

Dissolution + Lumetics LINK™

INTRODUCTION

LINK is the software solution for automated analytical data import, analysis, and reporting. LINK scans network locations for new measurement files, extracts all useful data, and copies this data directly to a centralized database. The powerful analysis user-interface allows datasets to be aggregated, grouped, and visualized in the form of charts/tables/images. User-customizable analysis templates deliver rapid and error-free data visualization, with the ability to be replicated across many studies and shared within your organization.

All instrument settings and parameters calculated by the instrument software are copied to the LINK database, including full underlying raw data curves. Sample metadata may be easily assigned and incorporated within the analysis to integrate various product/process variables. LINK has been demonstrated to deliver time savings more than 90% and provide a highly affordable fully automated data management and analysis solution. LINK currently supports the AuPRO software from Pion for dissolution.

DISSOLUTION DETAILS & APPLICATIONS

Dissolution is the process where a solute in gaseous, liquid, or solid phase dissolves in a solvent to form a solution. LINK may be utilized to assist directly in the following Dissolution application areas:

- Drug development
- Particle breakdown
- Stability studies

INSTRUMENT SUPPORT DETAILS – DISSOLUTION SOFTWARE (PION)

AuPRO is a comprehensive data collection and refinement software. It provides the ability to analyze kinetic solubility and dissolution data. LINK address significant time savings for manipulating and overlaying AuPRO exported data. LINK supports AuPRO output data for instrument/analysis settings, parameters, calculations, and raw data curves for multiple parameters including:

- Concentration ($\mu\text{g/ml}$) vs. Time Stamp
- Concentration ($\mu\text{g/ml}$) vs. Elapsed Time
- AUC vs. Time Stamp
- AUC vs. Elapsed Time (min)
- % Drug Release vs. Time Stamp
- % Drug Release vs. Elapsed Time (min)
- Absorbance (AU) vs. Wavelength (nm)

VISUALIZATIONS – LINK ANALYSIS

LINK's dynamic analytical suite will aggregate data and provide visualization tools to suit your specific needs. Imported Dissolution measurement data can be analyzed using the LINK platform's customizable charts, tables, calculations, images etc. User-customized analysis templates deliver rapid and error-free data visualization with the ability to be exported as a word report to share across your organization.



Fig 1. Line Chart visualizing AuPRO measurement files plotting raw data curves for Drug Release vs. Time

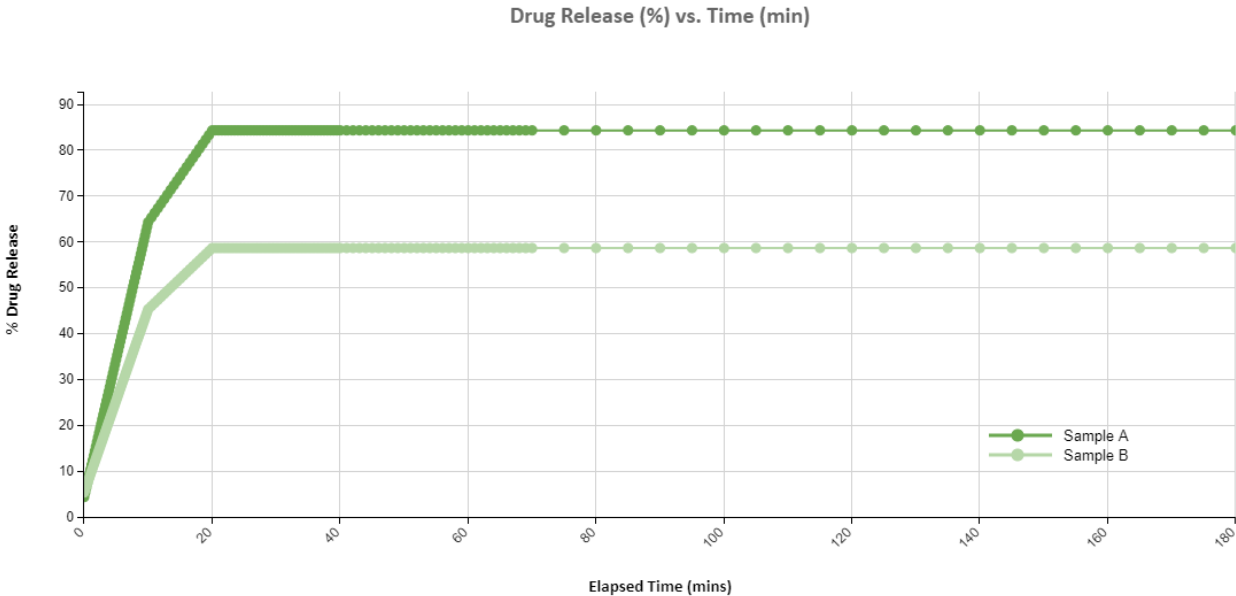


Fig 2. Line Chart visualizing AuPRO measurement files plotting raw data curves for Concentration vs. Time

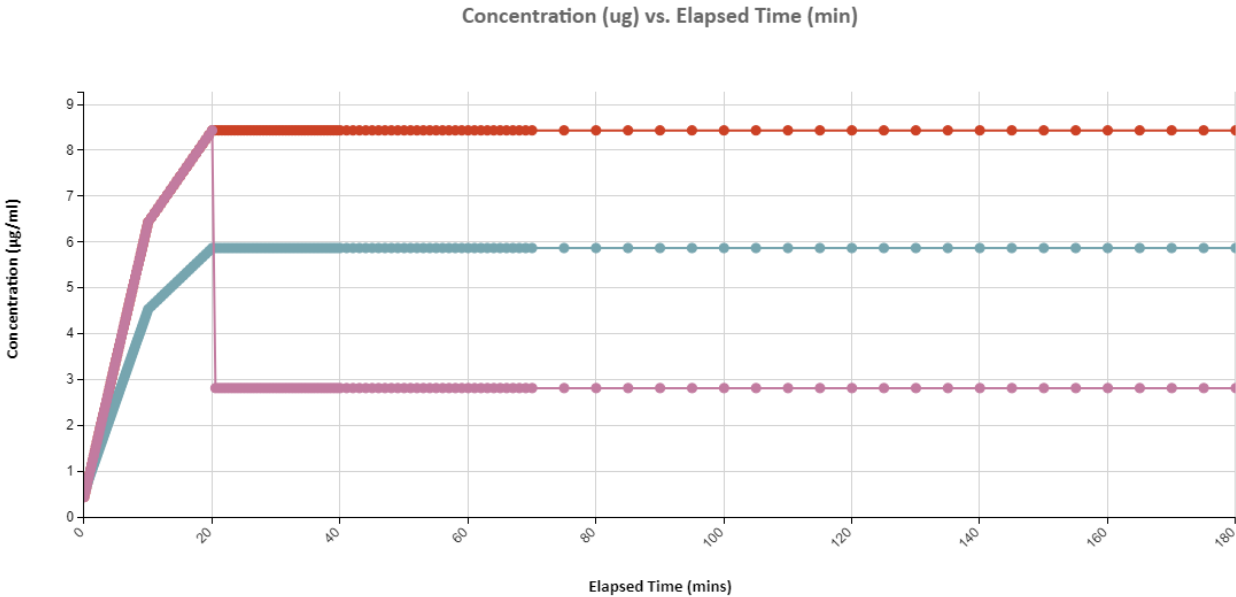


Fig 3. Line Chart visualizing AuPRO measurement files plotting raw data curves for AUC vs. Elapsed Time

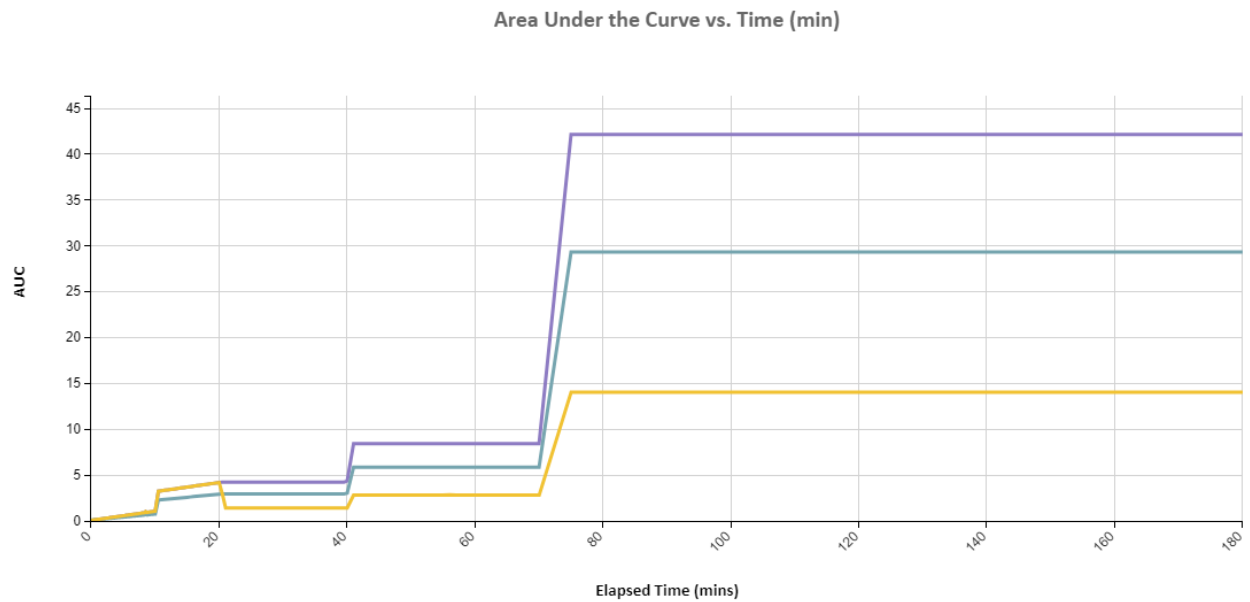


Fig 4. Line Chart visualizing AuPRO measurement files plotting raw data curves for Channel Spectra

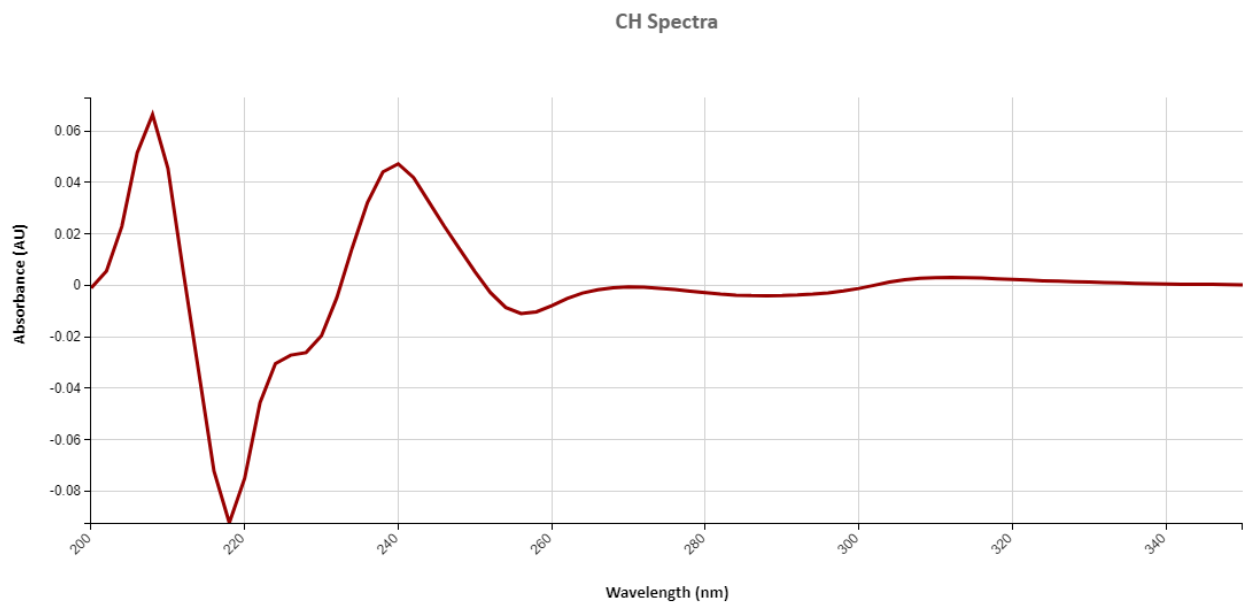


Fig 3. Tabular summaries

Measurement Summary Table – Measurement Results

Sample Name	Dissolution Media	Media Vol. (ml)	Sample (mg)	Dose (ug/ml)	Reps	RPM	Temp.	pH	pH Shift: Channels	pH Shift: New pH	pH Shift: Time (min)
Sample A	Media A	250	2.50	10	3	75	37	2			
Sample B	Media A	250	2.50	10	3	75	37	2			
Sample C	Media A	250	2.50	10	3	75	37	2	4,5,6	6	20



DASHBOARD DOWNLOADS

These downloadable Analysis Dashboards are tailored to meet the most common needs of scientists using Dissolution System applications. If assistance is required, please contact LINK experts to assist in dashboard modifications or development of new dashboards of interest.

- AuPRO Dashboards: <http://lumetics.com/dashboards/AuPRO/AuPRO.zip>

CONTACT LUMETICS

For direct assistance, please contact Lumetics LINK™ Support:

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