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Cr3+		
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		Na2SO4 10H2O
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		2016 9 13 -2018 12 31

	2018	2017	(%)	2016
	1,404,863,524.28	1,185,479,724.91	18.51	874,507,735.60
	146,165,013.63	100,128,429.42	45.98	79,660,844.28
	144,723,122.45	95,138,220.75	52.12	75,102,717.26
	81,352,826.87	-16,860,590.39		107,940,173.14
	2018	2017	%	2016
	1,237,703,337.10	1,118,502,671.67	10.66	1,044,947,501.41

	1,352,574,839.67	1,226,494,173.71	10.28	1,147,948,646.40

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	2018	2017	(%)	2016
	0.47	0.33	42.42	0.32
	0.47	0.33	42.42	0.32
	0.47	0.31	51.61	0.30
%	12.46	9.26	3.20	10.23
%	12.34	8.80	3.54	9.64

2018

	2018		2017	2016
	-1,437,410.20		396,250.59	-18,562.81
	3,475,713.56		3,937,200.03	6,430,443.33
	785,013.69		2,437,660.20	
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2018 14.05 18.51%

1.46 45.98% 0.47 2018 13.53

10.28% 12.38 10.66%

12.46% 3.20

45.98%

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			%
	1,404,863,524.28	1,185,479,724.91	18.51
	995,656,832.54	893,015,966.34	11.49
	51,899,819.04	44,336,073.71	17.06
	102,947,102.48	83,752,854.11	22.92
	50,878,547.91	38,696,038.34	31.48
	717,701.18	4,158,868.18	-82.74
	81,352,826.87	-16,860,590.39	
	45,181,402.24	92,713,087.54	-51.27
	-31,464,983.64	-47,783,385.40	

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			%		%
			18.55	11.48	4.49

	207,060,623.82	152,038,232.42	26.57	8.50	11.39	1.9
	1,401,056,137.53	992,765,369.07	29.14	18.55	11.48	4.49
			%	%	%	%
	1,324,459,684.58	940,222,314.29	29.01	18.12	10.88	4.63
	76,596,452.95	52,543,054.78	31.40	26.54	23.50	1.69
	1,401,056,137.53	992,765,369.07	29.14	18.55	11.48	4.49

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				%	%	%
（ ）	3.09	3.12	0.03	36.37	32.11	-54.36
（ ）	4.24	4.30	0.10	13.50	16.99	-34.01
（ ）	0.80	0.61	0.50	-3.63	-7.58	61.30

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			(%)		(%)	(%)	
		527,806,098.47	53.16	493,933,664.25	55.46	6.86	
		62,114,570.20	6.26	58,056,267.89	6.52	6.99	
		91,893,485.31	9.26	82,272,402.13	9.24	11.69	
		68,595,188.59	6.91	58,684,061.10	6.59	16.89	
		242,356,026.50	24.41	197,578,852.80	22.19	22.66	
		992,765,369.07	100	890,525,248.17	100	11.48	
			(%)		(%)	(%)	
		167,716,285.99	70.00	144,571,890.10	71.19	16.01	
		8,085,371.43	3.37	7,638,160.58	3.76	5.85	
		16,631,773.11	6.94	12,578,629.46	6.19	32.22	
		11,543,707.06	4.82	9,783,489.57	4.82	17.99	
		35,643,297.71	14.87	28,509,102.35	14.04	25.02	
		239,620,435.30	100.00	203,081,272.06	100.00	17.99	
		330,458,835.07	57.20	313,218,247.35	59.92	5.50	

		30,033,137.70	5.20	27,434,524.40	5.25	9.47	
		58,606,499.98	10.15	50,156,126.64	9.60	16.85	
		33,863,053.46	5.86	31,140,674.55	5.96	8.74	
		124,724,559.62	21.59	100,714,959.35	19.27	23.84	
		577,686,085.83	100.00	522,664,532.29	100.00	10.53	
		11,344,364.74	48.43	14,934,624.98	52.80	-24.04	
		2,423,400.03	10.35	2,651,013.41	9.37	-8.59	
		1,448,577.78	6.19	1,822,934.96	6.45	-20.54	
		1,536,719.99	6.56	1,793,397.50	6.34	-14.31	
		6,667,552.98	28.47	7,082,388.11	25.04	-5.86	
		23,420,615.52	100.00	28,284,358.96	100.00	-17.20	
		18,286,612.67	12.03	21,208,901.82	15.54	-13.78	
		21,572,661.04	14.19	20,332,569.50	14.90	6.10	
		15,206,634.44	10.00	17,714,711.07	12.98	-14.16	
		21,651,708.08	14.24	15,966,499.48	11.70	35.61	
		75,320,616.19	49.54	61,272,402.99	44.88	22.93	
		152,038,232.42	100.00	136,495,084.86	100.00	11.39	

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	717, 701. 18	4, 158, 868. 18	-3, 441, 167. 00	-82. 74

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	50,878,547.91
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	50,878,547.91
%	3.62
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	81, 352, 826. 87	-16, 860, 590. 39	98, 213, 417. 26	
	45, 181, 402. 24	92, 713, 087. 54	-47, 531, 685. 30	-51. 27
	-353,164, 983. 64			

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		%		%	%	
	172,872,249.39	12.78	74,658,476.49	6.09%	131.55	
	51,735,608.54	3.82	23,984,484.48	1.96%	115.70	
	3,302,233.03	0.24	2,231,692.99	0.18%	47.97	
	571,041.19	0.04	55,390,121.26	4.52%	-98.97	
	5,180,867.77	0.38				
	6,102,798.00	0.45				
	15,349,130.12	1.13	9,784,730.30	0.80%	56.87	
	7,152,907.25	0.53				
	308,000,000.00	22.77	220,000,000.00	17.94%	40.00	
	8,710,108.47	0.64	5,314,456.67	0.43%	63.89	
	1,777,408.22	0.13	1,049,578.24	0.09%	69.34	

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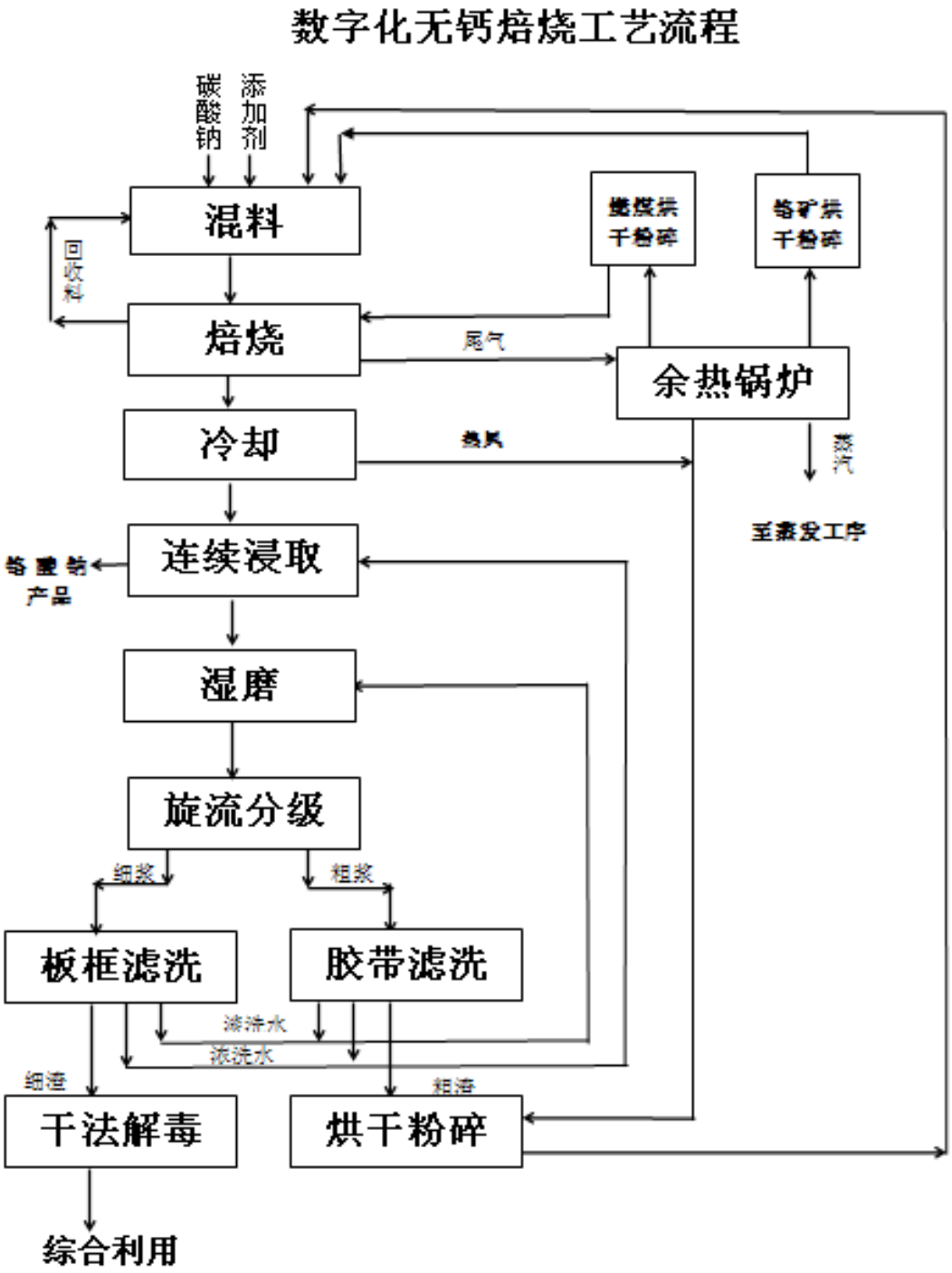
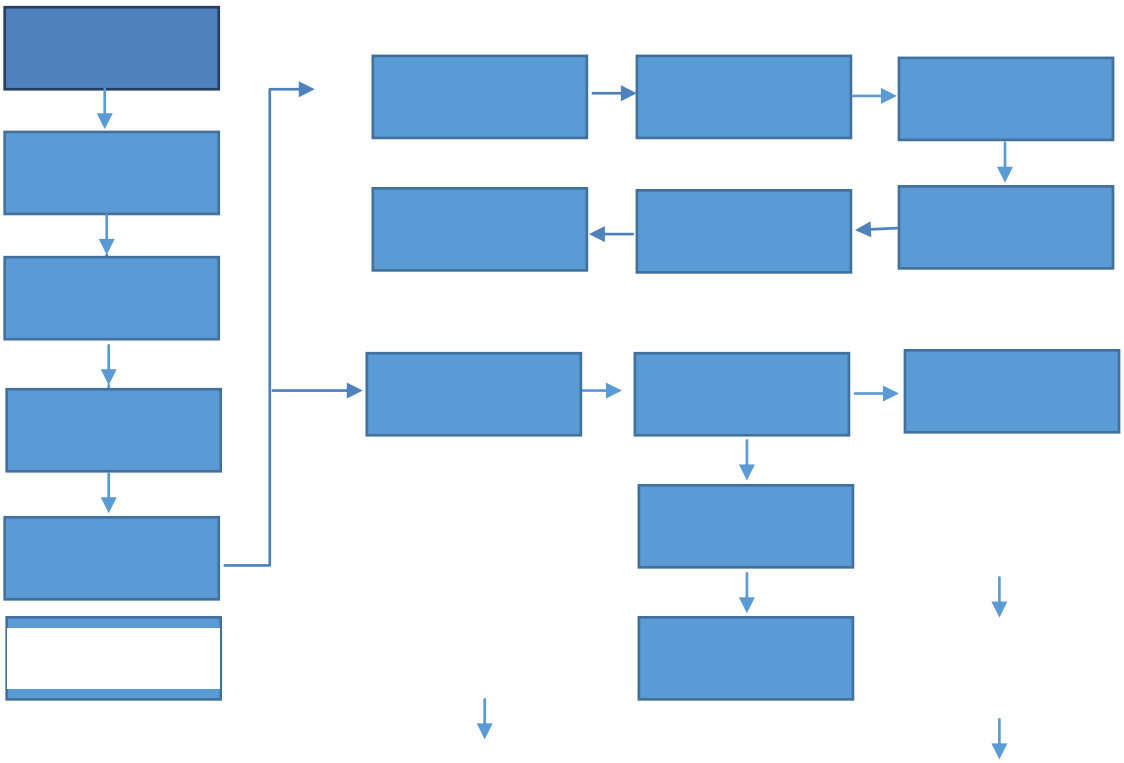

数字化无钙焙烧工艺流程
碳酸钠
添加剂
混料
回收料
焙烧
冷却
连续浸取
湿磨
旋流分级
细浆
粗浆
板框滤洗
胶带滤洗
滤洗水
滤洗水
细渣
粗渣
干法解毒
烘干粉碎
综合利用
烟气
余热锅炉
蒸汽
至蒸发工序

4.2



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			41	2018-4-18	2021-4-17	0	0	0	-	4.00	
			55	2015-3-18	2018-4-17	0	0	0	-	2.00	
	/	/	/	/	/	122,329,300	168,660,200	46,330,900	/	581.08	/

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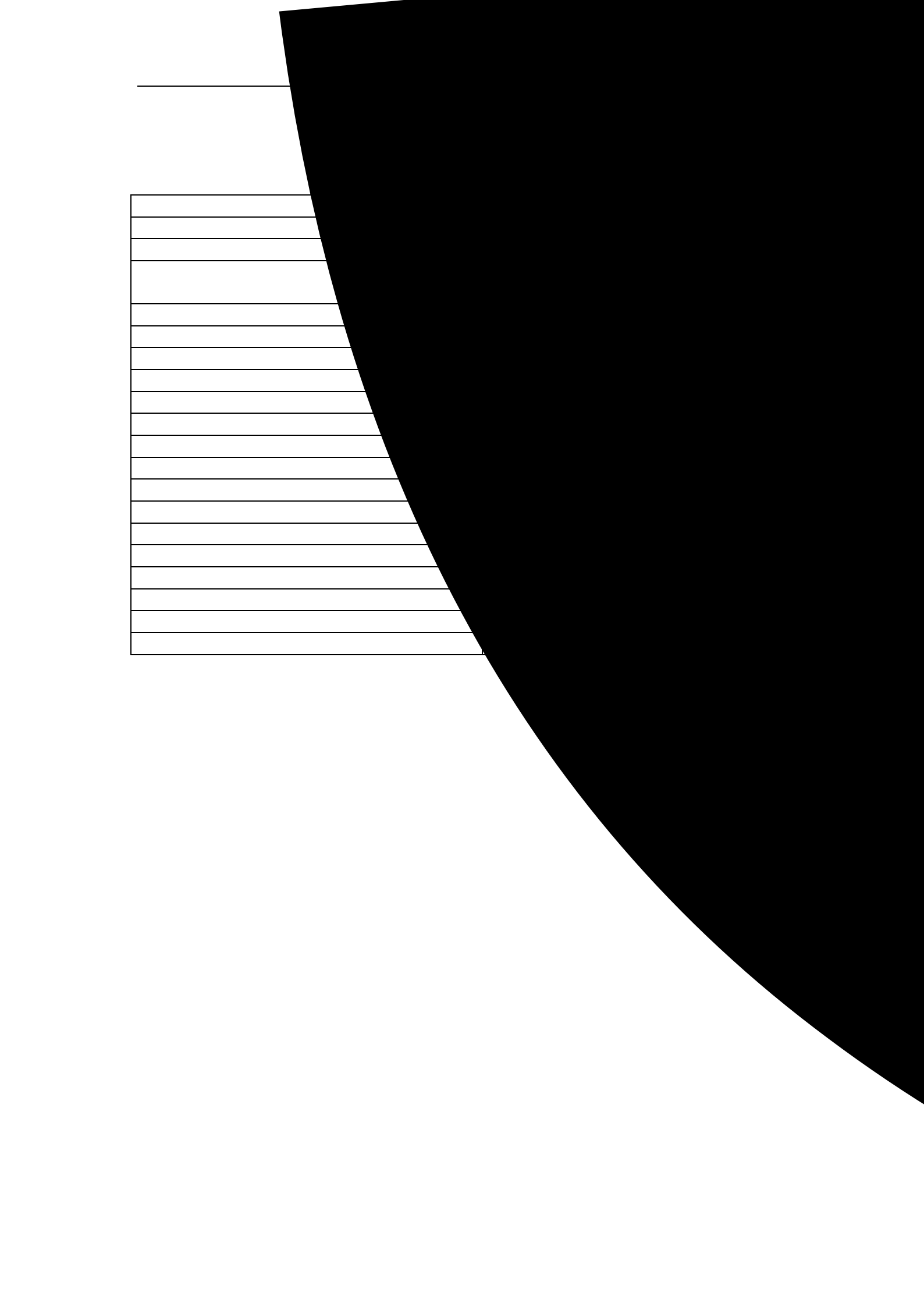

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	1,380,999.71	1,837,588.11
	168,616.00	197,264.06
	23,114,829.03	22,556,452.67

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