

Supporting Information

Table S1. Samples of bioethanol from different raw materials (sugar cane, corn, wheat, beet and grape) produced in different geographic regions of Brazil, France and United States and its carbon isotopic values, $\delta^{13}\text{C}_{\text{V-PDB}}$ (‰).

Samples (Codes)	Mean $\delta^{13}\text{C}_{\text{V-PDB}}$ (‰)	SD (‰)	RSD (%)	Raw Material	Metabolism	Local (State/Country)
SC 1	-12.48	0.29	2.35	Sugar Cane	C4	São Paulo/SP/Brazil
SC 2	-13.20	0.10	0.76	Sugar Cane	C4	São Paulo/SP/Brazil
SC 3	-12.44	0.14	1.16	Sugar Cane	C4	São Paulo/SP/Brazil
SC 4	-13.06	0.65	4.94	Sugar Cane	C4	São Paulo/SP/Brazil
SC 5	-11.65	0.30	2.61	Sugar Cane	C4	NA
SC 6	-12.26	0.08	0.64	Sugar Cane	C4	NA
SC 7	-12.37	0.31	2.51	Sugar Cane	C4	NA
SC 8	-11.73	0.66	5.60	Sugar Cane	C4	Campos dos Goytacazes/RJ/Brazil
SC 9	-13.10	0.07	0.55	Sugar Cane	C4	Campos dos Goytacazes/RJ/Brazil
SC 10	-10.32	0.15	1.43	Sugar Cane	C4	São Paulo/SP/Brazil
SC 11	-12.39	0.10	0.82	Sugar Cane	C4	Mato Grosso/MT/Brazil
SC 12	-12.91	0.41	3.20	Sugar Cane	C4	São Paulo/SP/Brazil
SC 13	-12.70	0.22	1.76	Sugar Cane	C4	Pernambuco/PE/Brazil
SC 14	-12.05	0.25	2.09	Sugar Cane	C4	Jales Machado/GO/Brazil
SC 15	-13.10	0.26	2.01	Sugar Cane	C4	Ourinhos/SP/Brazil
SC 16	-11.85	0.32	2.67	Sugar Cane	C4	Iracemópolis/SP/Brazil
SC 17	-13.25	0.18	1.33	Sugar Cane	C4	Macatuba/SP/Brazil
SC 18	-12.01	0.29	2.42	Sugar Cane	C4	Jussara/SP/Brazil
SC 19	-12.69	0.39	3.09	Sugar Cane	C4	Araçatuba/SP/Brazil
SC 20	-13.11	0.20	1.51	Sugar Cane	C4	José Bonifácio/SP/Brazil
SC 21	-11.89	0.40	3.35	Sugar Cane	C4	Padrópolis/SP/Brazil

Samples (Codes)	Mean $\delta^{13}\text{C}_{\text{V-PDB}}$ (‰)	SD (‰)	RSD (%)	Raw Material	Metabolism	Local (State/Country)
SC 22	-12.61	0.30	2.40	Sugar Cane	C4	Itumbiara/GO/Brazil
SC 23	-12.30	0.41	3.31	Sugar Cane	C4	Capivari/SP/Brazil
SC 24	-12.68	0.22	1.77	Sugar Cane	C4	NA
SC 25	-12.02	0.57	4.71	Sugar Cane	C4	São Paulo/SP/Brazil
SC 26	-11.82	0.22	1.88	Sugar Cane	C4	São Paulo/SP/Brazil
Corn 1	-9.68	0.28	2.88	Corn	C4	United States of America
Corn 2	-9.88	0.16	1.59	Corn	C4	United States of America
SC 27	-11.64	0.10	0.89	Sugar Cane	C4	Piracicaba/SP/Brazil
SC 28	-12.65	0.30	2.38	Sugar Cane	C4	São Paulo/SP/Brazil
SC 29	-12.36	0.15	1.17	Sugar Cane	C4	Rio de Janeiro/RJ/Brazil
SC 30	-12.26	0.48	3.95	Sugar Cane	C4	São Paulo/SP/Brazil
SC 31	-13.20	0.24	1.85	Sugar Cane	C4	São Paulo/SP/Brazil
Wheat	-27.92	0.18	0.64	Wheat	C3	Malakoff/France
Beet1	-27.69	0.28	0.99	Beet	C3	Malakoff/France
Beet2	-27.60	0.33	1.21	Beet	C3	Malakoff/France
Grape	-25.81	0.49	1.92	Grape	C3	Malakoff/France