

Modified Enlarged 24 pt

OXFORD CAMBRIDGE AND RSA EXAMINATIONS

Thursday 26 May 2022 – Morning

Level 3 Cambridge Technical in Applied Science

05847/05848/05849/05874/05879

Unit 2: Laboratory techniques

Periodic Table

You must have:

the Data Sheet

a ruler (cm/mm)

You can use:

a scientific or graphical calculator

an HB pencil

The Periodic Table of the Elements

(1) (2)

1

1
H
hydrogen
1.0

2

3
Li
lithium
6.9

4
Be
beryllium
9.0

11
Na
sodium
23.0

12
Mg
magnesium
24.3

19
K
potassium
39.1

20
Ca
calcium
40.1

37
Rb
rubidium
85.5

38
Sr
strontium
87.6

55
Cs
caesium
132.9

56
Ba
barium
137.3

87
Fr
francium

88
Ra
radium

Key

atomic number

Symbol

name

relative atomic mass

3

21
Sc
scandium
45.0

22
Ti
titanium
47.9

39
Y
yttrium
88.9

40
Zr
zirconium
91.2

57–71
lanthanoids

72
Hf
hafnium
178.5

89–103
actinoids

104
Rf
rutherfordium

4

23
V
vanadium
50.9

24
Cr
chromium
52.0

41
Nb
niobium
92.9

42
Mo
molybdenum
95.9

73
Ta
tantalum
180.9

74
W
tungsten
183.8

105
Db
dubnium

106
Sg
seaborgium

5

27
Co
cobalt
58.9

28
Ni
nickel
58.7

45
Rh
rhodium
102.9

46
Pd
palladium
106.4

77
Ir
iridium
192.2

78
Pt
platinum
195.1

109
Mt
meitnerium

110
Ds
darmstadtium

6

25
Mn
manganese
54.9

26
Fe
iron
55.8

43
Tc
technetium

44
Ru
ruthenium
101.1

75
Re
rhenium
186.2

76
Os
osmium
190.2

107
Bh
bohrium

108
Hs
hassium

7

29
Cu
copper
63.5

30
Zn
zinc
65.4

47
Ag
silver
107.9

48
Cd
cadmium
112.4

79
Au
gold
197.0

80
Hg
mercury
200.6

111
Rg
roentgenium

112
Cn
copernicium

8

31
Ga
gallium
69.7

32
Ge
germanium
72.6

49
In
indium
114.8

50
Sn
tin
118.7

81
Tl
thallium
204.4

82
Pb
lead
207.2

114
Fl
flerovium

9

33
As
arsenic
74.9

34
Se
selenium
79.0

51
Sb
antimony
121.8

52
Te
tellurium
127.6

83
Bi
bismuth
209.0

84
Po
polonium

116
Lv
livermorium

10

35
Br
bromine
79.9

36
Kr
krypton
83.8

53
I
iodine
126.9

54
Xe
xenon
131.3

85
At
astatine

86
Rn
radon

11

37
Rb
rubidium
85.5

38
Sr
strontium
87.6

55
Cs
caesium
132.9

56
Ba
barium
137.3

87
Fr
francium

88
Ra
radium

12

39
Y
yttrium
88.9

40
Zr
zirconium
91.2

57–71
lanthanoids

72
Hf
hafnium
178.5

89–103
actinoids

104
Rf
rutherfordium

13

5
B
boron
10.8

6
C
carbon
12.0

13
Al
aluminium
27.0

14
Si
silicon
28.1

31
Ga
gallium
69.7

32
Ge
germanium
72.6

14

7
N
nitrogen
14.0

8
O
oxygen
16.0

15
P
phosphorus
31.0

16
S
sulfur
32.1

33
As
arsenic
74.9

34
Se
selenium
79.0

15

9
F
fluorine
19.0

10
Ne
neon
20.2

17
Cl
chlorine
35.5

18
Ar
argon
39.9

16

11
Na
sodium
23.0

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Mg
magnesium
24.3

19
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potassium
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Ge
germanium
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49
In
indium
114.8

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Sn
tin
118.7

18

5
B
boron
10.8

6
C
carbon
12.0

13
Al
aluminium
27.0

14
Si
silicon
28.1

31
Ga
gallium
69.7

32
Ge
germanium
72.6

ELEMENTS LISTED IN NUMERICAL ORDER:

1	Hydrogen	H	35	Bromine	Br
2	Helium	He	36	Krypton	Kr
3	Lithium	Li	37	Rubidium	Rb
4	Beryllium	Be	38	Strontium	Sr
5	Boron	B	39	Yttrium	Y
6	Carbon	C	40	Zirconium	Zr
7	Nitrogen	N	41	Niobium	Nb
8	Oxygen	O	42	Molybdenum	Mo
9	Fluorine	F	43	Technetium	Tc
10	Neon	Ne	44	Ruthenium	Ru
11	Sodium	Na	45	Rhodium	Rh
12	Magnesium	Mg	46	Palladium	Pd
13	Aluminium	Al	47	Silver	Ag
14	Silicon	Si	48	Cadmium	Cd
15	Phosphorus	P	49	Indium	In
16	Sulfur	S	50	Tin	Sn
17	Chlorine	Cl	51	Antimony	Sb
18	Argon	Ar	52	Tellurium	Te
19	Potassium	K	53	Iodine	I
20	Calcium	Ca	54	Xenon	Xe
21	Scandium	Sc	55	Caesium	Cs
22	Titanium	Ti	56	Barium	Ba
23	Vanadium	V	57	Lanthanum	La
24	Chromium	Cr	58	Cerium	Ce
25	Manganese	Mn	59	Praseodymium	Pr
26	Iron	Fe	60	Neodymium	Nd
27	Cobalt	Co	61	Promethium	Pm
28	Nickel	Ni	62	Samarium	Sm
29	Copper	Cu	63	Europium	Eu
30	Zinc	Zn	64	Gadolinium	Gd
31	Gallium	Ga	65	Terbium	Tb
32	Germanium	Ge	66	Dysprosium	Dy
33	Arsenic	As	67	Holmium	Ho
34	Selenium	Se	68	Erbium	Er

69	Thulium	Tm
70	Ytterbium	Yb
71	Lutetium	Lu
72	Hafnium	Hf
73	Tantalum	Ta
74	Tungsten	W
75	Rhenium	Re
76	Osmium	Os
77	Iridium	Ir
78	Platinum	Pt
79	Gold	Au
80	Mercury	Hg
81	Thallium	Tl
82	Lead	Pb
83	Bismuth	Bi
84	Polonium	Po
85	Astatine	At
86	Radon	Rn
87	Francium	Fr
88	Radium	Ra
89	Actinium	Ac
90	Thorium	Th
91	Protactinium	Pa
92	Uranium	U
93	Neptunium	Np
94	Plutonium	Pu
95	Americium	Am
96	Curium	Cm
97	Berkelium	Bk
98	Californium	Cf
99	Einsteinium	Es
100	Fermium	Fm
101	Mendelevium	Md
102	Nobelium	No
103	Lawrencium	Lr
104	Rutherfordium	Rf

105	Dubnium	Db
106	Seaborgium	Sg
107	Bohrium	Bh
108	Hassium	Hs
109	Meitnerium	Mt
110	Darmstadtium	Ds
111	Roentgenium	Rg
112	Copernicium	Cn
114	Flerovium	Fl
116	Livermorium	Lv

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