

Abstract Submitted  
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**Accelerator-driven thorium-cycle fission power** AKHDIYOR SAT-TAROV, Texas A&M University — A flux-coupled stack of superconducting isochronous cyclotrons could be used to drive thorium-cycle fission power. The 800 MeV proton beams produce fast neutrons through spallation, then the fast neutrons transmute the thorium into uranium and drive fission. The thorium reactor would provide GW electric power, eat its own long-lived waste, run for 7 years between core accesses, operate below criticality, and be stable against melt-down. Reserves of thorium are sufficient to provide the world's energy needs for a thousand years.

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