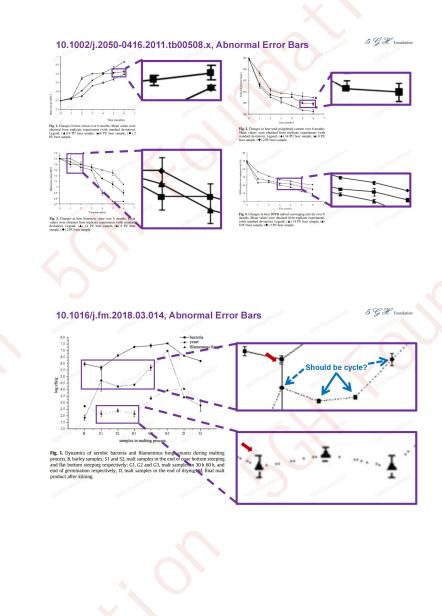


Abnormal Data on Articles with Authors from China Resources Snow Breweries

Recently, the 5GH team found 4 articles with author(s) from China Resources Snow Breweries Co. Ltd. (华润雪花啤酒有限公司) have abnormal data and/or error bars.

Abnormal error bars were found on several figures of article [1-2]. Some of those error bars were shifted rightward to the data points, suggesting they may be manually added instead of generated with the plotting software. It can be observed that some of those error bars are asymmetric, namely, the lengths of the upper part and the lower part are not equal to each other, and some lose the lower part.



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Abnormal patterns of the data is observed on Table 2 of the article [3]. Most of the mean values at the TFC entries have fractional parts of either ".93" or ".27", while the mean values at the BGC entries have trailing digits exclusively to be ".70", ".20", or ".45". These abnormal patterns suggest that the data was fabricated or that the measurements were not properly set up.

able 2	ubstances i	n worts and	d beers.				
Samples	Wort			Beer			
	TPC (mg/L)	TFC (mg/L)	BGC (mg/L)	TPC (mg/L)	TFC (mg/L)	BGC (mg/L)	
T1	638.04	389.93	244.70	584.97	275.93	316.45	
T ₂	$\pm 11.17^{a}$ 633.35	± 2.67 ^a 375.93	$\pm 1.00^{a}$ 243.20	$\pm 2.79^{b}$ 539.16	$\pm 2.00^{b}$ 256.27	± 2.25 281.20	
T ₃	$ \pm 3.07^{ ext{b}} 441.40$	$\pm 2.00^{\mathrm{b}}$	$\pm 2.50^{a}$ 221.45	$\pm 5.59^{\circ}$ 359.55	$\pm 7.00^{\circ}$ 147.60	± 3.00 237.45	
T4 Found	$\pm 8.38^{\circ}$ 362.63	± 3.67 ^c	$\pm 2.75^{b}$ 200.45	$\pm 3.07^{d}$ 630.78	$\pm 3.00^{d}$	± 2.75 267.20	
Control	$\pm 5.59^{d}$ 359.27	± 3.33 ^d 170.27	± 1.25 ^c 199.70	± 5.59 ^a 265.14	$^{\pm}2.33^{a}$ 98.93 $^{\pm}$	± 2.00 253.70	
	$\pm 3.91^{d}$	\pm 5.67 ^d	$\pm 1.25^{c}$	± 5.31 ^e	4.00 ^e	± 2.50	

10.10

Note: T_1 , means added tea at the start of boiling; T_2 , means added tea at the end of boiling; T_3 , means added tea at the cooling process; T_4 , means added tea at the fermentation process; Control, means brewing beer without tea. Different letters in the shoulders of the same column indicate significant differences (p < 0.05).

Meanwhile, unusual over representation of ".7292", ".9306", ".9931", ".7629", ".2639" and ".4097" is observed from the data on the Table 2 of the article [4].

	TFC changes based on three mashi	ng processes.						
Step	Sampling temperature and time	Process (a)		Process (b)		Process (c)		
		Mean (mg/L)	SD (mg/L)	Mean (mg/L)	SD (mg/L)	Mean (mg/L)	SD (mg/L)	
Mashing	50 °C-0 min	150.9306	23.5794	139.0556	8.4827	158.3611	14.8233	
	50 °C-10 min	155.8958	19.2441	142.2847	11.5313	168.5000	12.3124	
	50 °C-20 min	164.8194	23.5479	141.7292	8.1693	167.0069	21.5740	
	50 °C-30 min	182.2153	20.9051	154.9583	5.7977	187.9444	20.9930	
	50 °C-40 min	181.9028	23.4430	159.4028	3.8125	181.4514	9.8500	
	50 °C-50 min	189.2639	23.0258	164.8194	7.6307	183.7083 50	12.5015	
	65 °C-0 min 65 °C-5 min	214.5417 212.2500	17.4462 8.3625	193.0139 206.6597	9.1070 12.3347	206.1736 224.9931	14.8053 7.3999	
	65 °C-10 min	205.9306	6.3025	181.1042	4.0234	196,7639	10,7039	
	65 °C-15 min	232,8750	38.4317	181.1042	4.0505	202.9792	23.4752	
	65 °C-20 min	210.4097	15.9536	193.0139	4.7396	214.8542	10.6063	Numbers of
	65 °C-25 min	236.9028	34.7673	202.7014	8.9588	209.9931	7.4032	Numbers of
	65 °C-30 min	220.4097	13.8490	194.1250	6.4145	211.6944	7.2705	
	65 °C-40 min	229.4375	14.5132	215,8958	21.2784	209.2292	14.0114	
	65 °C-50 min	231.7639	17.6878	211.7292	8.5602	210.8611	12,4654	".7292": 2
	65 °C-60 min	239,1944	13.3624	238,5694	13.0393	233.2222	9,2026	.1292 . 2
	65 °C-70 min	229.7153	27.2869	193.2917	22.9988	217.8750	19.8166	".9306": 3
	65 °C-80 min	235.5833	10.0790	212.1806	17.6195	221.8681	21.1605	.9306 : 3
	65 °C-90 min	242.7014	14.1122	212.9097	14.4078	225.4097	12.6889	".9931": 2
Boiling	0 min	289.2639	18.0830	270.4444	11.8612	246.7639	31.5975	".7629": 3
	10 min	309.2292	14.2415	290.9306	24.5509	276.1736	40.1861	.1023 . 3
	20 min	332.4583	24.2135	282.8750	26.6636	279.5069	42.8291	".2639": 2
	30 min	358.3611	21.7390	312.9444	27.1971	299.7847	45.4894	.2039 . 2
	40 min	372.1111	36.0177	291.1042	42.9431	307.0069	50.7790	# 400711- 0
	50 min	385.0972	35.6262	317.6667	34.1487	326.9722	43.9979	".4097": 3
	60 min	399.5764	33.8432	309.6806	13.1531	360.0972	44.9452	
	70 min	447.2847	12,4565	359,7847	12.2366	388,1181	39,4187	

All these 4 articles have author(s) from a top Chinese alcoholic beverage manufacturers, China Resources Snow Breweries Co. Ltd. (华润雪花啤酒有限公司).

The 5GH team also noticed that an author, named Ran Qiu, from this company published 6 articles in 2024. Most of those articles (5 of 6) were co-authored with authors from Sichuan, and Qiu was the only author from the company. Although Qiu is the leader of a laboratory at the company, he did not publish any academic article before 2024, and he seems not to be a

senior scientist. The 5GH team has no details about the role of Qiu in those studies, but it is likely that he payed for the authorship.

		Some Publications with Author(s) from China Resources Snow Breweries Co. Ltd.	
DOI	Year	Authors	Issues
10,1002/isfa,13889		Min Huang, Li Li, Guoging Lei, Ran Qiu, Yi Wang, Jianhang Wu, Xuyan Zong	100000
10.1016/j.fochx.2024.101193	2024	Jianhang Wu, Ye Zhang, Ran Qiu, Li Li, Xuyan Zong	Abnormal Data
10.1016/j.fochx.2024.101394	2024	Feng Ao, Jianhang Wu, Ran Qiu, Haifeng Zhao, Li Li, Xuyan Zong	nac
10.1016/j.fochx.2024.101673	2024	Xuyan Zong, Xianjiang Zhou, Xinyue Cao, Shun Gao, Dongyang Zhang, Haoran Zhang, Ran Qiu, Yi Wang, Jianhang Wu, Li Li	Abnormal Data
10.1016/j.jfca.2024.106575	2024	Sinuo Li, Jianhua Jia, Qi Meng, Huanlu Song, Ran Qiu	- CH
10.1016/j.jfca.2024.106817	2024	Fengqing Wang, Xinyue Cao, Ran Qiu, Xianjiang Zhou, Yi Wang, Haoran Zhang, Li Li, Xuyan Zong	50
		Following are other problematic articles with author(s) from China Resources Snow Breweries Co. Ltd.	
10.1002/j.2050-0416.2011.tb00508.x	2012	Lei Cao, Guangqi Zhou, Ping Guo, Yuchen Li	Abnormal Error Bars
10.1016/j.fm.2018.03.014	2018	Xiaomin Li, Guolin Cai, Dianhui Wu, Ming Zhang, Cai Lin, Jian Lu	Abnormal Error Bars

In recent years, some commercial companies in China were found to get involved in paper mill, authorship-for-sale, and other academic misconducts. And some others were found to get involved in low quality studies [5]. These practices may also bring ricks to the scientific community.

[1] 10.1002/j.2050-0416.2011.tb00508.x
 [2] 10.1016/j.fm.2018.03.014
 [3] 10.1016/j.fochx.2024.101193
 [4] 10.1016/j.fochx.2024.101673
 [5] 5GH-WuGH-2025.000005

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