

TABLE 5.5 Fuel Values and Compositions of Some Common Fuels

	Approximate Elemental Composition (mass %)			Fuel Value (kJ/g)
	C	H	O	
Wood (pine)	50	6	44	18
Anthracite coal (Pennsylvania)	82	1	2	31
Bituminous coal (Pennsylvania)	77	5	7	32
Charcoal	100	0	0	34
Crude oil (Texas)	85	12	0	45
Gasoline	85	15	0	48
Natural gas	70	23	0	49
Hydrogen	0	100	0	142

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- 1) How many kJ of energy are generated when burning 300 grams of pine tree?
- 2) How many kJ of energy are generated when burning 175 grams of anthracitic coal?
- 3) How many kJ of energy are generated when burning 110 grams of natural gas?
- 4) How many kJ of energy are generated when burning 40 grams of hydrogen gas?