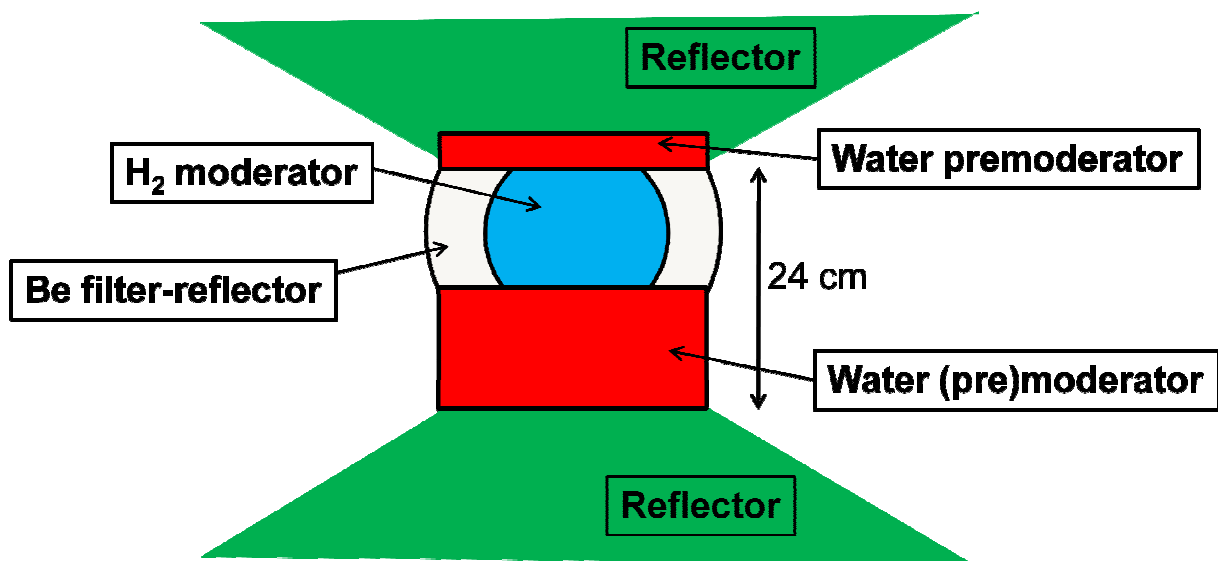


F. Mezei
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Possible schematic lay-out of a bi-spectral moderator with two viewed beam extraction sectors of $\sim 60^\circ$ each.



The moderator thicknesses will need to be optimized by neutronics calculations, while the viewed moderator surfaces are expected to remain essentially unchanged. This will be part of the global moderator optimization in the Target Station Design Update project. Final results are to be expected in the second half of 2012.

Current coupled H₂ moderators have similar viewed cross sections, but are thinner. Recent long pulse target design studies suggested similar cross sections combined with larger moderator thickness (as shown above). Be filter-reflectors are new, only implemented by now at Lujan Center. Details yet unpublished. Part of the inner volume of the thick water (pre)moderator will probably be occupied by the reflector for optimum performance.