

Dissemination of information to Advance the Scientific Foundation of Solid Waste Management (SWM)

**Jens Aage Hansen, Editor in Chief, WM&R and David E. Ross, Associate Editor, WM&R
16.03.12**

An important objective of the International Solid Waste Association (ISWA) is dissemination of information intended to help members and their employers understand the challenges posed by waste generation, then design, develop, and implement improvements in waste minimization, collection, processing, recycling, and disposal. ISWA accomplishes this objective by publishing pertinent information about practical experiences and research programmes, sponsoring regional and global meetings of solid waste professionals where new ideas are shared and tested, conducting training programs, and encouraging networking by members and affiliates. In all these endeavours, ISWA strives to ensure that the information disseminated to members and others is well-grounded and scientifically accurate. In general, there are four types of publications through which technical and scientific information is distributed:

- Scientific/technical peer-reviewed journals;
- Textbooks and monographs;
- Conference proceedings; and
- Magazines (sometimes called “trade journals”)

Journals are intended to provide a platform for the publication of findings from recent and/or on-going research, normally conducted by university graduate students. Journal articles normally convey results of experimental and/or theoretical work, including successes and failures. Such papers provide the basis for direct application by others in practice, and/or for additional research by others. Papers published in journals are usually subject to a strict peer review process through which the original submittals are iteratively improved in response to reviewer recommendations. Any given manuscript accepted for peer review might be revised two to three times before being accepted for publication. Moreover, rejection rates are often between 70% and 80 %, reflecting a journal’s high standards for publication. Researchers are motivated to prepare excellent manuscripts because publishing research work normally is required as a condition of earning advanced degrees, thereby paving the way for scientists and engineers who seek careers in research, higher education, or cutting-edge businesses in the public or private sectors. See below for more specific information (Aims and Scope) about general publication criteria for ISWA’s own “Waste Management & Research” (WM&R) journal. Also note that the quality and importance of journals, and the reputation of researchers, are ranked by the number of citations by subsequent researchers in their own manuscripts. This is measured by the “Impact Factor” (IF).

The term “**monograph**” refers to textbooks and other books edited or authored by renowned researchers and scientists that are published by reputable companies. Monographs normally present proven theory and experiences useful to students, researchers, and practitioners. Typically, information in monographs is founded on established knowledge still in use and new knowledge found in journals on various disciplines and professions.

Proceedings typically include papers presented at conferences which were accepted for presentation by the conference committee. Most conference papers are selected based on submission of

abstracts only so the quality varies widely; i.e. proceeding papers are not normally peer-reviewed and authors are free to omit the extent of documentation that would be required by a journal, so verification of results may be difficult. Presentations at conferences provide an excellent opportunity for the author(s) to make personal contact with those interested in their subject and post-presentation discussions can be provocative and productive for the author/researcher. The publication of conference Proceedings often leads to follow-up actions such as improved research techniques and new manuscripts submitted to journals for peer review, particularly for younger researchers who are starting to establish a network. In the long run, papers published in Proceedings do not produce many citations. For this reason, most universities might encourage conference presentations but emphasise a preference for publication of papers in peer reviewed journals.

Magazines such as ISWA's "Waste Management World" (WMW) are useful for immediate communications about products, processes, management concepts, and real world experiences. But, in general, articles in trade journals are not subject to high quality control standards and researchers are reluctant to write for magazines as there is little academic or career merit in publishing magazine articles as such.

WM&R Aims and Scope

Routine human activities impact the environment and the consumption of natural materials and energy resources. The challenge to society is to minimize these impacts, maintain an acceptable quality of the environment, and sustain the quality of life and resource supplies for future generations. The generation of solid wastes is inevitable because all products have an end of life and humans and animals create wastes that have to be managed to maintain hygienic, healthy and tidy urban and open country environments. A key objective of the "Waste Management and Research" (WM&R) journal is to address these challenges through dissemination of scientifically based reliable information, e.g. in terms of waste prevention, waste recycling, recovery of energy from material residuals not suited for recycling or reuse, waste treatment, and waste disposal.

WM&R is a peer reviewed journal that satisfies the growing demand for new and scientific information that can be referenced by waste management professionals in academia, government, industry, planning, engineering, management and operation. WM&R presents original work in the form of review articles, original articles, short articles, and letters to the editor.

WM&R encourages the submission of well organised manuscripts relating to sustainable waste management designs, operations, policies or practices and those addressing issues facing both developing and developed countries. Mass flow analyses, life cycle assessments, policy planning and system administration, innovative processes and technologies and their engineering features and cost effectiveness are among the key issues that WM&R seeks to cover through well documented reports on new concepts, systems, practical experience (including case studies), and theoretical and experimental research work. Manuscripts with limited scope or specialised application are normally not accepted. Studies on testing and characterisation of special waste streams or products with only a peripheral pertinence to solid waste management are normally referred to journals that focus on such topics. Manuscripts about modelling and software development are acceptable, when model and software applications remain accessible in the public domain. It is imperative that manuscripts are well founded in terms of existing literature and knowledge, including both recent and older publications.

Peer reviewers and editors evaluating manuscripts for publication consider as key criteria originality, novelty and applicability of results in theory and/or in practice. Articles must be clearly written in UK English and authors must avoid duplication of information already published and avoid citing opinions without referenced foundations. Strict compliance with these and other WM&R manuscript submission guidelines is necessary to trigger the peer review process that could lead to subsequent acceptance for publication.