

Supplementary Information

Chemical Profiling of Cocaine Seized by Brazilian Federal Police in 2009-2012: Major Components

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Figure S1. Brazilian territory and the localization of the studied states.

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Table S1. Brazilian state and year of apprehension. cocaine and (*cis+trans*)-cinnamoylcocaine levels, sample classifications based on oxidation degree, cocaine presentation form and cutting agents found

Sample	State	Cocaine / %	Total cinnamoylcocaine/ cocaine / %	Oxidation	Form	Cutting agents	Year
1	AC	82.6	13.2	Minimum	Base	Uncut	2011
2	AC	78.0	12.7	Minimum	Base	Fen	2011
3	AC	76.8	3.4	Moderate	Base	Fen	2010
4	AC	73.2	1.8	High	Base	Uncut	2010
5	AC	76.3	8.0	Minimum	Base	Uncut	2011
6	AC	76.0	11.5	Minimum	Base	Fen	2010
7	AC	71.8	6.8	Minimum	Base	Uncut	2010
8	AC	60.9	0.9	High	Base	Fen/Caf	2010
9	AC	66.6	7.6	Minimum	Base	Uncut	2011
10	AC	79.6	8.9	Minimum	Base	Uncut	2011
11	AC	73.5	9.1	Minimum	Base	Fen	2011
12	AC	85.0	7.3	Minimum	Base	Uncut	2011
13	AC	73.2	7.9	Minimum	Base	Fen	2011
14	AC	73.6	2.2	Moderate	Base	Uncut	2011
15	AC	55.6	12.3	Minimum	Base	Fen	2011
16	AC	71.0	8.3	Minimum	Base	Fen	2011
17	AC	77.4	2.5	Moderate	HCl	Uncut	2012
18	AC	76.8	2.5	Moderate	HCl	Uncut	2012
19	AM	41.1	0.8	High	Base	Fen/Caf	2010
20	AM	42.9	2.4	Moderate	Base	Fen/Caf	2010
21	AM	52.1	2.4	Moderate	Base	Uncut	2010
22	AM	19.3	0.0	High	Base	Uncut	2010
23	AM	70.2	11.9	Minimum	Base	Uncut	2010
24	AM	78.4	2.0	Moderate	HCl	Uncut	2009
25	AM	75.1	2.1	Moderate	HCl	Uncut	2009
26	AM	70.9	2.0	High	Base	Fen	2009
27	AM	77.6	1.7	High	HCl	Caf	2009
28	AM	40.8	11.9	Minimum	Base	Fen	2009
29	AM	56.9	0.5	High	HCl	Lev/Dil	2009
30	AM	71.8	5.1	Moderate	Base	Fen	2009
31	AM	79.6	2.5	Moderate	HCl	Uncut	2009
32	AM	79.4	2.2	Moderate	HCl	Caf	2009
33	AM	79.4	2.7	Moderate	HCl	Uncut	2009
34	AM	74.5	15.6	Minimum	Base	Uncut	2012
35	AM	79.9	4.9	Moderate	HCl	Uncut	2012
36	DF	76.5	0.3	High	HCl	Fen/Lev	2010
37	DF	60.0	4.4	Moderate	Base	Fen	2010
38	DF	72.0	4.7	Moderate	Base	Fen	2010
39	DF	71.3	11.5	Minimum	Base	Fen	2009
40	DF	77.6	11.6	Minimum	Base	Uncut	2009
41	DF	76.6	8.9	Minimum	Base	Fen	2010
42	DF	81.4	2.9	Moderate	HCl	Uncut	2010
43	DF	83.1	2.8	Moderate	HCl	Uncut	2010

Table S1. continuation

Sample	State	Cocaine / %	Total cinnamoylcocaine/ cocaine / %	Oxidation	Form	Cutting agents	Year
44	DF	72.3	0.3	High	HCl	Fen/Lev	2010
45	DF	75.1	0.4	High	HCl	Fen/Lev	2010
46	DF	61.8	3.0	Moderate	HCl	Fen/Caf/Lev	2010
47	DF	66.2	3.1	Moderate	HCl	Fen/Caf/Lev	2010
48	DF	79.9	2.0	High	HCl	Uncut	2009
49	DF	72.6	0.3	High	HCl	Lev	2009
50	DF	71.2	13.4	Minimum	Base	Uncut	2010
51	DF	74.0	6.6	Minimum	Base	Uncut	2010
52	DF	53.5	4.0	Moderate	Base	Uncut	2012
53	DF	70.6	14.6	Minimum	Base	Uncut	2012
54	DF	74.2	13.4	Minimum	Base	Uncut	2012
55	DF	65.3	7.3	Minimum	Base	Uncut	2012
56	DF	68.0	17.5	Minimum	Base	Uncut	2012
57	DF	67.6	16.6	Minimum	Base	Uncut	2012
58	DF	71.6	18.5	Minimum	Base	Uncut	2012
59	DF	70.3	0.0	High	HCl	Uncut	2012
60	MS	72.0	1.5	High	HCl	Hid	2009
61	MS	46.8	4.0	Moderate	Base	Uncut	2009
62	MS	78.2	2.4	Moderate	Base	Fen	2009
63	MS	74.8	6.8	Minimum	Base	Fen	2009
64	MS	76.4	2.5	Moderate	HCl	Uncut	2009
65	MS	55.7	0.9	High	Base	Uncut	2009
66	MS	59.4	2.7	Moderate	Base	Fen	2009
67	MS	82.6	10.3	Minimum	Base	Uncut	2009
68	MS	77.9	5.7	Moderate	Base	Fen	2009
69	MS	39.7	6.3	Minimum	Base	Uncut	2009
70	MS	73.6	5.9	Moderate	Base	Uncut	2009
71	MS	42.9	6.2	Minimum	HCl	Uncut	2009
72	MS	73.9	11.4	Minimum	Base	Uncut	2009
73	MS	69.2	3.3	Moderate	Base	Fen	2009
74	MS	63.8	11.3	Minimum	Base	Fen	2011
75	MS	52.9	3.0	Moderate	HCl	Lev/Lid	2011
76	MT	73.5	2.1	Moderate	HCl	Lev	2010
77	MT	75.8	7.6	Minimum	Base	Fen	2010
78	MT	71.0	9.1	Minimum	Base	Uncut	2010
79	MT	76.6	8.1	Minimum	Base	Uncut	2010
80	MT	78.1	8.7	Minimum	Base	Uncut	2009
81	MT	44.7	9.5	Minimum	Base	Fen	2010
82	MT	78.6	2.6	Moderate	Base	Uncut	2010
83	MT	69.5	13.6	Minimum	Base	Uncut	2010
84	MT	81.7	11.5	Minimum	Base	Fen	2010
85	MT	77.9	3.5	Moderate	HCl	Uncut	2010
86	MT	78.6	3.8	Moderate	HCl	Uncut	2010

Table S1. continuation

Sample	State	Cocaine / %	Total cinnamoylcocaine/ cocaine / %	Oxidation	Form	Cutting agents	Year
87	MT	52.4	8.1	Minimum	Base	Uncut	2010
88	MT	64.2	10.9	Minimum	Base	Uncut	2010
89	MT	72.9	11.4	Minimum	Base	Uncut	2010
90	MT	70.9	11.3	Minimum	Base	Uncut	2010
91	MT	66.3	7.6	Minimum	Base	Uncut	2010
92	MT	79.0	0.0	High	HCl	Lev	2012
93	MT	79.5	0.0	High	HCl	Lev	2012
94	MT	78.9	0.0	High	HCl	Lev	2012
95	MT	78.5	0.0	High	HCl	Lev	2012
96	MT	78.1	0.0	High	HCl	Lev	2012
97	MT	66.3	9.4	Minimum	Base	Fen	2012
98	MT	75.9	5.7	Moderate	Base	Fen	2012
99	MT	78.6	0.0	High	HCl	Lev	2012
100	MT	79.1	0.0	High	HCl	Lev	2012
101	MT	79.8	0.0	High	HCl	Lev	2012
102	MT	77.3	8.6	Minimum	Base	Uncut	2012
103	MT	71.7	8.5	Minimum	Base	Uncut	2012
104	MT	73.5	8.7	Minimum	Base	Uncut	2012
105	MT	74.0	8.6	Minimum	Base	Uncut	2012
106	MT	73.0	8.8	Minimum	Base	Uncut	2012
107	MT	72.8	8.8	Minimum	Base	Uncut	2012
108	MT	81.2	10.5	Minimum	Base	Fen	2012
109	MT	81.0	10.6	Minimum	Base	Fen	2012
110	MT	80.0	11.8	Minimum	Base	Fen	2012
111	MT	80.3	11.9	Minimum	Base	Fen	2012
112	PR	82.0	2.5	Moderate	HCl	Uncut	2010
113	PR	76.2	2.6	Moderate	HCl	Uncut	2010
114	PR	83.5	2.5	Moderate	HCl	Caf	2010
115	PR	85.7	3.1	Moderate	HCl	Uncut	2010
116	PR	85.0	2.6	Moderate	HCl	Uncut	2010
117	PR	68.7	1.1	High	HCl	Lev	2010
118	PR	86.4	2.6	Moderate	HCl	Uncut	2010
119	PR	86.7	2.4	Moderate	HCl	Uncut	2010
120	PR	87.5	1.4	High	HCl	Lev	2010
121	PR	87.0	2.6	Moderate	HCl	Uncut	2010
122	PR	67.6	2.2	Moderate	HCl	Uncut	2010
123	PR	12.0	0.0	High	Base	Uncut	2010
124	PR	76.7	10.2	Minimum	Base	Uncut	2010
125	PR	75.8	10.2	Minimum	Base	Uncut	2010
126	PR	82.4	7.3	Minimum	Base	Fen	2010
127	PR	85.2	4.8	Moderate	Base	Fen	2010
128	PR	42.6	3.3	Moderate	Base	Fen	2010
129	PR	46.4	3.7	Moderate	Base	Uncut	2010

Table S1. continuation

Sample	State	Cocaine / %	Total cinnamoylcocaine/ cocaine / %	Oxidation	Form	Cutting agents	Year
130	PR	50.5	7.1	Minimum	Base	Ben/Fen/Caf	2010
131	PR	81.6	8.5	Minimum	Base	Uncut	2010
132	PR	78.1	6.5	Minimum	Base	Uncut	2010
133	PR	78.3	7.6	Minimum	Base	Fen	2010
134	PR	57.5	2.6	Moderate	HCl	Lev	2010
135	PR	76.8	1.7	High	HCl	Uncut	2010
136	PR	77.6	10.9	Minimum	Base	Uncut	2010
137	PR	66.2	3.6	Moderate	HCl	Lev	2010
138	PR	34.3	2.3	Moderate	HCl	Fen	2010
139	PR	86.6	7.4	Minimum	Base	Fen	2010
140	PR	76.9	2.9	Moderate	Base	Uncut	2010
141	PR	85.2	2.9	Moderate	HCl	Uncut	2010
142	PR	80.9	2.8	Moderate	HCl	Uncut	2010
143	PR	73.2	6.4	Minimum	Base	Fen/Lid	2010
144	PR	84.3	3.0	Moderate	HCl	Uncut	2010
145	PR	84.3	2.8	Moderate	HCl	Uncut	2010
146	PR	51.0	12.3	Minimum	Base	Fen	2010
147	PR	40.8	11.0	Minimum	Base	Ben/Fen	2010
148	PR	84.1	0.3	High	HCl	Uncut	2010
149	PR	84.3	0.8	High	HCl	Uncut	2010
150	PR	55.1	12.9	Minimum	Base	Fen	2010
151	RO	75.1	7.9	Minimum	Base	Uncut	2010
152	RO	88.7	8.4	Minimum	Base	Uncut	2010
153	RO	81.6	2.9	Moderate	HCl	Uncut	2010
154	RO	76.0	7.9	Minimum	Base	Uncut	2010
155	RO	73.3	2.4	Moderate	Base	Fen/Caf	2010
156	RO	22.8	3.5	Moderate	HCl	Uncut	2010
157	RO	67.7	8.5	Minimum	Base	Uncut	2010
158	RO	64.4	11.7	Minimum	Base	Uncut	2010
159	RO	63.1	12.3	Minimum	Base	Uncut	2010
160	RO	69.5	14.1	Minimum	Base	Uncut	2010
161	RO	67.7	8.5	Minimum	Base	Fen	2010
162	RO	67.6	6.2	Minimum	Base	Uncut	2010
163	RO	76.9	11.0	Minimum	Base	Uncut	2010
164	RO	71.3	17.2	Minimum	Base	Uncut	2010
165	RO	82.4	5.8	Moderate	Base	Uncut	2010
166	RO	19.7	2.4	Moderate	HCl	Fen	2010
167	RO	65.6	2.2	Moderate	Base	Uncut	2010
168	RO	88.4	7.0	Minimum	Base	Uncut	2010
169	RO	79.3	2.8	Moderate	Base	Fen	2010
170	RO	77.0	4.3	Moderate	Base	Fen	2010
171	SP	77.0	2.7	Moderate	HCl	Uncut	2010
172	SP	85.1	1.1	High	HCl	Lev	2010

Table S1. continuation

Sample	State	Cocaine / %	Total cinnamoylcocaine/ cocaine / %	Oxidation	Form	Cutting agents	Year
173	SP	56.8	9.5	Minimum	Base	Fen/Caf/Lid	2010
174	SP	66.1	7.5	Minimum	Base	Fen/Caf	2010
175	SP	74.7	7.6	Minimum	Base	Fen	2011
176	SP	84.3	2.6	Moderate	HCl	Fen	2011
177	SP	60.0	8.8	Minimum	Base	Fen	2010
178	SP	79.3	3.2	Moderate	HCl	Fen/Lev	2010
179	SP	73.5	0.9	High	HCl	Lev/Lid	2010
180	SP	69.1	2.3	Moderate	HCl	Lev	2010
181	SP	81.7	1.7	High	HCl	Uncut	2010
182	SP	79.6	3.2	Moderate	HCl	Uncut	2010
183	SP	76.8	2.3	Moderate	HCl	Fen/Lev	2010
184	SP	71.7	10.6	Minimum	Base	Uncut	2010
185	SP	73.9	2.1	Moderate	HCl	Lev/Lid	2010
186	SP	77.2	3.0	Moderate	HCl	Fen/Lev	2010
187	SP	57.0	8.8	Minimum	Base	Fen	2010
188	SP	58.2	2.2	Moderate	HCl	Lid	2010
189	SP	69.5	1.5	High	Base	Uncut	2010
190	SP	69.7	8.8	Minimum	Base	Fen	2010
191	SP	71.9	2.9	Moderate	Base	Uncut	2010
192	SP	77.9	2.2	Moderate	HCl	Uncut	2010
193	SP	77.1	2.4	Moderate	HCl	Uncut	2010
194	SP	86.8	2.1	Moderate	HCl	Lid/Hid	2010
195	SP	71.5	0.0	High	HCl	Lev	2011
196	SP	82.2	4.2	Moderate	HCl	Lid	2011
197	SP	93.4	1.1	High	Base	Lid	2011
198	SP	77.1	0.0	High	HCl	Lev	2011
199	SP	70.5	0.0	High	HCl	Lev	2011
200	SP	68.3	0.0	High	HCl	Lev	2011
201	SP	47.1	9.2	Minimum	Base	Uncut	2011
202	SP	76.9	2.8	Moderate	HCl	Lev	2011
203	SP	72.4	1.3	High	HCl	Lev	2011
204	SP	75.5	2.3	Moderate	HCl	Uncut	2011
205	SP	77.4	1.7	High	HCl	Lev	2011
206	SP	79.3	0.0	High	HCl	Lev	2011
207	SP	71.4	0.0	High	HCl	Lev	2011
208	SP	64.3	9.4	Minimum	Base	Lid	2011
209	SP	70.4	4.1	Moderate	HCl	Lev	2011
210	SP	80.4	2.9	Moderate	HCl	Lev	2011