



an Open Access Journal by MDPI

Structural Strength, Corrosion and Failure Analysis of Pressure Vessel and Pipeline System

Guest Editors:

Prof. Dr. Zhijiang Jin

Institute of Process Equipment, College of Energy Engineering, Zhejiang University, Hangzhou 310027, China

Dr. Zhanfeng Chen

School of Mechanical Engineering, Hangzhou Dianzi University, Hangzhou 310018, China

Deadline for manuscript submissions: closed (10 May 2023)

Message from the Guest Editors

Pipelines, which are regarded as blood vessels in the industrial field, are widely used to transport oil and natural gas, ammonia, alcohol fuels, coal and ore, hydrogen, water, carbon dioxide, etc. By far, pipelines are the most efficient and economical way to transport fluid media.

However, due to the complex and hazardous transport environment, fracture, distortion, leakage, corrosion, etc., can easily occur in pipelines. Corrosion is one of the main causes of pipeline failure and has always been a bottleneck problem affecting the structural strength and failure analysis of pipelines.

As mentioned above, the failure of pipelines threatens people's lives and property. Therefore, research on the structural integrity and failure mechanism of pipelines, especially of corroded ones, is a vital task to meet the design requirements of safer ones.









an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Maryam Tabrizian

 Department of Biomedical Engineering, Faculty of Medicine and Health Sciences, McGill University, Montreal, QC H3A 2B6, Canada
Faculty of Dentistry and Oral Health Sciences, McGill University, 3640 Rue University, Montreal, QC H3A 0C7, Canada

Message from the Editor-in-Chief

Materials (ISSN 1996-1944) was launched in 2008. The iournal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites. advanced materials characterization, porous materials, manufacturing processes and svstems. advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials. materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. Materials provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

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), PubMed, PMC, Ei Compendex, CaPlus / SciFinder, Inspec, Astrophysics Data System, and other databases.

Journal Rank: JCR - Q1 (Metallurgy and Metallurgical Engineering) / CiteScore - Q2 (*Condensed Matter Physics*)

Contact Us

Materials Editorial Office MDPI, Grosspeteranlage 5 4052 Basel, Switzerland Tel: +41 61 683 77 34 www.mdpi.com mdpi.com/journal/materials materials@mdpi.com X@Materials_Mdpi