

Note: Most compounds are available individually. Please scroll down to see the components in *n*-alkane mixtures marked in the 3 rightmost columns.

Carbon number	Version 12 May 2021 Individual <i>n</i> -alkanes formula, CAS #, purity, amount, type of packaging, price in US \$	Structure	$\delta^2\text{H}$ (or δD) (mean value in ‰ vs. VSMOW, $\pm 1\sigma$) (range) (# of measurements)	$\delta^{13}\text{C}$ (mean value in ‰ vs. VPDB, $\pm 1\sigma$) (range) (# of measurements)	Composition of <i>n</i> -alkane mixture A7 $\text{C}_{16}\text{-C}_{30}$ (mg in 0.5 mL hexane; US \$250) see chromatogram	Composition of <i>n</i> -alkane mixture B5 $\text{C}_{16}\text{-C}_{30}$ (mg in 0.5 mL hexane; US \$250) see chromatogram	Composition of <i>n</i> -alkane mixture C4 $\text{C}_{17}\text{-C}_{25}$ (mg in 0.5 mL hexane; US \$250) see chromatogram
1	Methane #1 , CH_4 , CAS # 74-82-8, ca. 10 cm ³ at atmospheric pressure in sealed glass tube (outer diameter 9 mm), US \$150	CH_4	-160.8 ± 2.1 ‰ from -158.8 to -164.2 ‰ n = 9	-38.25 ± 0.03 ‰ from -38.23 to -38.30 ‰ n = 6			
1	Methane #2 , CH_4 , CAS # 74-82-8, ca. 10 cm ³ at atmospheric pressure in sealed glass tube (outer diameter 9 mm), US \$150	CH_4	-41.3 ± 1.3 ‰ from -39.7 to -42.6 ‰ n = 4	-37.60 ± 0.03 ‰ from -37.57 to -37.62 ‰ n = 3			
1	Methane #3 , CH_4 , CAS # 74-82-8, ca. 10 cm ³ at atmospheric pressure in sealed glass tube (outer diameter 9 mm), US \$250	CH_4	$+2.2 \pm 1.2$ ‰ from +0.4 to +3.7 ‰ n = 6	$+19.86 \pm 0.05$ ‰ from +19.81 to +19.94 ‰ n = 5			
1	Methane #5 , CH_4 , CAS # 74-82-8, ca. 10 cm ³ at atmospheric pressure in sealed glass tube (outer diameter 9 mm), US \$250	CH_4	-69.8 ± 2.5 ‰ from -66.0 to -73.6 ‰ n = 6	-22.44 ± 0.03 ‰ from -22.40 to -22.48 ‰ n = 7			
1	Methane #6 , CH_4 , CAS # 74-82-8, ca. 10 cm ³ at atmospheric pressure in sealed glass tube (outer diameter 9 mm), US \$250	CH_4	-153.0 ± 2.0 ‰ from -150.6 to -155.2 ‰ n = 5	-39.40 ± 0.02 ‰ from -39.38 to -39.42 ‰ n = 6			
2	Ethane #1 , C_2H_6 , $\geq 99\%$, CAS # 74-84-0, ≥ 5 milligrams sealed in glass tube (outer diameter 9 mm), US \$250		-132.7 ± 1.5 ‰ from -130.3 to -134.1 ‰ n = 5	-29.54 ± 0.01 ‰ from -29.52 to -29.55 ‰ n = 5			
2	Ethane #2 , C_2H_6 , $\geq 99\%$, CAS # 74-84-0, ≥ 5 milligrams sealed in glass tube (outer diameter 9 mm), US \$250		-31.6 ± 1.1 ‰ from -30.2 to -32.6 ‰ n = 5	-25.50 ± 0.01 ‰ from -25.48 to -25.51 ‰ n = 4			
2	Ethane #3 , C_2H_6 , $\geq 99\%$, CAS # 74-84-0, ≥ 5 milligrams sealed in glass tube (outer diameter 9 mm), US \$250		$+100.1 \pm 2.7$ ‰ from +95.5 to +102.7 ‰ n = 5	-11.39 ± 0.02 ‰ from -11.37 to -11.42 ‰ n = 5			
3	Propane #1 , C_3H_8 , $\geq 99\%$, CAS # 74-98-6, ≥ 5 milligrams sealed in glass tube (outer diameter 9 mm), US \$250		-165.9 ± 1.4 ‰ from -165.1 to -167.5 ‰ n = 3	-33.29 ± 0.03 ‰ from -33.26 to -33.32 ‰ n = 3			
5	<i>n</i>-Pentane , C_5H_{12} , CAS # 109-66-0, 99+ %, 1 mL sealed under argon in glass ampoule, US \$250		-117.5 ± 1.0 ‰ from -116.1 to -118.9 ‰ n = 6	-27.19 ± 0.02 ‰ from -27.17 to -27.22 ‰ n = 4			
8	<i>n</i>-Octane , C_8H_{18} , CAS # 111-65-9, 99+ %, 1 mL sealed under argon in glass ampoule, US \$250		-77.6 ± 0.7 ‰ from -76.5 to -78.4 ‰ n = 7	-31.75 ± 0.01 ‰ from -31.74 to -31.77 ‰ n = 4			
12	Dodecane #1, C12 <i>n</i>-alkane #1 , $\text{C}_{12}\text{H}_{26}$, CAS # 112-40-3, only in older mixtures	$\text{CH}_3(\text{CH}_2)_{10}\text{CH}_3$	-62.5 ± 2.2 ‰ from -60.2 to -64.7 ‰ n = 4	-31.99 ± 0.04 ‰ from -31.94 to -32.04 ‰ n = 6			
12	Dodecane #2, C12 <i>n</i>-alkane #2 , $\text{C}_{12}\text{H}_{26}$, CAS # 112-40-3, 0.5 milliliter sealed under argon in glass ampoule, US \$250	$\text{CH}_3(\text{CH}_2)_{10}\text{CH}_3$	-84.5 ± 0.4 ‰ from -84.2 to -85.1 ‰ n = 4	-32.00 ± 0.03 ‰ from -31.95 to -32.03 ‰ n = 5			
14	Tetradecane, C14 <i>n</i>-alkane , $\text{C}_{14}\text{H}_{30}$, CAS # 629-59-4, ≥ 5 mg in sealed glass capillary, US \$250	$\text{CH}_3(\text{CH}_2)_{12}\text{CH}_3$	-71.7 ± 1.4 ‰ from -69.3 to -73.5 ‰ n = 6	-30.69 ± 0.03 ‰ from -30.67 to -30.72 ‰ n = 3			
15	Pentadecane #1, C15 <i>n</i>-alkane #1 , $\text{C}_{15}\text{H}_{32}$, CAS # 629-62-9, ≥ 5 mg in sealed glass capillary, US \$250	$\text{CH}_3(\text{CH}_2)_{13}\text{CH}_3$	-88.4 ± 1.2 ‰ from -86.7 to -90.9 ‰ n = 10	-29.25 ± 0.01 ‰ from -29.25 to -29.26 ‰ n = 3			
15	Pentadecane #2, C15 <i>n</i>-alkane #2 , $\text{C}_{15}\text{H}_{32}$, CAS # 629-62-9, ≥ 5 mg in sealed glass capillary, US \$250	$\text{CH}_3(\text{CH}_2)_{13}\text{CH}_3$	-85.8 ± 2.2 ‰ from -83.2 to -88.0 ‰ n = 7	-29.93 ± 0.02 ‰ from -29.91 to -29.97 ‰ n = 5			
16	Hexadecane #2, C16 <i>n</i>-alkane #2 , $\text{C}_{16}\text{H}_{34}$, CAS # 544-76-3, ≥ 5 mg in sealed glass capillary, US \$250	$\text{CH}_3(\text{CH}_2)_{14}\text{CH}_3$	-9.1 ± 1.4 ‰ from -7.9 to -11.1 ‰ n = 7	-26.15 ± 0.02 ‰ from -26.13 to -26.17 ‰ n = 5	0.701	0.140	
16	Hexadecane #3, USGS67, C16 <i>n</i>-alkane #3 , $\text{C}_{16}\text{H}_{34}$, $\geq 99\%$, CAS # 544-76-3, ≥ 50 μL in sealed glass capillary, US \$250	$\text{CH}_3(\text{CH}_2)_{14}\text{CH}_3$	-166.2 ± 1.0 ‰ n = 163 (<i>Anal. Chem.</i> , 2016, 88, 4294. http://dx.doi.org/10.1021/acs.analchem.5b04392)	-34.50 ± 0.05 ‰ n = 99 (<i>Anal. Chem.</i> , 2016, 88, 4294. http://dx.doi.org/10.1021/acs.analchem.5b04392)			
16	Hexadecane #B, USGS68, C16 <i>n</i>-alkane #B , $\text{C}_{16}\text{H}_{34}$, contains spikes of ^2H and $1,2\text{-}^{13}\text{C}_2$, $\geq 99\%$, CAS # 544-76-3, ≥ 50 μL in sealed glass capillary, US \$250	$\text{CH}_3(\text{CH}_2)_{14}\text{CH}_3$	-10.2 ± 0.9 ‰ n = 147 (<i>Anal. Chem.</i> , 2016, 88, 4294. http://dx.doi.org/10.1021/acs.analchem.5b04392)	-10.55 ± 0.04 ‰ n = 91 (<i>Anal. Chem.</i> , 2016, 88, 4294. http://dx.doi.org/10.1021/acs.analchem.5b04392)			
16	Hexadecane #C, USGS69, C16 <i>n</i>-alkane #C , $\text{C}_{16}\text{H}_{34}$, contains spikes of ^2H and $1,2\text{-}^{13}\text{C}_2$, $\geq 99\%$, CAS # 544-76-3, ≥ 50 μL in sealed glass capillary, US \$250	$\text{CH}_3(\text{CH}_2)_{14}\text{CH}_3$	$+381.4 \pm 3.5$ ‰ n = 132 (<i>Anal. Chem.</i> , 2016, 88, 4294. http://dx.doi.org/10.1021/acs.analchem.5b04392)	-0.57 ± 0.04 ‰ n = 86 (<i>Anal. Chem.</i> , 2016, 88, 4294. http://dx.doi.org/10.1021/acs.analchem.5b04392)			
17	Heptadecane #2, C17 <i>n</i>-alkane #2 , $\text{C}_{17}\text{H}_{36}$, CAS # 629-78-7, ≥ 5 mg in sealed glass capillary, US \$250	$\text{CH}_3(\text{CH}_2)_{15}\text{CH}_3$	-117.5 ± 2.1 ‰ from -114.7 to -120.7 ‰ n = 8	-31.87 ± 0.02 ‰ from -31.84 to -31.90 ‰ n = 8	0.701	0.280	0.702
18	Octadecane #1, C18 <i>n</i>-alkane #1 , $\text{C}_{18}\text{H}_{38}$, CAS # 593-45-3, ≥ 5 mg in sealed glass capillary, US \$250	$\text{CH}_3(\text{CH}_2)_{16}\text{CH}_3$	-53.8 ± 2.1 ‰ from -50.9 to -55.7 ‰ n = 4	-31.11 ± 0.02 ‰ from -31.08 to -31.14 ‰ n = 8			
18	Octadecane #2, C18 <i>n</i>-alkane #2 , $\text{C}_{18}\text{H}_{38}$, CAS # 593-45-3, ≥ 5 mg in sealed glass capillary, US \$250	$\text{CH}_3(\text{CH}_2)_{16}\text{CH}_3$	-52.0 ± 1.1 ‰ from -50.6 to -53.5 ‰ n = 5	-32.70 ± 0.01 ‰ from -32.69 to -32.72 ‰ n = 5	0.700	0.420	
19	Nonadecane #2, C19 <i>n</i>-alkane #2 , $\text{C}_{19}\text{H}_{40}$, CAS # 629-92-5, ≥ 5 mg in sealed glass capillary, US \$250	$\text{CH}_3(\text{CH}_2)_{17}\text{CH}_3$	-56.3 ± 1.0 ‰ from -55.0 to -57.5 ‰ n = 5	-31.99 ± 0.01 ‰ from -31.98 to -32.02 ‰ n = 6	0.700	0.560	0.701

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	<i>n</i> -alkane mixture A7 $\text{C}_{16}\text{-C}_{30}$ (mg in 0.5 mL hexane; US \$250) see chromatogram				<i>n</i> -alkane mixture B5 $\text{C}_{16}\text{-C}_{30}$ (mg in 0.5 mL hexane; US \$250) see chromatogram	<i>n</i> -alkane mixture C4 $\text{C}_{17}\text{-C}_{25}$ (mg in 0.5 mL hexane; US \$250) see chromatogram	
20	Eicosane #1, icosane #1, C20 <i>n</i>-alkane , $\text{C}_{20}\text{H}_{42}$, CAS # 112-95-8, ≥ 5 mg in sealed glass capillary, US \$250	$\text{CH}_3(\text{CH}_2)_{18}\text{CH}_3$	-52.6 \pm 0.8 ‰ from -51.6 to -53.7 ‰ n = 5	-32.35 \pm 0.04 ‰ from -32.31 to -32.39 ‰ n = 4			
20	Eicosane #2, icosane #2, C20 <i>n</i>-alkane , $\text{C}_{20}\text{H}_{42}$, CAS # 112-95-8, ≥ 5 mg in sealed glass capillary, US \$250	$\text{CH}_3(\text{CH}_2)_{18}\text{CH}_3$	-89.7 \pm 1.7 ‰ from -87.3 to -91.2 ‰ n = 4	-33.97 \pm 0.02 ‰ from -33.93 to -33.98 ‰ n = 6			
20	Eicosane #3, icosane #3, C20 <i>n</i>-alkane , $\text{C}_{20}\text{H}_{42}$, CAS # 112-95-8, ≥ 5 mg in sealed glass capillary, US \$250	$\text{CH}_3(\text{CH}_2)_{18}\text{CH}_3$	-177.6 \pm 1.1 ‰ from -176.4 to -179.3 ‰ n = 5	-40.91 \pm 0.02 ‰ from -40.89 to -40.94 ‰ n = 7	0.700	0.700	
20	Eicosane #4, icosane #4, C20 <i>n</i>-alkane , $\text{C}_{20}\text{H}_{42}$, CAS # 112-95-8, ≥ 5 mg in sealed glass capillary, US \$250	$\text{CH}_3(\text{CH}_2)_{18}\text{CH}_3$	-49.6 \pm 2.1 ‰ from -47.2 to -52.3 ‰ n = 4	-31.88 \pm 0.02 ‰ from -31.85 to -31.90 ‰ n = 7			
21	Heneicosane #2, C21 <i>n</i>-alkane #2 , $\text{C}_{21}\text{H}_{44}$, CAS # 629-94-7, ≥ 5 mg in sealed glass capillary, US \$250	$\text{CH}_3(\text{CH}_2)_{19}\text{CH}_3$	-177.8 \pm 1.5 ‰ from -176.1 to -179.5 ‰ n = 6	-28.83 \pm 0.02 ‰ from -28.81 to -28.85 ‰ n = 5	0.701	0.140	0.699
21	Heneicosane #3, C21 <i>n</i>-alkane #3 , $\text{C}_{21}\text{H}_{44}$, CAS # 629-94-7, ≥ 5 mg in sealed glass capillary, US \$250	$\text{CH}_3(\text{CH}_2)_{19}\text{CH}_3$	-205.3 \pm 2.5 ‰ from -202.3 to -207.9 ‰ n = 6	-29.40 \pm 0.02 ‰ from -29.38 to -29.43 ‰ n = 5			
22	Docosane #1, C22 <i>n</i>-alkane #1 , $\text{C}_{22}\text{H}_{46}$, CAS # 629-97-0, ≥ 5 mg in sealed glass capillary, US \$250	$\text{CH}_3(\text{CH}_2)_{20}\text{CH}_3$	-62.8 \pm 1.6 ‰ from -60.9 to -64.9 ‰ n = 6	-32.87 \pm 0.03 ‰ from -32.84 to -32.91 ‰ n = 5			
22	Docosane #2, C22 <i>n</i>-alkane #2 , $\text{C}_{22}\text{H}_{46}$, CAS # 629-97-0, ≥ 5 mg in sealed glass capillary, US \$250	$\text{CH}_3(\text{CH}_2)_{20}\text{CH}_3$	-81.3 \pm 1.8 ‰ from -79.4 to -83.2 ‰ n = 5	-33.77 \pm 0.02 ‰ from -33.75 to -33.79 ‰ n = 4			
22	Docosane #3, C22 <i>n</i>-alkane #3 , $\text{C}_{22}\text{H}_{46}$, CAS # 629-97-0, ≥ 5 mg in sealed glass capillary, US \$250	$\text{CH}_3(\text{CH}_2)_{20}\text{CH}_3$	-68.2 \pm 1.8 ‰ from -65.7 to -70.4 ‰ n = 5	-34.89 \pm 0.02 ‰ from -34.87 to -34.92 ‰ n = 6		0.280	
22	Docosane #4, C22 <i>n</i>-alkane #4 , $\text{C}_{22}\text{H}_{46}$, CAS # 629-97-0, ≥ 5 mg in sealed glass capillary, US \$250	$\text{CH}_3(\text{CH}_2)_{20}\text{CH}_3$	-158.7 \pm 0.9 ‰ from -157.1 to -160.0 ‰ n = 6	-29.19 \pm 0.03 ‰ from -29.15 to -29.23 ‰ n = 5			
22	Docosane #M, C22 <i>n</i>-alkane #M , $\text{C}_{22}\text{H}_{46}$, CAS # 629-97-0, available only in mixture A7	$\text{CH}_3(\text{CH}_2)_{20}\text{CH}_3$	-74.8 \pm 1.8 ‰ from -72.6 to -76.8 ‰ n = 5	-34.33 \pm 0.02 ‰ from -34.31 to -34.36 ‰ n = 5	0.700		
23	Tricosane #1, C23 <i>n</i>-alkane #1 , $\text{C}_{23}\text{H}_{48}$ #1, CAS # 638-67-5, ≥ 5 mg in sealed glass capillary, US \$250	$\text{CH}_3(\text{CH}_2)_{21}\text{CH}_3$	-48.8 \pm 1.4 ‰ from -47.0 to -51.2 ‰ n = 6	-31.77 \pm 0.01 ‰ from -31.76 to -31.77 ‰ n = 5			
23	Tricosane #2, C23 <i>n</i>-alkane #2 , $\text{C}_{23}\text{H}_{48}$ #1, CAS # 638-67-5, ≥ 5 mg in sealed glass capillary, US \$250	$\text{CH}_3(\text{CH}_2)_{21}\text{CH}_3$	-67.2 \pm 1.1 ‰ from -65.6 to -68.6 ‰ n = 6	-33.37 \pm 0.03 ‰ from -33.33 to -33.40 ‰ n = 5	0.700	0.420	0.703
23	Tricosane #3, C23 <i>n</i>-alkane #3 , $\text{C}_{23}\text{H}_{48}$ #1, CAS # 638-67-5, ≥ 5 mg in sealed glass capillary, US \$250	$\text{CH}_3(\text{CH}_2)_{21}\text{CH}_3$	-65.6 \pm 2.0 ‰ from -63.2 to -68.3 ‰ n = 6	-33.34 \pm 0.01 ‰ from -33.33 to -33.36 ‰ n = 6			
23	Tricosane #4, C23 <i>n</i>-alkane #4 , $\text{C}_{23}\text{H}_{48}$ #1, CAS # 638-67-5, ≥ 5 mg in sealed glass capillary, US \$250	$\text{CH}_3(\text{CH}_2)_{21}\text{CH}_3$	-68.7 \pm 1.0 ‰ from -67.3 to -69.6 ‰ n = 6	-33.34 \pm 0.01 ‰ from -33.32 to -33.36 ‰ n = 5			
24	Tetracosane #1, C24 <i>n</i>-alkane #1 , $\text{C}_{24}\text{H}_{50}$, CAS # 646-31-1, ≥ 5 mg in sealed glass capillary, US \$250	$\text{CH}_3(\text{CH}_2)_{22}\text{CH}_3$	-53.0 \pm 1.6 ‰ from -50.7 to -54.5 ‰ n = 4	-33.34 \pm 0.02 ‰ from -33.32 to -33.36 ‰ n = 6			
24	Tetracosane #2, C24 <i>n</i>-alkane #2 , $\text{C}_{24}\text{H}_{50}$, CAS # 646-31-1, ≥ 5 mg in sealed glass capillary, US \$250	$\text{CH}_3(\text{CH}_2)_{22}\text{CH}_3$	-29.7 \pm 1.5 ‰ from -28.2 to -31.8 ‰ n = 6	-32.13 \pm 0.02 ‰ from -32.11 to -32.16 ‰ n = 6	0.701	0.560	
25	Pentacosane #3, C25 <i>n</i>-alkane #3 , $\text{C}_{25}\text{H}_{52}$, CAS # 629-99-2, available only as part of mixtures	$\text{CH}_3(\text{CH}_2)_{23}\text{CH}_3$	-254.1 \pm 1.5 ‰ from -252.0 to -256.1 ‰ n = 5	-28.48 \pm 0.02 ‰ from -28.45 to -28.51 ‰ n = 7			0.702
25	Pentacosane #4, C25 <i>n</i>-alkane #4 , $\text{C}_{25}\text{H}_{52}$, CAS # 629-99-2, ≥ 5 mg in sealed glass capillary, US \$250	$\text{CH}_3(\text{CH}_2)_{23}\text{CH}_3$	-263.6 \pm 2.2 ‰ from -260.5 to -266.2 ‰ n = 5	-28.46 \pm 0.02 ‰ from -28.42 to -28.48 ‰ n = 7	0.700	0.700	
26	Hexacosane #2, C26 <i>n</i>-alkane #2 , $\text{C}_{26}\text{H}_{54}$, CAS # 630-01-3, ≥ 5 mg in sealed glass capillary, US \$250	$\text{CH}_3(\text{CH}_2)_{24}\text{CH}_3$	-45.9 \pm 1.0 ‰ from -44.4 to -46.7 ‰ n = 5	-32.94 \pm 0.01 ‰ from -32.92 to -32.95 ‰ n = 8	0.700	0.140	
27	Heptacosane #1, C27 <i>n</i>-alkane #1 , $\text{C}_{27}\text{H}_{56}$, CAS # 593-49-7, available only in older mixtures	$\text{CH}_3(\text{CH}_2)_{25}\text{CH}_3$	-227.3 \pm 2.0 ‰ from -225.‰ to -229.6 ‰ n = 3	-28.61 \pm 0.02 ‰ from -28.59 to -28.65 ‰ n = 6			
27	Heptacosane #2, C27 <i>n</i>-alkane #2 , $\text{C}_{27}\text{H}_{56}$, CAS # 593-49-7, available only in some <i>n</i> -alkane mixtures	$\text{CH}_3(\text{CH}_2)_{25}\text{CH}_3$	-178.2 \pm 2.5 ‰ from -173.8 to -181.5 ‰ n = 9	-29.56 \pm 0.01 ‰ from -29.55 to -29.57 ‰ n = 4			
27	Heptacosane #3, C27 <i>n</i>-alkane #3 , $\text{C}_{27}\text{H}_{56}$, CAS # 593-49-7, ≥ 5 mg in sealed glass capillary, US \$250	$\text{CH}_3(\text{CH}_2)_{25}\text{CH}_3$	-172.8 \pm 1.6 ‰ from -170.6 to -175.1 ‰ n = 6	-30.49 \pm 0.01 ‰ from -30.47 to -30.50 ‰ n = 5	0.701		
27	Heptacosane #4, C27 <i>n</i>-alkane #4 , $\text{C}_{27}\text{H}_{56}$, CAS # 593-49-7, ≥ 5 mg in sealed glass capillary, US \$250	$\text{CH}_3(\text{CH}_2)_{25}\text{CH}_3$	-192.5 \pm 1.4 ‰ from -190.4 to -194.1 ‰ n = 5	-31.11 \pm 0.01 ‰ from -31.11 to -31.12 ‰ n = 5		0.280	
28	Octacosane #2, C28 <i>n</i>-alkane #2 , $\text{C}_{28}\text{H}_{58}$, CAS # 630-02-4, ≥ 5 mg in sealed glass capillary, US \$250	$\text{CH}_3(\text{CH}_2)_{26}\text{CH}_3$	-36.8 \pm 1.3 ‰ from -35.6 to -38.9 ‰ n = 5	-33.20 \pm 0.01 ‰ from -33.20 to -33.20 ‰ n = 5	0.700	0.420	
29	Nonacosane #1, C29 <i>n</i>-alkane #1 , $\text{C}_{29}\text{H}_{60}$, CAS # 630-03-5, available only in older <i>n</i> -alkane mixtures	$\text{CH}_3(\text{CH}_2)_{27}\text{CH}_3$	-179.3 \pm 2.7 ‰ from -177.0 to -183.0 ‰ n = 5	-31.08 \pm 0.02 ‰ from -31.06 to -31.10 ‰ n = 3			
29	Nonacosane #3, C29 <i>n</i>-alkane #3 , $\text{C}_{29}\text{H}_{60}$, CAS # 630-03-5, ≥ 5 mg in sealed glass capillary, US \$250	$\text{CH}_3(\text{CH}_2)_{27}\text{CH}_3$	-177.8 \pm 1.3 ‰ from -176.0 to -179.7 ‰ n = 10	-29.10 \pm 0.01 ‰ from -29.08 to -29.11 ‰ n = 5	0.700		

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29	Nonacosane #4, C29 <i>n</i>-alkane #4, $\text{C}_{29}\text{H}_{60}$, CAS # 630-03-5, ≥ 5 mg in sealed glass capillary, US \$250	$\text{CH}_3(\text{CH}_2)_{27}\text{CH}_3$	-162.6 \pm 2.2 ‰ from -160.6 to -165.0 ‰ n = 4	-29.30 \pm 0.02 ‰ from -29.27 to -29.32 ‰ n = 5		0.560	
29	Nonacosane #5, C29 <i>n</i>-alkane #5, $\text{C}_{29}\text{H}_{60}$, CAS # 630-03-5, ≥ 5 mg in sealed glass capillary, US \$250	$\text{CH}_3(\text{CH}_2)_{27}\text{CH}_3$	-85.4 \pm 1.4 ‰ from -82.9 to -86.8 ‰ n = 6	-31.83 \pm 0.02 ‰ from -31.80 to -31.85 ‰ n = 5			
30	Triacontane #1, C30 <i>n</i>-alkane #1, $\text{C}_{30}\text{H}_{62}$, CAS # 638-68-6; available only in older <i>n</i> -alkane mixtures	$\text{CH}_3(\text{CH}_2)_{28}\text{CH}_3$	-46.3 \pm 2.1 ‰ from -42.1 to -49.4 ‰ n = 8	-33.15 \pm 0.02 ‰ from -33.13 to -33.18 ‰ n = 9			
30	Triacontane #2, C30 <i>n</i>-alkane #2, $\text{C}_{30}\text{H}_{62}$, CAS # 638-68-6; available only as a component of mixtures	$\text{CH}_3(\text{CH}_2)_{28}\text{CH}_3$	-213.4 \pm 1.2 ‰ from -211.8 to -215.0 ‰ n = 8	-29.86 \pm 0.01 ‰ from -29.86 to -29.87 ‰ n = 4			
30	Triacontane #3, C30 <i>n</i>-alkane #3, $\text{C}_{30}\text{H}_{62}$, CAS # 638-68-6; ≥ 5 mg in sealed glass capillary, US \$250	$\text{CH}_3(\text{CH}_2)_{28}\text{CH}_3$	-213.6 \pm 2.4 ‰ from -210.5 to -216.1 ‰ n = 6	-29.84 \pm 0.01 ‰ from -29.82 to -29.85 ‰ n = 5	0.701		
30	Triacontane #4, C30 <i>n</i>-alkane #4, $\text{C}_{30}\text{H}_{62}$, CAS # 638-68-6; ≥ 5 mg in sealed glass capillary, US \$250	$\text{CH}_3(\text{CH}_2)_{28}\text{CH}_3$	-41.5 \pm 0.7 ‰ from -40.9 to -42.9 ‰ n = 6	-33.14 \pm 0.02 ‰ from -33.12 to -33.16 ‰ n = 6			
31	Hentriacontane, C31 <i>n</i>-alkane, $\text{C}_{31}\text{H}_{64}$, CAS # 630-04-6, ≥ 5 mg in sealed glass capillary, US \$250	$\text{CH}_3(\text{CH}_2)_{29}\text{CH}_3$	-271.9 \pm 2.0 ‰ from -268.7 to -274.1 ‰ n = 9	-29.43 \pm 0.01 ‰ from -29.41 to -29.44 ‰ n = 5			
32	Dotriacontane, C32 <i>n</i>-alkane, $\text{C}_{32}\text{H}_{66}$, CAS # 544-85-4, ≥ 5 mg in sealed glass capillary, US \$250	$\text{CH}_3(\text{CH}_2)_{30}\text{CH}_3$	-212.4 \pm 1.0 ‰ from -211.5 to -213.3 ‰ n = 4	-29.47 \pm 0.02 ‰ from -29.45 to -29.50 ‰ n = 6			
33	Triatriacontane #1, C33 <i>n</i>-alkane #1, $\text{C}_{33}\text{H}_{68}$, CAS # 630-05-7; ≥ 5 mg in sealed glass capillary, US \$250	$\text{CH}_3(\text{CH}_2)_{31}\text{CH}_3$	-207.0 \pm 1.7 ‰ from -204.7 to -208.6 ‰ n = 5	-28.36 \pm 0.01 ‰ from -28.36 to -28.37 ‰ n = 5			
34	Tetraatriacontane, C34 <i>n</i>-alkane, $\text{C}_{34}\text{H}_{70}$, CAS # 14167-59-0, ≥ 5 mg in sealed glass capillary, US \$250	$\text{CH}_3(\text{CH}_2)_{32}\text{CH}_3$	-231.8 \pm 1.4 ‰ from -230.0 to -233.4 ‰ n = 4	-29.54 \pm 0.02 ‰ from -29.53 to -29.56 ‰ n = 5			
35	Pentatriacontane #1, C35 <i>n</i>-alkane #1, $\text{C}_{35}\text{H}_{72}$, CAS # 630-07-9, ≥ 5 mg in sealed glass capillary, US \$250	$\text{CH}_3(\text{CH}_2)_{33}\text{CH}_3$	-194.8 \pm 0.9 ‰ from -193.3 to -195.7 ‰ n = 5	-29.84 \pm 0.01 ‰ from -29.84 to -29.85 ‰ n = 3			
35	Pentatriacontane #2, C35 <i>n</i>-alkane #2, $\text{C}_{35}\text{H}_{72}$, CAS # 630-07-9, ≥ 5 mg in sealed glass capillary, US \$250	$\text{CH}_3(\text{CH}_2)_{33}\text{CH}_3$	-179.3 \pm 1.9 ‰ from -177.1 to -181.7 ‰ n = 4	-30.48 \pm 0.02 ‰ from -30.46 to -30.51 ‰ n = 5			
36	Hexatriacontane #2, C36 <i>n</i>-alkane #2, $\text{C}_{36}\text{H}_{74}$, CAS # 630-06-8, 100 mg in crimp-sealed glass vial, US \$250	$\text{CH}_3(\text{CH}_2)_{34}\text{CH}_3$	-259.2 \pm 1.3 ‰ from -257.5 to -261.0 ‰ n = 7	-29.95 \pm 0.02 ‰ from -29.92 to -29.97 ‰ n = 8			
37	Heptatriacontane, C37 <i>n</i>-alkane, $\text{C}_{37}\text{H}_{76}$, CAS # 7194-84-5, ≥ 5 mg in sealed glass capillary, US \$250	$\text{CH}_3(\text{CH}_2)_{35}\text{CH}_3$	-180.1 \pm 1.8 ‰ from -177.4 to -181.5 ‰ n = 4	-30.24 \pm 0.03 ‰ from -30.21 to -30.27 ‰ n = 4			
38	Octatriacontane, C38 <i>n</i>-alkane, $\text{C}_{38}\text{H}_{78}$, CAS # 7194-85-6, ≥ 5 mg in sealed glass capillary, US \$250	$\text{CH}_3(\text{CH}_2)_{36}\text{CH}_3$	-102.6 \pm 1.3 ‰ from -101.7 to -104.0 ‰ n = 3	-31.49 \pm 0.01 ‰ from -31.47 to -31.50 ‰ n = 5			
39	Nonatriacontane, C39 <i>n</i>-alkane, $\text{C}_{39}\text{H}_{80}$, CAS # 7194-86-7, ≥ 5 mg in sealed glass capillary, US \$250	$\text{CH}_3(\text{CH}_2)_{37}\text{CH}_3$	-218.6 \pm 2.3 ‰ from -215.2 to -221.7 ‰ n = 10	-28.68 \pm 0.01 ‰ from -28.67 to -28.69 ‰ n = 4			
40	Tetracontane, C40 <i>n</i>-alkane, $\text{C}_{40}\text{H}_{82}$, CAS # 4181-95-7, ≥ 5 mg in sealed glass capillary, US \$250	$\text{CH}_3(\text{CH}_2)_{38}\text{CH}_3$	-106.7 \pm 0.3 ‰ from -106.4 to -107.0 ‰ n = 3	-32.20 \pm 0.04 ‰ from -32.16 to -32.25 ‰ n = 4			
41	Hentetracontane #1, C41 <i>n</i>-alkane #1, $\text{C}_{41}\text{H}_{84}$, CAS # 7194-87-8, ≥ 5 mg in sealed glass capillary, US \$250	$\text{CH}_3(\text{CH}_2)_{39}\text{CH}_3$	-206.0 \pm 1.7 ‰ from -204.1 to -208.3 ‰ n = 7	-28.97 \pm 0.01 ‰ from -28.95 to -28.98 ‰ n = 5			
41	Hentetracontane #2, C41 <i>n</i>-alkane #2, $\text{C}_{41}\text{H}_{84}$, CAS # 7194-87-8, ≥ 5 mg in sealed glass capillary, US \$250	$\text{CH}_3(\text{CH}_2)_{39}\text{CH}_3$	-196.5 \pm 2.0 ‰ from -194.0 to -199.4 ‰ n = 5	-29.23 \pm 0.02 ‰ from -29.21 to -29.25 ‰ n = 5			
44	Tetratetracontane #1, C44 <i>n</i>-alkane #1, $\text{C}_{44}\text{H}_{90}$, CAS # 7098-22-8, ≥ 5 mg in sealed glass capillary, US \$250	$\text{CH}_3(\text{CH}_2)_{42}\text{CH}_3$	-199.9 \pm 2.0 ‰ from -197.7 to -201.6 ‰ n = 3	-29.12 \pm 0.02 ‰ from -29.10 to -29.15 ‰ n = 5			
44	Tetratetracontane #2, C44 <i>n</i>-alkane #2, $\text{C}_{44}\text{H}_{90}$, CAS # 7098-22-8, ≥ 5 mg in sealed glass capillary, US \$250	$\text{CH}_3(\text{CH}_2)_{42}\text{CH}_3$	-199.8 \pm 1.3 ‰ from -198.6 to -201.5 ‰ n = 6	-29.07 \pm 0.02 ‰ from -29.05 to -29.10 ‰ n = 4			
50	Pentacontane, C50 <i>n</i>-alkane, $\text{C}_{50}\text{H}_{102}$, CAS # 6596-40-3, ≥ 5 mg in sealed glass capillary, US \$250	$\text{CH}_3(\text{CH}_2)_{48}\text{CH}_3$	-191.3 \pm 1.0 ‰ from -190.6 to -192.0 ‰ n = 2	-27.79 \pm 0.03 ‰ from -27.77 to -27.83 ‰ n = 6			
n	Polyethylene powder, USGS77, low density, 1000 μm , CAS # 9002-88-4, 1 g in glass vial, US \$250	$(\text{CH}_2\text{CH}_2)_n$	-75.9 \pm 0.6 ‰ n = 199 (<i>Anal. Chem.</i> , 2016, 88, 4294. http://dx.doi.org/10.1021/acs.analchem.5b04392)	-30.71 \pm 0.04 ‰ n = 81 (<i>Anal. Chem.</i> , 2016, 88, 4294. http://dx.doi.org/10.1021/acs.analchem.5b04392)			
n	Polyethylene line NDF-PE77 (extruded from powder USGS77; isotopically indistinguishable from powder), low density, CAS # 9002-88-4, contact Tamim Darwish (ndf-enquiries@ansto.gov.au)	$(\text{CH}_2\text{CH}_2)_n$	indistinguishable from USGS77 (see above) (<i>Anal. Chem.</i> , 2016, 88, 4294. http://dx.doi.org/10.1021/acs.analchem.5b04392)	indistinguishable from USGS77 (see above) (<i>Anal. Chem.</i> , 2016, 88, 4294. http://dx.doi.org/10.1021/acs.analchem.5b04392)			