Reduced recycling works for reactors?

- τ_p with/without Li-effects are not different(Maingi)
- τ_E with/without Li-effects are different(Kugel) (^^)v

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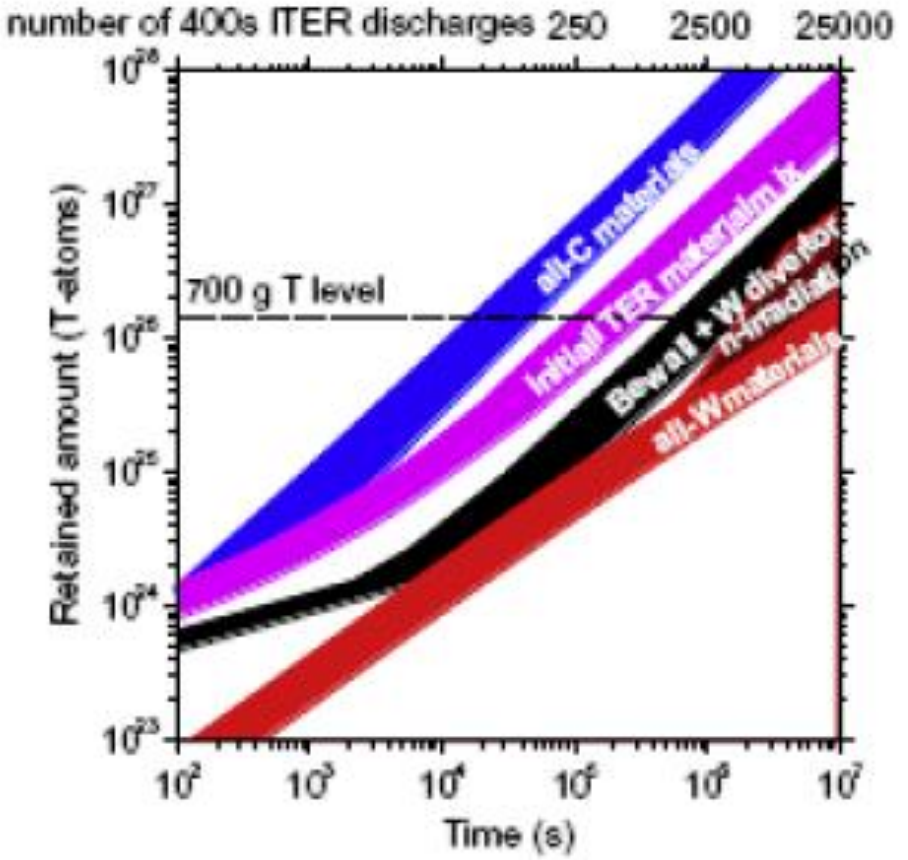
- Confinement improvement is due to the reduced ${}_{SOL}q_{//}$ connected with reduced edge density under the sheath-limited condition where ${}_{SOL}\nu^* \leq 10$.
- Is that the case with ITER and/or reactors under the conduction-limited condition where ${}_{SOL}\nu^* \sim 50$?

T-uptake by Li is serious in a reactor ?

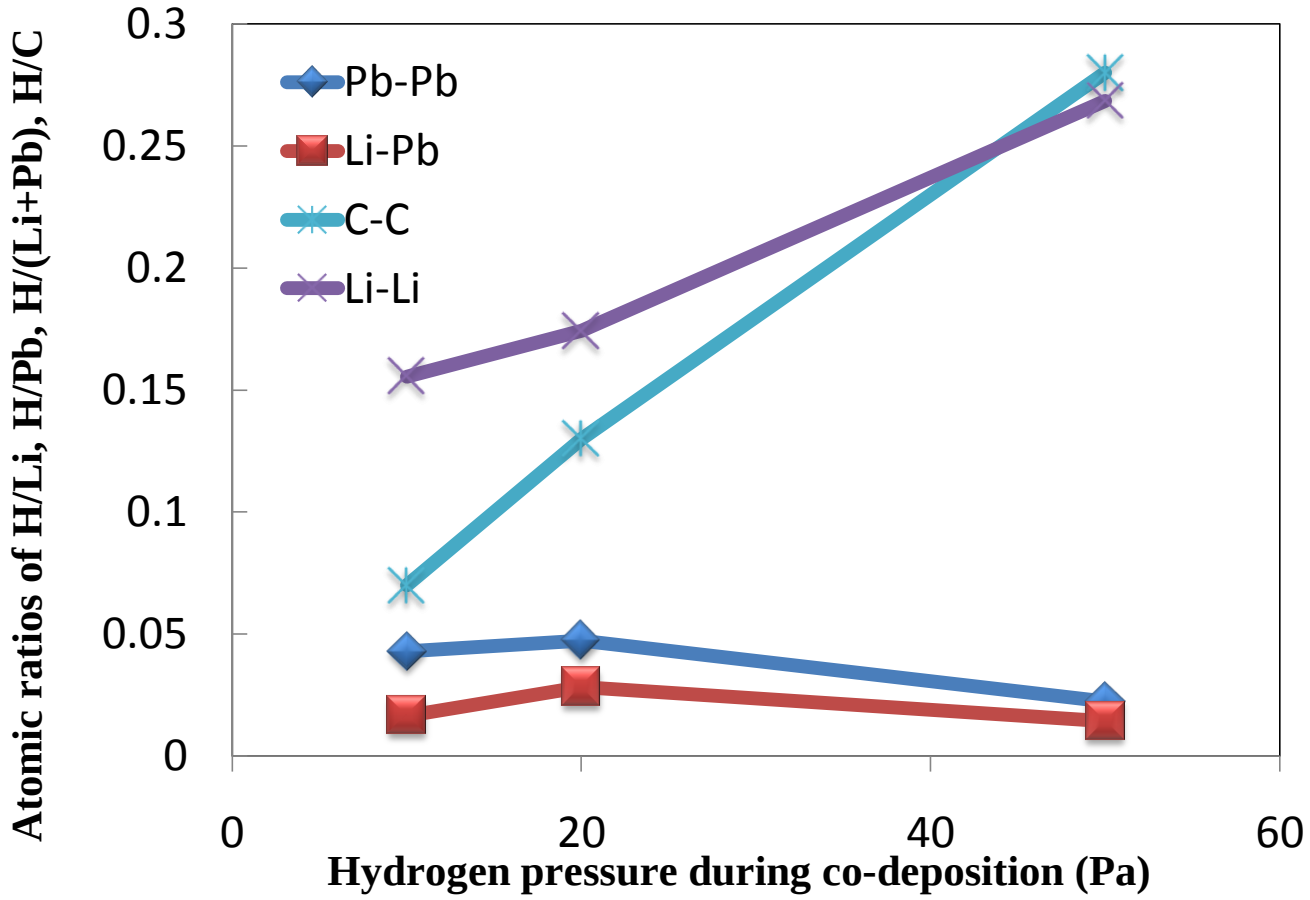
- The radiation safety limit for tritium in ITER is 700g, i.e. $10^{4\text{-}5}$s for C-PFCs.

- If Li and C are comparable in T-retention efficiency, Li may not be the material for a power reactor (･_･;)



After Roth et al. JNM(2010)

Li-Pb mixed wall helps reduce T-uptake!



High temp. operation at ≥500°C helps reduce T-uptake!