

# IR materials standards status

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# Spectral Bands

- Draft standard OP1.007 submitted for review
- Currently being balloted at the TF 6 level
  - Ballots due May 15, 2014
- May need to expand the scope to identify standard bands, standard wavelengths for dispersion calculations and standard wavelenths for metrology for each band
- If confirmed by TF 6 it will be balloted by OP in the fall
  - Should be ready to publish by this time next year

# Measurement Methods

- Refractive Index
  - Plan to use ISO 17328 as starting point, but publish our own American National Standard version
  - NIST to draft document based on NIST measurement method
  - Will want to add to it later with other methods
  - Waiting for NIST draft
- $dn/dT$ 
  - can be incorporated into RI measurement standard
- Absorption/Transmission
  - Plan to use ISO 15368; need to revise and update
  - Leonard and Dave will work at the ISO level to start a project for revision

# Measurement Methods

- Bubbles/Inclusions
  - Plan to write standard based on Schott Instrument and approach
    - No news from Schott
  - There is a new proposal for an ISO standard (N265) based on bright field inspection
  - The US voted in favor of the new draft
- Homogeneity/Straie
  - Plan to use ISO 17411 as starting point
  - There are new proposals for ISO standards for strai measurement based on the shadowgram technique (N264) and for homogeneity based on interferometry (N263)
  - The US voted in favor of the new drafts
  - May want to re-think our plan

# Other Standards

- Material properties specification and grades
  - Currently monitoring work in TF1 for a new standard for raw optical glass
  - New standard includes grades for index, homogeneity, straiie, bubbles, inclusions, etc.
  - May be able to use the same grades for IR materials
- Material properties library for design codes
  - Schema developed by ORA in coordination with Zemax and Lambda
    - Other code houses have not responded
  - Waiting for sample data from the pilot campaign to try it out
  - Can publish the schema as American National Standard once the schema is confirmed
    - Can't really offer it to ISO due to conflicting standards