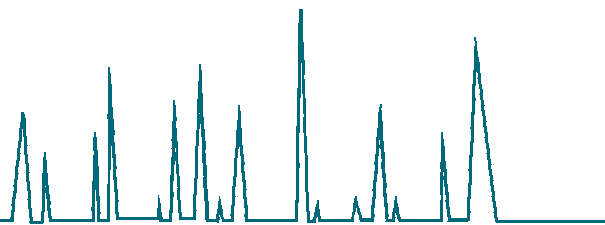


NMR Solvent Data Chart

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The ¹H spectra of the residual protons and ¹³C spectra were obtained on a Varian Gemini 200 spectrometer at 295°K. The sample for the proton and ¹³C spectra contain a maximum of 0.05% and 1.0% TMS (v/v) respectively. Since deuterium has a spin of 1, triplets arising from coupling to deuterium have the intensity ratio of 1:1:1. 'm' denotes a broad peak with some fine structures. It should be noted that the chemical shifts, in particular, can be dependent on solute, concentration and temperature.

Approximate values only, may vary with pH, concentration and temperature.

Melting and boiling points are those of the corresponding unlabeled compound (except for D₂O). These temperature limits can be used as a guide to determine the useful liquid range of the solvents.

SOLVENT	¹ H Chemical Shift (ppm from TMS) (multiplicity)		Carbon-13 Chemical Shift (ppm from TMS) (multiplicity)		¹ H Chemical Shift of HOD (ppm from TMS)	Density at 20°C	Melting point (°C)	Boiling point (°C)	Dielectric Constant	Molecular Weight
	JHD (Hz)	JCD (Hz)								
Acetic Acid-d ₄	11.65 (1) 2.04 (5)	2.2	178.99 (1) 20.0 (7)	2.0	11.5	1.12	16	115.5	6.1	64.08
Acetone-d ₆	2.05 (5)	2.2	206.68 (1) 29.92 (7)	0.9 19.4	2.8	0.87	-94	57	20.7	64.12
Acetonitrile-d ₃	1.94 (5)	2.5	118.69 (1) 1.39 (7)	21	2.1	0.84	-45	82	37.5	44.07
Benzene-d ₆	7.16 (1)		128.39 (3)	24.3	0.4	0.95	5	80	2.3	84.15
Chloroform-d	7.24 (1)		77.23 (3)	32.0	1.5	1.50	-64	62	4.8	120.38
Cyclohexane-d ₁₂	1.38 (1)		26.43 (5)	19	0.8	0.89	6	81	2.0	96.24
Deuterium Oxide	4.80 (DSS) 4.81 (TSP)		NA	NA	4.8	1.11	3.8	101.4	78.5	20.03
N, N-Dimethyl-formamide-d ₇	8.03 (1) 2.92 (5) 2.75 (5)	1.9 1.9	163.15 (3) 34.89 (7) 29.76 (7)	29.4 21.0 21.1	3.5	1.04	-61	153	36.7	80.14
Dimethyl Sulfoxide-d ₆	2.50 (5)	1.9	39.51 (7)	21.0	3.3	1.18	18	189	46.7	84.17
1,4-Dioxane-d ₈	3.53 (m)		66.66 (5)	21.9	2.4	1.13	12	101	2.2	96.16
Ethanol-d ₆	5.29 (1) 3.56 (1) 1.11 (m)		56.96 (5) 17.31 (7)	22 19	5.3	0.89	<-130	79	24.5	52.11
Methanol-d ₄	4.87 (1) 3.31 (5)	1.7	49.15 (7)	21.4	4.9	0.89	-98	65	32.7	36.07
Methylene Chloride-d ₂	5.32 (3)	1.1	54.00 (5)	27.2	1.5	1.35	-95	40		86.95
Pyridine-d ₅	8.74 (1) 7.58 (1) 7.22 (1)		150.35 (3) 135.91 (3) 123.87 (3)	27.5 24.5 3	5	1.05	-42	116	12.4	84.13
Tetrahydrofuran-d ₈	3.58 (1) 1.73 (1)		67.57 (5) 25.37 (5)	22.2 20.2	2.4-2.5	0.99	-109	66	7.6	80.16
Toluene-d ₈	7.09 (m) 7.00 (1) 6.98 (5) 2.09 (5)	2.3	137.86 (1) 129.24 (3) 128.33 (3) 125.49 (3) 20.4 (7)	23 24 24 19	0.4	0.94	-95	111	2.4	100.19
Trifluoroacetic Acid-d	11.50 (1)		164.2 (4) 116.6 (4)		11.5	1.50	-15	72		115.03
Trifluoroethanol-d ₃	5.02 (1) 3.88 (4x3)	2(9)	126.3 (4) 61.5 (4X5)	22	5	1.41	-44	75		103.06



Cambridge Isotope Laboratories, Inc.

50 Frontage Road, Andover, MA 01810-5413 USA
 PH: 978.749.8000 PH: 800.322.1174 (USA)
 PH: 800.643.7239 (CANADA) FAX: 978.749.2768

E-MAIL: cilsales@isotope.com (DOMESTIC)
 E-MAIL: intlsales@isotope.com (INTERNATIONAL)
 URL: <http://www.isotope.com>