

WHAT IS OPEN ACCESS?

APEX/JJAP Editorial Board

1. Global trend of open access

The communication of research results is essential for making progress in scientific research and leading to innovations. Many authors of scientific articles want to make their research results freely available to all of those who are interested in their research. Open access (OA) is a way to make the contents of scientific articles available on-line to all interested readers without placing any financial or copyright barriers between the readers and the article. Over the decade, open access has become central to advancing global interest in scientific and scholarly publications.

2. Definitions of open access

• Different models of open access

Open access refers to making the content of publications available to readers without charge and giving the permission of the copyright owner to reuse content. It expands the availability of articles to anyone with an Internet connection and an interest in a specific topic. There are two typical models adopted by scientific journals as outlined below.

◇ Gold OA model:

This is a model in which the **final published version** of an article is made freely available upon payment of the **article processing charge (APC)** by the author, his/her funding agency or a third party. Copyright can either be licensed or assigned in the standard manner, but the publisher makes the content free to be viewed and reused (subject to some restrictions defined by the publisher) immediately after publication. There are many new open access journals that have begun publication, and also, some other subscription-based journals (including APEX/JJAP) have introduced an open access option ("**Open Select**" in APEX/JJAP) to make an article freely available upon payment of an extra one-time fee by the author.

◇ Green OA model:

Green open access refers to the “**self-archiving**” of an article in a publicly and freely accessible **repository**, usually after a delay (**embargo**) **period** of up to twelve months. The author’s peer-reviewed, **accepted manuscript** (but before any copy-editing, coding, etc.), not the **final published version**, can be posted onto the **repository**. Copyright is generally assigned to the publisher and the author is given the right to post onto a **repository** within the restrictions defined by the publisher. Many of the subscription-based journals (e.g., APEX/JJAP) allow “**self-archiving**” by the authors. Some of Institutions and funding bodies request the authors to make their research results Green OA.

3. Major benefits of open access

Open access enhances the visibility of articles, increases accessibility for readers, and helps the public to reuse the article. Open access (**Gold OA**) includes the following major benefits.

- OA articles are freely and permanently available online immediately upon publication, resulting in broader distribution, and enhanced visibility, accessibility, and sustainability.
- The **final published version** of the article can be redistributed, reused, and posted onto any **repository** immediately after publication.
- Authors usually retain the copyright to their work.
- Authors can easily abide by the OA mandates of their institution, funder, or society as OA rights to users are usually protected under a **Creative Commons** license.

4. Copyright and license

• Who owns the copyright?

In most subscription-based, peer-reviewed journals, the copyright for published articles is assigned or **transferred** from the author to the publisher when the article is accepted for publication in the journal. In this case, the publisher has the right to publish the article in any form or by any means. Reproducing and/or reusing such articles, including posting on any **repository** open to the public, may be allowed only with the prior permission of the publisher.

In fully open access (**Gold OA**) journals, on the other hand, the publisher makes the content free to be viewed and reused immediately after publication. Certain conditions on the reuse of the author’s work may be imposed via a license. Many of the OA journals are being published under **Creative Commons** licenses, where the copyright is retained by the author and the reuse of the article by others is allowed within the restrictions defined in the license.

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5. Publication charge

- **Article processing charge (APC)**

Whilst OA principles promote free and easy accessibility of research contents for all readers at any time, the production and maintenance of research articles cannot be accomplished without cost. Publishers pay these costs via Article Processing Charges (APCs) because they do not charge subscription fees for the research content. APCs are collected from the author after article acceptance, at the beginning of the publication process.

- **Who should pay the APC?**

If a journal charges an APC upon publication, the author is responsible for making or arranging the payment. In many cases in practice, authors' institutions, funding agencies, and societies can cover the APC in different ways, for example, by establishing an OA fund, by including it in their general funding, or by paying it as part of a membership model.

6. Open access policy of APEX/JJAP journals

- **Open access articles in APEX/JJAP**

To help authors gain maximum exposure for their novel, important research articles, the JSAP offers an open access option (in **Gold OA** model) for articles published in APEX and JJAP. This OA program is called **Open Select**. The authors can make their article freely available upon payment of an extra one-time fee covering the APC. For detailed information of **Open Select**, please refer to the document "Copyright and Open Access – APEX/JJAP"

or visit <http://iopscience.iop.org/1347-4065/page/Open%20Select>. Also, all the articles in JJAP Conference Proceedings are published in the open access (**Gold OA**) model. All **Open Select** articles as well as all JJAP Conference Proceedings articles are published under the **CC-BY license**.

- **Self-archiving of articles published in APEX/JJAP journals**

Self-archiving of the article is allowed (Green OA) under some restrictions set out by JSAP (e.g., twelve-month **embargo period**). For the details of the requirements, please refer to the document “Copyright and Open Access – APEX/JJAP” or visit http://www.jsap.or.jp/english/policy_for_repository.html.

Some Institutions and funding bodies may request the authors to make their research result publicly and freely accessible for all readers. The author can abide by such mandates by **self-archiving** their works.

Terminology guide

Article processing charge (APC)

The cost required for the production and maintenance of research articles under a fully open access model is covered by the article processing charge (APC). The APC is collected from the author by the publisher when the article is accepted for publication.

Accepted manuscript

The author’s original manuscript of an article after revisions made during the reviewing process but before any editing processes for printing by the publisher. In most cases, this is the version that is allowed to be used in self-archiving.

Copyright transfer

In many subscription-based journals, the authors must transfer the copyright to the publisher when the article is accepted for publication. The publisher has the right to publish the article in any form or by any means. Reproducing and reusing the author’s articles may be allowed only with prior permission of the publisher.

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free of charge to the public. The licenses grant users the right to share, use, or adapt the author's work, while the copyright is retained by the author.

- **CC-BY license**

This is the abbreviation for the Creative Commons Attribution license, the most commonly used Creative Commons license for open access publishing. With this license, the authors are allowed to retain the copyright of their work while all users are granted permission to share, use, and adapt the work, even for commercial use, as long as the authors' original work is properly attributed.

Embargo period

The embargo period is a delay period defined by the publisher, typically 6-12 months, before an article published in a journal can be made freely available to the public. Self-archiving is prohibited during this period, except for open access articles.

Final published version

This is the copy-edited version of an article published by the publisher. For fully open access articles, this version is allowed to be shared and reused immediately after its publication. The "version of record" is also used in the same sense.

Gold open access (Gold OA)

This is an open access model in which the final published version of an article is made freely available immediately after its publication, upon payment of the article processing charge (APC) by the author.

Green open access (Green OA)

Green open access refers to the "self-archiving" of an article in a publicly and freely accessible repository, usually after a delay (embargo) period defined by the publisher. The author's accepted manuscript, not the final published version, can be posted onto the repository.

Open Select

This is an open access program provided for articles published in APEX and JJAP journals. The authors can make their article freely available to all interested readers upon payment of an extra one-time fee covering the APC.

Repository

This usually refers to a storage for an online archive of academic articles, built by a particular institution or for a subject area.

Self-archiving

This refers to depositing a copy of the author's article into the author's own institutional repository or an open archive in a particular subject area.