The process is a reaction between nitrogen and water, whereby ammonia and oxygen are formed. Calculate the standard free energy and the equilibirum constant for this process, when it can be found that the standard free energy of formation of 1 mole of water (gas) is 228.6 kJ, and of 1 mole of ammonia (gas), 16.6 kJ. The standard free energy of element is, according to definition, 0.