Taking Thermodynamics Too Seriously

Callender, Craig (2001) Taking Thermodynamics Too Seriously.

Abstract

This paper discusses the mistake of understanding the laws and concepts of thermodynamics too literally in the foundations of statistical mechanics. Arguing that this error is still pervasive (though slightly more subtle than before), we explore its consequences in three cases: explaining the Second Law, understanding equilibrium and defining phase transitions.

Keywords:	thermodynamics; entropy; equilibrium; phase transitions; reduction
Subjects:	General Issues: Reductionism/Holism Specific Sciences: Physics: Statistical Mechanics/Thermodynamics
ID Code:	289
Deposited By:	Callender, Craig
Deposited On:	22 June 2001