

Glossary of

Terms relating to gas chromatography

Co-operating organizations

The Solid Fuel Industry Standards Committee, under whose supervision this British Standard was prepared, consists of representatives from the following Government departments and scientific and industrial organizations

Association of Boiler Setters, Chimney and Furnace Constructors	Gas Council*
Association of Consulting Engineers	Heating and Ventilating Contractors Association
British Cast Iron Research Association	Imperial Chemical Industries Limited
British Coal Utilisation Research Association*	Institute of British Foundrymen
British Coke Research Association*	Institute of Fuel*
British Electrical and Allied Manufacturers' Association	Institution of Gas Engineers*
British Ironfounders' Association	Institution of Heating and Ventilating Engineers
British Mechanical Engineering Federation	Institution of Mechanical Engineers
British Steel Industry*	Iron and Steel Institute*
Chamber of Coal Traders	Low Temperature Coal Distillers' Association of Great Britain, Ltd.
Chemical Industries Association*	Ministry of Housing and Local Government*
Coal Utilisation Council	Ministry of Power*
Coke Oven Managers' Association	Ministry of Public Building and Works
Combustion Engineering Association	National Coal Board*
Confederation of British Industry	Society of British Gas Industries*
Council of Ironfoundry Associations	Water-tube Boilermakers' Association*
Domestic Solid Fuel Appliances Approval Council	Women's Advisory Council on Solid Fuel
Electricity Council, the Central Electricity Generating Board and Area Boards in England and Wales*	

The Government departments and scientific and industrial organizations marked with an asterisk in the above list, together with the following, were directly represented on the committee entrusted with the preparation of this standard:

British Ceramic Research Association	Ministry of Technology — Warren Spring Laboratory
British Laboratory Ware Association	Scientific Instrument Manufacturers' Association
British Scientific Instrument Association	Society of Analytical Chemistry
Coal Tar Research Association	Society of Chemical Industry
Gas Chromatography Discussion Group	Society of Glass Technology
Institute of Petroleum	Standardization of Tar Products Tests Committee
Institute of Water Pollution Control	
Institution of Chemical Engineers	
Institution of Civil Engineers	
Institution of Electrical Engineers	

This British Standard, having been approved by the Solid Fuel Industry Standards Committee, was published under the authority of the Executive Board on 23 April 1969

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First published September 1963
First revision April 1969

The following BSI references relate to the work on this standard
Committee references SFE/17 and SFE/17/6
Draft for comment 68/19958

ISBN 580 05138 2

Amendments issued since publication

Amd. No.	Date	Comments

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Foreword

In view of the further progress made in chromatographic techniques for the analysis of gases, it was decided in 1968 that the issue of BS 3282 published in 1963 required revision and extension. The present glossary is unchanged in pattern, but contains several revised or new definitions and the distribution of terms within the sections has been substantially altered.

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Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, pages 1 to 10, an inside back cover and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

1 General

No.	Term	Definition
101	gas chromatography	Any method of chromatography in which the mobile phase is a gas.
102	gas-liquid chromatography	Any method of gas chromatography in which the stationary phase is a liquid distributed on a solid support.
103	gas-solid chromatography	Any method of gas chromatography in which the stationary phase is an active solid.
104	programmed temperature gas chromatography	A procedure in which the temperature of the column is deliberately changed during a part or the whole of the separation.
105	programmed pressure gas chromatography	A procedure in which the inlet pressure of the column is deliberately changed during a part or the whole of the separation.
106	programmed flow gas chromatography	A procedure in which the carrier gas flow rate is deliberately changed during a part or the whole of the separation.
107	liquid phase	A substance which is liquid but substantially non-volatile at the column temperature and is sorbed on the solid support.
108	active solid	A solid with sorptive properties which differ for various components of the sample.
109	modified sorbent	An active solid whose activity has been limited by the addition of a modifying liquid.
110	stationary phase	The liquid phase, the active solid or the modified sorbent.
111	solid support	Normally an inert solid which supports the stationary phase. In some gas-liquid methods the solid support may also be an active solid. The wall of the column contributes to the solid support.
112	packing	The stationary phase, including any solid support, with which a chromatographic column may be filled.
113	mobile phase	The gas passing through a chromatographic column.
114	carrier gas	The gas used to transport the sample through the column.
115	auxiliary gas	A gas other than the carrier gas which is necessary for the functioning of the detector.
116	internal standard	A compound added to a sample in known concentration for the purpose of eliminating the need to measure the size of sample injected for quantitative analysis.
117	marker	A compound of known retention time, added to a sample to assist in identifying the components.
118	effluent	The gas emerging from a column or from a detector.
119	response	The signal produced by the passage of a component through the detector.
120	response factor	The detector response per unit quantity of component present.
121	relative response factor	The ratio of the response factors of two substances, one of which may be a standard.
122	normalization	The arithmetical process of expressing a quantity (e.g. peak area or weight) as a percentage of the sum of all like known quantities.
123	backflush	The reversal of direction of flow through the column, after some components have been eluted, to remove those of long retention time.