

¹H 核磁気共鳴 (NMR) 化学シフト

¹H NMR Chemical Shifts of Selected Compounds in Different Solvents

Compounds	CDCl ₃	(CD ₃) ₂ SO	C ₅ D ₅ N or C ₅ H ₅ N	C ₆ D ₆ or C ₆ H ₆	D ₂ O
Acetic acid	2.13	1.95	2.13	1.63	2.16
Acetone	2.17	2.12	2.00	1.62	2.22
Acetonitrile	1.98	2.09	1.85	0.67	2.05
Benzene	7.37	7.40	7.33	7.30	7.44
Bromoform	6.85	7.75	7.86	5.89	Insoluble
n-Butanol	3.67(t)	3.41(t)	3.80(t)	3.38(t)	3.60(t)
	0.94(t)	0.89(t)	0.89(t)	0.83(t)	0.89(t)
t-Butanol	1.28	1.14	1.37	1.06	1.23
Chloroform	7.27	8.35	8.41	6.41	Insoluble
Cyclohexane	1.43	1.42	1.38	1.40	Insoluble
1,2-Dibromomethane	3.63	3.84	3.70	2.88	3.79
Dichloroacetic acid	5.98	6.68	6.72	5.43	6.21
1,2-Dichloroethane	3.73	3.93	3.78	2.99	3.92
Dichloromethane	5.30	5.79	5.62	4.46	Insoluble
Diethyl ether	3.48(q)	3.42(q)	3.38(q)	3.27(q)	3.56(q)
	1.20(t)	1.13(t)	1.12(t)	1.10(t)	1.17(t)
Dimethylformamide	8.01	7.98	2.72	2.40	7.91
	2.95	2.92	2.66	1.98	3.00
	2.88	2.76			2.86
Dioxane	3.70	3.61	3.61	3.38	3.75
Ethanol	3.72(q)	3.49(q)	3.86(q)	3.39(q)	3.46(q)
	1.24(t)	1.09(t)	1.29(t)	0.97(t)	1.16(t)
Ethyl acetate	4.12(q)	4.08(q)	4.06(q)	3.91(q)	4.14(q)
	2.04	2.02	1.94	1.68	2.08
	1.25(t)	1.21(t)	1.10(t)	0.94(t)	1.23(t)
Ethyl formate	8.04	8.23	8.22	7.60	8.16
	4.22(q)	4.17(q)	4.14(q)	3.83(q)	4.28(q)
	1.29(t)	1.24(t)	1.10(t)	0.85(t)	1.29(t)
Formic acid	8.02	8.18	8.54	7.24	8.22
Methanol	3.48	3.20	3.57	3.09	3.35
Methyl acetate	3.67	3.61	3.55	3.28	3.68
	2.05	2.02	1.92	1.63	2.09
Methyl iodide	2.16	2.21	Reactive	1.47	Insoluble
Methyl sulfoxide	2.62	2.52	2.49	1.91	2.70
Nitromethane	4.32	4.44	4.39	3.09	4.41
1-Propanol	3.60(t)	1.45(m)	3.75(t)	3.76(t)	3.61(t)
	1.60(m)	0.87(t)	1.70(m)	1.40(m)	1.57(m)
	0.93(t)		0.97(t)	0.80(t)	0.89(t)
2-Propanol	4.03(m)	1.06(d)	4.16(m)	3.76(m)	1.18(d)
	1.2(d)		1.29(d)	1.01(d)	
Propionic acid	2.42(q)	2.26(q)	2.46 (q)	2.02(q)	2.47(q)
	1.18(t)	1.03(t)	1.20(t)	0.89(t)	1.10(t)
Pyridine	8.60(m)	8.61(m)	8.71(m)	8.50(m)	8.50(m)
	7.69(m)	7.83(m)	7.58(m)	7.05(m)	7.90(m)
	7.28(m)	7.40(m)	7.21(m)	6.70(m)	7.46(m)
1,1,2,2-Tetrachloroethane	5.96	6.92	6.90	4.96	Insoluble
Tetrahydrofuran	3.74(m)	3.63(m)	3.67(m)	3.01(m)	3.75(m)
	1.85(m)	1.78(m)	1.64(m)	0.87(m)	1.88(m)
Toluene	7.19	7.22	7.22	7.10	Insoluble
	2.34	2.32	2.22	2.13	
1,1,1-Trichloroethane	1.72	2.80	2.61	1.58	Insoluble
Trimethylphosphate	3.8(d)	3.72(d)	3.71(d)	3.37(d)	3.82(d)