

Chemistry/type	Example battery	Nominal cell/pack	mass	volume	Current capacity	energy	Specific energy	Energy density	Sustained discharge current	Specific sustained discharge	hyperlink 1	hyperlink2
		voltage								current		
		V	g	cc	Ah	Wh	Wh/g	Wh/cc	A	A/Ah		
NiMH	A cell	1.2	36	11.12	2.10	2.52	0.07	0.23	2.10	1.00	<a href="#">NiMH data source</a>	
Alkaline	AAA cell	1.5	7.6	3.8	0.6	0.8	0.11	0.21	0.40	0.67	<a href="#">As per LiFeS2 data source</a>	
Lithium/Iron Disulfide (Li/FeS2)	Energiser AAA L92	1.5	7.6	3.8	1.2	1.6	0.21	0.42	0.65	0.54	<a href="#">LiFeS2 data source</a>	
Non-aqueous Lithium	ENERGIZER CRV3 "Photo"	3	32	24	3	7.5	0.23	0.31	2.00	0.67	<a href="#">Energiser datasheet</a>	
Lithium Ion - spinel	18650 - spinel	3.6	46.5	16.5	2.2	5.58	0.12	0.34	24.00	10.91	<a href="#">Lilon data source.</a>	<a href="#">Lilon - batteryuniversity</a>
Lithium Ion - cobalt	18650 - cobalt	3.6	46.5	16.5	2.4	8.64	0.19	0.52	2.40	1.00	<a href="#">Lilon data source.</a>	<a href="#">Lilon - batteryuniversity</a>
Lithium Polymer	Generic 2 cell LiPo pack	7.4	97	49.3	2.1	15.54	0.16	0.32	37.00	17.62	<a href="#">LiPo data example</a>	
Lithium Manganese Dioxide	Duracell DL2/3A	3	17	7.18	1.6	4	0.24	0.56	1.00	0.65	<a href="#">Duracell LiMnO2</a>	

Li-Ion cell chemistry summary

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Chemistry	Nominal V	Charge V limit	Charge & discharge C-rates	Energy density Wh/kg	Applications	Note
Cobalt	3.60V	4.20V	1C limit	110-190	Cell phone, cameras, laptops	Since 1990s, most commonly used for portable devices; has high energy density.
Manganese (spinel)	3.7-3.80V	4.20V	10C cont. 40C pulse	110-120	Power tools, medical equipment	Low internal resistance; offers high current rate and fast charging but lower energy density.
NCM (nickel-cobalt manganese)	3.70V	4.10V*	~5C cont. 30C pulse	95-130	Power tools, medical equipment	Nickel, cobalt, manganese mix; provides compromise between high current rate and high capacity.
Phosphate (A123 System) Saphion®	3.2-3.30V	3.60V*	35C cont.	95-140	Power tools, medical equipment	New, high current rate, long cycle life. Higher charge V increase capacity but shorten cycle life.

\* Higher voltages provide more capacity but reduce cycle life

(from

Cell chemistry comparison for energy density

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