

[Sample Document](#) [Database Fields](#) [Search Tips](#) [Login/Registration](#)

CEABA Chemical Engineering and Biotechnology Abstracts

CEABA (Chemical Engineering and Biotechnology Abstracts) contains references with abstracts, keywords and bibliographic details of international scientific and application-oriented literature on chemical engineering and biotechnology. It covers journals, conference proceedings, books, dissertations, and grey literature. The abstracts are in German and/or English. The CEABA database was published by DECHEMA e.V. up to May 2011. From June 2011 it has been produced by WTI-Frankfurt.

Scope

- Chemical and process engineering
- Production processes and process development
- Measurement and process control
- Equipment and plant
- Materials technology and testing, corrosion
- Mathematical methods and modelling
- Environmental protection and safety
- Bioprocess engineering and process development
- Fermentation, enzymology and biotransformation
- Information technology
- Utilities and services
- Economics and management

Language

German, English

File Data

Number of records: 1.226.394

Years covered: from 1966

Update: weekly

Producer

From 06/2011:

WTI-Frankfurt-digital GmbH

Ferdinand-Happ-Str. 32

D-60314 Frankfurt/Main

Phone: +49 69 4308-111

Fax.: +49 69 4308-200

Internet: <http://www.wti-frankfurt.de>

Responsible for database input:

Dr. Claudia Meyer

Mail: c.meyer@wti-frankfurt.de

Up to 05/2011:
DECHEMA Gesellschaft für Chemische Technik
und Biotechnologie e.V.
Theodor-Heuss-Allee 25
D-60486 Frankfurt/Main/Germany
Tel: +49 69 7564-349
Fax: +49 69 7564-418
Internet: <http://www.dechema.de>

Sample Document [TOP](#)

Database

CEABA, Copyright WTI-Frankfurt-digital GmbH

Title

A new procedure for the determination of distillation temperature distribution of high-boiling petroleum products and fractions.

Ein neues Verfahren zur Ermittlung der Destillationstemperaturverteilung von hoch siedenden Erdölprodukten und Erdölfractionen.

Descriptors

Distillation; Temperatur; Flüssigkeit; Rohöl; Siedepunkt; Vakuumdestillation; Kapillargaschromatographie; Polydimethylsiloxan; Elution; Wärmebeständigkeit; Hydroreformieren; Katalysator; Schädigung; polare Verbindung; Retentionszeit; chemische Zersetzung; Paraffin; Standard; Temperaturverteilung

Abstract

The distribution of distillation temperatures of liquid and semi-fluid products, including petroleum fractions and products, is an important process and practical parameter. It provides information on properties of crude oil and content of particular fractions, classified on the basis of their boiling points, as well as the optimum conditions of atmospheric or vacuum distillation. At present, the distribution of distillation temperatures is often investigated by simulated distillation (SIMDIS) using capillary gas chromatography (CGC) with a short capillary column with polydimethylsiloxane as the stationary phase. This paper presents the results of investigations on the possibility of replacing currently used CGC columns for SIMDIS with a deactivated fused silica capillary tube without any stationary phase. The SIMDIS technique making use of such an empty fused silica column allows a considerable lowering of elution temperature of the analytes, which results in a decrease of the final oven temperature while ensuring a complete separation of the mixture. This eliminates the possibility of decomposition of less thermally stable mixture components and bleeding of the stationary phase which would result in an increase of the detector signal. It also improves the stability of the baseline, which is especially important in the determination of the end point of elution, which is the basis for finding the final temperature of distillation. This is the key parameter for the safety process of hydrocracking, where an excessively high final temperature of distillation of a batch can result in serious damage to an expensive catalyst bed. This paper compares the distribution of distillation temperatures of the fraction from vacuum distillation of petroleum obtained using SIMDIS with that obtained by the proposed procedure. A good agreement between the two procedures was observed. In addition,

typical values of elution temperatures of n-paraffin standards obtained by the two procedures were compared. Finally, the agreement between boiling points of polar compounds determined from their retention times and actual boiling points was investigated.

Author

Boczkaj, Grzegorz; Przyjazny, Andrzej; Kaminski, Marian

Institution

Gdansk University of Technology, PL; Kettering University, Flint, MI, US

Source

Analytical and Bioanalytical Chemistry * Volume 399 (2011) Issue 9, Pages 3253-3260 (8 Seiten, 3 Bilder, 3 Tabellen, 18 Quellen)

Serial Codes

ISSN: 1618-2642

ISSN (electronic): 1618-2650

CODEN: ABCNBP

Language

EN English

Document Number

20110305510

Classification

3PHD Distillation, rectification technology

3EB Energy industry, energy management

3IFC Measuring/testing of chemical variables, chemical analysis

Publication Type

J Journal

ED Digital Object Identifier (DOI)

Publication Year

2011

Update

2011-05-30

Database Fields [TOP](#)

Title	TI
Author	AU
Institution	CO
Thesaurus	TH
Descriptors	DE

Classification	CC
Source	SO
Serial Codes	SC
Conference Details	CF
Language	LG
Publication Type	PT
Abstract	TX
Availability	AV
Document Number	NO
Publication Year	YR
Update	UP

Search Tipsq [TOP](#)

Thesaurus

Since 2007 the "Thesaurus Engineering and Management" of WTI-Frankfurt has been used for indexing CEABA. The search with descriptors from this thesaurus in the "General Search" automatically includes any available German terms and narrower terms, as well as German and English synonyms.

*Attention: The Thesaurus Search Engine is available in every single database. But as not all general data bases have a Thesaurus search function available, we are not able to provide this option when **OneSearch** is used for interdisciplinary data base research.*

Search in specific field

The "General Search" includes the following fields: Title, Abstract, Author, Institution, Conference Details, Source, Serial Codes (ISSN and ISBN), Thesaurus and Publication Year. In all other cases the respective field has to be selected. In the "Expert Search" every field can be selected from the dropdown-list, or you can directly enter the field tag (in capital letters), followed by colon with the search term, e.g. the classification CC:3PLD.

The direct search with field tag is possible in all search types (Quick Search, Advanced Search and Expert Search).

Field Author (AU)

Search names within quotation marks as "last name - first name", e.g. "schmidt r" and always use the Author Field (in "Advanced Search" or "Expert Search"). First names are often abbreviated in this database.

Names may be truncated (with *). "schmidt r*" returns all authors named Schmidt, whose first name starts with an "R", whether they are abbreviated or complete. You may also truncate the last name only, e.g. schmidt* returns schmidt-w-f, schmidt-stephan, schmidtke-david-w, schmidtbauer-w etc.

Field Institution (CO)

This field supplies the author affiliation. Wherever possible, these institutions have been standardised and can be used for refining the search result.

Field Descriptors (DE)

This field does not only contain controlled terms (=descriptors) from the "Thesaurus Engineering and Management", but additionally free terms in English and German.

Classification Field (CC)

In "Advanced Search" and "Expert Search" the subjects can be selected from a list (see link below the search fields) giving the top level of the WTI-classification. The selection of an item also includes the more precise subclasses into the search. If you enter the code directly, e.g. CC:3PLD, only the specified class is found.

In the "General Search" the field tag has to be used. Instead you can select the field from the dropdown-list in the "Expert Search".

For a list of the codes see [WTI Classification](#)

About a third of the records up to (incl.) 1999 is not classified with a code, which means that if you only search with codes, older records are not included in the result. Please use additional search terms in this case.

Field Source (SO)

The emphasis of CEABA is on journals. Conferences, books and dissertations complement the database.

Field Serial Codes (SC)

ISSN and ISBN are searched with hyphens without text, e.g. 978-3-527-31126-2.

Field Document Number (NO)

The document number is a permanent identifier for a specific record. Search e.g. NO:20100200223.

Update

February 2019