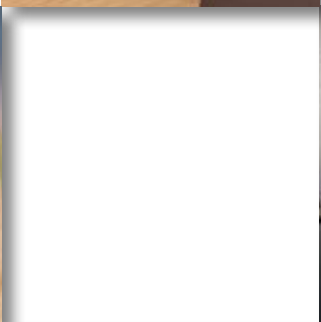
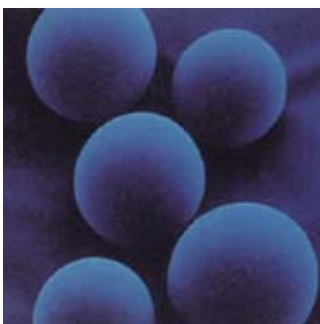


YMC
EUROPE GMBH



**HPLC COLUMNS
SYSTEMS
COMPONENTS**

Global Supplies

YMC
EUROPE GMBH



YMC Europe GmbH was established in 1993 specifically to support YMC product users in their work in research, quality control and/or production - locally! Short response times and expertise shall represent key factors to your personal success with regard to solving demanding separations reproducibly and consistently - day after day, year after year.

Since its founding, YMC has grown consistently and our new European Headquarters facilities, opened in 2005, demonstrate the level of dedication towards our customers.

the international YMC product portfolio is complemented by "fine-tuned" European product versions

extensive inventory ensures speedy supplies within 24 hours

analytical and pilot-scale laboratories are available for hands-on support

professional education and training facilities are used extensively

in-house methods development, validation services and custom purification are available on demand

well-trained and educated staff, specifically focussed on YMC products, will happily cooperate to make you successful

Find out more about the YMC values and share with us our confidence in the performance, reliability and consistency of YMC products and services.

How? Talk to us; we look forward to collaborating with you on new challenges.

Sincerely

Achim Schanze
Managing Director

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[Gei|sha] *jap.-engl.*

“Gei” means arts or performance in Japanese. “Sha” means people. Geisha are professional hostesses who entertain guests through various performing arts. It is believed that the women who danced for warriors in the 11th century are the predecessors of geisha. They were very common in the 18th and 19th centuries, and are still in existence today. Geisha are talented Japanese women who patiently go through extensive training of a wide variety of arts. Their course of study traditionally starts from a young age and includes tea ceremony, traditional forms of singing and dance, musical instruments (particularly the shamisen), flower arranging (ikebana), poetry and literature. By watching and assisting senior geisha, they become skilled in the complex traditions surrounding selecting, matching, and wearing precious kimono, in various games and the art of conversation, and also in dealing with clients.



YMC Portfolio



LONG TERM AVAILABILITY

YMC will never knowingly change or modify an existing product which has any customer base.

Make YMC your choice with confidence.

As a mission statement, it is our ambition to provide chromatographic solutions for any compound from its discovery throughout scale-up into production and its quality control in the laboratory. YMC can be expected to provide meaningful support, chromatographic tools and assistance for random R&D, Fast LC, combinatorial chemistry or high-throughput screening, LC-MS, automation, capillary columns with high sensitivity or process-scale engineering.

It is not only product specification that represents YMC qualities, but the perceived ethical values of having people happily contribute competent and consistent performance along with pronounced reliability even for difficult and demanding separations – day after day, year after year.



- **spherical packing materials from 2 μm to 150 μm**
- **guaranteed scale-up with YMC R&D Kits**
- **large lot sizes up to more than 200 kg/lot of bonded phase**
- **lot reservation available on request**
- **various wide-pore and speciality stationary phases**
- **double-digit multi-ton capacity p.a.**

- **packed columns 0.05 up to 1000 mm i.d. and above**
- **capillary, microbore, narrowbore, analytical, semi-prep, prep & process scale chromatography columns**



- **Kronlab glass columns**
- **pilot scale columns from 50 to 600 mm**
- **Dynamic Axial Compression (DAC) columns**
- **preparative LC-systems**



Laboratories



- **in-house column packing of customised product versions**
- **quality control**
- **application support**
- **analytical and preparative method development**
- **custom purification**
- **training and education**

In 2005, state-of-the-art laboratory facilities were put into operation specifically designed to provide local access to analytical and process scale chromatography practise. YMC laboratories are equipped with various LC-systems and columns ranging from micro-LC up to 240 mm i.d.. Preparative seminars have become increasingly popular due to the option of combining the theory of seminars and lectures with hands-on lab work under "real life" conditions.

YMC laboratory facilities are routinely made available for training and education of YMC staff, distributors and customers. Various standard courses are held at fixed dates, complemented by customised courses according to individual demand.



Support Teams

- for analytical columns, bulk media and system engineering
- for national and international sales
- for sales administration
- for laboratories and production



For analytical columns, bulk media and system engineering:



*Lars Henning, Dr. Christian Stammel, Daniel Kune, Hans Spruß,
Dr. Britta Blödorn, Dr. Friederike Becker*



For head of sales:
Lutz Stabenow, Marc Ujma

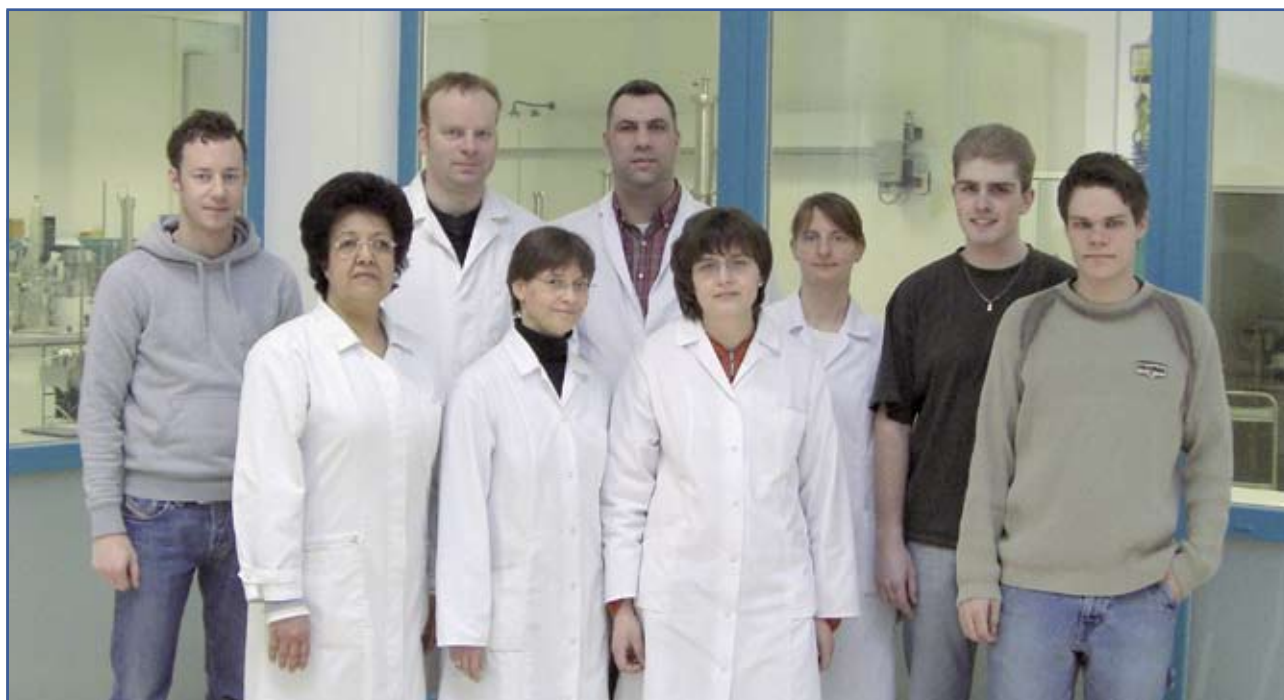
Support Teams

For sales administration:



Berthold Rademacher, Eva Gomolla, Denise Lütscher, Jutta Egetenmeier, Ivonne De Lorenzis, Ilka Lüpke, Silke Wichmann, Kristina Jeske, Klaus Heine

For laboratories and production:



André Wolter, Kifah Al-Turaihi, Dr. Wolfgang Schröder, Angela Gäbelein, Volker Berner, Sara Mundt, Inez Fertikowski, Klaus Hartmann, Julian Morbach

To contact these teams:

Phone: +49 (0) 20 64 / 427-0 or E-mail: <surname>@ymc.de

Method Development / Custom Purification

- generating a new analytical method
- optimising an existent method
- converting a method to an LC/MS compatible mobile phase composition
- generating a new preparative method
- transfer of an analytical method via scale-up
- optimising an existent method
- loadability studies

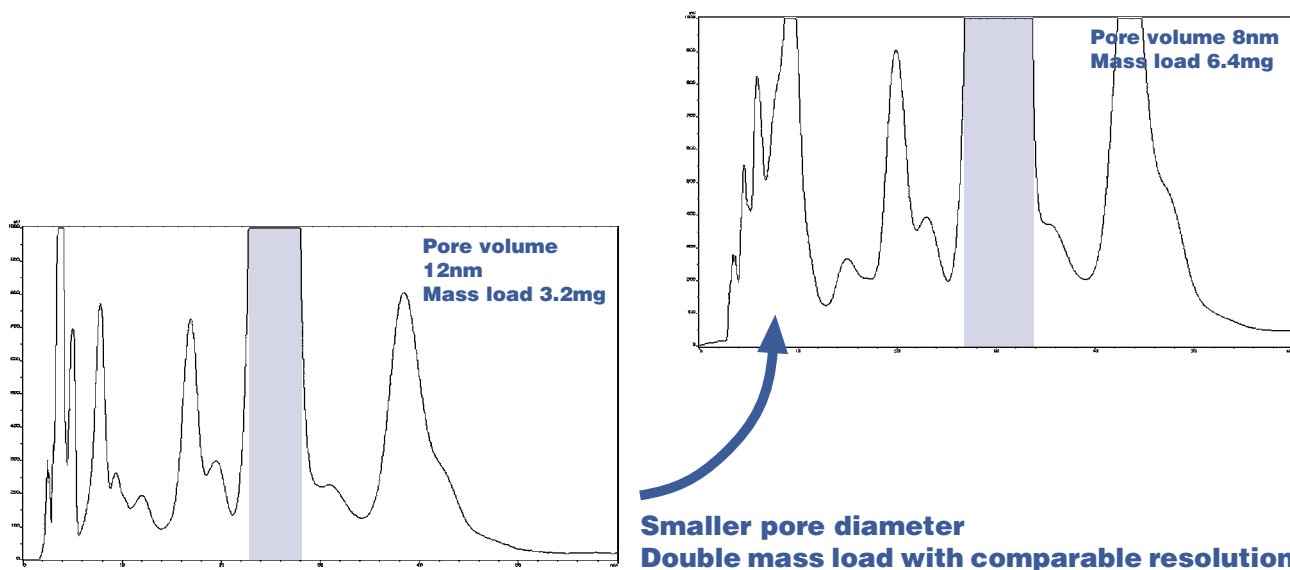


Method development

The demands on *analytical* chromatographic methods are varied: the methods have to be valid, robust, fast with high sensitivity and gentle to hardware and column. All these parameters have to be taken in account when a new separation has to be established and which is planned to be used for a product's lifetime, which could be probably for a decade of lasting quality control.

When developing *preparative* methods, the focus is shifted to parameters such as loadability, eluent consumption or cycle time, all of which greatly influence the economic efficiency of a process.

Sometimes a number of the above parameters are combined in one project, as in the method optimisation shown below, with variation of the pore diameter resulting in a significant higher mass load:



Custom purification

The purification of samples by liquid chromatography is a highly effective technique but it is also challenging in respect to time, equipment and personal expertise. Typical projects include the isolation of a few mg of by-products or degradation products for structure determination or the purification of high value main products, which are destined for further syntheses or as end product. In both cases, a preferably high purity has to be reached, as shown in the figure, where the fractionation of the main substance led to a purity of more than 99%.

Regardless of the nature of your project, with YMC you have a strong partner at your side, who can support you with expertise and lab equipment, whenever you want to "import" external resources for LC purifications.

Of course, in addition to single projects, cooperation that requires a larger amount of product for several campaigns over a long period can be accommodated, according to your needs.



Training and Education

- **HPLC basics**
- **HPLC for advanced users**
- **preparative liquid chromatography**

General

For a modern company, continuing education is an absolute must. This is independent of the position one holds, training will improve the skills of both the lab manager and the lab assistant. Especially in the complex and cost intensive field of LC, improved skills will result in better efficiency, safety and reliability of the daily work and ultimately improved performance.

YMC training courses can provide an overview of the basics of HPLC, bio separations or method development. They also can be adjusted to your specific requirements, with a main focus you request.

The courses listed here can be held at customer sites as well as at YMC:

HPLC basics

The course is intended to all people who are starting to use HPLC including laboratory assistants, technicians and engineers. The basic principles are presented in lectures and practical exercises. The participants learn to handle HPLC systems, to avoid system failure and to interpret a chromatogram.

HPLC for advanced users

The course deals with method development and optimisation of chromatographic separations. Properties and characterisation of stationary and mobile phases are discussed and guidelines for solving separation problems, including troubleshooting, are presented.

Preparative liquid chromatography

The course is aimed at all people, who are starting to use HPLC such as laboratory assistants, technicians and engineers. The basic principles are presented in lectures and practical exercises. The participants learn to handle a HPLC system, to avoid system failure and to interpret a chromatogram.



*Every participant
receives a certificate
at the end of the course.*

Supply

- **extensive local inventory**
- **24 hours shipment within Western Europe**
- **orders received by 3 pm will be shipped the same day**



Extensive local inventory and highly motivated order processing staff ensure speedy product supply to virtually any destination. Individual items are stocked based on statistical consumption or customised as specified by purchasing - just in time. Any item that has not been kept on stock before, will automatically be backed up upon receipt of a customer order so that subsequent supply is guaranteed off the shelf.

Authorised YMC international distributors are encouraged to maintain additional local inventory, occasionally complemented by consignment products provided by YMC, so that lead times are brought down to a minimum.



European Distributors



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YMC Website “www.ymc.de”

- more than 700 pages full of useful information
- detailed description of more than 80 stationary phases
- extensive applications database
- OCP - Online Communication Platform
- latest news at a glance on the home page

Although we have put all our efforts into providing you with the best information on the successful implementation of YMC products for liquid chromatography in this catalogue, printed documents by nature remain unidirectional media compared with lively internet platforms. Instead of simply reproducing this catalogue in an internet format, you will find that www.ymc.de incorporates many additional features: updates, various commonly used contact information, downloads, search and useful links, an application database as well as taking the challenge with our new “YMC Online Communication Platform”. OCP will bring you – online – to the desk of an experienced product specialist for your personal, direct access to online support, which can include technical questions, requests for specific application methods or “simple questions” such as local supply facilities or product information. Visit us at www.ymc.de.



“Online Communication Platform - OCP”:

Our online communication platform is a new and unique alternative way to contact YMC Europe in addition to phone or email. You can ask our product specialists for technical support or you can be transferred to our sales administration team if you have a supply question. Try out the next generation of online customer support.

Disclaimer **Search** **Contact** **Start Online Communication**

YMC Europe GmbH

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Corporate

- YMC Headquarters
- Team
- Corporate Information
- European Distributors
- Company History
- References

Applications, Support & Services

- Applications
- Services & Precenter
- Support
- Troubleshooting

Products

- General
- HPLC Tool Kits
- Analytical HPLC
- Preparative LC
- Accessories & Solvents

Contact YMC

- Directions
- Request Form

Welcome to YMC Europe - The Selectivity Company

News:

Jun '08	Actus Series	
Apr '08	BioPro Series	
Nov '07	Brochure Pilot Columns	
Oct '07	UltraHT Hydrosphere (2 µm)	
Oct '07	New distributors for Sweden, Baltic States and Russia	

Dedicated to Chromatography...

Quality Control | Discovery | Scale-Up | Production

„Supporting our Customers with High Quality Products“

The selectivity company...

YMC Europe GmbH dedicated to Chromatography

YMC Europe GmbH dedicated to Chromatography. As a mission statement, it is our ambition to provide chromatographic solutions for any compound from its discovery through scale-up into production and its final quality control in the lab. YMC can be expected to provide positive, active support, chromatographic tools and assistance.

Supporting our Customers with High Quality Products

The presence of a qualified and dedicated support network ensures not only worldwide availability of product, but also the ability to provide genuine practical assistance efficiently with regard to method development, method transfer and method validation on-site and in person.

YMC ... The Expert's Choice

YMC Website “www.ymc.de”

“Contact”:

If you just want to know the “classical” contact information including phone number, email and postal address.

“News”:

Get all the latest information and be up-to-date by choosing www.ymc.de. YMC continuously develops new products to facilitate the routine in laboratories. In addition new brochures, applications and other support can be found at a glance and can be downloaded immediately. You will also be able to read our latest YMC News letter or browse in our news archive.

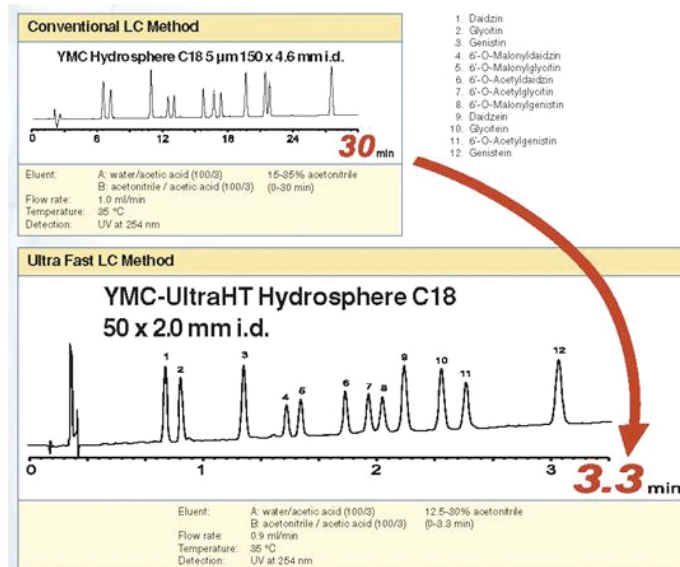
“Download area”:

You will find applications, brochures, publications, support information and much more in pdf-file format in our download area.

October 2007:

YMC Ultra Fast LC Columns for Polar Analytes - YMC-UltraHT Hydrosphere C18

- Hydrosphere C18 2 μm provides considerable time savings without resort to ultra high pressures
- Hydrosphere C18 with “hydrophilic” C18 surface for enhanced polar recognition
- RP technique for the separation of polar compounds



Please click for [-more information-](#) or [get in touch with us.](#)

June 2007:

Announcement of workshops: Preparative liquid chromatography

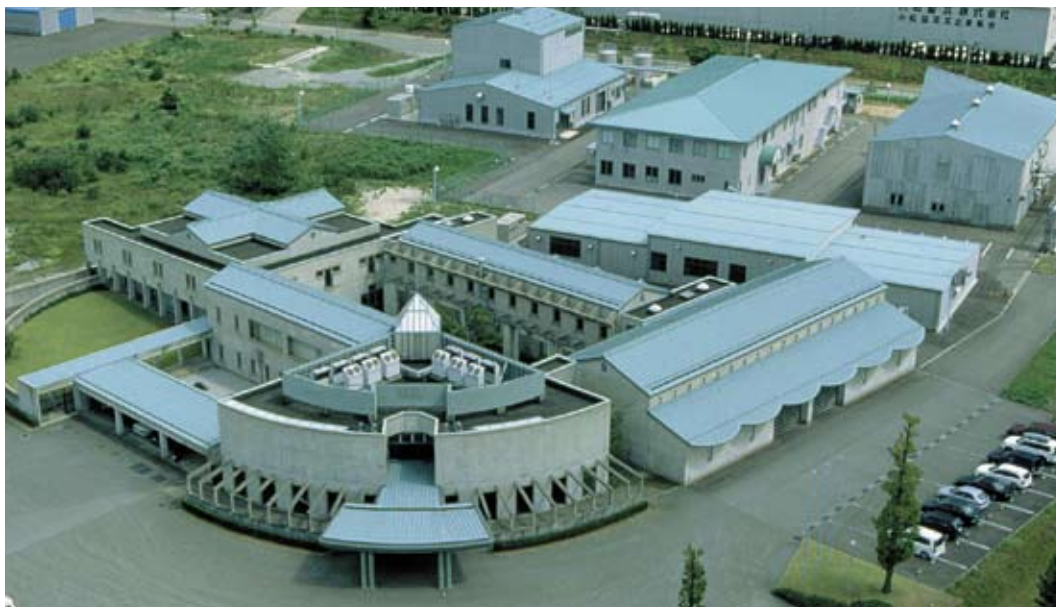
Run at our laboratory facilities in Dinslaken, Germany, this hands-on course is designed to introduce both theory and practical concepts of preparative liquid chromatography.

This two-day course is invaluable for anyone wishing to have the most comprehensive grounding or those wishing to increase their knowledge and practical ability in preparative chromatographic purification techniques.

**We will update and extend the YMC website constantly.
 Please check our website regularly for updated content such as the
 new troubleshooting area.**

Komatsu Production

From headquarters located in Kyoto, Japan, YMC has gradually and consistently matured to a level of international recognition, specifically within the pharmaceutical and biotech world, as one of the leading suppliers of analytical and process-scale silica-based stationary phases for High Performance Liquid Chromatography. As of today, qualified technical support and backup is available through operations in Japan, the United States (for the “Americas”) and Germany (for Europe, Africa and the Middle East).



The presence of qualified and dedicated support networking ensures not only worldwide availability of product, but also the ability to provide meaningful practical assistance with regard to method development, method transfer and method validation – locally, personally and efficiently. It is not only product specification that represents YMC quality, but the perceived ethical values of having people happily contribute competent and consistent performance along with pronounced reliability even for difficult and demanding separations – day by day, year by year.



Description of Catalogue Icons



designed for use with 100% aqueous eluents



high stability under designated chromatographic conditions



fully upscalable



fully downscalable



C30 carbon chain



high carbon load of 22%



large pH stability range



LC-MS applications



product code



pore size



particle size



USP classification



inner diameter i.d.