BACKGROUND

Electrical Measurement of Translocation

- Single-molecule electrical events have been used to characterize numerous translocating analytes.4
- Optical Measurement of Translocation
  - A few publications have documented fluorescent dyes that translocate through a nanopore due to diffusion.4,5
  - However, only simultaneous dual modality measurements can confirm electrical silence:
    - Optically determined translocation energetics have not yet been published.
    - The existence of analytes that do not produce electrical signals as they traverse single nanopores (i.e., silent translocations) has not yet been confirmed.

RESULTS (cont.)

REFERENCES


Acknowledgments: Wheaton College Chemistry Department National Science Foundation (CHE Grant #2105892) National Instruments