Supporting Information

Tabulated Results:

Table S1. Physicochemical characteristics of cold and hot brew peaberry coffee samples from four regions. TTA: total titratable acidity titrated to a pH 6.0 and pH 8.0 expressed in ml of 0.1 N NaOH per 30 mL of coffee.

Coffee Samples	pH	TTA pH = 6 (mL of 0.1 N NaOH)	TTA pH = 8 (mL of 0.1 N NaOH)
		Cold Brew	
Kenya	5.18 ± 0.01^{b}	2.60 ± 0.01^{ad}	5.59 ± 0.03^{ab}
Papua New Guinea	5.20 ± 0.02^{b}	2.43 ± 0.03^{bd}	5.21 ± 0.09^{b}
Sumatra	5.10 ± 0.01^{c}	2.87 ± 0.01^{a}	6.00 ± 0.01^{a}
Tanzania	5.29 ± 0.01^{a}	2.26 ± 0.06^{d}	5.00 ± 0.18^{b}
		Hot Brew	
Kenya	5.08 ± 0.01^{c}	2.76 ± 0.15^{ab}	5.45 ± 0.29^{ab}
Papua New Guinea	5.10 ± 0.01^{c}	2.72 ± 0.08^{abc}	5.45 ± 0.13^{ab}
Sumatra	5.14 ± 0.01^{bc}	2.61 ± 0.04^{abc}	5.53 ± 0.05^{ab}
Tanzania	5.11 ± 0.01^{c}	2.42 ± 0.05^{cd}	4.97 ± 0.13^{b}

Values are means ± SEM, n = 3. $^{a\text{-}d}$Means in a column without a common superscript letter differ ($p < 0.05$) as analyzed by two-way ANOVA and the TUKEY HDS post-test.

Table S2. 5-CQA, 4-CQA, 3-CQA, total CQA, and caffeine concentration of cold and hot brew peaberry coffee samples from four regions.

Coffee Samples	5-CQA (mg/L of Coffee)	4-CQA (mg/L of Coffee)	3-CQA (mg/L of Coffee)	Total CQA (mg/L of Coffee)	Caffeine (mg/L of Coffee)
			Cold Brew		
Kenya	1027 ± 9^{bc}	496 ± 4^{cd}	404 ± 3^{cd}	1927 ± 16^{cd}	1315 ± 11^{a}
Papua New Guinea	981 ± 9^{c}	477 ± 4^{d}	387 ± 4^{d}	1845 ± 16^{d}	1233 ± 12^{bc}
Sumatra	1150 ± 8^{a}	571 ± 3^{ab}	470 ± 1^{ab}	2192 ± 11^{ab}	1183 ± 7^{cd}
Tanzania	1142 ± 9^{a}	564 ± 5^{b}	461 ± 3^{b}	2167 ± 16^{b}	1108 ± 8^{e}
			Hot Brew		
Kenya	1067 ± 11^{b}	516 ± 5^{c}	418 ± 4^{c}	2001 ± 19^{c}	1283 ± 12^{ab}
Papua New Guinea	1056 ± 11^{b}	507 ± 5^{cd}	405 ± 4^{cd}	1967 ± 20^{cd}	1286 ± 14^{ab}
Sumatra	977 ± 13^{c}	478 ± 7^{d}	391 ± 5^{d}	1847 ± 25^{d}	1140 ± 8de
Tanzania	1206 ± 33^{a}	598 ± 16^{a}	490 ± 12^{a}	2294 ± 61^{a}	1186 ± 31^{cd}

Values are means ± SEM, n = 6. $^{a\text{-}d}$Means in a column without a common superscript letter differ ($p < 0.05$) as analyzed by two-way ANOVA and the TUKEY HDS post-test.

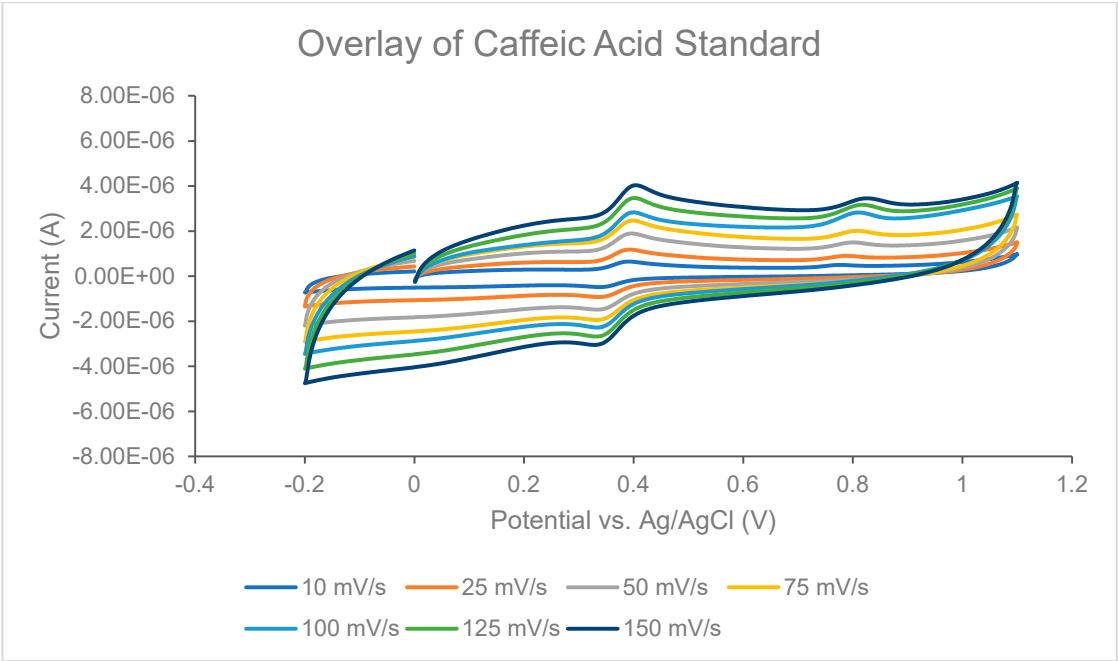
Table S3. Antioxidant activities, total phenolic content (TPC), and total flavonoid content (TFC) of cold and hot brew peaberry coffee samples from four regions.

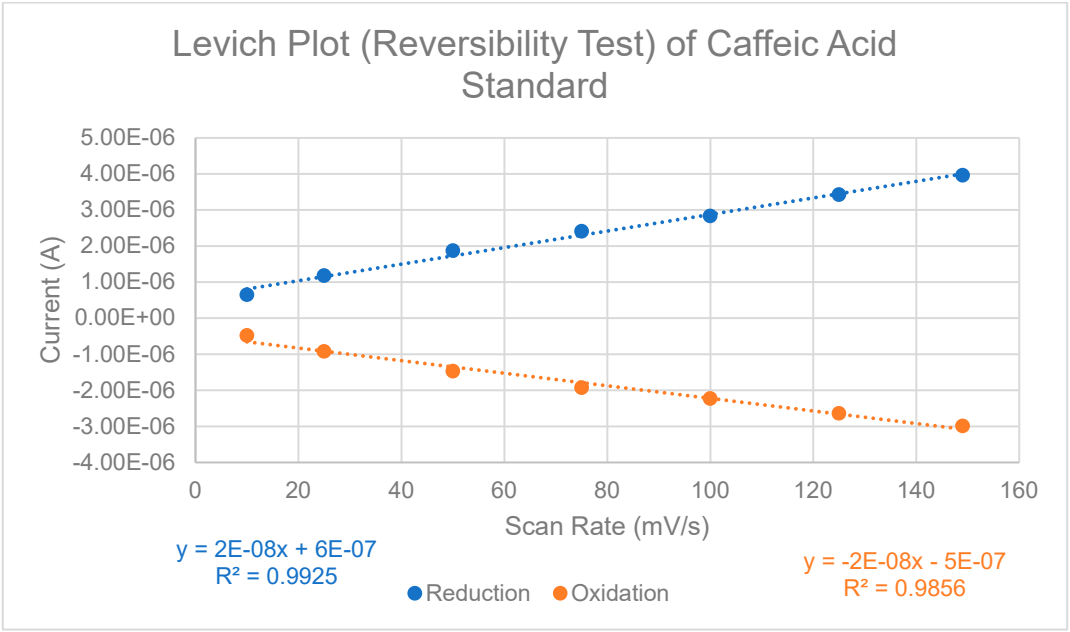
Coffee Samples	ABTS (mg TE/L of Coffee)	DPPH (mg TE/L of Coffee)	FRAP (mg $FeSO_4$/L Coffee)	TPC (mg GAE/L of Coffee)	TFC (mg Rutin/L of Coffee)
			Cold Brew		
Kenya	17.76 ± 0.19^{a}	16.84 ± 0.24^{a}	295 ± 1.0^{a}	596 ± 4.8^{ac}	9.55 ± 0.12^{ab}
Papua New Guinea	15.39 ± 0.34^{c}	13.89 ± 0.11^{d}	262 ± 3.6^{c}	565 ± 2.6^{d}	8.56 ± 0.06^{c}
Sumatra	17.42 ± 0.27^{ab}	15.60 ± 0.25^{b}	302 ± 1.9^{a}	605 ± 1.2^{a}	9.79 ± 0.08^{a}
Tanzania	16.70 ± 0.18^{b}	15.13 ± 0.19^{bc}	280 ± 3.5^{b}	585 ± 2.7^{c}	9.65 ± 0.05^{ab}
			Hot Brew		
Kenya	17.57 ± 0.09^{ab}	15.92 ± 0.27^{b}	306 ± 1.4^{a}	602 ± 2.8^{ab}	9.65 ± 0.08^{ab}
Papua New Guinea	18.10 ± 0.14^{a}	14.59 ± 0.13^{cd}	295 ± 2.4^{a}	592 ± 2.2^{bc}	9.33 ± 0.06^{b}
Sumatra	17.28 ± 0.11^{ab}	15.35 ± 0.18^{bc}	298 ± 2.8^{a}	602 ± 3.2^{ab}	9.67 ± 0.07^{ab}
Tanzania	17.30 ± 0.09^{ab}	15.84 ± 0.16^{b}	304 ± 2.4^{a}	600 ± 2.1^{ab}	9.82 ± 0.11^{a}

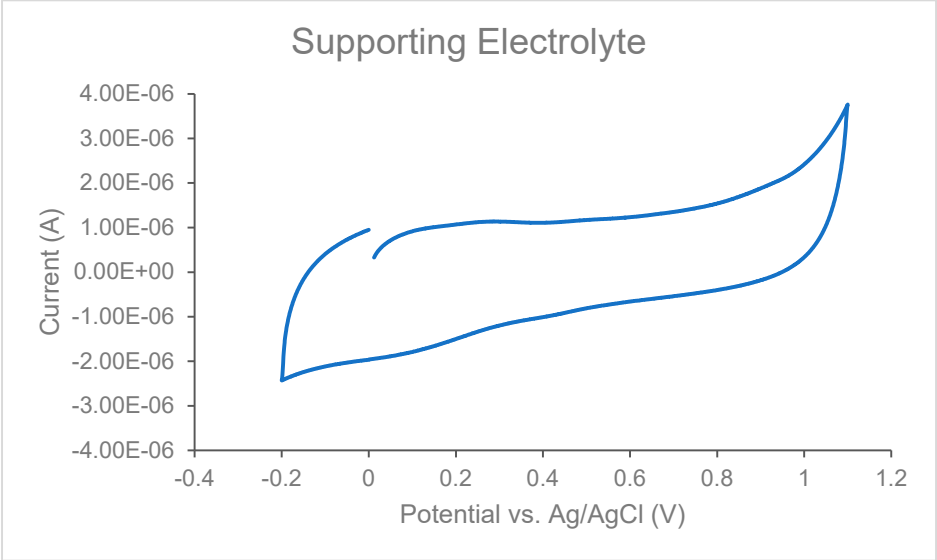
Values are means ± SEM, n = 6. $^{a-d}$Means in a column without a common superscript letter differ ($p < 0.05$) as analyzed by two-way ANOVA and the TUKEY HDS post-test.

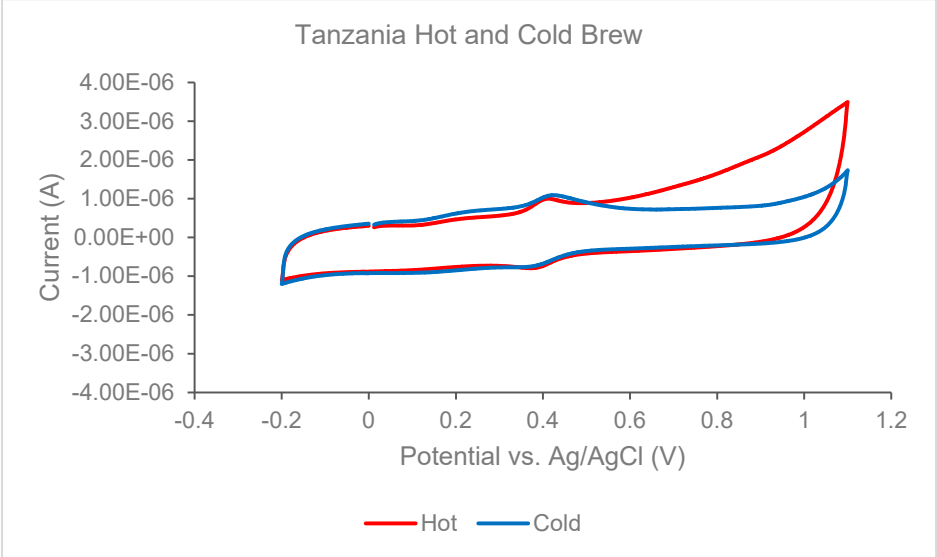
Cyclic Voltammetry:

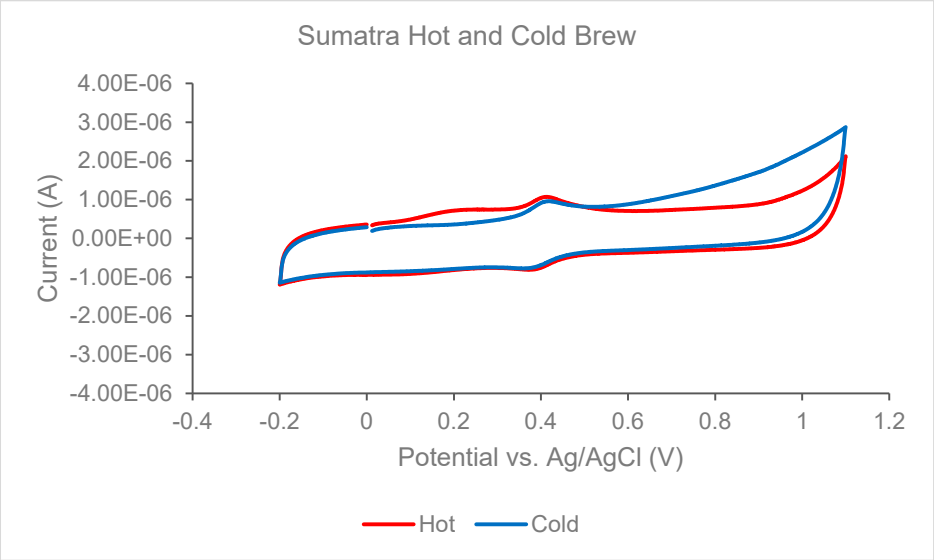
A BASi Epsilon Eclipse Potentiostat was utilized for all cyclic voltammetry (CV) measurements. A three-electrode system was setup consisting of a glassy carbon working electrode, platinum wire counter electrode, and silver-silver chloride reference electrode. The glassy carbon working electrode was polished with 0.05 micron alumina (BASi PK-4 polishing kit), thoroughly cleaned of any residue, and dried before use. Glassware was cleaned and oven-dried overnight before use. All scans were performed at a scan rate of 0.1 V/s with a potential window of -0.2 V to +1.1 V at room temperature, unless for variable scan rate measurements to determine reversibility in the case of the caffeic acid standard. Distilled water was used in all aspects of CV analyses. Each scan has the proper heading to distinguish between samples.

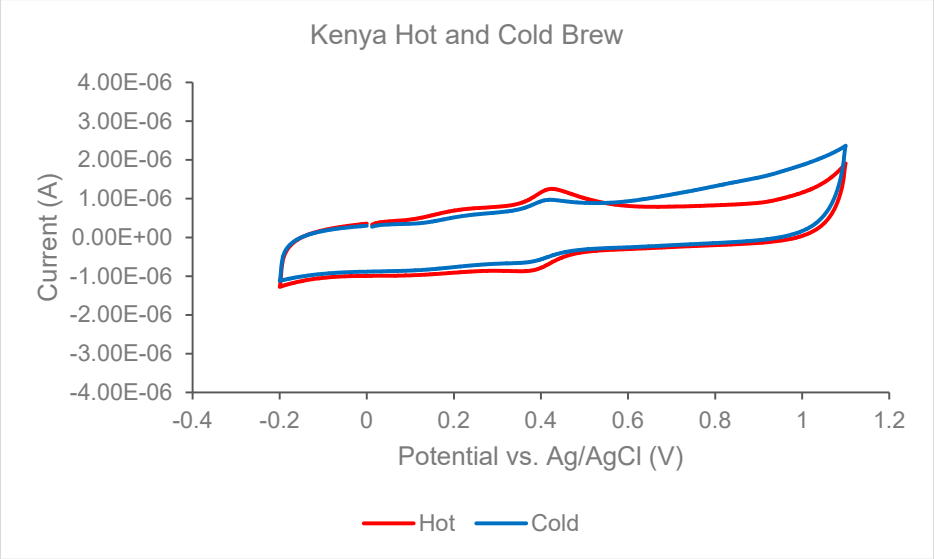

Overlay of Caffeic Acid Standard
8.00E-06
6.00E-06
4.00E-06
2.00E-06
0.00E+00
-2.00E-06
-4.00E-06
-6.00E-06
-8.00E-06
Current (A)
-0.4
-0.2
0
0.2
0.4
0.6
0.8
1
1.2
Potential vs. Ag/AgCl (V)
10 mV/s
25 mV/s
50 mV/s
75 mV/s
100 mV/s
125 mV/s
150 mV/s

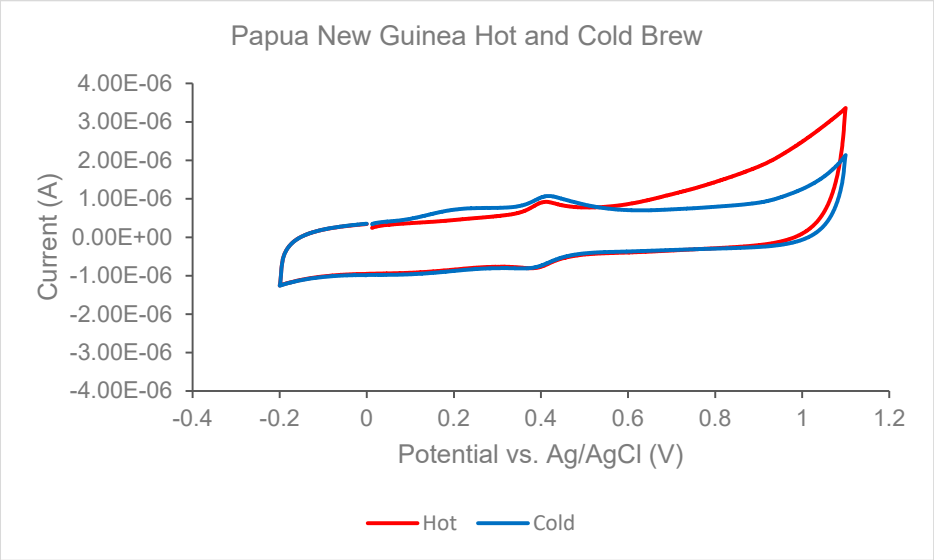

Levich Plot (Reversibility Test) of Caffeic Acid Standard
5.00E-06
4.00E-06
3.00E-06
2.00E-06
1.00E-06
0.00E+00
-1.00E-06
-2.00E-06
-3.00E-06
-4.00E-06
Current (A)
0
20
40
60
80
100
120
140
160
Scan Rate (mV/s)
y = 2E-08x + 6E-07
R² = 0.9925
y = -2E-08x - 5E-07
R² = 0.9856
Reduction
Oxidation

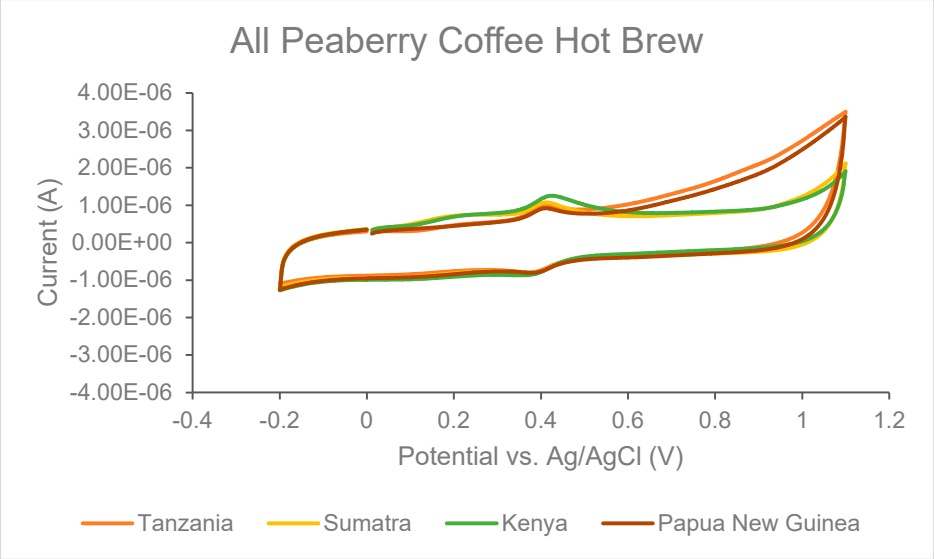

Supporting Electrolyte
4.00E-06
3.00E-06
2.00E-06
1.00E-06
0.00E+00
-1.00E-06
-2.00E-06
-3.00E-06
-4.00E-06
Current (A)
-0.4
-0.2
0
0.2
0.4
0.6
0.8
1
1.2
Potential vs. Ag/AgCl (V)

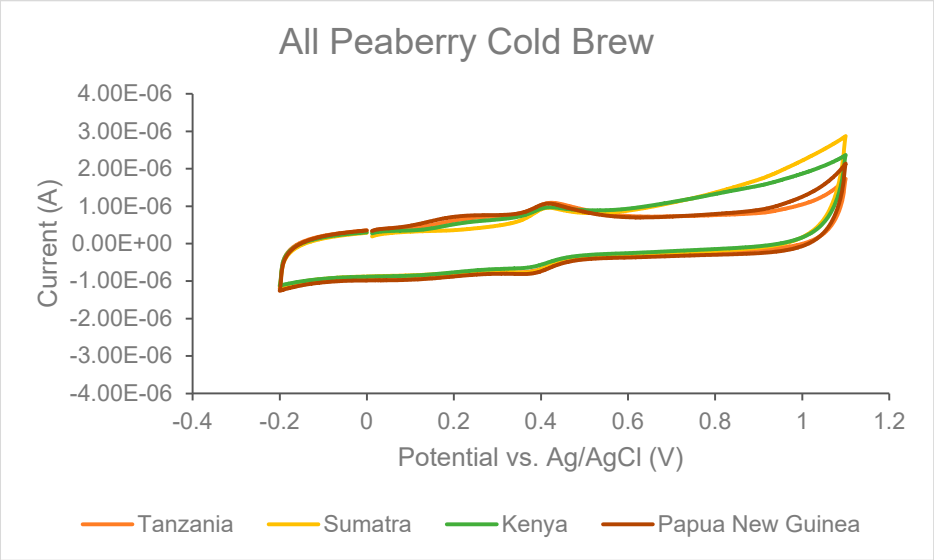

Tanzania Hot and Cold Brew
4.00E-06
3.00E-06
2.00E-06
1.00E-06
0.00E+00
-1.00E-06
-2.00E-06
-3.00E-06
-4.00E-06
Current (A)
-0.4
-0.2
0
0.2
0.4
0.6
0.8
1
1.2
Potential vs. Ag/AgCl (V)
Hot
Cold


Sumatra Hot and Cold Brew
4.00E-06
3.00E-06
2.00E-06
1.00E-06
0.00E+00
-1.00E-06
-2.00E-06
-3.00E-06
-4.00E-06
Current (A)
-0.4
-0.2
0
0.2
0.4
0.6
0.8
1
1.2
Potential vs. Ag/AgCl (V)
Hot
Cold


Kenya Hot and Cold Brew
4.00E-06
3.00E-06
2.00E-06
1.00E-06
0.00E+00
-1.00E-06
-2.00E-06
-3.00E-06
-4.00E-06
Current (A)
-0.4
-0.2
0
0.2
0.4
0.6
0.8
1
1.2
Potential vs. Ag/AgCl (V)
Hot
Cold


Papua New Guinea Hot and Cold Brew
4.00E-06
3.00E-06
2.00E-06
1.00E-06
0.00E+00
-1.00E-06
-2.00E-06
-3.00E-06
-4.00E-06
Current (A)
-0.4
-0.2
0
0.2
0.4
0.6
0.8
1
1.2
Potential vs. Ag/AgCl (V)
Hot
Cold


All Peaberry Coffee Hot Brew
4.00E-06
3.00E-06
2.00E-06
1.00E-06
0.00E+00
-1.00E-06
-2.00E-06
-3.00E-06
-4.00E-06
Current (A)
-0.4
-0.2
0
0.2
0.4
0.6
0.8
1
1.2
Potential vs. Ag/AgCl (V)
Tanzania
Sumatra
Kenya
Papua New Guinea


All Peaberry Cold Brew
4.00E-06
3.00E-06
2.00E-06
1.00E-06
0.00E+00
-1.00E-06
-2.00E-06
-3.00E-06
-4.00E-06
Current (A)
-0.4
-0.2
0
0.2
0.4
0.6
0.8
1
1.2
Potential vs. Ag/AgCl (V)
Tanzania
Sumatra
Kenya
Papua New Guinea