

Magnetic Field Influence on the Neutron Star Crust

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The role of strong magnetic fields on the composition and equation of state of both the outer and inner regions of neutron star crusts is studied. The effects of the Landau quantization of electron motion and the nucleon paramagnetism and proton orbital magnetism on the equation of state are discussed. Numerical calculations for different magnetic field strengths using the neutron-star crust model developed by the Brussels-Montreal collaboration are presented.