

Name Ellie ment

Date: 5/30/12 Class: 744

	Element 1: Hydrogen	Element 2: Thallium	Similar or different?		Element 1: Hydrogen	Element 2: Thallium	Similar or different?
Symbol	H	Tl	D	Discovery date	1766	1861	D
Atomic Number	1	81	D	Discovered by	Henry Cavendish	William Crookes	D
Protons	1	81	D				
Neutrons	1	123	D	Country of discovery	England	England	S
Electrons	1	81	D				
Atomic Mass	1.008	204.4	D	Location Found today	majority is found in water - 10% of living things	found in minerals - can be a by-product of sulfuric acid production	D
Melting point	-259.14°C	304°C	D				
Boiling Point	-252.87°C	1473°C	D	Important uses	used in metal refining, rocket fuel, replacement for gas	- rat poison - insecticide - gamma radiation detection equip./thallium stress test	D
Normal Phase	Gas	Solid	D				
Cost per 100 g	\$12/100g	\$48/100g	D	Common compounds	H ₂ O (water) HCl (Chloride) H ₂ (Hydride)	Thallium sulfate Thallium sulfide (photocells)	D
Classification	Non-metal*	Metal	D				
Family	In its own family	Other metal	D	Other:	10% of the weight in living organisms	Thallium oxide	D
Origin of name	Greek word "hydro" meaning	Greek word "Thallos" meaning a	D				

* H can become a liquid metal under extreme pressure

Water and "genes", meaning forming green shoot or twig

is hydrogen
- most abundant element

* banned from these products in the USA in 1972

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Chart

Source: www.chemicool.com

Element: Hydrogen (H)	Similarities	Element: Thallium (Tl)
<ul style="list-style-type: none">• Gas• Non-metal• \$12/100 grams• Atomic number is 1 (least amount of protons of any element)• Found in living things (naturally)• most abundant element in the universe	<ul style="list-style-type: none">• Both elements were discovered by English men• Both elements can be dangerous<ul style="list-style-type: none">- Hydrogen bombs and Hindenburg disaster- Thallium can be toxic/poisonous if ingested or inhaled	<ul style="list-style-type: none">• Solid metal• \$48/100 grams (more expensive)• Atomic number is 81 (many more protons)• Poisonous• Found in rat poison and insecticide

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Web

Source: ^(s) www.chemcool.com

