



# CHEMICAL ENGINEERING JOURNAL

An International Journal of Research and Development

## AUTHOR INFORMATION PACK

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### DESCRIPTION

The *Chemical Engineering Journal* focuses upon three aspects of **chemical engineering**: chemical reaction engineering, environmental chemical engineering, and materials synthesis and processing.

The *Chemical Engineering Journal* is an international research journal and invites contributions of original and novel fundamental research. The journal aims to provide an international forum for the presentation of original fundamental research, interpretative reviews and discussion of new developments in **chemical engineering**. Papers which describe novel theory and its application to practice are welcome, as are those which illustrate the transfer of techniques from other disciplines. Reports of carefully executed experimental work, which is soundly interpreted are also welcome. The overall focus is on original and rigorous research results which have generic significance.

Within the *Chemical Engineering Journal*, the **Environmental Chemical Engineering** section presents papers dealing with topics in environmental chemical and process engineering. Treatment and environmental separation processes, pollution control and resources recovery, environmental bioprocesses, bioenergy, environmental nanotechnology, clean process technology and waste minimization include the topics which are covered. Papers in which knowledge from other disciplines is integrated with chemical engineering are especially welcome.

Within the *Chemical Engineering Journal*, the **Chemical Reaction Engineering** section presents papers on a wide range of topics including reaction kinetics, applied catalysis, simulation and optimization of different types of reactors, unsteady-state reactors, multiphase reactors, and fundamental investigations of the processes of heat, mass and momentum transfer that take place along with chemical reaction. Research works addressing critical areas of **reactor engineering** (e.g. reactor materials, control strategies, reactor safety and environmental issues), and emerging reactor technologies (e.g. membrane reactors, chromatographic reactors, unconventional fluidized beds, electrochemical reactors, micro-reactors, etc.) are particularly welcome.

Within the *Chemical Engineering Journal*, the **Materials Synthesis and Processing** section presents papers dealing with different aspects of the preparation and characterization of advanced materials. Novel physical and chemical methods of synthesis will be covered, as well as the processes used to obtain materials of different morphologies (particles, films, fibers), and to modify their surface and structural properties, always from a chemical engineering point of view. Manuscripts dealing with micro- and nano-structured materials, and those describing the preparation of composite and hybrid materials with advanced properties are especially welcome.

Comments and Proposals: We are interested in receiving comments/feedback on this and our other journals and welcome publication proposals for books, electronic products, new journals and co-operation for existing journals.

## AUDIENCE

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Chemical and Process Engineers, Applied Chemists and Product Engineers, Biochemical Engineers and Biotechnologists.

## IMPACT FACTOR

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## ABSTRACTING AND INDEXING

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*Environmental Chemical Engineering:*

**Stephen Allen:** Adsorption (liquid and gas); Ion exchange; Water treatment (physico/chemical methods); Air/gas treatment, NO<sub>x</sub> control, CO<sub>2</sub> capture; Constructed wetlands and reed beds for water treatment; Agricultural wastes (liquid and solid); Solid waste treatment and bioconversion; Sustainable development or processes

**Marc Deshusses:** Bioremediation ; Biofilters and biotrickling filters; Wastewater and drinking water treatment (biological); Anaerobic digestion; Combined chemical and biological treatment of wastes; Membrane bioreactors; Microbial fuel cells and fuel cells; Indoor air quality; Gas-liquid operations (mass transfer); Waste to energy and resources recovery

**Dionysios (Dion) Dionysiou:** Advanced oxidation processes/technologies (AOPs/AOTs); Photocatalysis; Environmental catalysis ; Environmental nanotechnology; Membranes processes; Electrooxidation, electrochemical methods ; Particle separation; Separation processes

*Chemical Reaction Engineering:*

**King Yeung:** heterogeneous catalysis (including enzyme), hybrid and miniature reactors, green and fine chemistry

**Guy B. Marin:** kinetics; heterogeneous catalysis; petrochemistry, polymer, reactor design and modeling, reactor scale-up, crude oil refining, natural gas valorization

*Materials Synthesis and Processing:*

**Jesus Santamaria:** materials synthesis processes; shaping processes; micro- and nanostructured materials; hybrid materials; surface modifications

### **Types of papers**

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*Original papers* - these should be complete and authoritative accounts of work, which has a special significance and must be presented clearly and concisely.

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#### *Examples:*

Reference to a journal publication:

[1] J. van der Geer, J.A.J. Hanraads, R.A. Lupton, The art of writing a scientific article, *J. Sci. Commun.* 163 (2010) 51–59.

Reference to a book:

[2] W. Strunk Jr., E.B. White, *The Elements of Style*, fourth ed., Longman, New York, 2000.

Reference to a chapter in an edited book:

[3] G.R. Mettam, L.B. Adams, How to prepare an electronic version of your article, in: B.S. Jones, R.Z. Smith (Eds.), *Introduction to the Electronic Age*, E-Publishing Inc., New York, 2009, pp. 281–304.

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