

Atommodelle

Leukipp, Demokrit (5. Jhd. v. Chr.)

Materie: kleinste nicht teilbare Teilchen

Dalton (Anfang 19. Jhd.)

Chemisches Element: gleiche unteilbare Atome

Atommodelle

Thomson (Mitte 19. Jhd.)

Atome: positiv geladene Materiekugeln mit eingebetteten Elektronen

Rutherford (1911)

Atom ($d \approx 10^{-10}$ m): Atomkern ($d \approx 10^{-14}$ m), Atomhülle

Atommodelle

Bohr (1913)

Elektronenbahnen: Quantelung von Bahndrehimpuls und Energie

Heisenberg, Schrödinger, Pauli (ab 1925)

Elektronenorbitale, Periodensystem der Elemente

PERIODIC TABLE OF THE ELEMENTS

Table of Selected Radioactive Isotopes

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Naturally occurring radioactive isotopes are designated by a mass number in blue (though some are also manufactured). Letter in brackets indicates an isomer of another isotope of the same mass number. Half-lives follow in parentheses, where s, min, h, d, and y stand respectively for seconds, minutes, hours, days, and years. The table includes mainly the longer-lived radioactive isotopes; many others have been prepared. Isotopes known to be radioactive but with half-lives exceeding 10 ¹⁰ y have not been included. Symbols describing the principal mode (or modes) of decay are as follows (these processes are generally accompanied by gamma radiation):																	
α alpha particle emission β ⁻ beta particle (electron) emission β ⁺ positron emission EC orbital electron capture IT isomeric transition from upper to lower isomeric state SF spontaneous fission																	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1.00794	4.002602	6.941	9.012182	10.811	12.0107	14.003074	15.999032	18.9984032	20.1797	22.98976928	24.304694	26.9815386	28.0855838	30.973762	32.06	34.96885268	36.965893
H	He	Li	Be	B	C	N	O	F	Ne	Na	Mg	Al	Si	P	S	Cl	Ar
1H	4He	6Li	9Be	10B	12C	14N	16O	19F	20Ne	23Na	24Mg	27Al	28Si	31P	32S	35Cl	36Ar
1.007825	4.00260325415	6.940893	9.012182148888	10.8110491462	12.010673891688	14.003064424	15.9990361944	18.998403223	20.179734463	22.98976928	24.30468881	26.981538569	28.085583539	30.973761998	32.059	34.96885268	36.965893
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