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Thermal analysis of popular low calorie sweeteners PETER LEMAIRE, Department of Physics Engineering Physics, Central Connecticut State University, New Britain CT 06050 — Non-sugar sweeteners have been touted as a low-calorie, low-glycemic index substitute for sugar. Several low calorie sweeteners are now used ubiquitously in deserts and baking. In this project, we studied the thermal stability of common low calorie sweeteners Splenda<sup>TM</sup>, Sweet n Low, Truvia, Stevia, Equal<sup>TM</sup> (or Nutrasweet<sup>TM</sup>) and others, using Differential Scanning Calorimeter (DSC) and Thermogravimetric Analyzer (TGA). The thermal transitions of these sweeteners and their use in high temperature cooking and baking will be discussed.

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