

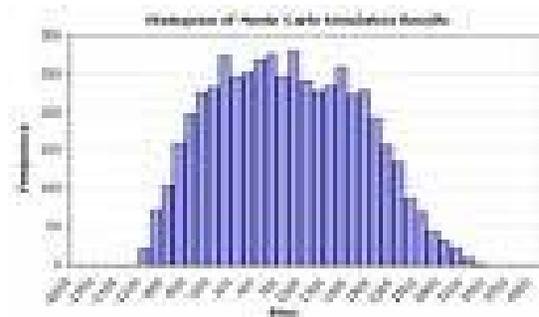
TPC Models

Statistical Analysis Formaldehyde Emissions

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TPC Definitions

- Certified Laboratory (ISO 17025)
- Inspection Services (ISO 17020)
- Product Certification Body accredited to ISO Guide 65 (EU = notified body, Japan = ROCB/RCB, Canada).
- **ISO Guide 65** 4.2.d) must be an impartial, legal entity, and able to cover liabilities from its operation.
- Nonprofit 501(c)(3) or for-profit entity organized within the United States .

TPC Conference

- Annual meeting of TPC's in Sacramento to facilitate communication.
- Form TPC advisory committee to report to the executive officer.
- Provide annual report of activities.

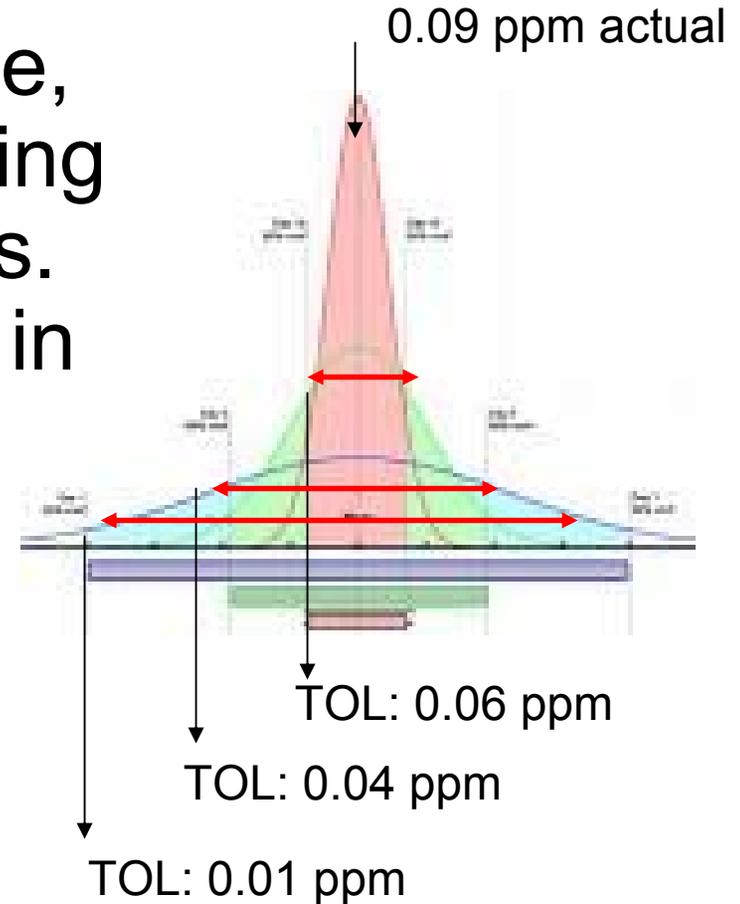


TPC Tasks

- Provide impartial testing and access to product certification.
- Assist with QA program of manufacturer.
- Develop web-enabled record system for chain-of-custody information.
- Provide outreach and educational access to public.

Analytical Uncertainty

- Analyze the same sample, multiple times ($N > 5$) using three different techniques. Determine the **Variance** in Result Population.
- Calculate **Separation Factor** to determine TOL.



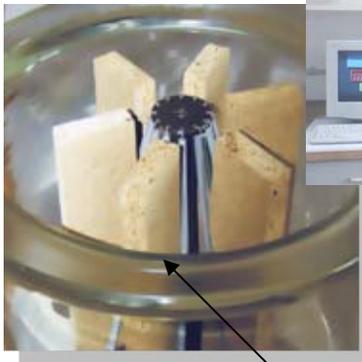
Environmental Chambers



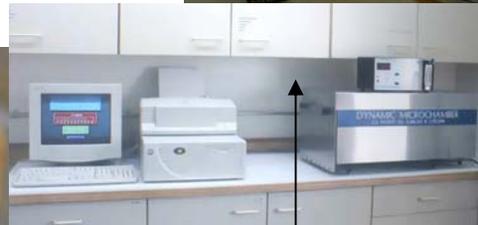
JIS A 1901
20 Liter



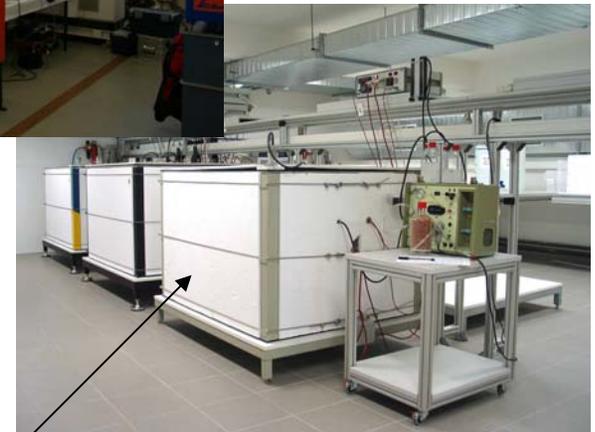
Large chamber
22 to 40 m³



Desiccator
10 Liter

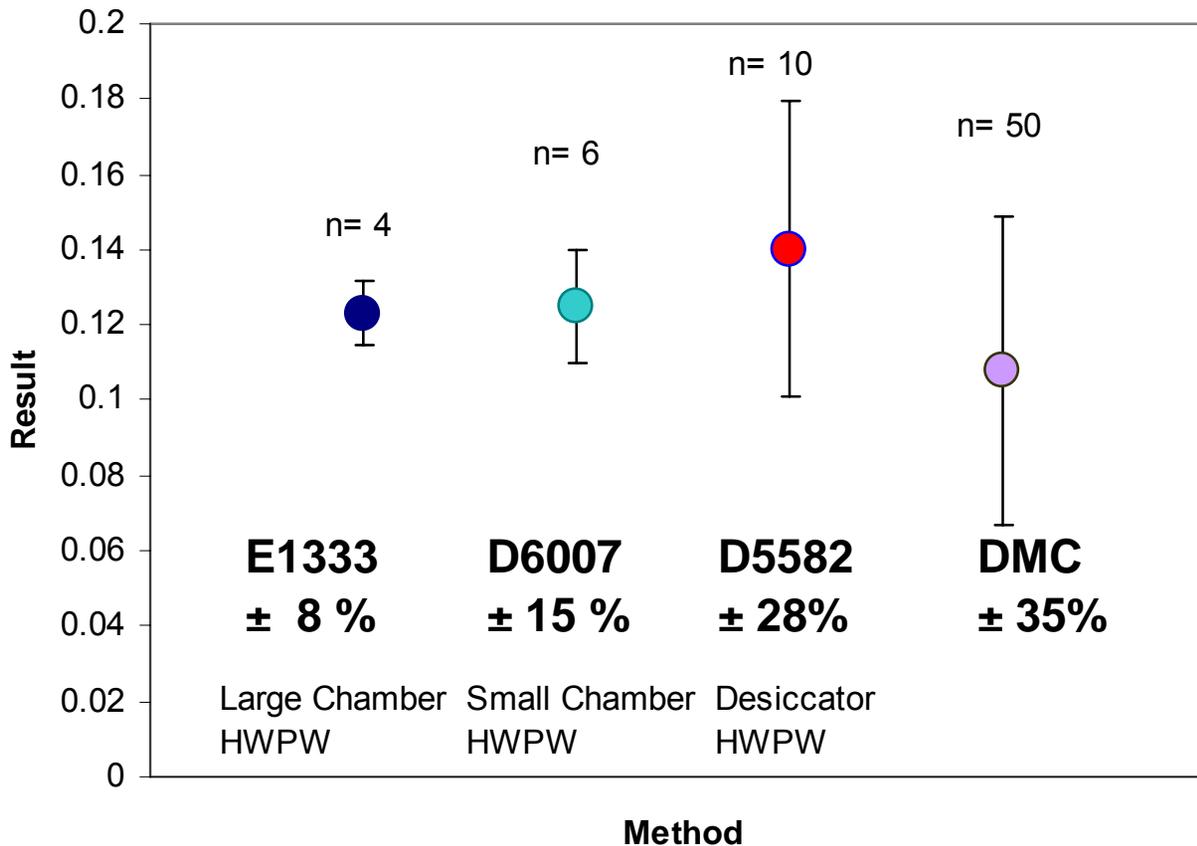


DMC chamber
44 Liter

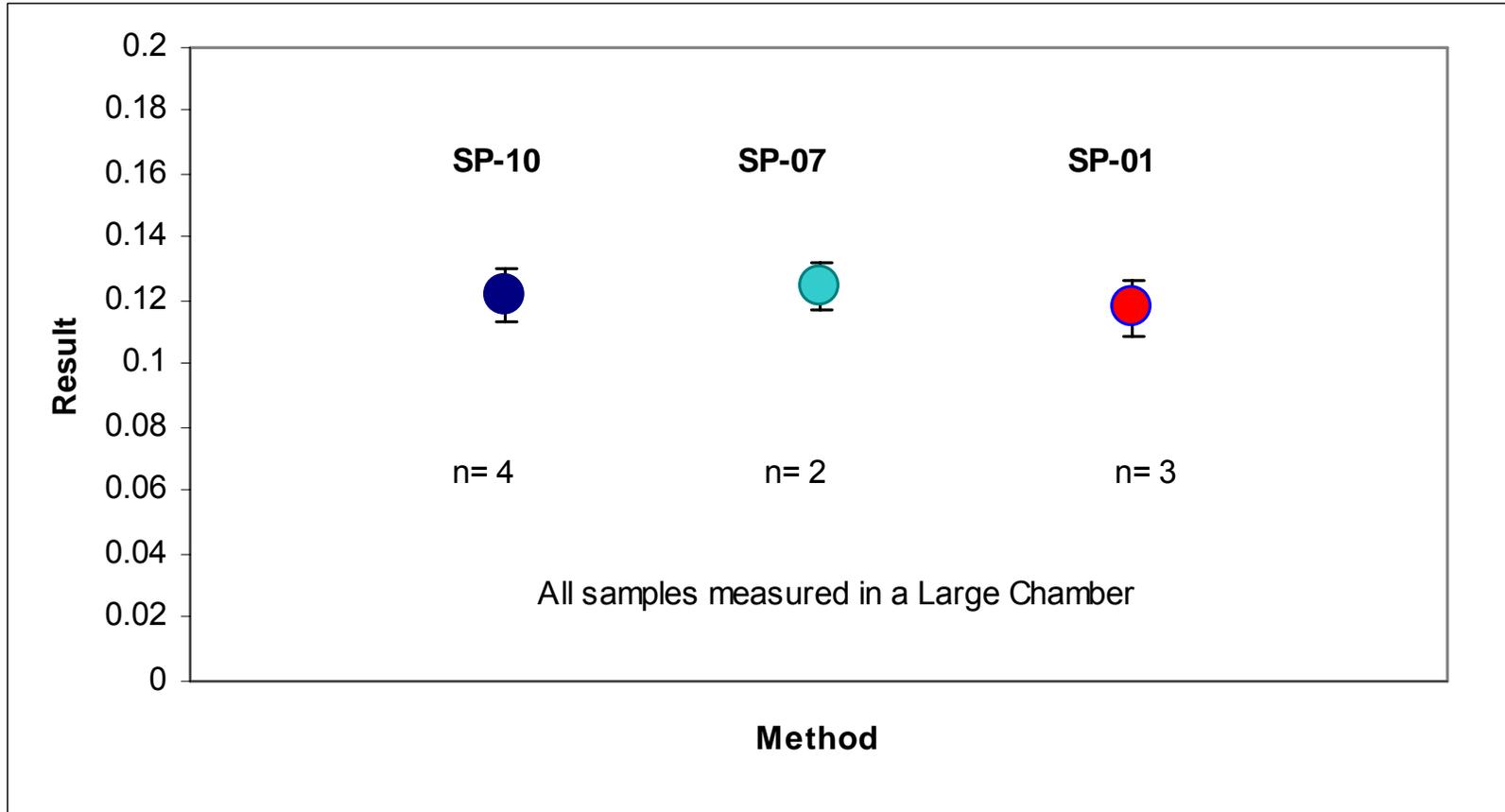


Small chamber ASTM D 6007
1,000 Liter = 1m³

Method Precision



Product Variability and Bias



Five Percentile or Standard Deviation?

- Use 2x standard deviation for desiccator, DMC and reduced number of analyses. ($2\sigma = 95.4\%$ confidence interval).
- Allow variation coefficient and t-value approach for accurate methods (chambers) and large number of analyses.