

*Subject:*

“It is impossible to reach the absolute zero of temperature by any finite number of processes.”

This is one of several possible formulations of the Third Law of Thermodynamics.

*Deficiencies:*

Why do we believe that this statement is worth mentioning? There is a great number of other statements of the impossibility of something. It is impossible to empty an air-filled recipient by a finite number of processes. It is impossible to scoop a bath tub completely by means of a bucket. We perceive statements of this kind as trivial. We do not number them among the laws of nature. It is different, however, with entropy. We get to know it only in such an esoteric “wrapping”, that an unprejudiced handling of it is extremely difficult. Statements about the entropy become a significance that is not in relation to its simple physical properties. We pay so much deference to the entropy and attribute to it so many metaphysical connotations, that our comparison with the emptying of a bath tub may seem disrespectful. Yet both statements are of the same kind. Our simple analogy describes the situation in a clearer way as all of the current formulations of the Third Law.

*Origin:*

The statement goes back to *W. Nernst*. His scholar *F. Simon* formulated the Third Law in the following way: “It is impossible to completely deprive a substance of its entropy.” The statement compensates a deficit let by the Second Law, since it determines the constant of integration when calculating the entropy.

*Disposal:*

Our respect for the creators of the Third Law should not prevent us from seeing things a little more soberly. The place of the statement should not be the altar, but the box of our standard tools.

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