

## **Highly cited publications that cite Wastewater Treatment**

### **Electro-Fenton process and related electrochemical technologies based on Fenton's reaction chemistry**

[E Brillas](#), [I Sirés](#), [MA Oturan](#) - Chemical reviews, 2009 - ACS Publications

Water is essential for the subsistence of living beings. Although abundant on Earth, with a volume of about 1400 million km<sup>3</sup>, almost 97% is constituted by saltwater from oceans or seas and less than 1% of freshwater is readily available for human uses. Unfortunately ...

[Citations 1675](#)

### **Advances in enhanced biological phosphorus removal: from micro to macro scale**

[A Oehmen](#), [PC Lemos](#), [G Carvalho](#), [Z Yuan](#), [J Keller](#)... - Water research, 2007 - Elsevier

The enhanced biological phosphorus removal (EBPR) process has been implemented in many wastewater treatment plants worldwide. While the EBPR process is indeed capable of efficient phosphorus (P) removal performance, disturbances and prolonged periods of ...

[Citations 868](#)

### **Characteristics of grey wastewater**

[E Eriksson](#), [K Auffarth](#), [M Henze](#), [A Ledin](#) - Urban water, 2002 - Elsevier

The composition of grey wastewater depends on sources and installations from where the water is drawn, eg kitchen, bathroom or laundry. The chemical compounds present originate from household chemicals, cooking, washing and the piping. In general grey wastewater ...

[Citations 828](#)

### **In situ characterization of nitrospira-like nitrite-oxidizing bacteria active in wastewater treatment plants**

[H Daims](#), [JL Nielsen](#), [PH Nielsen](#)... - Appl. Environ ..., 2001 - Am Soc Microbiol

Uncultivated Nitrospira-like bacteria in different biofilm and activated-sludge samples were investigated by cultivation-independent molecular approaches. Initially, the phylogenetic affiliation of Nitrospira-like bacteria in a nitrifying biofilm was determined by 16S rRNA gene ...

[Citations 714](#)

### **Fate of pharmaceuticals and personal care products in wastewater treatment plants—conception of a database and first results**

[C Miege](#), [JM Choubert](#), [L Ribeiro](#), [M Eusèbe](#)... - Environmental ..., 2009 - Elsevier

We created a database in order to quantitatively assess the occurrence and removal efficiency of pharmaceuticals and personal care products (PPCPs) in wastewater treatment plants (WWTPs). From 117 scientific publications, we compiled 6641 data covering 184 ...

[Citations 569](#)

### **Bacterial community composition and function in sewage treatment systems**

[M Wagner](#), [A Loy](#) - Current opinion in biotechnology, 2002 - Elsevier

The application of modern molecular techniques has led to the identification, in situ quantification, and partial ecophysiological characterisation of bacteria responsible for bulking and foaming or for nutrient removal in sewage treatment systems. Unexpectedly ...

[Citations 527](#)

### **[Wastewater treatment with particulate biofilm reactors](#)**

C Nicolella, [MCM Van Loosdrecht](#), JJ Heijnen - Journal of biotechnology, 2000 - Elsevier  
The review presented in this paper focuses on applications of particulate biofilm reactors (eg Upflow Sludge Blanket, Biofilm Fluidized Bed, Expanded Granular Sludge Blanket, Biofilm Airlift Suspension, Internal Circulation reactors). Several full-scale applications for municipal ...  
[Citations 518](#)

### **[Microbial biotechnology: fundamentals of applied microbiology](#)**

AN Glazer, H Nikaido - 2007 - books.google.com  
Knowledge in microbiology is growing exponentially through the determination of genomic sequences of hundreds of microorganisms and the invention of new technologies such as genomics, transcriptomics, and proteomics, to deal with this avalanche of information. These ...  
[Citations 516](#)

### **[Chemical and biological technologies for hydrogen sulfide emission control in sewer systems: a review](#)**

L Zhang, P De Schryver, [B De Gusseme](#), W De Muynck... - Water research, 2008 - Elsevier  
Biogenic corrosion of sewers represents a cost of about 10% of total sewage treatment cost in Flanders (Belgium) and is further increasing. In the past, research has resulted in a number of prevention methods, such as injection of air, oxygen, H<sub>2</sub>O<sub>2</sub>, NaClO, FeCl<sub>3</sub> and ...  
[Citations 482](#)

### **[Effects of anaerobic digestion on digestate nutrient availability and crop growth: a review](#)**

K Möller, T Müller - Engineering in Life Sciences, 2012 - Wiley Online Library  
Anaerobic digestion (AD) for biogas production leads to several changes in the composition of the resulting digestates compared to the original feedstock (ammonia content, p H, carbon to nitrogen ratio, etc.), which are relevant for the plant availability of macro-and ...  
[Citations 468](#)

### **[Evaluating the vulnerability of surface waters to antibiotic contamination from varying wastewater treatment plant discharges](#)**

[AL Batt](#), IB Bruce, DS Aga - Environmental pollution, 2006 - Elsevier  
Effluents from three wastewater treatment plants with varying wastewater treatment technologies and design were analyzed for six antibiotics and caffeine on three sampling occasions. Sulfamethoxazole, trimethoprim, ciprofloxacin, tetracycline, and clindamycin ...  
[Citations 401](#)

### **[Microbial community composition and function in wastewater treatment plants](#)**

[M Wagner](#), [A Loy](#), R Nogueira, U Purkhold... - Antonie Van Leeuwenhoek, 2002 - Springer  
Biological wastewater treatment has been applied for more than a century to ameliorate anthropogenic damage to the environment. But only during the last decade the use of molecular tools allowed to accurately determine the composition, and dynamics of activated ...  
[Citations 390](#)

### **[A review of applications of cavitation in biochemical engineering/biotechnology](#)**

[PR Gogate](#), AM Kabadi - Biochemical Engineering Journal, 2009 - Elsevier

Cavitation results in the generation of hot spots, highly reactive free radicals, and turbulence associated with liquid circulation currents, which can result in the intensification of various physical/chemical operations. The present work provides an overview of the applications of ...  
[Citations 377](#)

### **[Air stripping of ammonia from pig slurry: characterisation and feasibility as a pre-or post-treatment to mesophilic anaerobic digestion](#)**

A Bonmati, [X Flotats](#) - Waste management, 2003 - Elsevier

The objective of the present paper has been to study the effect of pig slurry waste type, fresh or anaerobically digested, and the effect of initial pH on ammonia air stripping from pig slurry waste at high temperature (80° C). Stripping process as pre-or post-treatment to anaerobic ...

[Citations 372](#)

### **[Biodegradation, decolourisation and detoxification of textile wastewater enhanced by advanced oxidation processes](#)**

[S Ledakowicz](#), M Solecka, [R Zylla](#) - Journal of biotechnology, 2001 - Elsevier

Recently, an increasing application of so called advanced oxidation processes (AOPs) to industrial wastewater has been observed. In particular, an integrated approach of biological and chemical treatment of wastewater is advantageous conceptually. The subject of our ...

[Citations 363](#)

### **[Optimization of polyhydroxybutyrate production by mixed cultures submitted to aerobic dynamic feeding conditions](#)**

[LS Serafim](#), [PC Lemos](#), R Oliveira... - Biotechnology and ..., 2004 - Wiley Online Library

Activated sludge submitted to aerobic dynamic feeding conditions showed a good and stable capacity to store polyhydroxybutyrate (PHB). The system, working for 2 years, selected a microbial population with a high PHB storage capacity. The influence of carbon ...

[Citations 323](#)

### **[Anaerobic digestion of solid organic substrates in batch mode: an overview relating to methane yields and experimental procedures](#)**

[F Raposo](#), [MA De la Rubia](#), [V Fernández-Cegrí](#)... - ... and Sustainable Energy ..., 2012 - Elsevier

Anaerobic digestion is considered a competitive source for the production of renewable energy as far as efficiency and cost are concerned. To evaluate the anaerobic biodegradability of an organic substrate such as feedstocks, a test known as biochemical ...

[Citations 319](#)

### **[New aspects of microbial nitrogen transformations in the context of wastewater treatment—a review](#)**

D Paredes, P Kuschik, TSA Mbwette... - Engineering in Life ..., 2007 - Wiley Online Library

Over the past few years, new technologies for nitrogen removal have been developed mainly because of the increasing financial costs of the traditional wastewater treatment technologies. Newly discovered pathways, like the anaerobic oxidation of ammonium ...

[Citations 303](#)

### **[Biodegradability properties of sulfonamides in activated sludge](#)**

F Ingerslev, B Halling-Sørensen - ... Toxicology and Chemistry ..., 2000 - Wiley Online Library

Twelve different sulfonamides were selected for a biodegradation study using a respirometric screening test and an activated sludge simulation test. A simple bacterial growth inhibition test was applied to show that the sulfonamides did not affect the bacteria at ...  
[Citations 301](#)

### **Nutrients in urine: energetic aspects of removal and recovery**

[M Maurer](#), P Schwegler, TA Larsen - Water Science and ..., 2003 - iwaponline.com

The analysis of different removal and recovery techniques for nutrients in urine shows that in many cases recovery is energetically more efficient than removal and new-production from natural resources. Considering only the running electricity and fossil energy requirements ...

[Citations 276](#)