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Lines in the Arc Spectra of Elements

Arranged in the Order of their Wavelengths

FROM WAVELENGTH 7950 TO WAVELENGTH 2200

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INTRODUCTION.

THE above publication consists of a list of the wavelengths of 3700 lines selected from the spectra of 55 elements, and arranged in the order of their wavelengths. The list extends over 70 pages like the sample overleaf, and has been arranged with a view to obtaining the maximum comfort and rapidity of reference.

The wavelengths are given in Ångström units to the nearest unit in the fifth significant figure.

Under Column 4 in the Index will be found the next prominent or bright line belonging to the corresponding element in the third column. This will materially assist in determining whether any element is present or not in the substance under examination.

Under Column 2 will be found the approximate brightness of the line as occurring in the spectrum of the undiluted element, the scale of brightness being arranged with a maximum intensity of 10.

In the case of substances in which only a small proportion of any element is present, only certain lines from that element will appear in the resulting spectrum, and the more persistent of these (which are not always the brightest in the spectrum of the undiluted element) are denoted by an asterisk in the case of those elements on which investigations in this direction have been published.

The following Table shows the elements included in the Index, with their symbols, atomic weights, etc. The wavelength values are taken from the most recent and reliable measurements at present available.

(*For Specimen Page see over.*)

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LIST OF CHEMICAL ELEMENTS INCLUDED IN THE INDEX.

Element	Symbol	Atomic Weight	Range included in the following Tables
Aluminium	Al	27·1	6699·0–2263·5
Antimony	Sb	120·2	5632·2–2262·5
Arsenic	As	75·0	3119·6–2266·8
Barium	Ba	137·4	7906·3–2304·3
Beryllium	Be	9·1	4572·9–2348·7
Bismuth	Bi	208·5	5552·4–2203·2
Boron	B	11	2497·8–2496·8
Cadmium	Cd	112·4	7385·3–2239·9
Caesium	Cs	133	7616·6–3611·8
Calcium	Ca	40·1	7146·3–2200·8
Cerium	Ce	140	5512·2–2980·9
Chromium	Cr	52·1	6979·0–2538·4
Cobalt	Co	59·0	7052·8–2776·3
Copper	Cu	63·6	5782·3–2214·6
Erbium	Er	166	4675·8–2904·6
Europium	Eu	152	4662·1–3688·6
Gadolinium	Gd	156	4342·3–3033·0
Gallium	Ga	70	4172·2–2874·3
Germanium	Ge	72·5	3269·6–2417·4
Gold	Au	197·2	6278·3–2428·0
Indium	In	114	4511·4–2200·0
Iridium	Ir	193·0	6334·6–2363·1
Iron	Fe	55·9	6663·6–2332·8
Lanthanum	La	138·9	5789·4–2610·4
Lead	Pb	206·9	6002·2–2237·5
Lithium	Li	7·03	6708·2–2475·1
Magnesium	Mg	24·36	7656·6–2605·4
Manganese	Mn	55·0	6022·0–2713·4
Mercury	Hg	200·0	7092·3–2378·4
Molybdenum	Mo	96·0	6746·5–2542·9
Neodymium	Nd	143·6	6385·3–3776·0
Nickel	Ni	58·7	5761·1–2821·0
Niobium	Nb	94	6723·8–2883·0
Palladium	Pd	106·5	6784·8–2441·5
Platinum	Pt	194·8	6760·3–2428·2
Potassium	K	39·15	7699·3–3034·9
Praseodymium	Pr	140·5	5940·1–3909·0
Rhodium	Rh	103·0	6752·6–2703·8
Rubidium	Rb	85·4	7950·0–3587·2
Ruthenium	Ru	101·7	6923·4–3254·0
Scandium	Sc	44·1	6305·9–5514·4
Silver	Ag	107·93	5465·6–2246·4
Sodium	Na	23·05	6161·1–2680·4
Strontium	Sr	87·6	7070·4–2931·9
Tantalum	Ta	183	6675·7–2685·2
Thallium	Tl	204·1	5350·6–2237·9
Thorium	Th	232·5	6087·5–3511·7
Tin	Sn	119·0	5631·9–2209·7
Titanium	Ti	48·1	6261·3–3477·3
Tungsten	W	184·0	5805·1–3965·0
Uranium	U	238·5	6449·4–4646·7
Vanadium	V	51·2	5737·3–3102·4
Yttrium	Y	89·0	6950·4–3179·5
Zinc	Zn	65·4	6362·6–2407·9
Zirconium	Zr	90·6	4688·6–3011·9

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SPECIMEN PAGE.

Wavelength	Intensity	Element	The Next Prominent Line
7950·0	10	Rb	7811·0
7906·3	4	Ba	7782·4
7811·0	10	Rb	6298·8
7782·4	4	Ba	7672·8
7699·3	10	K	65·6
72·8	4	Ba	44·6
65·6	10	K	6938·8
56·6	5	Mg	6315·6
44·6	4	Ba	7390·6
7616·6	6	Cs	7227·4
7390·6	4	Ba	7280·2
7385·3	5	Cd	6438·7
7280·2	5	Ba	27·3
27·4	4	Cs	6973·6
7227·3	4	Ba	7195·5
7195·5	4	Ba	20·5
46·3	6	Ca	6717·9
7120·5	6	Ba	7061·2
7092·3	5	Hg	82·4
82·4	6	Hg	6908·1
70·4	6	Sr	6878·6
61·2	6	Ba	6865·9
52·8	8	Co	16·6
7016·6	8	Co	6872·4
6979·0	10	Cr	25·0
73·6	10	Cs	6723·6
50·4	5	Y	6887·5
38·8	8	K	11·2
25·0	10	Cr	6669·4
23·4	6	Ru	6824·3
11·2	8	K	5832·2
6908·1	10	Hg	6716·6
6887·5	5	Y	45·6
78·6	6	Sr	6791·3
72·4	8	Co	14·9
65·9	5	Ba	6694·0
45·6	5	Y	6795·7
24·3	6	Ru	6690·2
6814·9	8	Co	6771·0
6795·7	5	Y	94·0
94·0	5	Y	6435·2
91·3	5	Sr	6617·5
84·8	10	Pd	74·8
74·8	6	Pd	5739·8