



## DIFFERENTIAL SCANNING CALORIMETRY TECHNIQUE USED IN COSMETICS FOR WAXES AND OIL

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### ABSTRACT:

Differential Scanning Calorimetry is a thermos-analytical technique in which the difference in the amount of heat required to increase the temperature of a sample and reference is measured as a function of temperature. Both the sample and reference are maintained at nearly the same temperature throughout the experiment. Generally, the temperature program for a DSC analysis is designed such that the sample holder temperature increases linearly as a function of time. The reference sample should have a well-defined heat capacity over the range of temperatures to be scanned. The technique was developed by E. S. Watson and M. J. O'Neill in 1962.

Types of DSC:

- *Power-compensated DSC*, keeps power supply constant
- *Heat-flux DSC*, keeps heat flux constant

DSC analysis can be used to quantify ingredient levels in mixture, the melting point of crystalline polymer etc.

**KEYWORDS** – differential scanning calorimetry, quantify ingredients of mixture, melting point etc.

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