

### Special Problem 9b

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The high heating value of a coal is measured at 13,700 Btu/lb<sub>m</sub> on a dry, ash-free (daf) basis. The dry, ash-free composition of the coal is listed below:

Carbon	83 wt%
Hydrogen	5.2 wt%
Oxygen	7.8 wt%
Nitrogen	0.5 wt%
Sulfur	3.5 wt%

Calculate the standard heat of formation of this coal on a dry, ash-free basis in kJ/kg.