Feasibility study of Australia-Korean research in fusion science centred on the KSTAR superconducting tokamak

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To continue Australian history of innovation ...

- 1934 Sir Mark Oliphant co-discovers He3+, T, and D-D fusion reactions
- First tokamak outside of Russia, LT-1 (Liley, 1965)
- First Heliac, SHEILA (Hamberger, Blackwell, 1985)
- First Heliac (H1) to approach hot conditions (1992)
- Invention of the Rotamak (Jones, 1978)
  - near-spherical plasma established by rotating magnetic field (applications in current drive)
- First demonstration of a spherical torus configuration (Collins, 1988)
- Seminal work on Alfvén wave physics
- Diagnostics innovations
- Materials innovations
...via international collaboration

Plan of meeting (as proposed)

• Presentations on capabilities and interests of Australian and Korean researchers with a view to forging research collaborations

• Presentations on the opportunities made available by the commencement of operation of the fully superconducting tokamak KSTAR

• Discussions on the feasibility of mounting an experiment, or experiments, on KSTAR primarily run by Australian researchers

• Drafting of an agreement on long-term access to KSTAR for Australian researchers, including remote access, and its listing as a Major Research Facility in the Australian Access to Major Facilities grant scheme

• Discussion of the possibilities of collaboration on ITER-relevant research
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- Dr Yeong-Kook Oh for his help in organizing this meeting
- Australian delegates and Korean participants and audience for their time