

# The Nobel Prize in Chemistry



The Nobel Prize in Chemistry was awarded to Professor Morten Meldal for their incredible discovery of a complex new chemical compound with miraculous properties.

The numbers next to each period and group indicate the number of elements from that period/group present in their discovery. The list is one of their earlier attempts - it was almost right, but every entry was **one off** (orthogonally).

What did Professor Meldal find hidden in the Periodic Table?

1 H Hydrogen 1																	2 He Helium 4	0				
3 Li Lithium 7	4 Be Beryllium 9															5 B Boron 11	6 C Carbon 12	7 N Nitrogen 14	8 O Oxygen 16	9 F Fluorine 19	10 Ne Neon 20	4
11 Na Sodium 23	12 Mg Magnesium 24															13 Al Aluminum 27	14 Si Silicon 28	15 P Phosphorus 31	16 S Sulfur 32	17 Cl Chlorine 35.5	18 Ar Argon 40	2
19 K Potassium 39	20 Ca Calcium 40	21 Sc Scandium 45	22 Ti Titanium 48	23 V Vanadium 51	24 Cr Chromium 52	25 Mn Manganese 55	26 Fe Iron 56	27 Co Cobalt 59	28 Ni Nickel 59	29 Cu Copper 64	30 Zn Zinc 65	31 Ga Gallium 70	32 Ge Germanium 73	33 As Arsenic 73	34 Se Selenium 79	35 Br Bromine 80	36 Kr Krypton 84	4				
37 Rb Rubidium 85.5	38 Sr Strontium 88	39 Y Yttrium 89	40 Zr Zirconium 91	41 Nb Niobium 93	42 Mo Molybdenum 96	43 Tc Technetium 98	44 Ru Ruthenium 101	45 Rh Rhodium 103	46 Pd Palladium 106	47 Ag Silver 108	48 Cd Cadmium 112	49 In Indium 115	50 Sn Tin 119	51 Sb Antimony 122	52 Te Tellurium 128	53 I Iodine 127	54 Xe Xenon 131	3				
55 Cs Cesium 133	56 Ba Barium 137			72 Hf Hafnium 178.5	73 Ta Tantalum 181	74 W Tungsten 184	75 Re Rhenium 186	76 Os Osmium 190	77 Ir Iridium 192	78 Pt Platinum 195	79 Au Gold 197	80 Hg Mercury 201	81 Tl Thallium 204	82 Pb Lead 207	83 Bi Bismuth 209	84 Po Polonium	85 At Astatine	86 Rn Radon	1			
87 Fr Francium	88 Ra Radium			104 Rf Rutherfordium	105 Db Dubnium	106 Sg Seaborgium	107 Bh Bohrium	108 Hs Hassium	109 Mt Meitnerium	110 Ds Darmstadtium	111 Rg Roentgenium	112 Cn Copernicium	113 Nh Nihonium	114 Fl Flerovium	115 Mc Moscovium	116 Lv Livermorium	117 Ts Tennessine	118 Og Oganesson	1			
1	0	0	0	0	0	1	1	0	1	0	0	1	3	0	3	3	1					

## One-off Correct

- Cadmium, Cd (48) \_\_\_\_\_
- Oxygen, O (8) \_\_\_\_\_
- Xenon, Xe (54) \_\_\_\_\_
- Palladium, Pd (46) \_\_\_\_\_
- Polonium, Po (84) \_\_\_\_\_
- Hydrogen, H (1) \_\_\_\_\_
- Cobalt, Co (27) \_\_\_\_\_
- Tin, Sn (50) \_\_\_\_\_
- Argon, Ar (18) \_\_\_\_\_
- Aluminium, Al (13) \_\_\_\_\_
- Phosphorus, P (15) \_\_\_\_\_
- Arsenic, As (33) \_\_\_\_\_
- Boron, B (5) \_\_\_\_\_
- Bohrium, Bh (107) \_\_\_\_\_
- Oganesson, Og (118) \_\_\_\_\_