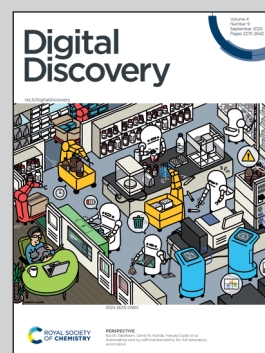**Showcasing research from the KIWI-biolab at the Technische Universität Berlin, Germany.**

A property graph schema for automated metadata capture, reproducibility and knowledge discovery in high-throughput bioprocess development

In the evolving landscape of collaborative scientific research towards autonomous discovery, digital representation of knowledge about methods, workflows, microorganisms, devices, and objectives is a key enabler for distributed experimentation at scale. Knowledge graphs are quickly becoming the preferred digital knowledge base of self-driving labs since graph databases are efficient means to increase reproducibility of complex experiments and make data FAIR as it is main objective of the KIWI Biolab. Property graph schema for knowledge bases guarantee purposefully constraining the assimilation of new data and efficient semantic querying for hypothesis testing and causal discovery.

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As featured in:

See M. Nicolas Cruz Bournazou *et al.*, *Digital Discovery*, 2025, **4**, 2401.

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