

## Specific heat of the $\text{Ce}(\text{Cu}_{1-x}\text{Ni}_x)_4\text{Ga}$ alloys

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The heavy fermion compound  $\text{CeCu}_4\text{Ga}$  is known to exhibit a huge electronic specific coefficient  $\gamma = 3.3 \text{ Jmol}^{-1}\text{K}^{-2}$  for temperatures extrapolated to  $T = 0 \text{ K}$ . In the present study it is shown that the  $\gamma$  value decreases fast with the progressive substitution of Cu with Ni. The crystallographic structure is hexagonal of the  $\text{CaCu}_5$ -type and is kept for all the  $x$  values in the  $\text{Ce}(\text{Cu}_{1-x}\text{Ni}_x)_4\text{Ga}$  alloys, therefore the behavior of the specific heat is related strictly to the modification of the electronic structure occurring with the substitution of Cu by Ni. Moreover, the changes of the crystal electric field levels scheme are observed by extraction of the Schottky contribution to the specific heat.