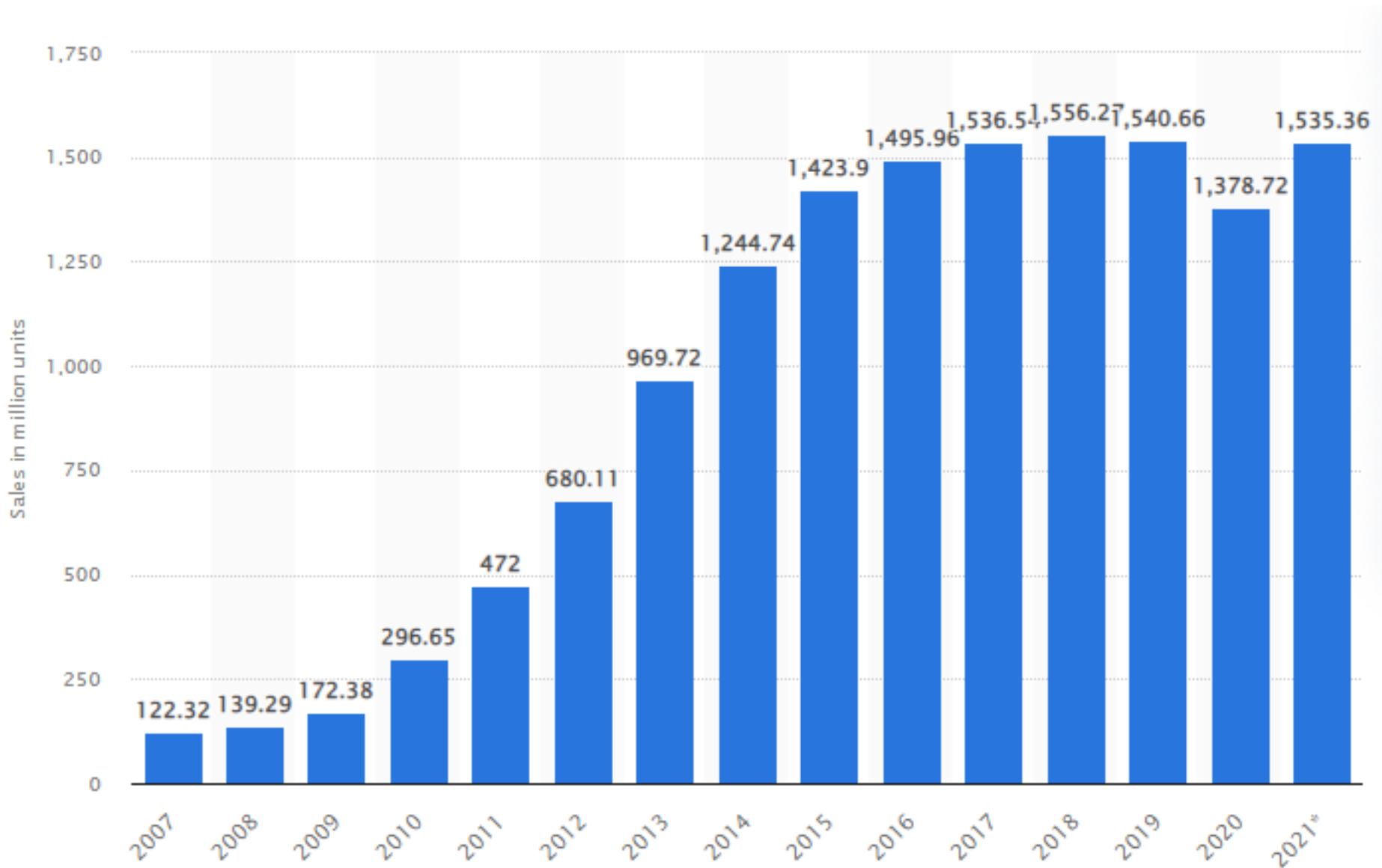
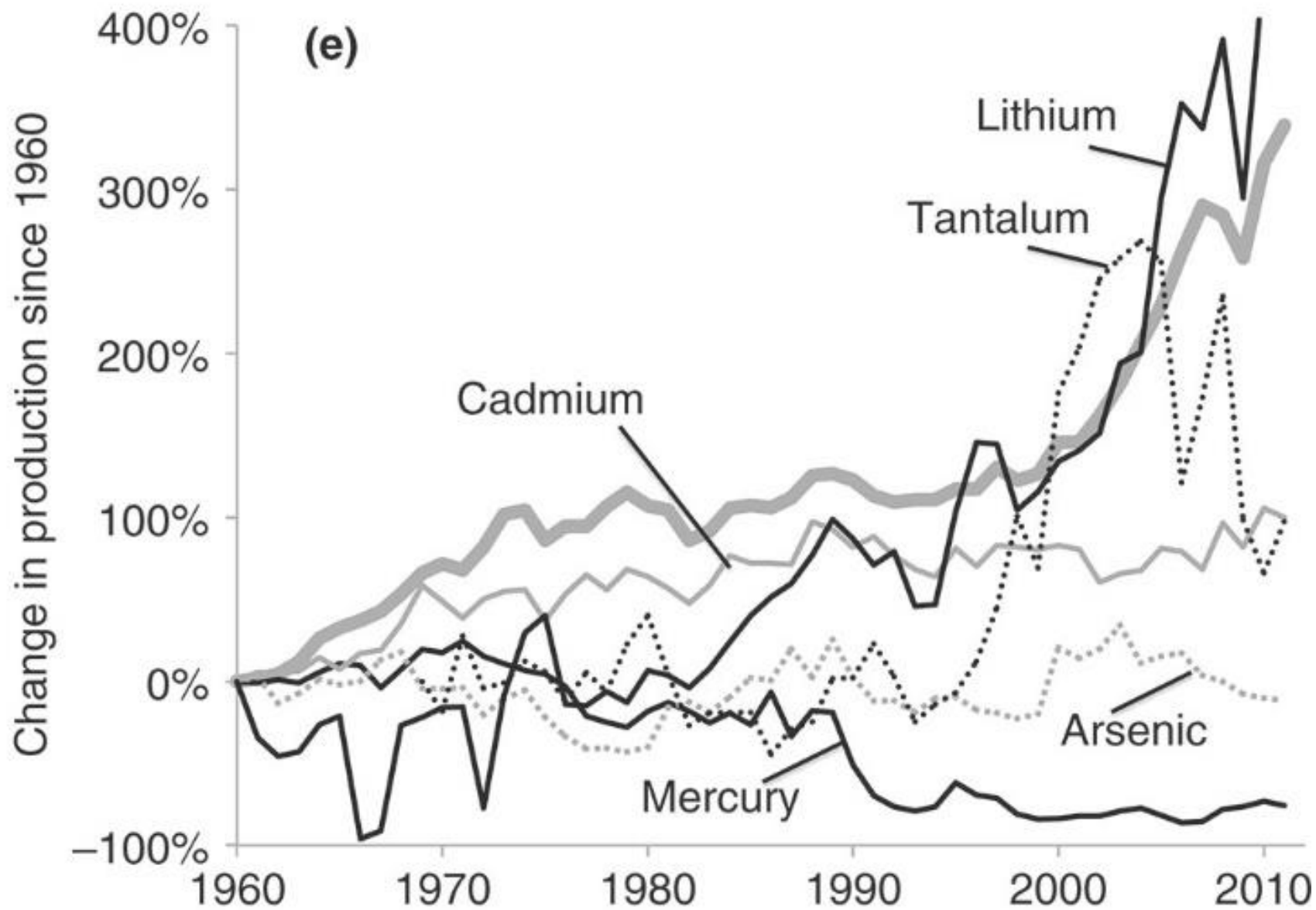
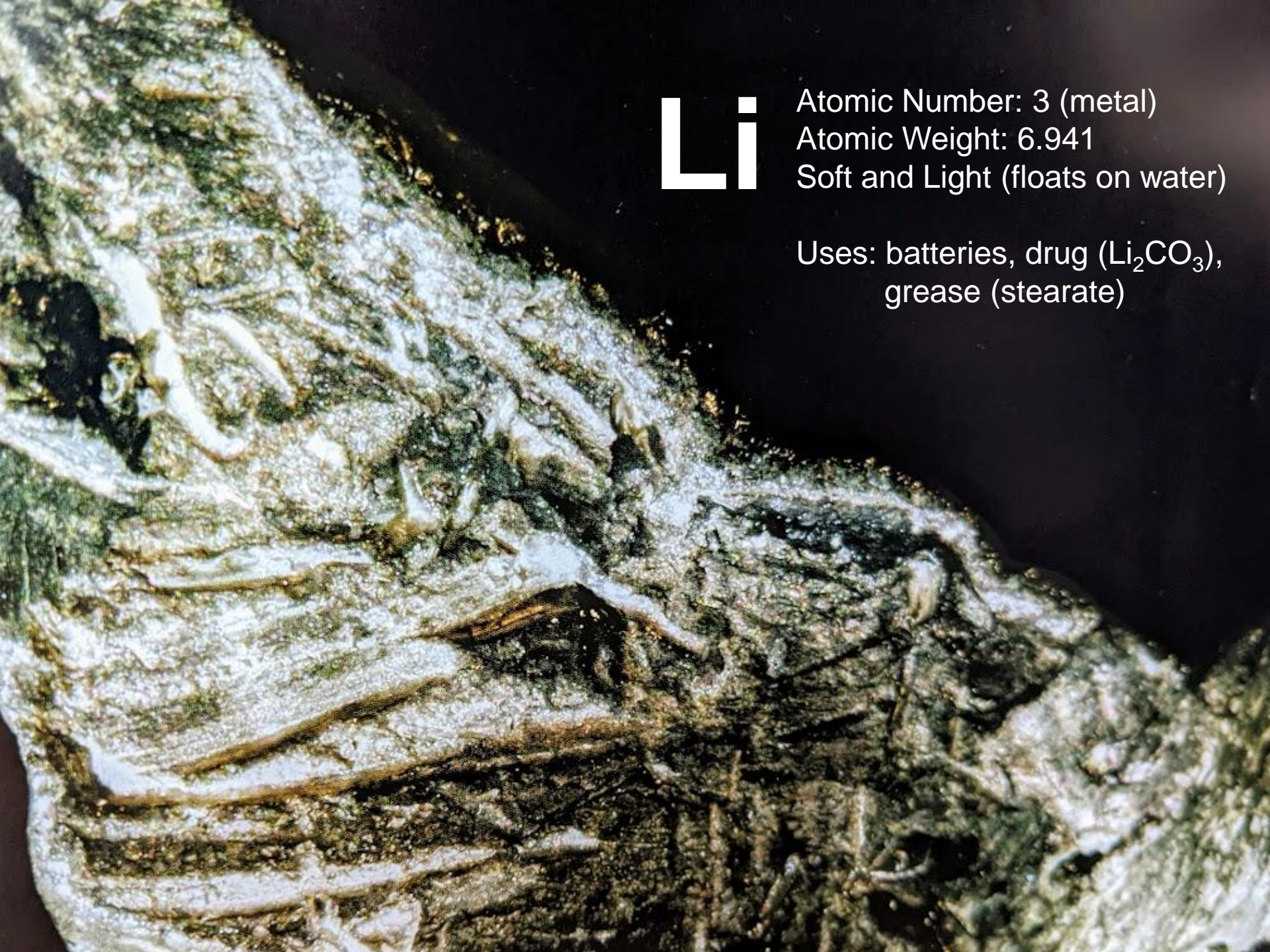


Number of Cell Phones sold Worldwide (in millions)







Li

Atomic Number: 3 (metal)

Atomic Weight: 6.941

Soft and Light (floats on water)

Uses: batteries, drug (Li_2CO_3),
grease (stearate)



Li

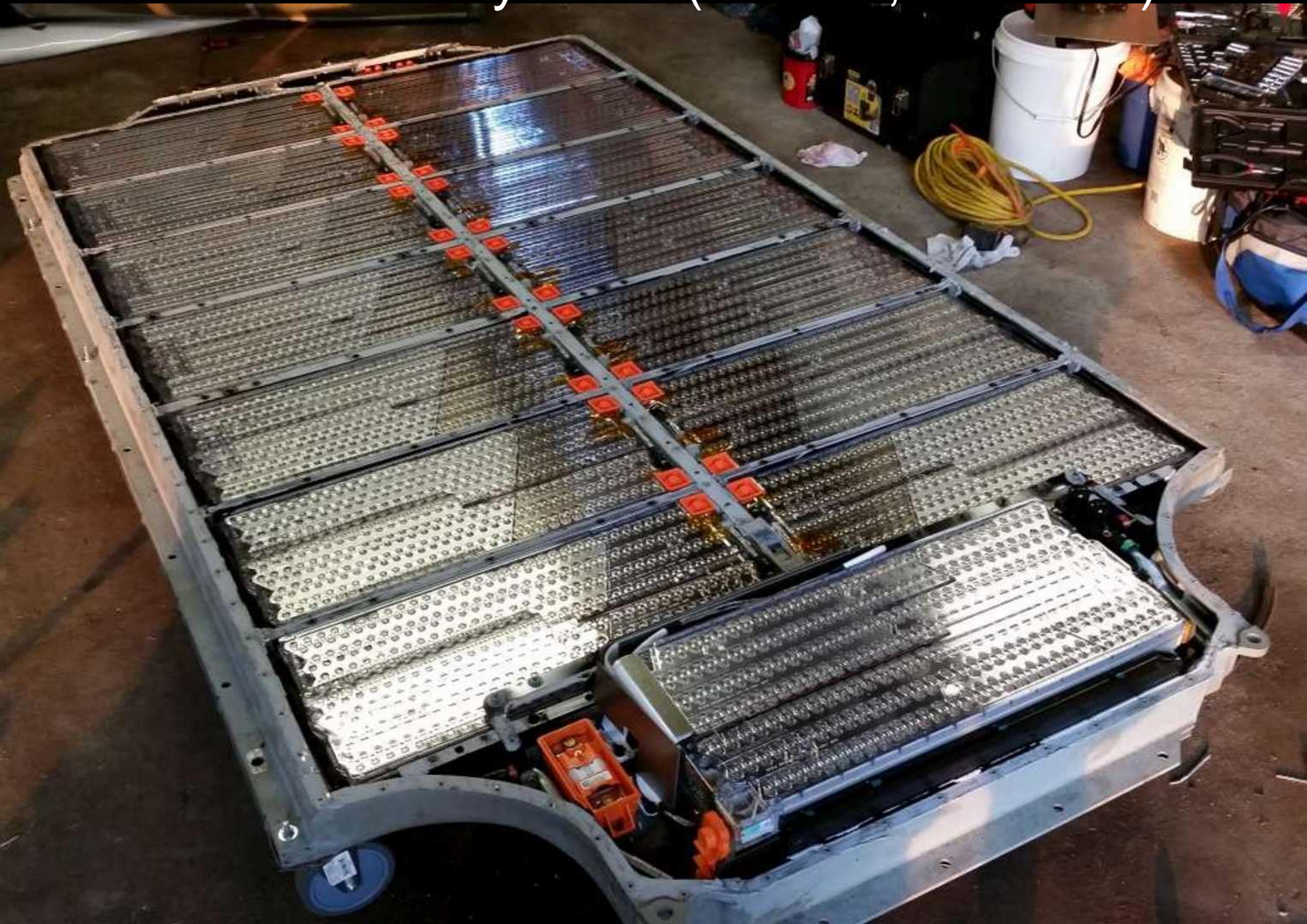
Atomic Number: 3 (metal)

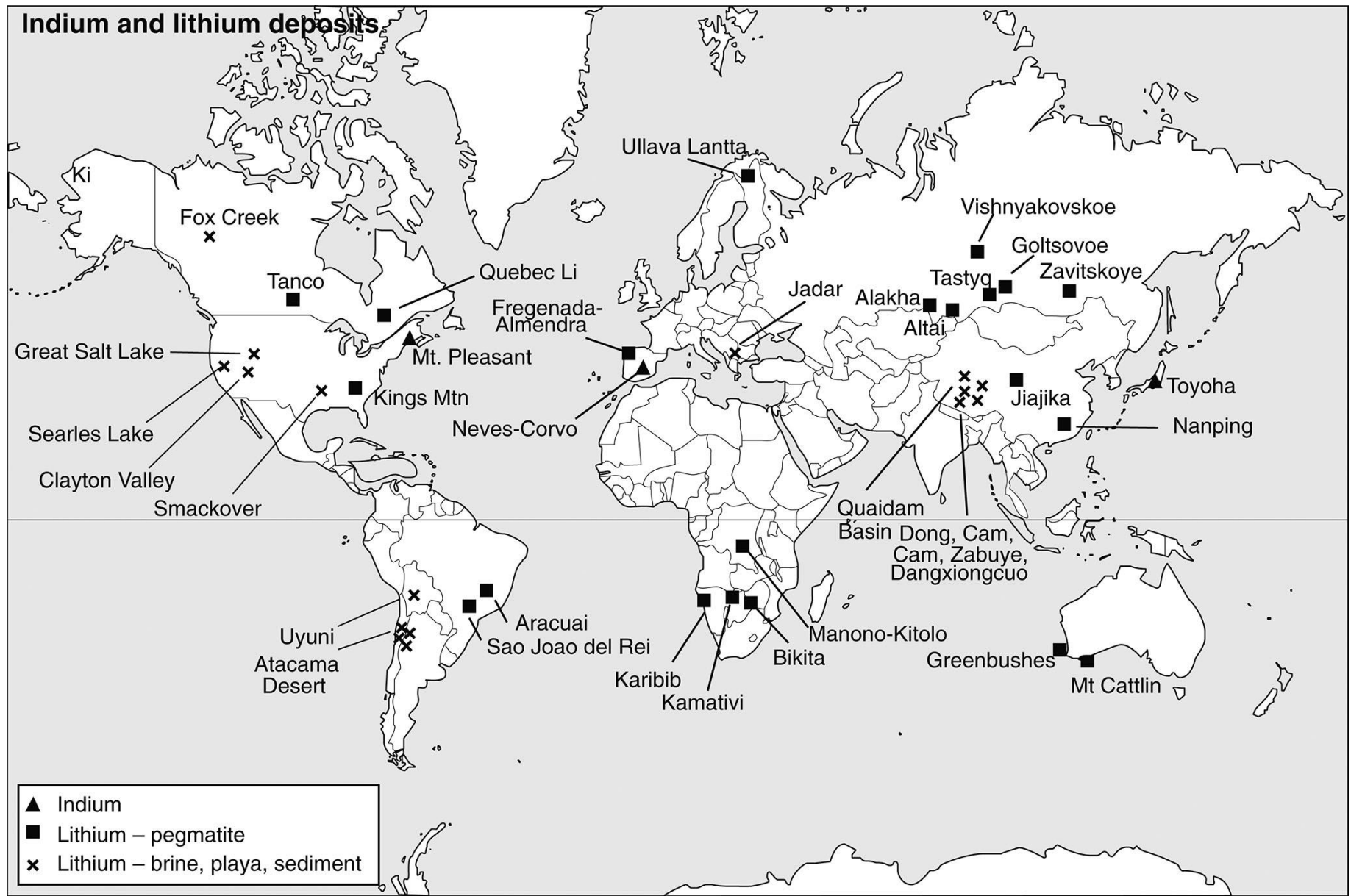
Atomic Weight: 6.941

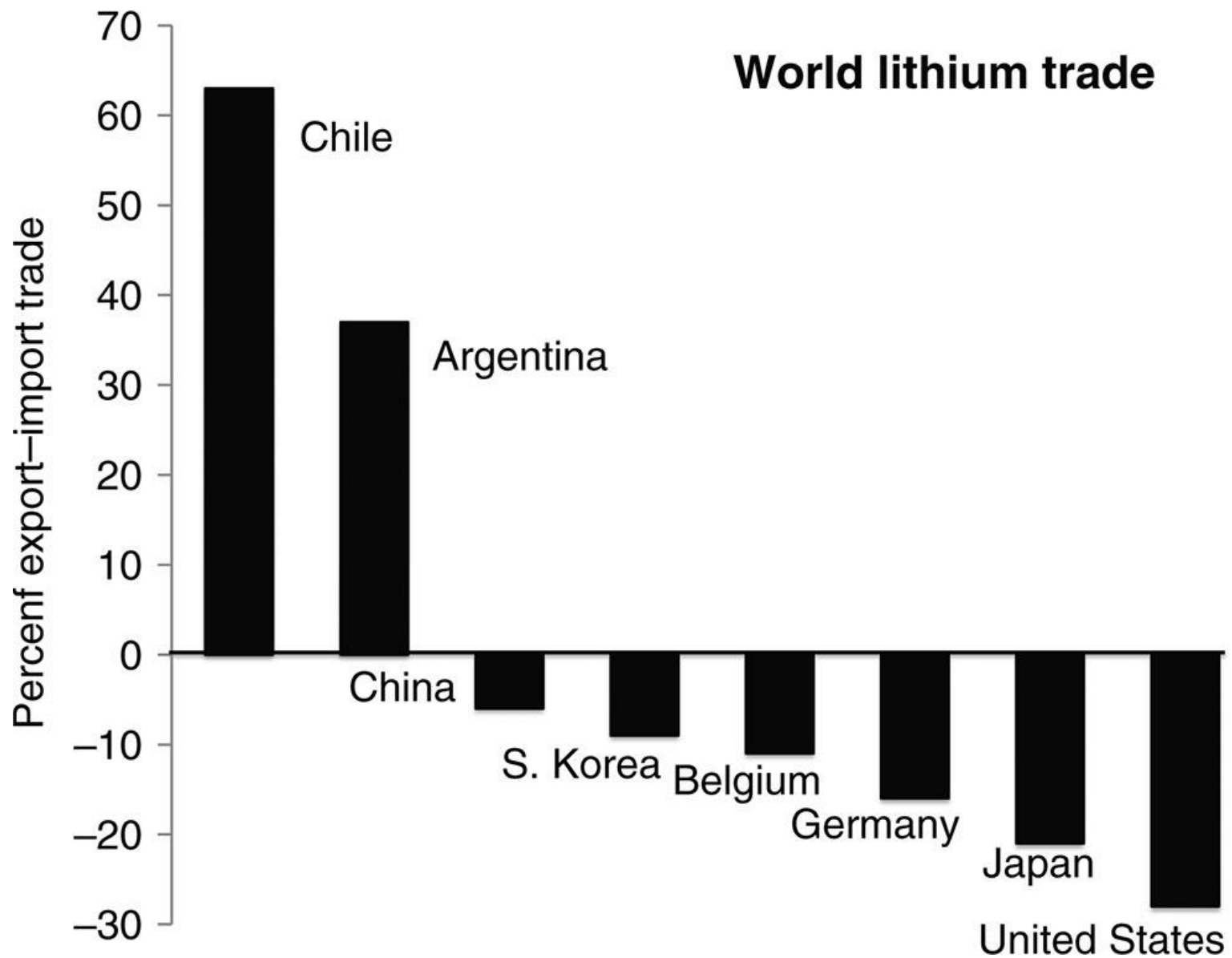
Soft and Light (floats on water)

Uses: batteries, drug (Li_2CO_3),
grease (stearate)

Tesla Li-ion Battery Pack (85kWh, 400VDC)









PEGMATITE



Spodumene

($\text{LiAlSi}_2\text{O}_6$)

Spodumene
Huntington
Mass.





Global Rechargeable Battery Sales by Type

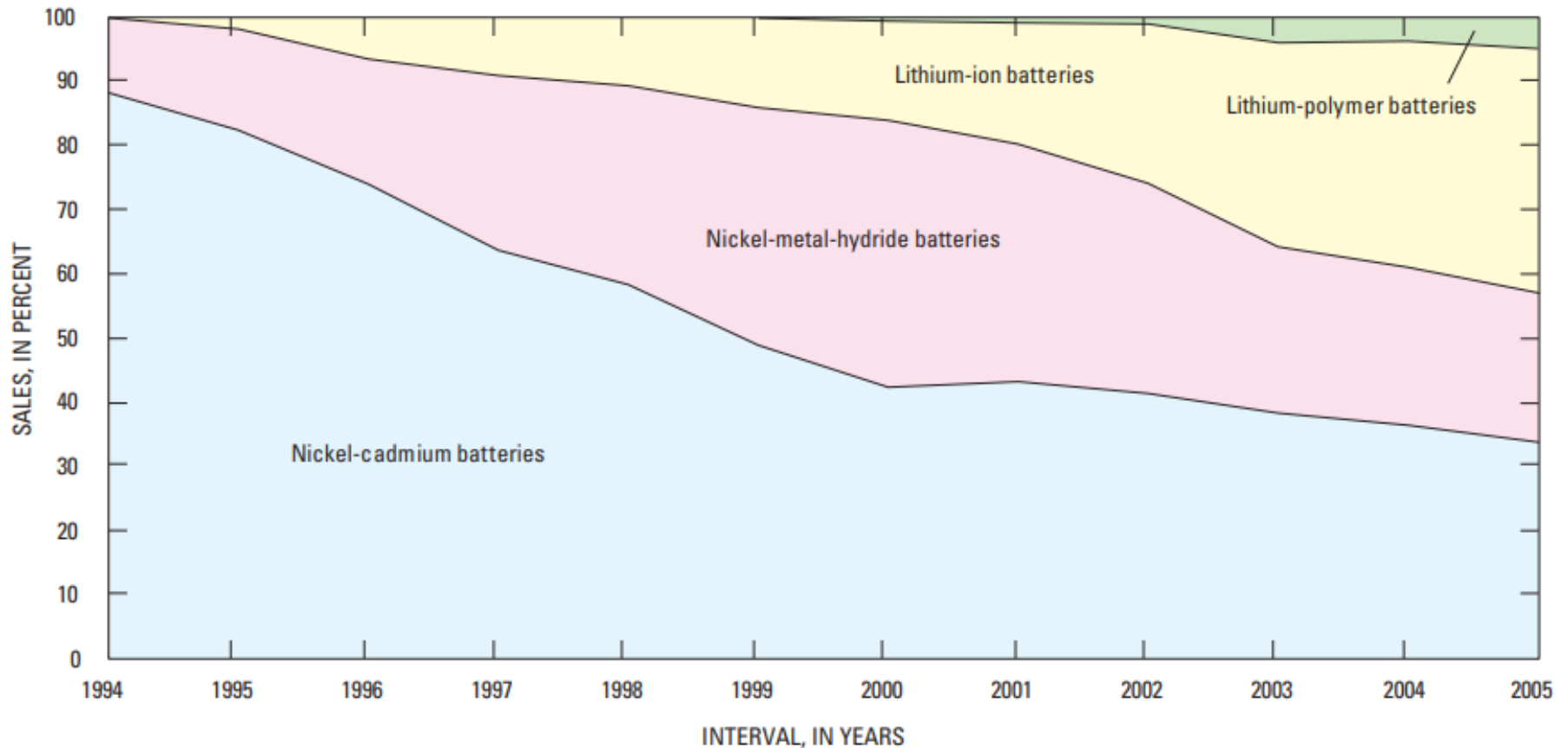
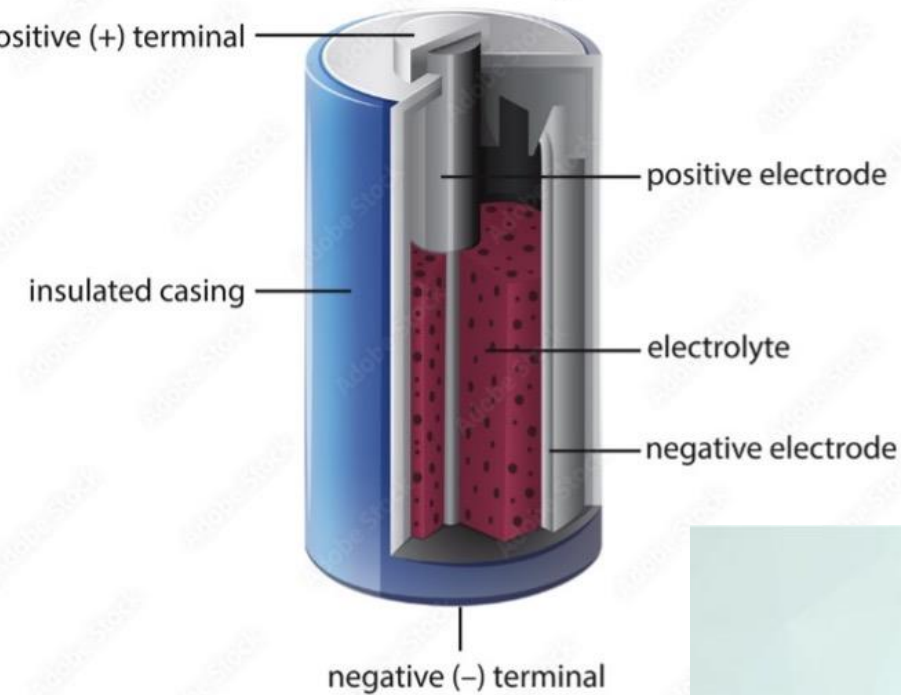


Figure 1. Graph showing percentage of global rechargeable battery sales for the principle battery types from 1994 through 2005. (Data from Pilot, 2005b, p. 19.)

Parts of a Dry Cell



RECHARGEABLE BATTERIES

SINGLE-USE BATTERIES

CELLPHONES

Collected batteries and cellphones are recycled into new products.

Nickel (Ni)

Used Ni-Cd, Ni-MH and Ni-Zn batteries are recycled into new products such as silverware, pots & pans, golf clubs and new batteries.



Lithium (Li)

Used Li-Ion rechargeable batteries are recycled into steel, stainless steel and new batteries.



Alkaline

Used alkaline batteries are recycled into steel and new products such as sun screen and road asphalt aggregate.



Lithium Primary

Used Li-based primary batteries are recycled into new products such as silverware, stainless steel, golf clubs and new batteries.



Refurbished

Cellphones are refurbished or resold with proceeds helping to fund the recycling and education program.



Recycled

Cellphones unable to be refurbished are wholly recycled and manufactured into new products.

