

INFORMATION AND COMMUNICATION PLATFORMS

OPEN ACCESS JOURNALS AND THE BEILSTEIN TV VIDEO PORTAL: WE ARE COMMITTED TO OPEN ACCESS INFORMATION, TRANSPARENCY, VERIFIABILITY AND A HIGHER DEGREE OF VISUALITY IN SCIENCES - FOLLOWING THE TRADITION OF OUR NAME GIVER FRIEDRICH KONRAD BEILSTEIN.

Katharina Landfester is one of the directors of the Max Planck Institute for Polymer Research in Mainz which is focused on the production, the physical characteristics and the applications of polymers. Professor Landfester has published her research results in the Beilstein Journal of Organic Chemistry and in the Beilstein Journal of Nanotechnology. Moreover, she and her group have participated in three videos for Beilstein TV.

MAX PLANCK INSTITUTE FOR POLYMER RESEARCH, MAINZ



PROFESSOR KATHARINA LANDFESTER

BEILSTEIN OPEN ACCESS JOURNALS

“The collaboration with the Beilstein-Institut is characterized by a high professionalism which is reflected in the great results; each time a pleasure.”



PROFESSOR KATHARINA LANDFESTER

Max-Planck-Institut für Polymerforschung



MAX PLANCK INSTITUTE FOR POLYMER RESEARCH, MAINZ →

FREE ACCESS TO SCIENTIFIC PROGRESS

Providing unrestricted access to high-quality scientific information: that is what the Beilstein-Institut stands for with its two core products, the Beilstein Journal of Organic Chemistry launched in 2005 and the Beilstein Journal of Nanotechnology, which has been providing an interdisciplinary platform in the nanosciences since 2010.

One of the most important features of the Beilstein Journals that distinguishes them from most other scientific journals is that there are no publication fees: no costs arise for the authors or the readers. Each article is available worldwide online at the time of its publication without any restrictions to access. Furthermore, the authors of the respective article retain the full copyright to their work – unlike traditional publication practices.

This open access to the publications leads to maximum visibility of the information – and that in turn promotes the communication and the exchange of research ideas and findings. What was at first critically viewed even within the scientific community has now become firmly established. The Beilstein Journal of Organic Chemistry is one of the world's leading open access journals in organic chemistry.

In order to meet the archiving requirements of many funding institutions and at the same time make a contribution to the better visibility for an interdisciplinary audience, the articles of the Beilstein Journals are archived and indexed at PubMed Central, one of the largest digital full-text archives worldwide. In addition, both Beilstein Journals are listed in the “Science Citation Index Expanded” and indexed by Chemical Abstracts Services.

Open access: worldwide access to scientific results and literature with authors retaining their full copyright.

The concept of publishing the articles continually and continuously has also been well-tried and tested – that was by no means common within the industry at the launch of the Beilstein Journal of Organic Chemistry in 2005. At that time, most scientific journals were published as printed issues on a specific date; even electronic versions were produced in a weekly or monthly rhythm. In the case of the Beilstein Journals, however, the articles are published directly after their release by the authors, shortening the time from submission to publication.

Today, more than ever, the fast and unrestricted distribution of information and research results is absolutely essential for scientific progress.

Publishing continuously also simplifies the production of Thematic Series: the series articles are published over a period of months in the normal way within the journal and can be additionally viewed together on a specific Thematic Series page on the website. This practice has in the meantime also been adopted by several publishers. When complete, the Thematic Series is also printed and distributed to interested scientists.

A high level of quality control is important for the Beilstein-Institut; all articles published in the journals undergo a comprehensive peer review during which they are checked for their scientific quality, novelty, originality and scientific significance. In addition, since 2011 all submitted manuscripts go through a check for plagiarism.

The Beilstein editorial team is supported by Associate Editors who carry out the peer review process to assure the scientific quality and are responsible for the final editorial decision. Moreover, Guest Editors supervise Thematic Series on special disciplines.



PEER REVIEW PROCESS

The peer review process is the qualitative assessment of scientific work by independent experts. For each submitted manuscript, usually two or three referee reports are required. The recommendations of the referees are used by the editors to decide whether the manuscript is accepted, returned for revision, or rejected.



BEILSTEIN JOURNALS AND BEILSTEIN TV

The more complex the presentation of research results becomes, the sooner their written format hits a natural limit. Beilstein TV, the open access video portal produced by the Beilstein-Institut hosts a visual presentation of scientific research. Usually, the videos are based on submitted articles, however, it can also work the other way around: some film productions inspire the subsequent submission of a manuscript. The interaction between the Beilstein Journals and Beilstein TV enhances the understanding of the subjects and provides users with a multimedia package of information.

Editor-in-Chief of the Beilstein Journal of Organic Chemistry:
Professor Peter H. Seeberger.

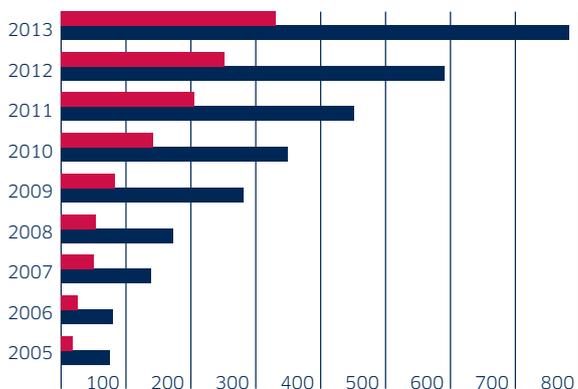


THE BEILSTEIN JOURNAL OF ORGANIC CHEMISTRY

The Beilstein Journal of Organic Chemistry was launched in 2005 with Professor Jonathan Clayden from the University of Manchester as Editor-in-Chief. He was supported in his work by an Advisory Board, which included many renowned scientists, among them three Nobel laureates. The Advisory Board comprises more than 40 international scientists and is chaired by Professor Henning Hopf of Technische Universität Braunschweig. The Editorial Board – i. e., the journal's specialist group of Associate Editors who are responsible for carrying out the peer review process – now consists of more than 25 members. Professor Peter H. Seeberger from the Max Planck Institute of Colloids and Interfaces in Potsdam took over the position of Editor-in-Chief in 2011.

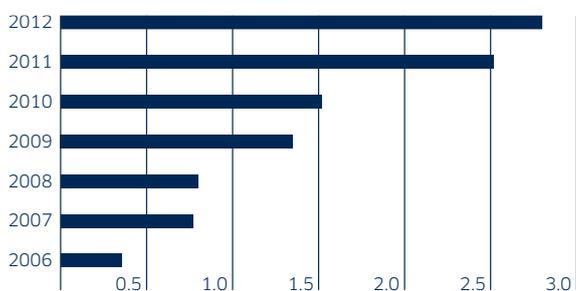
www.bjoc.org

Submitted and published articles for the
Beilstein Journal of Organic Chemistry.



■ Submitted articles
■ Published articles

Impact Factor of the Beilstein Journal of Organic Chemistry.



The average processing time per article – from submission to publication – is about 90 days.

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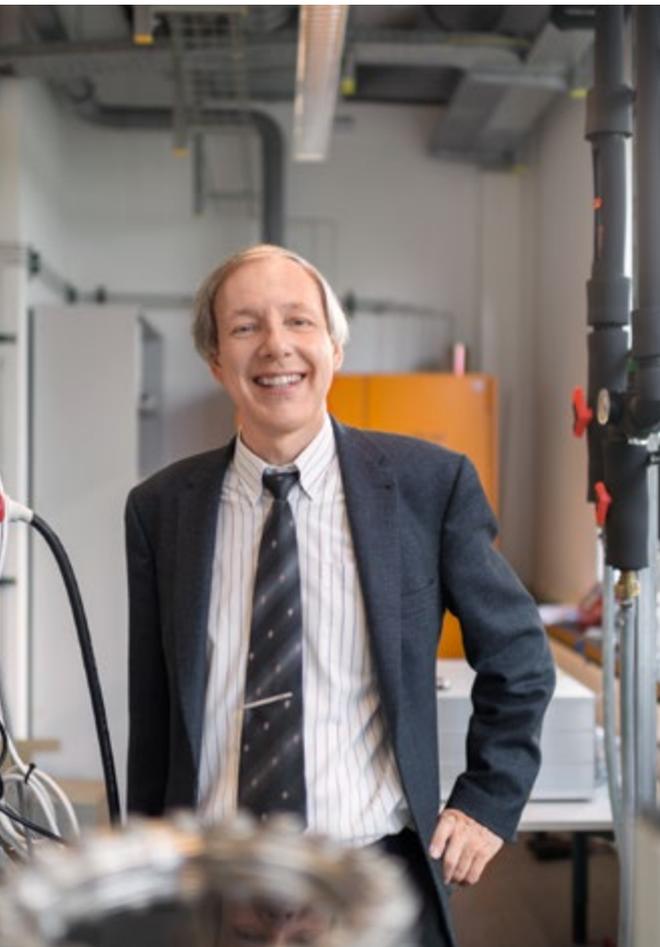
IMPACT FACTOR

The Impact Factor measures how often articles from a journal are cited within a certain period of time, relative to the number of articles published. The Impact Factor of the Beilstein Journal of Organic Chemistry in 2012 was 2.801; that of the Beilstein Journal of Nanotechnology was 2.374.

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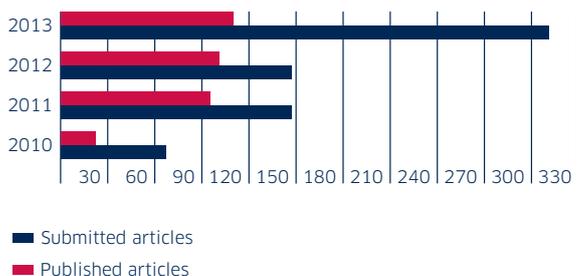


THE BEILSTEIN JOURNAL OF NANOTECHNOLOGY

The choice of organic chemistry as the subject area for the first journal finds its roots in the history and experience of the Beilstein-Institut. The considerable positive response from the scientific community to the Beilstein Journal of Organic Chemistry and a survey amongst almost 300 scientists, with whom the Beilstein-Institut discussed a number of promising topics, led to the starting of a second journal: the Beilstein Journal of Nanotechnology. This second Beilstein Journal was launched in 2010 with Professor Thomas Schimmel from the Karlsruhe Institute of Technology (KIT) as Editor-in-Chief and with an Advisory Board – which also included two Nobel Prize winners. Professor Schimmel was initially supported by a ten-member Editorial Board which has now grown in size to more than 20 scientists from Asia, Australia, Europe and the United States.

www.bjnano.org

Submitted and published articles for the Beilstein Journal of Nanotechnology.



Impact Factor of the Beilstein Journal of Nanotechnology.



The articles of the Beilstein Journals are available free of charge worldwide – up to now, more than three million accesses and downloads have been recorded.

THEMATIC SERIES

Thematic Series are dedicated to specialized areas of expertise. A Guest Editor invites selected experts to submit an article for a publication in the series. By first performing a detailed analysis of the subject area and the researchers, the Beilstein-Institut supports the Guest Editors in their selection of potential authors. Their number depends on the series topic and is usually between 60 and 80. From about 100 pages upwards, the Thematic Series also appears in a print version and is sent to scientists working in the relevant area. Since 2007, 40 Thematic Series in the Beilstein Journal of Organic Chemistry and 18 in the Beilstein Journal of Nanotechnology have been published.

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Andreas Kirschning researches and teaches at the Institute of Organic Chemistry of the Leibniz Universität Hannover in Germany. He is an active member of the Editorial Board of the Beilstein Journal of Organic Chemistry and has already published many articles in the journal. He acted as Guest Editor for three Thematic Series and participated in three videos for Beilstein TV.

GOTTFRIED WILHELM LEIBNIZ UNIVERSITÄT HANNOVER



← PROFESSOR ANDREAS KIRSCHNING

BEILSTEIN TV

“The result of the films produced with my research group was so convincing that we are now using them in lectures and to promote our master’s degree programs, as well as within the REBIRTH excellence cluster.”



PROFESSOR ANDREAS KIRSCHNING

GOTTFRIED WILHELM LEIBNIZ UNIVERSITÄT HANNOVER



ILLUSTRATING SCIENTIFIC DISCOURSE

The integration of new media in the process of scientific discourse is present at all levels and audiences, for example in publishing, teaching, research seminars, symposia and on websites and online platforms. Yet all possibilities available are seldom fully exploited. With Beilstein TV, the foundation has made optimum use of modern information technology to bring a new project to life to promote scientific discourse. The project fits in well with the focus of the Beilstein-Institut to provide free scientific information to the public without restriction. Beilstein TV is the only professionally produced video portal worldwide to document scientific experiments, lectures and discussions that is fully accessible to everyone.

In talks at conferences, or in lectures and presentations the use of new media has become standard practice. However, in the area of scientific publications, where most research results are communicated, new media has

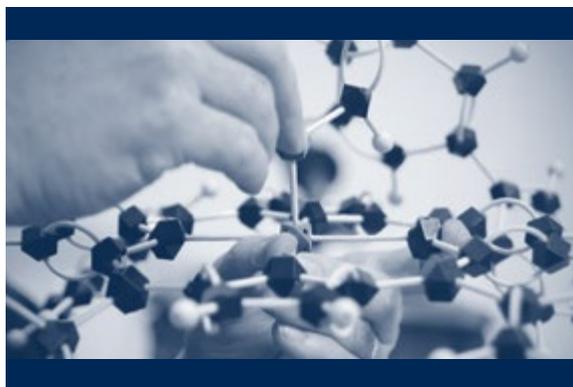
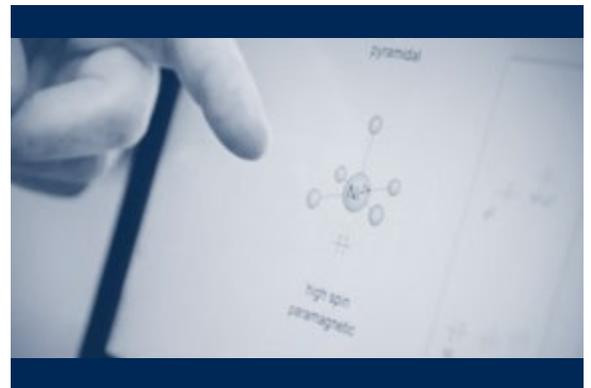
not yet found general acceptance or use. The explanation of increasingly more complex research results using only text and graphics often reaches the limits of what can be represented. It is here that Beilstein TV is able to bridge the gap for a clearer understanding by merging of presentation, animation and documentation into a single sequence – thus ideally supplementing written formats.

A welcome side effect of the visual preparation of subject matter is to draw a personal portrait of the scientist allowing a better understanding of his or her ways of thinking and working. Science does not live from facts alone but also from and through those individuals who devote themselves to it.

Since its start in fall of 2010, the project has evolved continuously. By now, almost 100 videos are freely available on www.beilstein.tv.

“Working with Beilstein TV was straightforward and was fun. I was initially skeptical, now I often get asked about the film which we also show on our website.”

Professor Rainer Herges,
Christian-Albrechts-Universität zu Kiel



Screenshots from “The world’s smallest switchable magnet and its application in medical diagnostics.”



Screenshots from "Smart carbohydrate chemistry as a means to understand glyocalyx biology."

“The initiative brings a lot of ‘zeitgeist’ into our profession which is otherwise lacking audience appeal; we have to extend our horizons and express ourselves in such a way that people outside our narrow community become interested.

That feels good!”

Professor Thisbe K. Lindhorst,
Christian-Albrechts-Universität zu Kiel

The videos of Beilstein TV show experiments in the research laboratory, lectures and interviews with scientists.

THE PRODUCTION OF A BEILSTEIN VIDEO

Even though the video is often initiated by the Beilstein-Institut, the personal contribution of the scientists always plays an important role in its production. The Beilstein-Institut provides the infrastructure, supports them with advice and takes over all technical aspects and costs for camera and sound including directing and editing work – the “screenplay,” however, is written by the scientists.

The chemist Professor Rainer Herges, from the Institute for Organic Chemistry at Kiel University, has already made two contributions to the Beilstein TV gallery. The subject of his latest film made in May 2013 was the development of a novel contrast agent that can be used in magnetic resonance imaging (MRI).

The video was recorded in the operating facilities of the University Hospital in Kiel and in laboratories of the University. Idea and dramatic composition of the video originated completely from Rainer Herges. His graduate student Marcel Dommaschek played an important role

in explaining the chemical processes. On the actual day before filming started only a brief discussion with the protagonists was necessary in order to go through the procedure again. After just one day for the production team, enough material was available, and a few weeks later the cut and finished film could be released after the final approval of Rainer Herges.

Knowledge communication via video illustrates abstract research results.

The Beilstein TV videos are an important part of the mission of the Beilstein-Institut to create a broader understanding of science and are published under a creative commons license. This means that they can be freely accessed, for example, for teaching purposes. Rainer Herges’s “turntable molecules” are an excellent example of how videos can be used to communicate exciting new scientific developments.

www.beilstein.tv