**Abstract:** The present subject matter relates to methods of high-speed analysis of product samples during production of the product. Light is directed to a portion of a product under analysis and reflected from or transmitted through the product toward optical detectors. Signals from the optical detectors are compared to determine characteristics of the product under analysis. Temperature within the monitoring system may be monitored in order to provide compensation for the signals produced by the optical detectors. The products under analysis may be stationary, moved by an inspection point by conveyor or other means, or may be contained within a container, the container including a window portion through which the product illuminating light may pass.
INTERNATIONAL SEARCH REPORT

A. CLASSIFICATION OF SUBJECT MATTER

IPC(8) - B07C 5/12; G01N 33/00 (2008.01)
USPC - 209/576; 250/222.1, 250/223R; 250/345; 356/237.1; 356/394; 356/448; 378/57
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum classification searched (classification system followed by classification symbols)
USPC: 209/576; 250/222.1, 250/223R; 250/345; 356/237.1; 356/394; 356/448; 378/57

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
USPC: 209/576,577,579; 250/222,1,223R,224,341, 2,345,346; 356/237 1,239,1,239.4,394,448; 378/57; 359/107; 359/208, 359/108, 385/122, 385/24, 708/191; (text search, see terms below)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

<table>
<thead>
<tr>
<th>Category</th>
<th>Citation of document, with indication, where appropriate, of the relevant passages</th>
<th>Relevant to claim No.</th>
</tr>
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<tbody>
<tr>
<td>Y</td>
<td>US 2002/0109094 A1 (Goetz et al) 15 August 2002 (15.08.2002), para [0031]-[0038], [0079], Fig 1</td>
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<tr>
<td>Y</td>
<td>US 6,347,131 B1 (Gusterson) 12 February 2002 (12.02.2002), col 4, ln 39-61, Fig 1</td>
<td>1-10</td>
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<tr>
<td>A</td>
<td>US 5,137,364 A (McCarthy) 11 August 1992 (11.08.1992), entire document</td>
<td>1-10</td>
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<td>A</td>
<td>US 6,737,654 B2 (Ducourant) 18 May 2004 (18.05.2004), entire document</td>
<td>1-10</td>
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</table>

D. Further documents are listed in the continuation of Box C.

Date of the actual completion of the international search: 23 February 2008 (23.02.2008)

Date of mailing of the international search report: 19 MAR 2008

Authorized officer: Lee W Young

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