Special Issue

Prevention of Thermodynamic Disasters in Mines and Environmental Sustainability

Message from the Guest Editors

Thermodynamic disasters are caused by uncontrolled combustion and explosions underground in coal mines, including spontaneous coal combustion, exogenous fires, gas combustion explosions, coal dust explosions, etc. After the occurrence of thermodynamic disasters in mines, a variety of secondary disasters can occur, such as roof falls, secondary or multiple explosions of gas, mine fires, the destruction of ventilation systems, the generation of high temperature and toxic and harmful gases, the abnormal emission of gas, coal dust (multiple) explosions, etc. Therefore, it is extremely important to conduct research on the prevention of thermodynamic disasters in mines and environmental sustainability. Topics of interest include, but are not limited to, the following:

- Environmental restoration and sustainability;
- The mechanism of coal fires/spontaneous combustion;
- The risk assessment of gas explosion accidents;
- New theories and technologies for mineral dust prevention;
- Sustainable methods for thermodynamic disaster prevention;
- The early warning of spontaneous coal combustion and gas explosions;
- Gas extraction and utilisation;
- The thermokinetic mechanism of coal oxidation.

Guest Editors

Dr. Changkui Lei

Dr. Jun Nian

Dr. Xiaobo Lv

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Sustainability
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
sustainability@mdpi.com

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I encourage you to contribute a research or comprehensive review article for consideration for publication in *Sustainability*, an international Open Access journal which provides an advanced forum for research findings in areas related to sustainability and sustainable development. *Sustainability* publishes original research articles, review articles and communications. I am confident you will find the journal contributes to enhancing understanding of sustainability and fostering initiatives and applications of sustainability-based measures and activities.

Editor-in-Chief

Prof. Dr. Marc A. Rosen
Faculty of Engineering and Applied Science, University of Ontario Institute of Technology, Oshawa, ON L1G 0C5, Canada

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