

	Step IV	Step V	Step VI
Study of properties that determine cooling performance			
Material properties of LH ₂ and LiH	Yes	LH ₂ only	LH ₂
Observation of ϵ_{\perp}^n reduction	Yes	Yes	LH ₂
Demonstration of sustainable ionization cooling			
Observation of ϵ_{\perp} reduction with re-acceleration		Yes	Yes
Observation of ϵ_{\perp} reduction and ϵ_{\parallel} evolution		Yes	Yes
Observation of ϵ_{\perp} reduction and ϵ_{\parallel} and angular momentum evolution		Yes [†]	Yes ^{††}

[†] Requires systematic study of “flip” optics.

^{††} Full lattice cell; odd symmetry in magnetic lattice required to manage growth of canonical angular momentum.