

Chemical or Nuclear?

	Chemical Reaction	Nuclear Reaction
On Earth must be started by special conditions		
Protons and neutrons involved in reaction		
Energy is given off		
Carbon dating		
$\text{CH}_4 + \text{O}_2 \rightarrow \text{CO}_2 + \text{H}_2\text{O}$		
Original element become new elements		
Compounds are formed		
Nuclear composition changes		
Outermost electrons involved in reaction		
Law of conservation of energy applies		
${}_{92}^{238}\text{U} \rightarrow {}_2^4\text{He} + {}_{90}^{234}\text{Th}$		
Electron configurations change		
Subatomic particles can be broken down		
Happens spontaneously often on Earth		