

**Abstract**  
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**Quality Assurance and Peer Review in Open Access**

The traditional ways of scientific publishing and peer review do not live up to the needs of efficient communication and quality assurance in today's highly diverse and rapidly developing world of science. Therefore, new opportunities for enhanced scientific quality assurance are among the most important advantages and perspectives of open access.

Open access gives referees more information with which to do their work; it enables interactive and transparent forms of review and discussion open to all interested members of the scientific community and the public; and it facilitates the development and implementation of new metrics for the impact and quality of scientific publications (Quality Assessment Working Group, Berlin Open Access Conference 2003).

The effects and advantages of open access can be efficiently and flexibly combined with the strengths of traditional scientific publishing and peer review. Among the successful initiatives pursuing this approach are the interactive open access journal Atmospheric Chemistry and Physics (ACP, [www.atmos-chem-phys.org](http://www.atmos-chem-phys.org)) and a growing number of sister journals published by the European Geosciences Union (EGU, [www.copernicus.org/EGU](http://www.copernicus.org/EGU)). They are practicing a two-stage publication process with public peer review and interactive discussion, which has been designed to resolve the dilemma between rapid scientific exchange and thorough quality assurance. Key aspects, achievements, and perspectives of these and other innovative forms of open access publishing and scientific quality assurance will be outlined.

**References:**

<http://oa.mpg.de/openaccess-berlin/Schutz-QualityAssessment.pdf>;

[http://www.copernicus.org/EGU/acp/poeschl\\_learned\\_publishing\\_2004.pdf](http://www.copernicus.org/EGU/acp/poeschl_learned_publishing_2004.pdf).