























reactant(s) —→ product(s) Two types of thermochemical reactions:

- Exothermic: Heat is a reaction product; the heat flows to the surroundings. The amount is the difference between the products minus the reactantsIt is a negative value for the reaction.
- Endothermic: Heat is a reactant; the heat flows from the surroundings. The amount is the difference between the products minus the reactants...It is a positive value for the reaction.





opecifie i	eat oupdetties	CP UNIT
Substance	Specific Heat Capacity (J/g • K) U(a.K)
Elements		J/(g·K)
Aluminum, Al	0.900	or
Graphite, C	0.711	01
Iron, Fe	0.450	J/(mol·K)
Copper, Cu	0.387	
Golu, Au	0.129	_
Compounds	470 Er	orav ·
Ammonia, NH ₃ (/)	4.70	ieigy.
Ethyl alcohol	4.184 iou	ile (J)
C-H-OH(I)	2.46	
Ethylene glycol.	2.40 Cal	orie (c)
(CH _o OH) _o (/)	2.42 kild	ocalorie (C)
Carbon	L'IL	eurott heur (UAA/h
tetrachloride,	NII.	owall nour (kvvn
CCI ₄ (I)	0.862	Chamical
Solid materials		- Chemical
Wood	1.76	Nuclear
Cement	0.88	Electrical
Glass	0.84	light (color)
Granite	0.79	Ligni (solar)
Steel	0.45	Motion (kineti)
*At 298 K (25°C).		



QUESTION

The specific heat capacity of a sample that was claimed to be gold was determined. It required 48.8 J to raise the temperature of 15 grams of sample 25° C. Is the sample gold? (Use the value in the table on the previous slide, 0.13 J/g°C, for comparison.)

A. YES B. NO

C. Cannot determine from the data.















- 1. Fusion
- 2. Vaporization
- Condensation
 Sublimation
- 5. Liquid \rightarrow Solid



For each of the following 5 changes of physical state answer either: A) endothermic, or: B) exothermic

1. Fusion

- 2. Vaporizatio
- Condensation
 Sublimation
- 4. Sublimation 5. Liquid \rightarrow Solid
- energia (kJ)
 - id











































