	7024.15	100.23	2351.46
Xylose	458.75	212.85	647.73	170.12	118.44	6.28	496.33	2510.13	59.90	1146.75
Leucine	3.75	2.04	0.23	0.00	0.03	0.03	0.00	0.00	0.00	0.00
100:0	101.04	313.49	106.39	20.89	241.12	46.42	2.00	30.20	108.13	467.12
80:20	238.25	237.70	112.94	32.08	232.04	31.32	4.38	39.40	88.56	503.16
50:50	110.58	222.57	154.75	54.17	250.64	20.75	10.22	130.56	100.33	930.19
20:80	132.80	98.13	171.71	64.06	170.58	5.30	7.24	165.33	34.60	470.57
0:100	60.20	20.94	204.28	81.99	159.90	0.04	5.08	251.60	6.15	4.12
Sucrose	1.62	1.44	14.57	0.00	0.03	0.03	0.00	175.23	0.14	34.95
Glucose	42.94	30.06	1.34	7.71	0.04	0.17	24.45	1292.32	5.91	351.25
Xylose	32.61	53.50	196.75	28.40	15.26	6.28	5.22	587.06	4.48	288.64
Histidine	2.20	1.25	0.00	0.00	0.02	0.03	0.00	0.00	0.00	0.38

FIG. 27