

Contents

	Foreword
	Introduction
1	Scope
2	Normative references
3	Terms and definitions
4	Calculation of heat flow rate and heat capacity
4.1	Temperature modulation, $T(t)$
4.2	Heating rate
4.3	Heat flow rate $\Phi(t)$ and heat capacity
4.3.1	General
4.3.2	Heat capacity with no processes
4.3.3	Heat capacity with additional processes
4.3.4	Time dependent heat capacity
5	Principles
5.1	General
5.2	Mode of temperature modulation
5.2.1	Variable heating rate of periodic modulation
5.2.2	Variable temperature modulated mode
5.3	Heat capacity determined with the temperature modulation — Complex heat capacity
5.4	Reversing and non-reversing heat capacity
5.5	Advantage of the temperature modulation applied to DSC
6	Apparatus and materials
6.1	General
6.2	Temperature control of modulated differential scanning calorimeter
7	Calibration
7.1	General
7.2	Calibration of modulation amplitude
7.3	Calibration of phase
8	Procedure
8.1	General
8.2	Experimental conditions
8.3	Interpretation of results
9	Test report
Annex A	(informative) Generalized theory of temperature modulated DSC[7]