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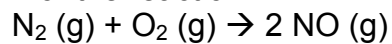
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Chapter 17 and 7, Lecture Examples, Part 1

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1. Given the information below for the reaction:



	$\Delta H_f^\circ$ (kJ/mole)	$S^\circ$ (J/mole·K)	$\Delta G_f^\circ$ (kJ/mole)
$\text{N}_2(\text{g})$	--	191.6	--
$\text{O}_2(\text{g})$	--	205.2	--
$\text{NO}(\text{g})$	91.3	210.8	87.6

a. Calculate  $\Delta G_{\text{rxn}}$  using  $\Delta G_f^\circ$  values.

b. Is this reaction spontaneous? Explain.

c. Is there a temperature where the reaction can switch spontaneity? If so, what is it?

2. What is the frequency of a green laser with wavelength of 515 nm?

