

Abstract Submitted  
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**Negating Negative Heat Capacity in Nanoclusters** KARO  
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tonoma de Mexico — It is shown that “negative heat capacity” in nanoclusters is  
an artifact of applying equilibrium thermodynamic formalism on a “small” system  
trapped out of equilibrium in a particular structural motif representing only part of  
the energetically available phase space volume. Trapping may occur in either the  
canonical or microcanonical ensemble, but it is unavoidable in the microcanonical. A  
more general consequence of trapping is that all macroscopic quantities determined  
for nanoclusters will depend on the initial conditions.

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