

# Foreword

## Special issue on Wide-Ranging and Exotic Applications of Fusion Technology

### Guest Editors

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We are most pleased to publish this special issue of *Fusion Science and Technology* with the theme of wide-ranging and exotic applications of fusion technology. This special issue is the first in a series devoted to alternative applications of fusion fuels and systems. It covers many non-electric-generation applications of fusion technology. We propose this special issue series to embrace the scope of these very exciting and important topics:

1. educational applications
2. fuel for nuclear fusion
3. fusion–fission hybrids
4. fusion power plants for water desalination and reuse
5. medical applications and isotope production
6. nuclear fusion reactions in deuterated metals (lattice confinement fusion)
7. polarized fusion with polarized deuteron source
8. fusion and direct reactions with light exotic nuclei.

By concentrating many outstanding results and research outcomes into one special issue, we hope to benefit each author and the fusion community.

This first issue of the special series includes 10 technical papers on advanced concepts such as magneto-inertial fusion, hybrid fusion–fission, neutron capture therapy, plasma devices for full-scale tests of fusion reactor materials, fusion gain in high-performance Z-pinchs, and plasma self-organization in stellarator and experimental devices for educational purposes, including educational applications of the tokamaks GOLEM and MEFPhIST.

Let us add our thanks to the authors for their willingness to write the excellent papers contained in this issue. We hope you find these papers to be interesting reading, and we encourage you to look at your own results and gather the strength to write your own article for submission to a subsequent issue in this series. Good luck with your endeavors, and enjoy!

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