



*materials*



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## AI Revolutionizing Materials Science and Engineering

Guest Editor:

**Dr. Andrew Spowage**

School of Engineering and  
Materials Science, Queen Mary  
University of London, London  
E14NS, UK

Deadline for manuscript  
submissions:

**20 January 2025**

### Message from the Guest Editor

Dear Colleagues,

The following is a list of possible topics which would fit well into this Special Issue:

**Accelerating material discovery:** AI can analyze complex material property relationships, predict novel material compositions with desired functionalities;

**Enhancing material characterization:** AI-powered tools can analyze data from characterization techniques like electron microscopy and spectroscopy;

**Optimizing material processing:** Machine learning algorithms can analyze process parameters and material responses, leading to the development of optimized processing techniques for tailored material properties;

**Materials performance:** Understanding the performance and integrity of materials, taking in real-time data and predicting the health of assets in concert with asset integrity management systems;

**Materials selection:** Never before have we had the tools to process and use the vast amount of data which exists on the performance of materials in any application or environment;

**Teaching and learning for the next generation of materials scientists and engineers:** AI tools offer unprecedented opportunities to enhance pedagogy and support the next generation graduates.



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**Special** issue



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## Editor-in-Chief

### Prof. Dr. Maryam Tabrizian

1. Department of Biomedical Engineering, Faculty of Medicine and Health Sciences, McGill University, Montreal, QC H3A 2B6, Canada

2. Faculty of Dentistry and Oral Health Sciences, McGill University, 3640 Rue University, Montreal, QC H3A 0C7, Canada

## Message from the Editor-in-Chief

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## Contact Us

Materials Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
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