



Aerogel radiator status

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2009-July-8
at B2GM E-PID session

High density(index) aerogel
Larger tile size
Plan in 2009



High Density Aerogel Production

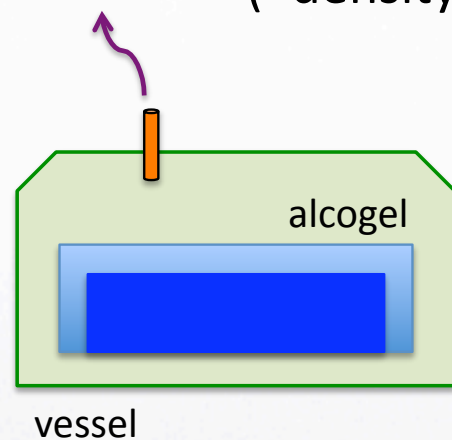
$n > 1.06$

- Drying Method
 - Make density higher with keeping optical quality
- New Solvent
 - use new solvent (MS53) which has higher density than usual one
 - in progress...

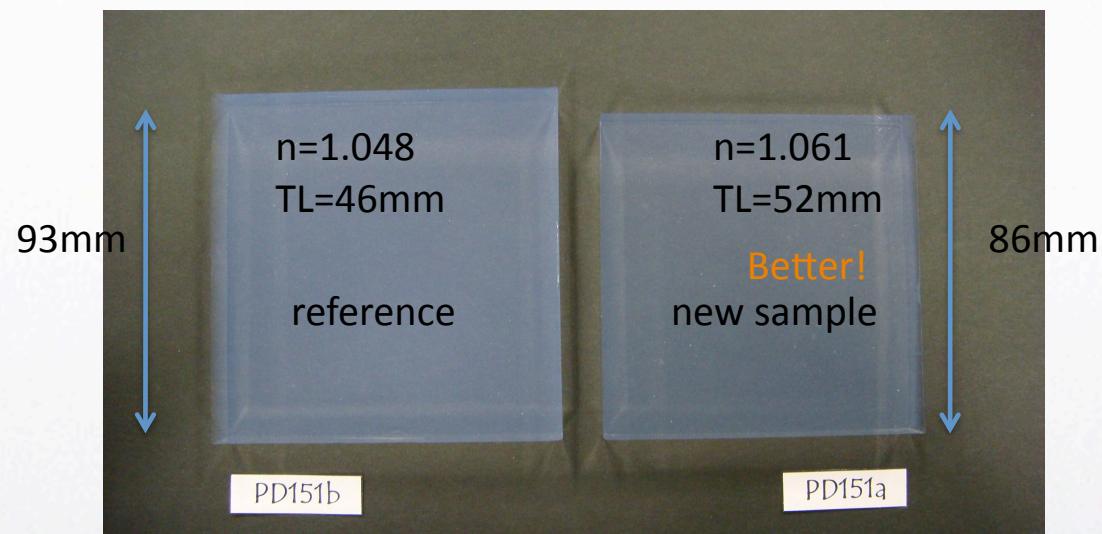


Recap: Drying Method

- Two ways going on at Chiba Univ. & KEK
 - “pin-hole” drying method
 - artificial shrink of alcogel volume to make index (~density) bigger with keeping good transparency



(Tabata san)

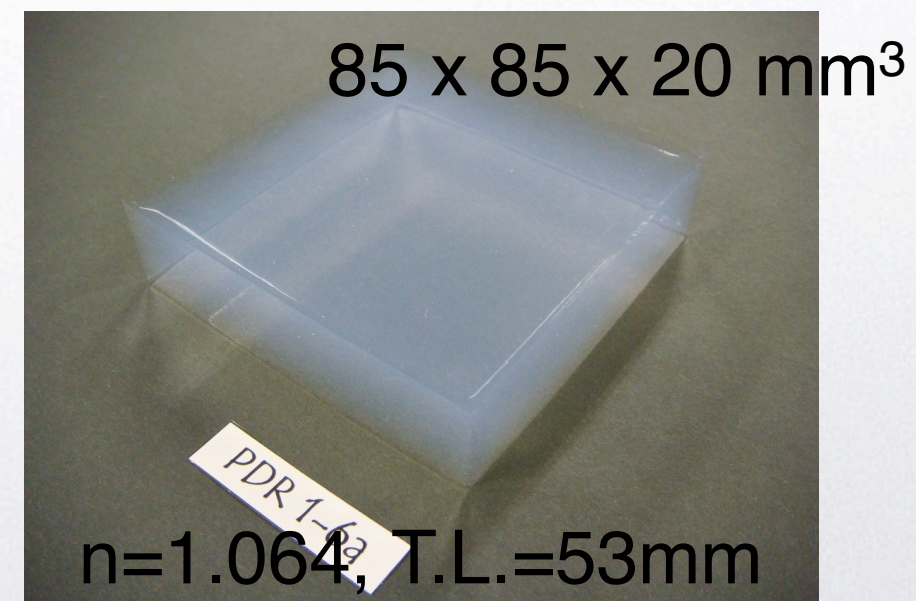
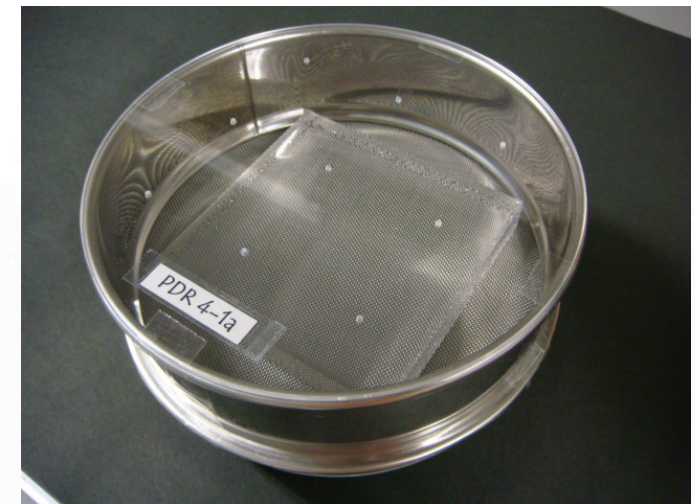
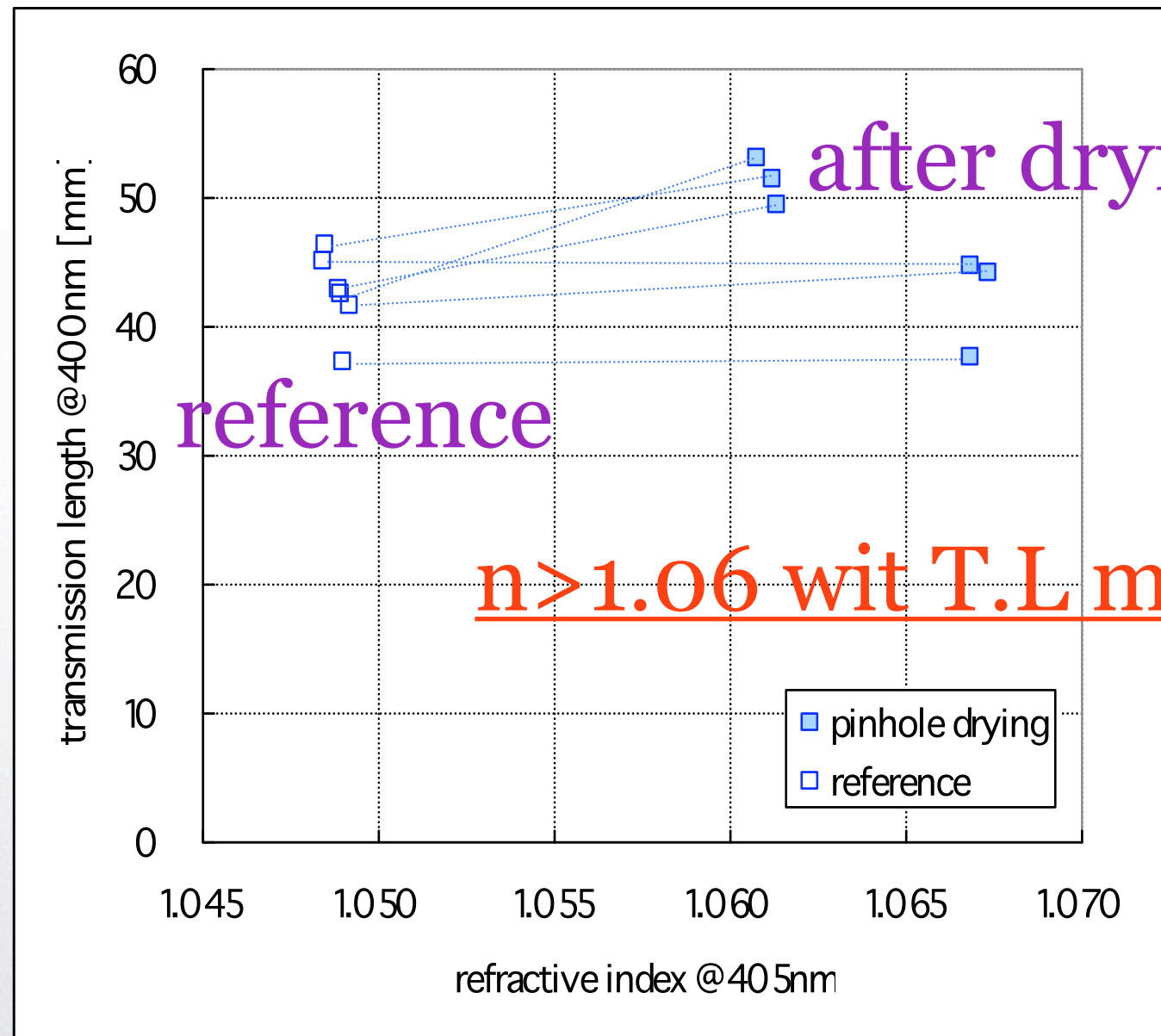


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1st trial look promising



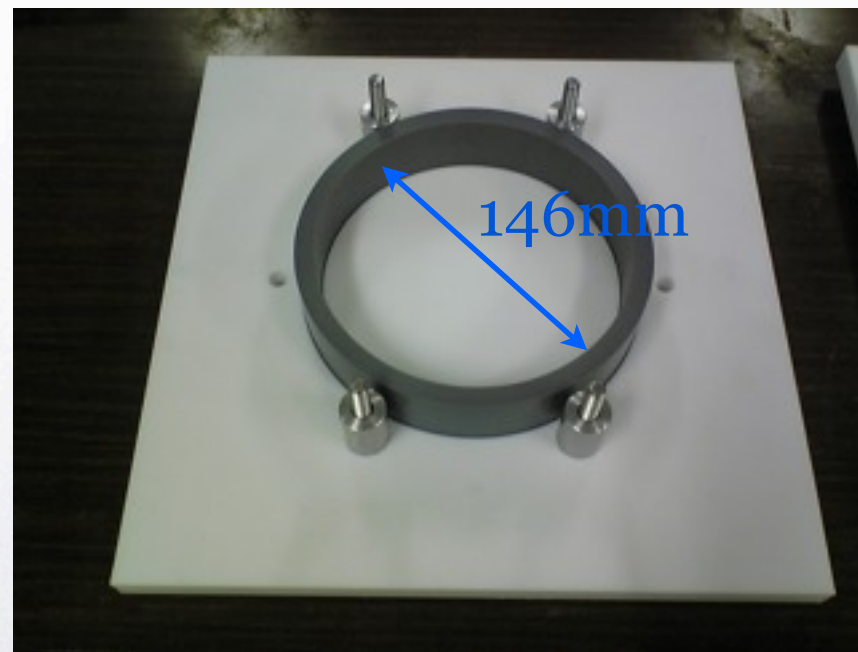
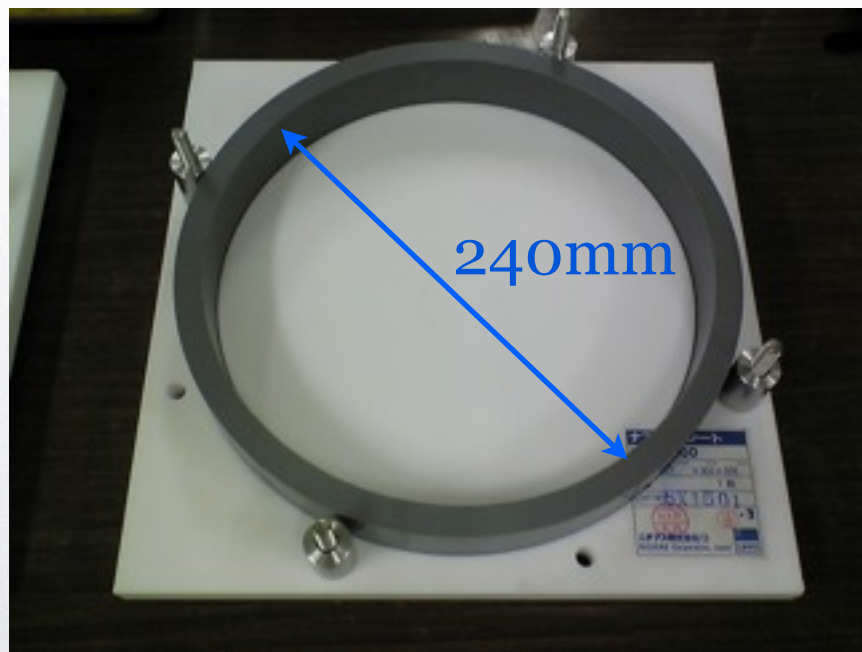
Drying Method





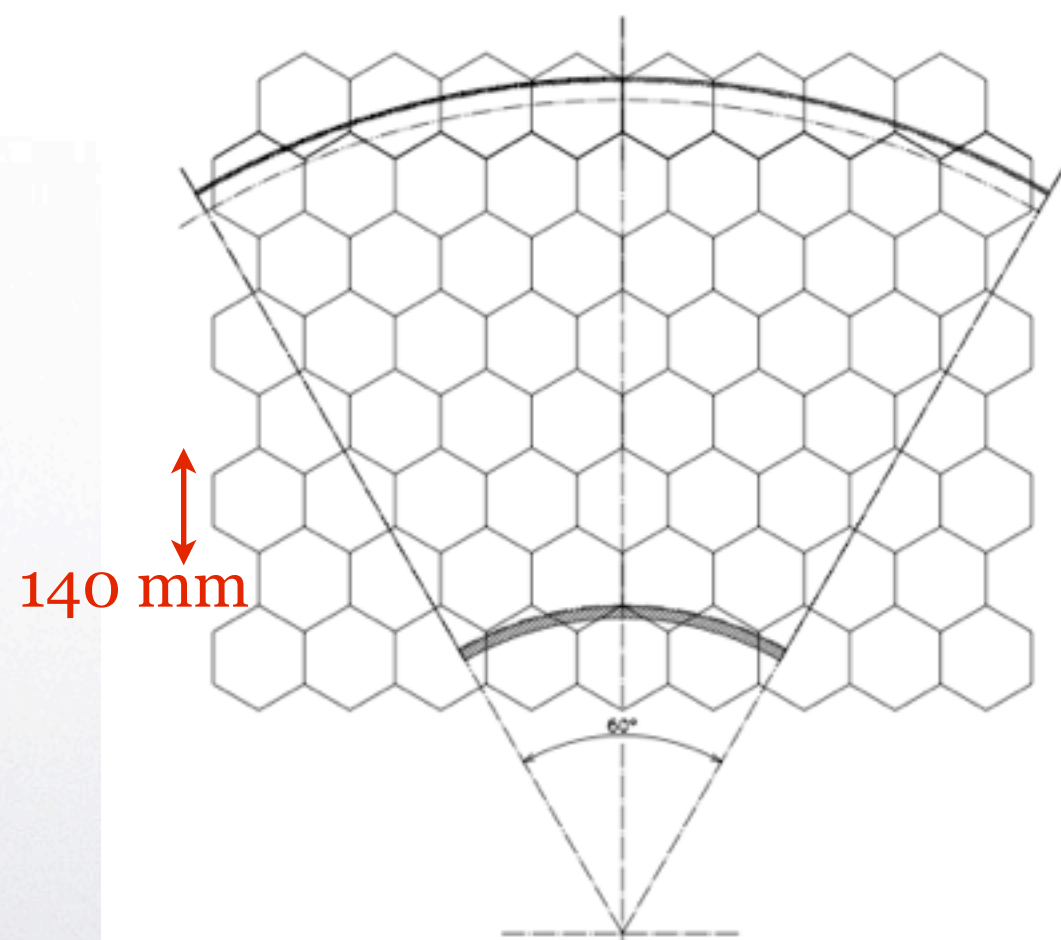
Tile Size

- Larger size is definitely preferable.
- Panasonic recently told that “A4 size” aerogels can be produced by refining the procedure.
- We are also testing by making new molds.

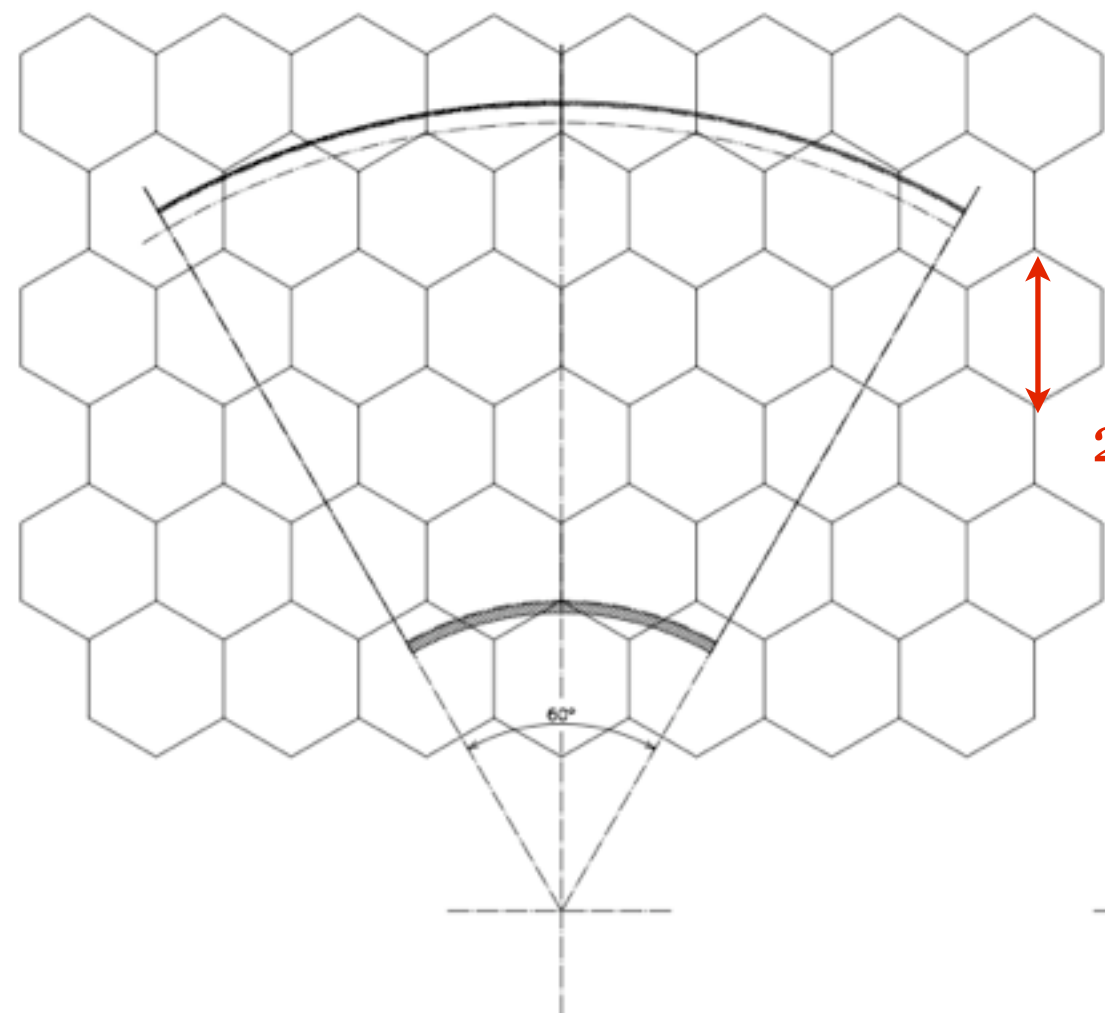




Radiator Configuration



62 tiles/sector



30 tiles/sector

Yield?



Plan in 2009

- New samples will be ready by October
 - Drying method
 - need to be established for safety issue
 - New solvent
 - Larger size
- Test beam experiment
 - Nov/09-16 (1 week)
 - Check performance of new aerogels