

Thomas Johann Seebeck – Two Centuries Later, An Appreciation

*Daniel Foty
Gilgamesh Associates, LLC
Fletcher, Vermont
The United States of America*

This year marks the 240th anniversary of the birth – in Tallinn – of the physicist Thomas Johann Seebeck.

Seebeck is best-known for his work on the effect that came to bear his name – and which was the first work relating the thermal and electrical properties of materials. This was Seebeck's most-important contribution; however, Seebeck made a number of other important contributions to a variety of aspects of what we would today call "the physics of materials."

This lecture will review the life and work of Seebeck, and connect his contributions to contemporary technology – and to on-going problems. It must be kept in mind that Seebeck carried out his work at a time when the basic properties of materials and of electromagnetic radiation were just beginning to be systematically explored – which makes his achievements all the more remarkable. Particular attention will be given to his fundamental work on thermoelectric behavior – which will include a discussion of some interesting and new applications for thermoelectric technology that are being developed today.