



materials



Special Issue Reprint

Thermal Analysis of Materials

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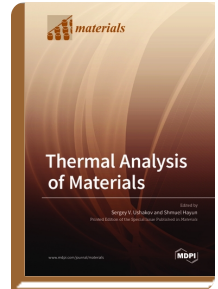
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The thermal analysis of materials encompasses a variety of methods used to detect changes in material properties as a function of temperature. Before temperature measurement became routine in all stages of metal and ceramic processing, early metallurgists relied on the color and brightness of hot metal, and glassmakers used viscosity for guidance. Nowadays, techniques of differential thermal analysis (DTA) and differential scanning calorimetry (DSC) routinely yield heat capacities, temperatures, and enthalpies of phase transformations in the temperature range from -150 to 1500 °C. The measurement of any physical property as a function of temperature brings the method into the realm of thermal analysis.

This Special Issue provides a sampling of the current use, diversity, and ongoing developments of techniques and approaches in the thermal analysis of materials. It combines contributions solicited by editors that reflect their scientific interests and networks, with generally related submissions received over two years. It contains 16 articles and 1 short review submitted by authors from 10 countries.



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