

C10H

PRODUCTION OF ACETYLENE BY WET METHODS [N:(purification of acetylene C07C7/00)]

Definition statement

This subclass/group covers:

Methods and apparatus for production of acetylene by wet methods, including arrangements for water feed and carbide feed; high-pressure acetylene generators; details of acetylene generators, e.g. carbide cartridges, carbide compositions, safety devices, sludge removal.

References relevant to classification in this subclass

This subclass/group does not cover:

Purification of acetylene	C07C 7/00
Gaseous fuel compositions containing acetylene	C10L 3/02
Absorbing compositions for acetylene	C10L 3/04
Use of gas-solvents or gas-sorbents for acetylene in vessels	F17C 11/002

Places in relation to which this subclass is residual:

Burners for combustion of a gas in association with a gaseous fuel source, e.g. acetylene generator	F23D 14/28
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Informative references

Attention is drawn to the following places, which may be of interest for search:

Apparatus for generating gases by wet methods	B01J 7/02
Manufacture of acetylene by methods not comprising carbides	C07C 11/24
Engines or plants characterised by use of other specific gases, e.g. acetylene	F02B 43/10

Engine-pertinent apparatus for adding small quantities of acetylene	F02M 25/10
Valves, cocks, taps in general	F16K
Gas burners in association with a gaseous fuel source, e.g. an acetylene generator	F23D 14/28

Special rules of classification within this subclass

In the absence of an indication to the contrary, classification is made in the last appropriate place ("last place rule").

Glossary of terms

In this subclass/group, the following terms (or expressions) are used with the meaning indicated:

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Wet methods for acetylene production	Traditionally acetylene is manufactured from calcium carbonate (limestone) and coal. The calcium carbonate is first converted into calcium oxide and the coal into coke, then the two are reacted together to form calcium carbide and carbon monoxide: $\text{CaO} + 3\text{C} \rightarrow \text{CaC}_2 + \text{CO}$ Calcium carbide (calcium acetylide) and water are then reacted by any of several methods to produce acetylene and calcium hydroxide, by a reaction discovered by Friedrich Wöhler in 1862. $\text{CaC}_2 + 2\text{H}_2\text{O} \rightarrow \text{Ca(OH)}_2 + \text{C}_2\text{H}_2$
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Synonyms and Keywords

In patent documents the following expressions/words " acetylene", "ethyne", "C₂H₂" and "H-C#C-H" are often used as synonyms.

C10H 1/00

Acetylene gas generators with dropwise, gravity, non automatic water feed (valves, cocks F16K)

C10H 3/00

Acetylene gas generators with automatic water feed regulation by means independent of the gas-holder

C10H 5/00

Acetylene gas generators with automatic water feed regulation by the gas-holder

C10H 7/00

Acetylene gas generators with water feed by Kipp's principle

C10H 9/00

Acetylene gas generators according to Dobereiner's principle with fixed carbide bell

C10H 11/00

Acetylene gas generators with submersion of the carbide in water

C10H 13/00

Acetylene gas generation with combined dipping and drop-by-drop system

C10H 15/00

Acetylene gas generators with carbide feed, with or without regulation by the gas pressure

C10H 17/00

High-pressure acetylene gas generators

C10H 19/00

Other acetylene gas generators

C10H 21/00

Details of acetylene generators; Accessory equipment for, or

features of, the wet production of acetylene