C01C

AMMONIA; CYANOGEN; COMPOUNDS THEREOF ([N: metal hydrides, monoborane, diborane or addition complexes thereof C01B6/00]; salts of oxyacids of halogens C01B11/00; peroxides, salts of peroxyacids C01B15/00; thiosulfates, dithionites, polythionates C01B17/64; compounds containing selenium or tellurium C01B19/00; azides C01B21/08; [N: compounds other than ammonia or cyanogen, containing nitrogen, non-metals and optionally metals C01B21/082]; metal imides or amides C01B21/092; nitrites C01B21/50; [N: compounds of noble gases C01B23/0005]; phosphides C01B25/08; salts of oxyacids of phosphorus C01B25/16; compounds containing silicon C01B33/00; compounds containing boron C01B35/00)

References relevant to classification in this subclass

This subclass/group does not cover:

Exceptions to the last appropriate place rule:

Metal hydrides, monoborane, diborane or addition complexes thereof	C01B 6/00
Salts of oxyacids of halogens	C01B 11/00
Peroxides, salts of peroxyacids	C01B 15/00
Sulfides or polysulfides of magnesium, calcium, strontium, or barium	C01B 17/42
Thiosulfates, dithionites, polythionates	C01B 17/64
Compounds containing selenium or tellurium	C01B 19/00
Binary compounds of nitrogen with metals	C01B 21/06
Azides	C01B 21/08
Compounds other than ammonia or cyanogen containing nitrogen and non-metals and optionally metals	C01B 21/082

Amides or imides of silicon	C01B 21/087
Metal imides or amides	C01B 21/092, C01B 21/0923
Nitrites	C01B 21/50
Compounds of noble gases	C01B 23/0005
Phosphides	C01B 25/08
Salts of oxyacids of phosphorus	C01B 25/16
Carbides	C01B 31/30
Compounds containing silicon	C01B 33/00
Compounds containing boron	C01B 35/00
Compounds having molecular sieve properties but not having base-exchange properties	C01B 37/00
Compounds having molecular sieve and base-exchange properties, e.g. crystalline zeolites	C01B 39/00

Special rules of classification within this subclass

In the whole class C01 (thus also in this subclass C01C) is the last appropriate place rule applied (see the Note after the class title) and are chemical names to be taken in a strictly limitative sense (see the Note after the class title C01).

C01C 1/00

Ammonia; Compounds thereof [N: (C01C3/08, C01C3/14, C01C3/16, C01C3/20 take precedence)]

References relevant to classification in this group

This subclass/group does not cover:

Complex ammine salts, like Pt(NH3)4Cl2classified in the relevant groups according to the metal	C01D to C01G

Simple or complex cyanides of metals	C01C 3/08
Cyanic or isocyanic acid; salts thereof	C01C 3/14
Cyanamide; salts thereof	C01C 3/16
Thiocyanic acid; salts thereof	C01C 3/20

C01C 1/0405

[N: from N2 and H2 in presence of a catalyst]

Definition statement

This subclass/group covers:

Features dealing with the catalytic gas phase synthesis of ammonia and not covered by the subgroups C01C 1/0411 to C01C 1/0488 are classified in this group. Also items related to the cycle, like by-passes or specific flow connections are classified in here.

References relevant to classification in this group

This subclass/group does not cover:

The preparation or purification of ammonia synthesis gas, i.e. the N2+H2 gas mixture:	C01B 3/025

C01C 1/0417

[N: characterised by the synthesis reactor, e.g. arrangement of catalyst beds and heat exchangers in the reactor (arrangement of several reactors C01C1/0405; fixed-bed reactors in general B01J8/02)]

Definition statement

This subclass/group covers:

Also heat exchangers arranged in the reactor are classified in here.

References relevant to classification in this group

This subclass/group does not cover:

Arrangements of several reactors:	C01C 1/0405

Informative references

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

Fixed-bed reactors:	B01J 8/02

C01C 1/0458

[N: Separation of NH3 (during purge gas treatment C01C1/0476)]

References relevant to classification in this group

This subclass/group does not cover:

Separation of ammonia from a separated purge gas flow:	C01C 1/0476

C01C 1/083

[N: from molasses (treatment of molasses in general C13J)]

Informative references

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

Treatment of molasses in general:	C13J

C01C 1/10

Separation of ammonia from ammonia liquors, e.g. gas liquors [N: (as part of the ammonia synthesis process C01C1/04)]

References relevant to classification in this group

This subclass/group does not cover:

Separation of ammonia as part of the ammonia synthesis process:	C01C 1/0405

C01C 1/12

Separation of ammonia from gases and vapours [N: (as part of the ammonia synthesis process C01C1/04)]

References relevant to classification in this group

This subclass/group does not cover:

Separation of ammonia as part of the ammonia synthesis process:	C01C 1/0405

C01C 1/24

Sulfates of ammonium (C01C1/14 takes precedence)

References relevant to classification in this group

This subclass/group does not cover:

Saturators:	C01C 1/14

C01C 3/00

Cyanogen; compounds thereof

C01C 3/001

N: Preparation by decomposing nitrogen-containing organic compounds, e.g. molasse waste or urea (by distillation of carbamates C01C3/02, C01C3/08, C01C3/14, C01C3/16; by decomposing formamide or ammonium formate C01C3/0204)]

References relevant to classification in this group

This subclass/group does not cover:

Preparation by distillation of carbamates:	C01C 3/02, C01C 3/08, C01C 3/14, C01C 3/16
Preparation by decomposing formamide or ammonium formamate:	C01C 3/0204

C01C 3/003

[N: Cyanogen]

Glossary of terms

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

In this group, the following terms or expressions are used with the meaning indicated:

Cyanogen	C2N2

Synonyms and Keywords

In patent documents the following expressions/words and are often used as synonyms:

Cyanogen	dicyan (US-doc's and FR-doc's) and ethanedinitrile.

C01C 3/004

[N: Halogenides of cyanogen]

Glossary of terms

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

In this group, the following terms or expressions are used with the meaning indicated:

Halogenides of cyanogen	XCN

C01C 3/005

[N: Thiocyanogen]

Glossary of terms

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

In this group, the following terms or expressions are used with the meaning indicated:

Thiocyanogen	(SCN)2

C01C 3/006

[N: Sulfurdicyanide]

Glossary of terms

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

In this group, the following terms or expressions are used with the meaning indicated:

Sulfurdicyanamide	S(CN)2

C01C 3/02

Preparation, [N: separation or purification] of hydrogen cyanide [N: (C01C3/001 takes precedence)]

References relevant to classification in this group

This subclass/group does not cover:

Preparations starting from nitrogen-containing organic compounds:	C01C 3/001

C01C 3/0212

[N: from hydrocarbons and ammonia in the presence of oxygen, e.g. the Andrussow-process]

References relevant to classification in this group

This subclass/group does not cover:

Preparation from hydrocarbons and ammonia in the absence of oxygen:	C01C 3/0229

C01C 3/0229

[N: from hydrocarbons and ammonia in the absence of oxygen, e.g. HMA-process]

References relevant to classification in this group

This subclass/group does not cover:

Preparation from hydrocarbons and ammonia in the presence of oxygen:	C01C 3/0212

Glossary of terms

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

In this group, the following terms or expressions are used with the meaning indicated:

HMA	Hydrogen cyanide Methane Ammonia-process

Synonyms and Keywords

In patent documents the expression/word is often used with the meaning

BMA (German documents)	Blausäure Methan Ammoniak-Verfahren

C01C 3/08

Simple or complex cyanides of metals [N: (C01C3/001, C01C3/002 take precedence)]

References relevant to classification in this group

This subclass/group does not cover:

Preparation by decomposition of nitrogen containing organic compounds:	C01C 3/001
Preparation from elementary nitrogen	C01C 3/002

or carbides:	

C01C 3/14

Cyanic [N: or isocyanic] acid; Salts thereof [N: (C01C3/001 takes precedence)]

References relevant to classification in this group

This subclass/group does not cover:

Preparation by decomposition of nitrogen containing organic compounds:	C01C 3/001

Glossary of terms

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

In this group, the following terms or expressions are used with the meaning indicated:

Cyanic acid	HOCN
Isocyanic acid	HNCO

C01C 3/145

[N: Isocyanic acid; Salts thereof]

Glossary of terms

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

In this group, the following terms or expressions are used with the meaning indicated:

Isocyanic acid	HNCO

C01C 3/16

Cyanamide; Salts thereof ([N: C01C3/001, C01C3/002 takes precedence]; dicyandiamide C07C279/28)

References relevant to classification in this group

This subclass/group does not cover:

Preparation by decomposition of nitrogen containing organic compounds:	C01C 3/001
Preparation from elementary nitrogen or carbides:	C01C 3/002
Dicyanamide:	C07C 279/28

Glossary of terms

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

In this group, the following terms or expressions are used with the meaning indicated:

Cyanamide	H2NCN

C01C 3/18

Calcium cyanamide

Glossary of terms

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

In this group, the following terms or expressions are used with the meaning indicated:

Calcium cyanamide	CaNCN

C01C 3/20

Thiocyanic acid; Salts thereof [N: (C01C3/001 takes precedence)]

References relevant to classification in this group

This subclass/group does not cover:

Preparation by decomposition of nitrogen containing organic compounds:	C01C 3/001

Glossary of terms

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

In this group, the following terms or expressions are used with the meaning indicated:

Thiocyanic acid	hydrogen thiocyanate

Synonyms and Keywords

In patent documents the expression/word is often used with the meaning

Thiocyanic acid	HSCN