

# MEDAC LTD

Analytical and chemical consultancy services



FS37919

|   |   |  |   |   |   |   |  |   |  |  |   |   |   |   |   |   |   |                                      |
|---|---|--|---|---|---|---|--|---|--|--|---|---|---|---|---|---|---|--------------------------------------|
| 1                                       | 2                                       | 3  | 4   | 5   | 6                                       | 7   | 8                                      | 9                                       | 10                                     | 11   | 12  | 13  | 14                                      | 15                                      | 16                                      | 17                                      | 18                                      |                                      |
| Hydrogen<br>1<br><b>H</b><br>1.0079     |   |  |   |   |   |   |  |   |  |  |   |   |   |   |   |   | Helium<br>2<br><b>He</b><br>4.002602    |                                      |
| Lithium<br>3<br><b>Li</b><br>6.941      | Beryllium<br>4<br><b>Be</b><br>9.012182 |  |   |   |   |   |  |   |  |  |   |   |   |   |   |   |   |                                      |
| Sodium<br>11<br><b>Na</b><br>22.989770  | Magnesium<br>12<br><b>Mg</b><br>24.3050 |  |   |   |   |   |  |   |  |  |   |   |   |   |   |   |   |                                      |
| Potassium<br>19<br><b>K</b><br>39.0983  | Calcium<br>20<br><b>Ca</b><br>40.078    | Scandium<br>21<br><b>Sc</b><br>44.955910 | Titanium<br>22<br><b>Ti</b><br>47.867     | Vanadium<br>23<br><b>V</b><br>50.9415       | Chromium<br>24<br><b>Cr</b><br>51.9961  | Manganese<br>25<br><b>Mn</b><br>54.938049 | Iron<br>26<br><b>Fe</b><br>55.845      | Cobalt<br>27<br><b>Co</b><br>58.933200  | Nickel<br>28<br><b>Ni</b><br>58.6934   | Copper<br>29<br><b>Cu</b><br>63.546        | Zinc<br>30<br><b>Zn</b><br>65.39          | Gallium<br>31<br><b>Ga</b><br>69.723      | Germanium<br>32<br><b>Ge</b><br>72.61   | Arsenic<br>33<br><b>As</b><br>74.92160  | Selenium<br>34<br><b>Se</b><br>78.96    | Bromine<br>35<br><b>Br</b><br>79.904    | Krypton<br>36<br><b>Kr</b><br>83.80     |                                      |
| Rubidium<br>37<br><b>Rb</b><br>85.4678  | Sr<br>38<br><b>Sr</b><br>87.62          | Yttrium<br>39<br><b>Y</b><br>88.90585    | Zirconium<br>40<br><b>Zr</b><br>91.224    | Niobium<br>41<br><b>Nb</b><br>92.90638      | Molybdenum<br>42<br><b>Mo</b><br>95.94  | Technetium<br>43<br><b>Tc</b><br>98.9063  | Ruthenium<br>44<br><b>Ru</b><br>101.07 | Rhodium<br>45<br><b>Rh</b><br>102.90550 | Palladium<br>46<br><b>Pd</b><br>106.42 | Silver<br>47<br><b>Ag</b><br>107.8682      | Cadmium<br>48<br><b>Cd</b><br>112.411     | Indium<br>49<br><b>In</b><br>114.818      | Tin<br>50<br><b>Sn</b><br>118.710       | Antimony<br>51<br><b>Sb</b><br>121.760  | Tellurium<br>52<br><b>Te</b><br>127.60  | Iodine<br>53<br><b>I</b><br>126.90447   | Xenon<br>54<br><b>Xe</b><br>131.29      |                                      |
| Caesium<br>55<br><b>Cs</b><br>132.90545 | Barium<br>56<br><b>Ba</b><br>137.327    | 57-70<br>#                               | Lutetium<br>71<br><b>Lu</b><br>174.967    | Hafnium<br>72<br><b>Hf</b><br>178.49        | Tantalum<br>73<br><b>Ta</b><br>180.9479 | Tungsten<br>74<br><b>W</b><br>183.84      | Rhenium<br>75<br><b>Re</b><br>186.207  | Osmium<br>76<br><b>Os</b><br>190.23     | Iridium<br>77<br><b>Ir</b><br>192.217  | Platinum<br>78<br><b>Pt</b><br>195.078     | Gold<br>79<br><b>Au</b><br>196.96655      | Mercury<br>80<br><b>Hg</b><br>200.59      | Thallium<br>81<br><b>Tl</b><br>204.3833 | Lead<br>82<br><b>Pb</b><br>207.2        | Bismuth<br>83<br><b>Bi</b><br>208.98038 | Polonium<br>84<br><b>Po</b><br>208.9824 | Astatine<br>85<br><b>At</b><br>209.9871 | Radon<br>86<br><b>Rn</b><br>222.0176 |
| Francium<br>87<br><b>Fr</b><br>223.0197 | Radium<br>88<br><b>Ra</b><br>226.0254   | 89-102<br>*                              | Lawrencium<br>103<br><b>Lr</b><br>262.110 | Rutherfordium<br>104<br><b>Rf</b><br>265.12 | Dubnium<br>105<br><b>Db</b><br>268.13   | Seaborgium<br>106<br><b>Sg</b><br>271.13  | Bohrium<br>107<br><b>Bh</b><br>270     | Hassium<br>108<br><b>Hs</b><br>277.15   | Mtnerium<br>109<br><b>Mt</b><br>276.15 | Darmstadtium<br>110<br><b>Ds</b><br>281.16 | Roentgenium<br>111<br><b>Rg</b><br>280.16 | Copernicium<br>112<br><b>Cn</b><br>285.17 | Nihonium<br>113<br><b>Nh</b><br>284.18  | Flerovium<br>114<br><b>Fl</b><br>289.19 | Moscovium<br>115<br><b>Mc</b><br>288.19 | Livermorium<br>116<br><b>Lv</b><br>293  | Tennesine<br>117<br><b>Ts</b><br>294    | Oganesson<br>118<br><b>Og</b><br>294 |

key

|                               |                                       |
|-------------------------------|---------------------------------------|
| Element name<br>Atomic number | element<br>determination<br>available |
| <b>Symbol</b>                 |                                       |
| Atomic weight                 |                                       |

#  
Lanthanides

\*  
Actinides

|  |  |  |  |   |  |  |   |  |  |  |   |   |  |
|--|--|--|--|---|--|--|---|--|--|--|---|---|--|
| Lanthanum<br>57<br><b>La</b><br>138.9055 | Cerium<br>58<br><b>Ce</b><br>140.116   | Praseodymium<br>59<br><b>Pr</b><br>140.90765 | Neodymium<br>60<br><b>Nd</b><br>144.24 | Promethium<br>61<br><b>Pm</b><br>144.9127 | Samarium<br>62<br><b>Sm</b><br>150.36    | Europium<br>63<br><b>Eu</b><br>151.964   | Gadolinium<br>64<br><b>Gd</b><br>157.25 | Terbium<br>65<br><b>Tb</b><br>158.92534  | Dysprosium<br>66<br><b>Dy</b><br>162.50    | Holmium<br>67<br><b>Ho</b><br>164.93032    | Erbium<br>68<br><b>Er</b><br>167.26     | Thulium<br>69<br><b>Tm</b><br>168.93421     | Ytterbium<br>70<br><b>Yb</b><br>173.04   |
| Actinium<br>89<br><b>Ac</b><br>227.0277  | Thorium<br>90<br><b>Th</b><br>232.0381 | Protactinium<br>91<br><b>Pa</b><br>231.03588 | Uranium<br>92<br><b>U</b><br>238.0289  | Neptunium<br>93<br><b>Np</b><br>237.0482  | Plutonium<br>94<br><b>Pu</b><br>244.0642 | Americium<br>95<br><b>Am</b><br>243.0614 | Curium<br>96<br><b>Cm</b><br>247.0703   | Berkelium<br>97<br><b>Bk</b><br>247.0703 | Californium<br>98<br><b>Cf</b><br>251.0796 | Einsteinium<br>99<br><b>Es</b><br>252.0830 | Fermium<br>100<br><b>Fm</b><br>257.0951 | Mendelevium<br>101<br><b>Md</b><br>258.0984 | Nobelium<br>102<br><b>No</b><br>259.1011 |

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