The interaction of nitric oxide with the surface of MgO at low temp. was studied exp. and theor. High-surface-area polycryst. MgO prep. by CVD was exposed to both 14NO and 15NO and the corresponding adsorption complexes were monitored by ESR (EPR) spectra. MgO(100) thin films grown on Mo(100) in UHV conditions were exposed to 15NO and the adsorption products were studied by thermal desorption (TDS) and FTIR spectroscopies. The structure and properties of NO/MgO(100) were studied by cluster model d. functional theory (DFT) calcns. The EPR data show that only 0.5...