



## Breeding Blanket: Design, Technology and Performance

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Deadline for manuscript  
submissions:

**closed (10 November 2021)**

### Message from the Guest Editors

The future DEMONstration fusion power plant should be the first to show that, with a breeding blanket system, it is possible to deliver several hundred megawatts of electrical energy in net and operate in a closed fuel cycle.

New material developments and novel manufacturing processes have made their way into blanket design. The presence of the test blanket modules (TBM) program in ITER has also brought about a paradigm change in the way the breeding blanket concepts are developed and nuclear licensing, with quality and qualification requirements now being an important part of the process.

This Special Issue aims to provide an overview of the current status of breeding blanket designs as well as the main related technological aspects.

Such as:

Breeding blanket concepts; Specific material development and qualification including both functional and structural materials; Blanket manufacturing technologies; Modelling in terms of thermal-hydraulic aspects, material behavior and electromagnetic effects; Tritium production and control.

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## Message from the Editor-in-Chief

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