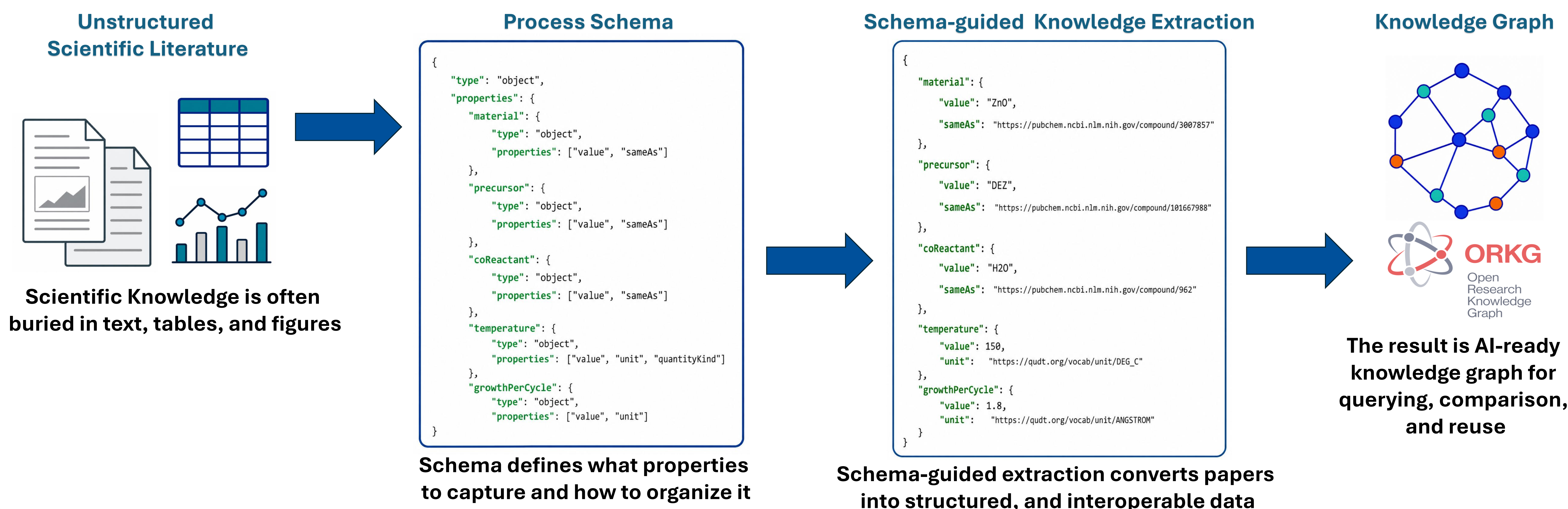


Structured Scientific Knowledge Extraction from Scientific Literature

Sameer Sadruddin¹, Jennifer D'Souza¹, Eleni Poupaki², Alex Watkins³, Bora Karasulu³, Sören Auer¹, Adrie Mackus², Erwin Kessels²

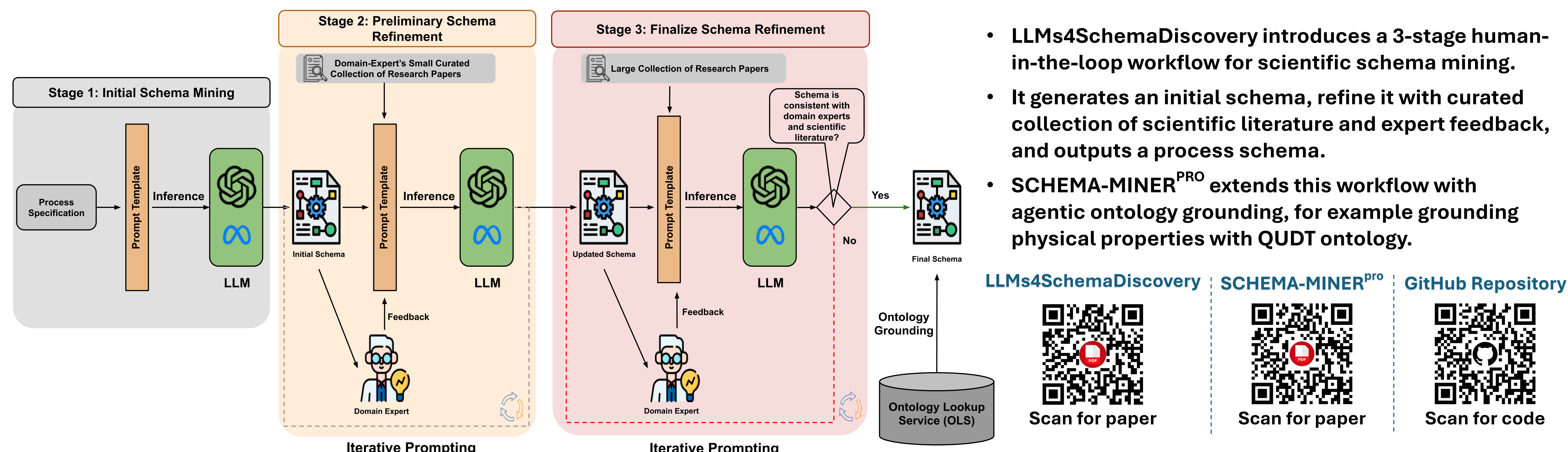
¹TIB Leibniz Information Centre for Science and Technology, Hannover, Germany ²Eindhoven University of Technology, Netherlands ³University of Warwick, UK

Motivation



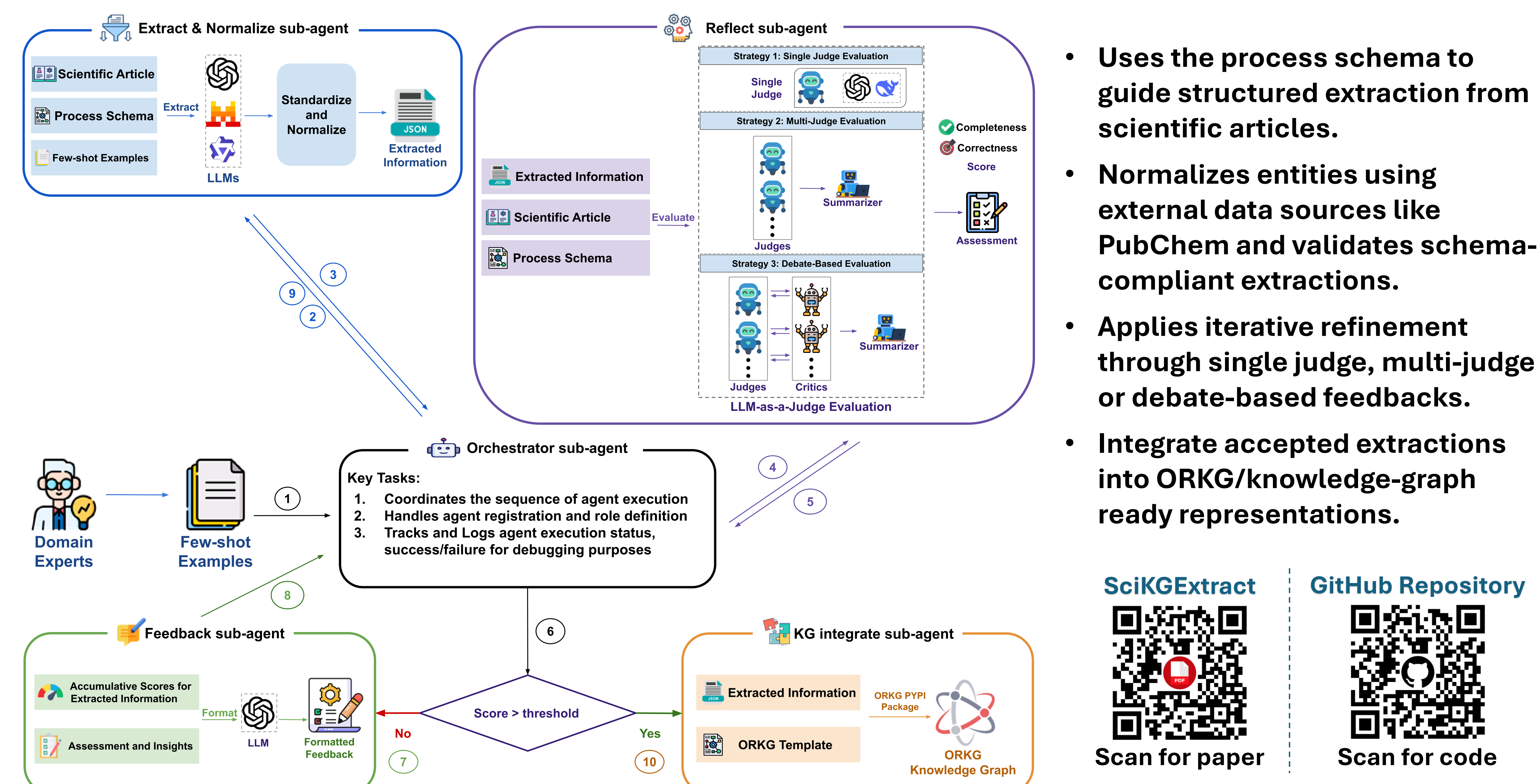
LLMs4SchemaDiscovery

Human-in-the-Loop Workflow for Scientific Schema Mining and Ontology Grounding with Large Language Models

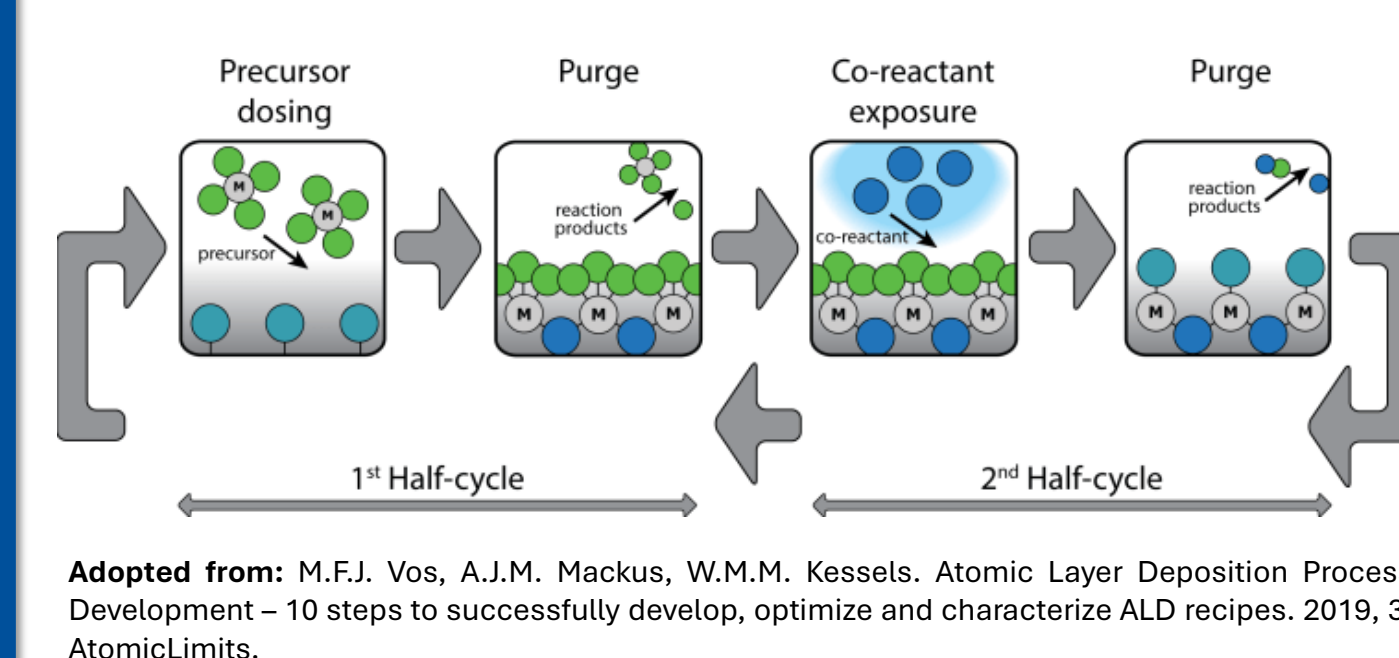


SciKGExtract

An Agentic AI Workflow for Structured Information Extraction from Scientific Literature



Use Case: ALD/ALE



The workflows are demonstrated on ALD/ALE literature to extract structured and reusable process knowledge, including precursors, co-reactants, reactor conditions, process parameters, and material properties.

ALD/ALE experimental and simulation schema extracted using SCHEMA-MINER.



Scan for ALD/E schemas