

AS CHEMISTRY

7404

Data Sheet

This Data Sheet is provided with AQA AS Chemistry question papers.

Table A

Infrared absorption data

Bond	Wavenumber / cm^{-1}
N—H (amines)	3300–3500
O—H (alcohols)	3230–3550
C—H	2850–3300
O—H (acids)	2500–3000
$\text{C}\equiv\text{N}$	2220–2260
C=O	1680–1750
C=C	1620–1680
C—O	1000–1300
C—C	750–1100

The Periodic Table of the Elements

	1	2	3	4	5	6	7	0	
(1)	6.9 Li lithium 3	9.0 Be beryllium 4	23.0 Na sodium 11	39.1 K potassium 19	85.5 Rb rubidium 37	132.9 Cs caesium 55	[223] Fr francium 87	4.0 He helium 2	(18)
(2)	relative atomic mass		symbol		name		atomic (proton) number		
(3)	45.0 Sc scandium 21	40.1 Ca calcium 20	88.9 Y yttrium 39	87.6 Sr strontium 38	137.3 Ba barium 56	[226] Ra radium 88	[227] Ac † actinium 89	140.1 Ce cerium 58	144.2 Nd neodymium 60
(4)	47.9 Ti titanium 22	50.9 V vanadium 23	51.0 Cr chromium 24	52.0 Mn manganese 25	54.9 Fe iron 26	55.8 Co cobalt 27	58.9 Ni nickel 28	58.7 Cu copper 29	63.5 Zn zinc 30
(5)	91.2 Zr zirconium 40	92.9 Nb niobium 41	96.0 Mo molybdenum 42	98.0 Tc technetium 43	101.1 Ru ruthenium 44	102.9 Rh rhodium 45	106.4 Pd palladium 46	107.9 Ag silver 47	112.4 Cd cadmium 48
(6)	178.5 Hf hafnium 72	178.5 Ta tantalum 73	183.8 W tungsten 74	186.2 Re rhenium 75	190.2 Os osmium 76	192.2 Ir iridium 77	195.1 Pt platinum 78	197.0 Au gold 79	200.6 Hg mercury 80
(7)	104 Rf rutherfordium 104	105 Db dubnium 105	106 Sg seaborgium 106	107 Bh bohrium 107	108 Hs hassium 108	109 Mt meitnerium 109	110 Ds darmstadtium 110	111 Rg roentgenium 111	
(8)	Elements with atomic numbers 112-116 have been reported but not fully authenticated								
(9)	140.1 Ce cerium 58	140.9 Pr praseodymium 59	144.2 Nd neodymium 60	[145] Pm promethium 61	150.4 Sm samarium 62	152.0 Eu europium 63	157.3 Gd gadolinium 64	158.9 Tb terbium 65	162.5 Dy dysprosium 66
(10)	232.0 Th thorium 90	231.0 Pa protactinium 91	238.0 U uranium 92	[237] Np neptunium 93	[244] Pu plutonium 94	[243] Am americium 95	[247] Cm curium 96	[247] Bk berkelium 97	[251] Cf californium 98
(11)	168.9 Tm thulium 69	167.3 Er erbium 68	164.9 Ho holmium 67	162.5 Dy dysprosium 66	164.9 Ho holmium 67	167.3 Er erbium 68	168.9 Tm thulium 69	173.1 Yb ytterbium 70	175.0 Lu lutetium 71
(12)	10.8 B boron 5	12.0 C carbon 6	14.0 N nitrogen 7	16.0 O oxygen 8	19.0 F fluorine 9	20.2 Ne neon 10	27.0 Al aluminium 13	28.1 Si silicon 14	31.0 P phosphorus 15
(13)	69.7 Ga gallium 31	72.6 Ge germanium 32	74.9 As arsenic 33	79.0 Se selenium 34	79.9 Br bromine 35	83.8 Kr krypton 36	114.8 In indium 49	118.7 Sn tin 50	121.8 Sb antimony 51
(14)	127.6 Te tellurium 52	126.9 I iodine 53	126.9 Xe xenon 54	204.4 Tl thallium 81	207.2 Pb lead 82	209.0 Bi bismuth 83	209.0 Po polonium 84	[210] At astatine 85	[222] Rn radon 86
(15)	168.9 Tm thulium 69	167.3 Er erbium 68	164.9 Ho holmium 67	162.5 Dy dysprosium 66	164.9 Ho holmium 67	167.3 Er erbium 68	168.9 Tm thulium 69	173.1 Yb ytterbium 70	175.0 Lu lutetium 71
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(17)	168.9 Tm thulium 69	167.3 Er erbium 68	164.9 Ho holmium 67	162.5 Dy dysprosium 66	164.9 Ho holmium 67	167.3 Er erbium 68	168.9 Tm thulium 69	173.1 Yb ytterbium 70	175.0 Lu lutetium 71
(18)	10.8 B boron 5	12.0 C carbon 6	14.0 N nitrogen 7	16.0 O oxygen 8	19.0 F fluorine 9	20.2 Ne neon 10	27.0 Al aluminium 13	28.1 Si silicon 14	31.0 P phosphorus 15

* 58 – 71 Lanthanides

† 90 – 103 Actinides