## Neutron Diffraction and Gravimetric Study of the Manganese Nitriding Reaction under Ammonia Decomposition Conditions: Supplementary Information

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Supplementary Figure 1: Schematic of experimental setup—not shown are the heater element above the quartz bucket (through which the tungsten wire goes) or the gas inlet and outlets.



Supplementary Figure 2: Neutron diffraction data for manganese heated under ammonia to 420 °C, bank at 55°.



Supplementary Figure 3: Neutron diffraction data for manganese heated under ammonia to 420 °C, bank at 90°.



Supplementary Figure 4: Neutron diffraction data for manganese heated under ammonia to 420 °C, backscattering bank.



Supplementary Figure 5: Neutron diffraction data for manganese heated under ammonia to 480 °C, bank at 55°.



Supplementary Figure 6: Neutron diffraction data for manganese heated under ammonia to 480 °C, bank at 90°.



Supplementary Figure 7: Neutron diffraction data for manganese heated under ammonia to 480 °C, backscattering bank.