



## Detergent Formulations for Cleaning and Disinfection in the Food Industry II

Guest Editors:

**Prof. Dr. Encarnación Jurado Alameda**

Department of Chemical Engineering, Faculty of Sciences, University of Granada, Avda. Fuentenueva s/n, 18071 Granada, Spain

**Prof. Dr. Jose Maria Vicaria**

Department of Chemical Engineering, Faculty of Sciences, University of Granada, Avda. Fuentenueva s/n, 18071 Granada, Spain

Deadline for manuscript submissions:  
**closed (31 October 2020)**

### Message from the Guest Editors

Food industries require regular cleaning and disinfection operations to reach a high quality of food conforming to legal dispositions. The washing process has to remove amylaceous, lipid, and protein-based dirt mainly, although these are usually mixed, creating mixed dirt. The existence of microorganisms can also generate the formation of biofilms that are difficult to remove.

To achieve the required degree of cleaning and disinfection, washing protocols are established and detergent formulations are adapted to the characteristics of the dirt and the nature of the surfaces of the equipment and industrial facilities, usually made of stainless steel. These protocols and formulations can incorporate surfactants (anionic, nonionic, cationic, etc.), enzymes (amylases, lipases, proteases, etc.), nanoparticles, ozone, disinfectants, and other chemical compounds that allow effective cleaning for the different types of dirt that can be found in these industries.

**Keywords:** cleaning food industries; detergent; surfactants; biofilm; disinfection; enzymes; nanoparticles; ozone





an Open Access Journal by MDPI

## Editor-in-Chief

**Prof. Dr. Giulio Nicola Cerullo**

Dipartimento di Fisica,  
Politecnico di Milano, Piazza L.  
da Vinci 32, 20133 Milano, Italy

## Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

## Author Benefits

**Open Access:** free for readers, with article processing charges (APC) paid by authors or their institutions.

**High Visibility:** indexed within Scopus, SCIE (Web of Science), Ei Compendex, Inspec, CAPlus / SciFinder, and other databases.

**Journal Rank:** JCR - Q2 (Engineering, Multidisciplinary) / CiteScore - Q1 (General Engineering)

## Contact Us

---

*Applied Sciences* Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/applsci](https://mdpi.com/journal/applsci)  
[applsci@mdpi.com](mailto:applsci@mdpi.com)  
[X@Applsci](https://twitter.com/Applsci)