

Abstract Submitted  
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**Tuning the ground state of CeNiGe<sub>3</sub> by applied magnetic field<sup>1</sup>**

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We studied the thermal, magnetic and electrical transport properties of the ternary intermetallic system CeNiGe<sub>3</sub>. In zero field, antiferromagnetic order is observed below 5.1 K. In addition, at low temperatures, two pronounced metamagnetic transitions are also revealed. Applying magnetic fields along the magnetic easy direction leads to a suppression of the Neel temperature, with an apparent critical field  $H_c \sim 32.5$  kOe. The  $H - T$  phase diagram of CeNiGe<sub>3</sub> is consistent with a system that manifests field induced, quantum criticality. In the paramagnetic regime, above  $H_c$ , the resistivity at low temperatures exhibits an unusual temperature dependence. These results make CeNiGe<sub>3</sub> appear to be most similar to the isostructural, YbNiSi<sub>3</sub> [1].

[1] S. L. Bud'ko *et al*, Phys. Rev. B 75, 094433(2007).

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