

International Journal of

NUCLEAR ENERGY SCIENCE AND TECHNOLOGY

Scope of the Journal

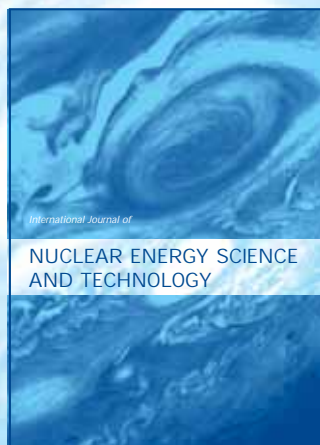
Today, nuclear reactors generate nearly one quarter of the electricity in nations representing two thirds of humanity, and other nuclear applications are integral to many aspects of the world economy. Nuclear fission remains an important option for meeting energy requirements and maintaining a balanced worldwide energy policy. With major countries expanding nuclear energy's role and new countries poised to introduce it, the key issue is not whether the use of nuclear technology will grow worldwide, even if public opinion concerning safety, the economics of nuclear power, and waste disposal issues adversely affect the general acceptance of nuclear power, but whether it will grow fast enough to make a decisive contribution to the global imperative of sustainable development. A corollary question is whether the world's institutional support for nuclear power and other nuclear applications will be configured to realise the full environmental and developmental value of this technology, while managing all associated risks.

Subject coverage:

The following list, which is not exhaustive, describes topics appropriate to IJNEST:

- Reactor physics
- Reactor research
- Alternative reactor technologies
- Radiation shielding
- Fission reactor materials
- Nuclear materials, neutron radiation effects in materials
- Fuel cycle, materials aspects, physics and chemistry, environmental considerations
- Reprocessing
- Low-level and high-level radioactive waste disposal
- Performance of nuclear waste materials, glasses and ceramics, immobilisation of wastes
- Plutonium disposition, uranium
- Alternative research and development programmes
- Decommissioning
- Productivity, efficiency and quality
- Standardisation
- Plant management and plant performance
- Operation, maintenance, and fuel costs
- Operational performance improvement and plant life extension
- Technology transfer and licensing
- Safety

- Nuclear Regulatory Commission's safety policy
- Prevention of nuclear accidents
- Safeguards and physical security
- Public attitudes
- Institutional changes
- Future demand and future supply forecasting and planning
- Economy of construction and operation
- Electricity generation costs
- Capital carrying charges



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