

Digitalisation & Engineering



FH KREMS
UNIVERSITY OF APPLIED
SCIENCES / AUSTRIA

Bachelor

Applied Chemistry



SPECIAL FEATURES

WHY SHOULD YOU ENROL FOR THE APPLIED CHEMISTRY BACHELOR PROGRAMME IN KREMS?

International focus

The international and friendly atmosphere at the IMC campus in Krems with students from more than 60 countries is the ideal place for developing an international mindset. As all courses of "Applied Chemistry" are taught in English, graduates are perfectly prepared for a promising career in chemistry in academia or industry – in Austria or abroad.

Perfect support – individualised training

Our chemistry students are trained by internationally recognised experts from academia and industry. External lecturers convey modern trends and hands-on experience and discuss most recent developments. We focus on small group sizes and perfect alignment between lectures and laboratory courses. Theoretical knowledge is supported by excursions and company visits. The close interaction between students and teaching personnel serves as foundation for the future success of our graduates.

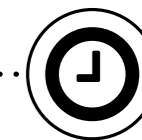
Future-oriented topics

"Applied Chemistry" has been developed with leading chemical companies and university professors. Solid training in the area of organic and analytical chemistry is complemented by statistics and computer-based methods, which are required to meet recent developments in academia and the chemical industry. The chemistry of renewable materials, and courses in waste management and green chemistry supplement the well-balanced programme and guarantee a future-oriented education.

Tip

While studying at IMC Krems, take advantage of the national and international network of our university. This close connection to industry and academia will make a great difference when starting your own professional career.

AT A GLANCE



Full-time | Monday – Friday

Courses take place from Monday to Friday between 8.00 a.m. and around 8.00 p.m. (in exceptional cases on Saturdays).



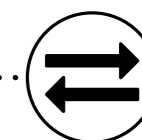
English

The language of instruction is English. This prepares you for a career in a multicultural environment.



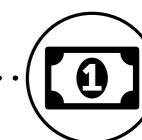
Six semesters

The degree programme lasts three years, with a total workload of 180 ECTS. Graduates receive the academic degree of Bachelor of Science in Engineering (BSc).



22-week internship

You can quickly put into practice the expertise you have picked up during your courses. The internship is an obligatory part of the programme.



Study fee

EU/EEA citizens pay a study fee of EUR 363.36 per semester, plus the student union fee.

FACTS AND FIGURES

FACTS PLAY AN ESSENTIAL ROLE NOWADAYS. A FEW FACTS AND FIGURES ABOUT THE APPLIED CHEMISTRY PROGRAMME:

The bachelor degree programme is the direct answer to the **changing demand profile towards professionals in the chemical field.** The practical focus of the study programme caters for the **emerging needs of the industry.**

Ecological aspects of chemistry are very important: The chemistry of renewable materials, and courses in waste management and green chemistry supplement the well-balanced programme and guarantee a future-oriented education.

More than 50% of our students complete their internships abroad.

In 2017, **more than 11,6%** of all employees in Austria were working in the chemical industry – these are 44,657 people nationwide – hundreds of fascinating jobs are waiting for you. The bachelor programme “Applied Chemistry” makes you fit for your future job.

EXPLORE – DEVELOP – ANALYSE

Rapid technological advances and the advent of Industry 4.0 mean that today's chemical industry professionals require additional skills. An in-depth knowledge of chemistry is still essential, but employers also expect expertise in process analysis and process management due to the wider application of networked IT systems.

THE KEY TO SUCCESS: THEORY + PRACTICE

THE COURSE IS BASED ON THREE CORE ELEMENTS

①

The basics
semesters 1-4

The degree programme is a direct response to the changing skills profile of the chemical industry professionals and satisfies the new requirements of the industry.

During the first four semesters students will acquire in-depth knowledge of a variety of subjects, including analytical, inorganic, organic and physical chemistry, as well as biochemistry, chemical engineering and material sciences.

Lectures are accompanied by comprehensive practical training in the laboratory. Additionally, students are trained in related scientific disciplines and statistical methods and computer-based protocols. Renewable materials, environmental issues and waste utilisation are also key components of the curriculum.

②

Practical elements
semester 5

The 22-week internship is compulsory in the fifth semester. Depending on individual interests, students can choose to spend the practical training semester in chemical companies or academic institutions. Traditionally, more than 50% of students opt to spend the internship abroad to gain valuable experience in foreign countries.

The internship is an excellent opportunity to experience new aspects, learn new methods in an exciting research setting, experience other cultures and learn from professionals in the field.

Professors and staff members at IMC Krems support students in finding the most suitable position for this important part of their education.

③

Consolidation
semester 6

Based on their personal interests, students have a choice of two specialisations in the final semester: The Instrumental Analysis and Chemometrics elective enhances students' skills in the area of instrumental analysis, statistical methods and design of experiment. The Organic and Pharmaceutical Chemistry elective is designed to prepare students for the needs of the pharmaceutical industry and related areas.

Regardless of the students' choice, graduates will have the scientific knowledge to respond to modern developments in all fields of chemistry and are prepared to start a promising career in academia, research or industry.

I'D LOVE TO
WORK IN
COSMETICS
PRODUCTION AND
DEVELOPMENT
AFTER
GRADUATING.
VICTORIA, 19



Very personal stories

19-year-old **Victoria Schober** grew up in the Krems area. She went to high school at Mary Ward Privat-Oberstufenrealgymnasium in Krems. In her free time she plays violin in an orchestra that performs in Vienna and Lower Austria, which is a good way for her to relax and take a break from her busy university life.

We had the chance to get a taste for working in the labs at IMC Krems while I was still at school when we visited the university and did blood group testing. I found it fascinating. Then I studied pharmacy at the University of Vienna for a year. Despite getting a good result in the entrance examination, I decided pretty quickly that studying at a traditional university alongside 700 other students on my course wasn't really for me. So I went along to an open day at IMC Krems. At first I had my sights set on the Medical and Pharmaceutical Biotechnology degree, but then I listened to a presentation by Dr. Uwe Rinner – the Director of the Applied Chemistry programme – which I liked so much that I changed my mind and applied for that course instead. Dr. Rinner told us about all the options you have after graduating from the programme, which are so wide-ranging because with this chemistry degree you can also work in the pharmaceuticals industry. You don't have to decide what direction you want to head in at the beginning of your studies. He also spoke very passionately about doing an internship abroad and the valuable experiences it gives you. He has spent time in Canada and Oman, where he learned a lot. I was really interested in his personal story, and he opened my eyes to many aspects which I had never considered before. So after that, the Applied Chemistry programme was the obvious choice for me.

In semester six I can opt for either the Instrumental Analysis and Chemometrics or Organic and Pharmaceutical Chemistry elective. I think it's good that we can make this decision two and a half years into the programme. You've already done a lot before you get to that stage, like the internship, and perhaps by then I'll have a clear idea of what I want to specialise in.

Tip

At school I wasn't especially good at maths. The curriculum includes a lot of maths and chemistry of course, but because I'm so interested in chemistry I can put up with the maths. Keep your chin up and just take the plunge. With this degree you won't need to worry about finding a job.

Herbert Becker is 21 years old and went to BORG Monsbernergasse secondary school in Graz.

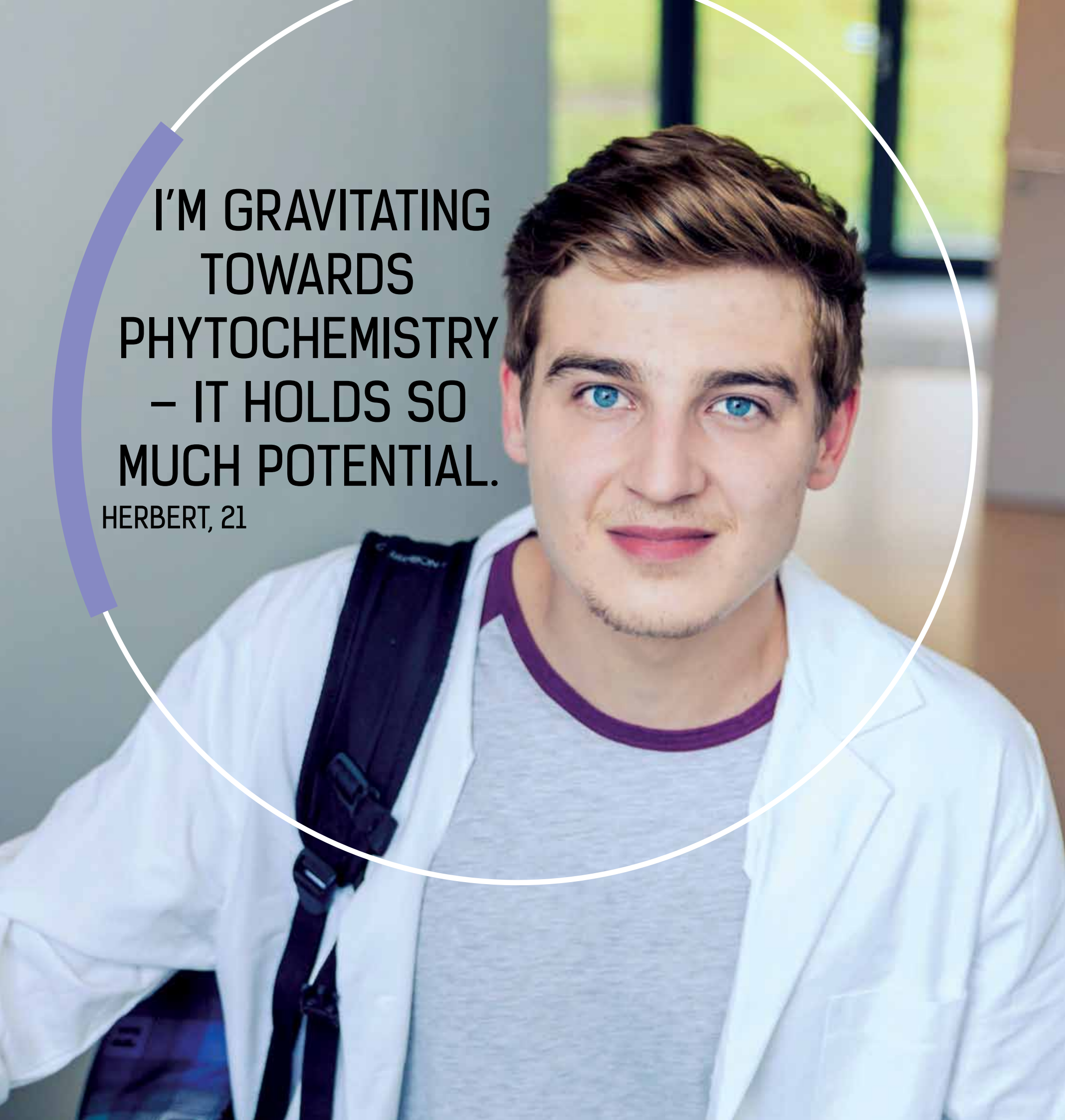
A classmate of mine on the programme now, Victoria Schober, told me about the degree. She had been to the open day and was very impressed. I was actually planning to study pharmacy in Vienna, but then changed my mind because I had always been really interested in the chemicals industry. The deciding factors for me were English as the language of instruction, the strong practical focus and IMC Krems's reputation. This gives me much more than I could get anywhere else.

I'm gravitating towards phytochemistry, which is the chemistry of plants. I'm particularly interested in the chemical substances they contain because today's medicine is based on the fundamental components of plants. You can create new drugs from plant-based substances, which can form the building blocks for development. There is so much potential in this area; I'm convinced that plants hold the key to many new cures.

Being this kind of pioneer on the programme is definitely a fantastic opportunity for me. We can help to shape the development of the programme, pave the way for our successors and give an inside view of what students need. I'm enjoying being a pioneer, just like my classmates.

Tip

If you want a strong practical focus and are interested in chemistry, then there's nothing for you to worry about. You'll be able to keep up in the lectures; your lecturers will always be happy to answer your questions. They treat you as equals and there's a really good atmosphere – but you also need the desire to succeed.



**I'M GRAVITATING
TOWARDS
PHYTOCHEMISTRY
– IT HOLDS SO
MUCH POTENTIAL.**
HERBERT, 21

A portrait of a young man with dark hair and blue eyes, wearing a grey jacket over a white and green striped t-shirt. The portrait is framed by a white circular border with a blue arc on the left side.

**YOU'RE ASSURED
OF TOP JOB
PROSPECTS – THE
INDUSTRY CAN'T
WAIT FOR US TO
GRADUATE.**

HERWIG, 19

Very personal stories

Herwig Weissinger comes from Langenlois in Lower Austria. He is 19 years old and applied for the Applied Chemistry degree programme – which kicked off in autumn 2018 – straight after finishing secondary school at Bundesrealgymnasium Krems Ringstrasse.

I have always been very interested in chemistry and science, but wanted to learn more about and understand the processes in our environment. One of my teachers at school recommended the Applied Chemistry programme because of my interests. I applied and was accepted straight away – which I was really pleased about.

Krems is a great place to do a degree like this, because the area has companies operating in the industry that offer internships and entry-level jobs. You're assured of top job prospects – the industry can't wait for us to graduate.

IMC Krems has an excellent reputation and a very international outlook, with students from all over the world. This makes it really special. And the Applied Chemistry programme is also an exceptional degree because of the focus on application – its practical design is especially attractive in the context of chemistry. I'm particularly interested in inorganic chemistry. It's so diverse and varied, with so many applications. At IMC Krems there is a special focus on computer-assisted methods – this is very forward-looking and provides a promising basis for my career.

Tip

If your first language is German, there's no need to worry about English being the language of instruction. It's not a problem at the admissions interview – there's a really friendly atmosphere. If you're well prepared, you'll be able to pull it off.

Fathima's family originates from Sri Lanka, but she was born and raised in Austria. Her great grandfather visited Austria, but her grandfather was the first in the family to settle down here. 18-year-old Fathima has four younger siblings. She likes to swim and play badminton in her free time.

It all started at school really. I went to a bilingual secondary school in Vienna where all the lessons were taught in German and English – my first language. The modular system at the school allowed you to choose between different subjects. So you could specialise in a particular area, and it made sense for me to focus on science. I did lots of chemistry modules, in both organic and inorganic chemistry. I've also been giving private maths lessons since I was 14. I got a top grade in maths in my final high school exams. So this programme is a really good match for my interests and talents.

My family played a big part in shaping my interests. I grew up in a big family, which spoke English. My father is a pipeline engineer at OMV, therefore I found out a lot about science and technology as a kid. I had no problem being a girl who was always interested in maths and chemistry.

What made up my mind about taking this degree at IMC Krems was the large amount of practical work and English as the language of instruction. I'd like to work in cancer research one day. But with this degree I can also work in industry if I decide to go in a different direction.

Tip

Girls! Just because you got the odd bad mark in maths at school doesn't mean that you're bad at it. Maybe the learning approach wasn't the right one for you. All I can say is: believe in yourself – women in technology is the future.

I'VE BEEN GIVING
PRIVATE MATHS
LESSONS SINCE
I WAS 14.

FATHIMA, 18



KREMS – A UNIVERSITY CITY ON VIENNA'S DOORSTEP

Highest concentration of higher education institutions in Austria

With five universities within an area of 52 km², Krems is the site of the most concentrated higher education cluster in Austria – and some would claim in the whole of Europe. Located in the greater Vienna region, Krems is less than an hour away from the Austrian capital by public transport. It has a population of about 25,000 and around 13,000 students – wherever you go there's a great student feel about the town. A tip for the parents of international students: Krems is a very safe place where you can get almost anywhere on foot or by bike. Our foreign students love the area around the town, its charming Heuriger wine taverns and its large, cosmopolitan student community.

A unique historic town on the Danube

Krems is nestled between the Danube river and hillside vineyards at the gateway to the Wachau valley – within one of the most beautiful cultural landscapes in Austria and a UNESCO World Cultural Heritage Region. With a wide range of options for shopping, sports and outdoor activities, and everything that the historic, pedestrianised old town has to offer, there is plenty to do in your free time. Krems also has a diverse and burgeoning restaurant and café scene.

Young, dynamic and environmentally friendly

Krems is a vibrant university town – friendly and welcoming, yet cosmopolitan thanks to its 13,000 students from 67 different countries. The young people give this charming town a flair all of its own. And Krems is a place where they rightly feel very comfortable and safe. Our students really appreciate being able to get around on foot or by bicycle and without a car or having to use public transport.

IMC Campus Krems – unrivalled in Austria

Courses on IMC Krems' Applied Chemistry degree programme take place at the ultra-modern Campus Krems site. Practical lab courses are held in the programme's state-of-the-art laboratories – the ideal place to prepare for a future career.

Over 10,000 people study at Campus Krems, and well over 2,000 of these are IMC Krems students. This inspirational location offers students outstanding quality of life and provides the perfect conditions for studying, socialising and enjoying a fantastic university experience.



IMC KREMS IN NUMBERS



Universum Ranking 2017 amongst Austrian universities of applied sciences

17 Bachelor programmes

11 Master programmes

3 Advanced training courses

40% English



60% German

7,900+

Graduates



2,700+

Students from

50+

different nations

600+

Lecturers and researchers

IMC University of Applied Sciences Krems

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