

L3-CHEMR



NEW ZEALAND QUALIFICATIONS AUTHORITY
MANA TOHU MĀTAURANGA O AOTEAROA

QUALIFY FOR THE FUTURE WORLD
KIA NOHO TAKATŪ KI TŌ ĀMUA AO!

Level 3 Chemistry, 2016

2.00 p.m. Monday 21 November 2016

RESOURCE SHEET for 91390, 91391, 91392

Refer to this sheet to answer the questions in your Question and Answer Booklets.

Check that this sheet is printed on the back.

YOU MAY KEEP THIS SHEET AT THE END OF THE EXAMINATION.

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PERIODIC TABLE OF THE ELEMENTS

18

Atomic number		Relative atomic mass																																																									
1		2																																																									
H 1.0		He 4.0																																																									
3		4																5		6																																							
Li 6.9		Be 9.0																B 10.8		C 12.0																																							
11		12																13		14		15		16		17		18																															
Na 23.0		Mg 24.3																Al 27.0		Si 28.1		P 31.0		S 32.1		Cl 35.5		Ar 40.0																															
19		20																21		22		23		24		25		26		27		28		29		30		31		32		33		34		35		36											
K 39.1		Ca 40.1																Sc 45.0		Ti 47.9		V 50.9		Cr 52.0		Mn 54.9		Fe 55.9		Co 58.9		Ni 58.7		Cu 63.5		Zn 65.4		Ga 69.7		Ge 72.6		As 74.9		Se 79.0		Br 79.9		Kr 83.8											
37		38																39		40		41		42		43		44		45		46		47		48		49		50		51		52		53		54											
Rb 85.5		Sr 87.6																Y 88.9		Zr 91.2		Nb 92.9		Mo 95.9		Tc 98.9		Ru 101		Rh 103		Pd 106		Ag 108		Cd 112		In 115		Sn 119		Sb 122		Te 128		I 127		Xe 131											
55		56																57		58		59		60		61		62		63		64		65		66		67		68		69		70															
Cs 133		Ba 137																La 175		Ce 140		Pr 141		Nd 144		Pm 147		Sm 150		Eu 152		Gd 157		Tb 159		Dy 163		Ho 165		Er 167		Tm 169		Yb 173															
87		88																89		90		91		92		93		94		95		96		97		98		99		100		101		102															
Fr 223		Ra 226																Ac 227		Th 232		Pa 231		U 238		Np 237		Pu 239		Am 241		Cm 244		Bk 249		Cf 251		Es 252		Fm 257		Md 258		No 259															
81		82																83		84		85		86		87		88		89		90		91		92		93		94		95		96		97		98		99		100		101		102			
Tl 204		Pb 207																Bi 209		Po 210		At 210		Rn 222		Fr 223		Ra 226		Ac 227		Th 232		Pa 231		U 238		Np 237		Pu 239		Am 241		Cm 244		Bk 249		Cf 251		Es 252		Fm 257		Md 258		No 259			
113		114																115		116		117		118		119		120		121		122		123		124		125		126		127		128		129		130		131		132							
Nh 286		Fl 289																Mc 288		Lv 292		Ts 294		Og 294		Tennessine 294		Oganesson 294		Bohrium 264		Hassium 265		Meitnerium 268		Darmstadtium 271		Roentgenium 272		Copernicium 277		Darmstadtium 277		Tennessine 277		Oganesson 277		Bohrium 264		Hassium 265		Meitnerium 268		Darmstadtium 271		Roentgenium 272		Copernicium 277	

Lanthanide Series		Actinide Series																									
57	La 139	58	Ce 140	59	Pr 141	60	Nd 144	61	Pm 147	62	Sm 150	63	Eu 152	64	Gd 157	65	Tb 159	66	Dy 163	67	Ho 165	68	Er 167	69	Tm 169	70	Yb 173
89	Ac 227	90	Th 232	91	Pa 231	92	U 238	93	Np 237	94	Pu 239	95	Am 241	96	Cm 244	97	Bk 249	98	Cf 251	99	Es 252	100	Fm 257	101	Md 258	102	No 259