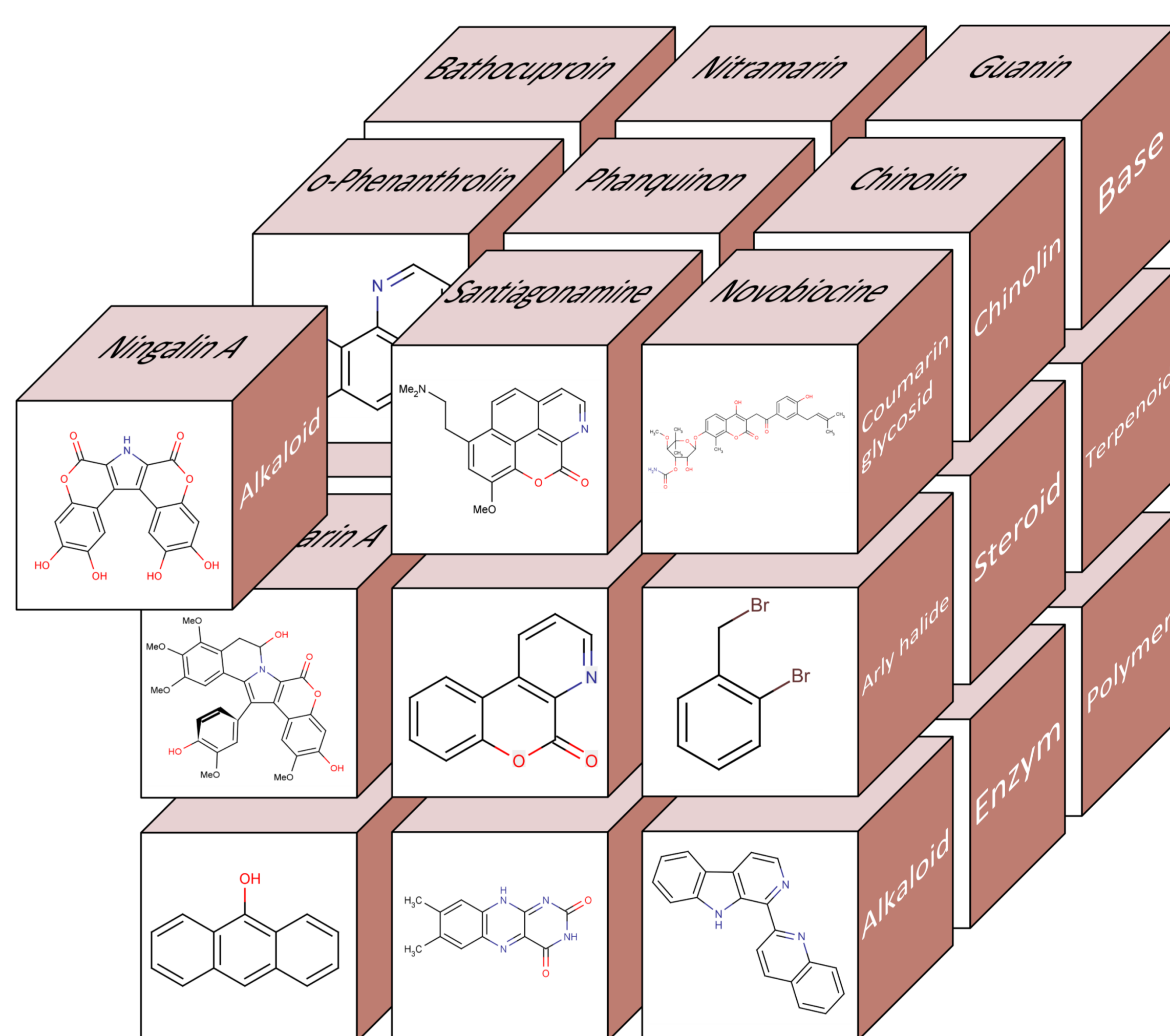
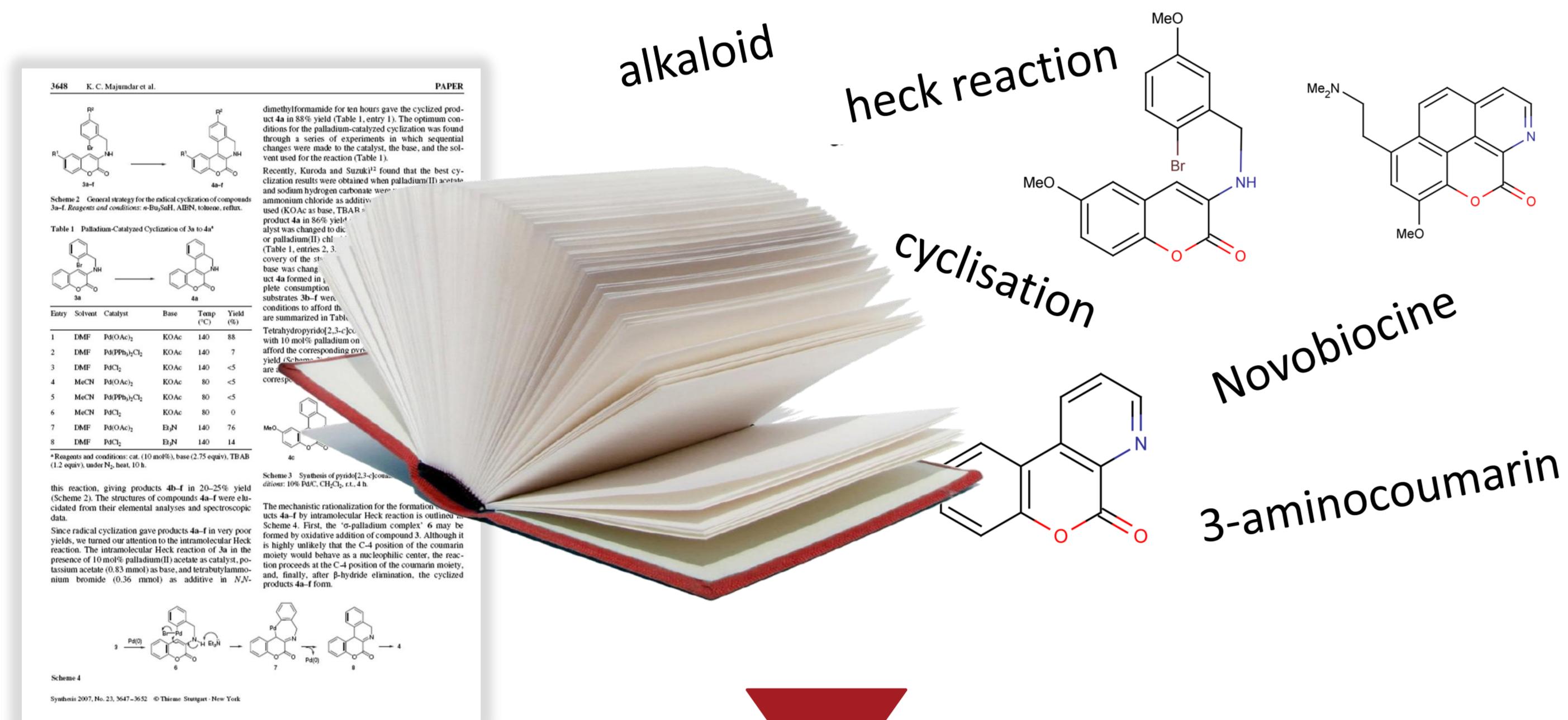


Personalised Information Spaces for Chemical Digital Libraries

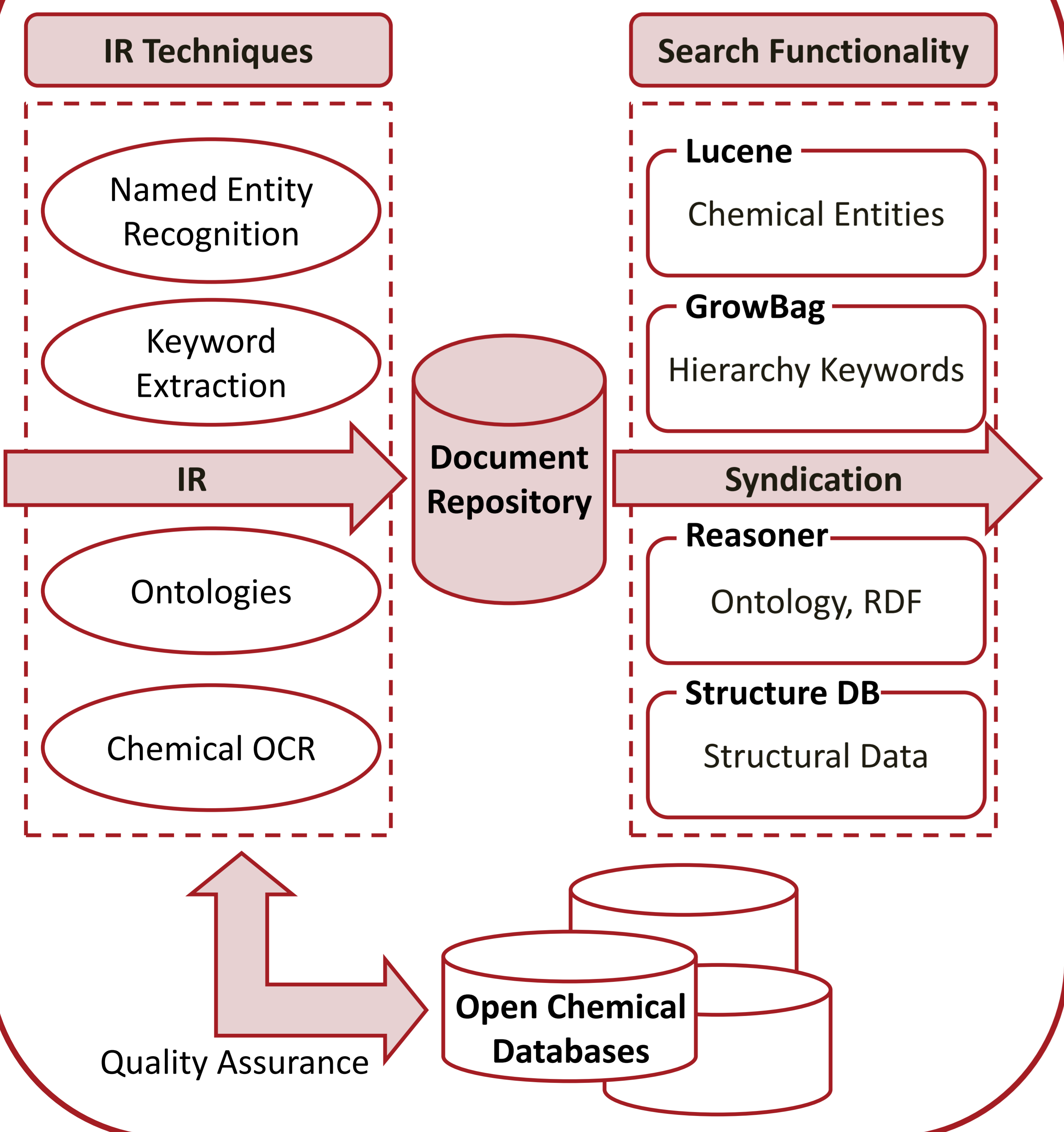
Oliver Koepler – Technische Informationsbibliothek (TIB), Hannover
 Sascha Tönnies, Benjamin Köhncke, Wolf-Tilo Balke – Forschungszentrum L3S, Hannover

Many information providers have extended their services from traditional catalog-based searches for literature to comprehensive digital portals, like the chemistry portal chem.de (www.chem.de) and its embedded Virtual Library of Chemistry (ViFaChem). The chemistry portal provides searching heterogeneous resources like bibliographic databases, chemistry databases, internet resources and full texts of research reports.

Focusing on the insufficient way of keyword-based searches in bibliographic metadata the ViFaChem project aims to build up an information retrieval system with extracted chemical information used as enhanced metadata, which allows the creation of personalised information spaces providing a navigational guidance through the chemical knowledge domain.



ViFaChem II System



heterocycles carbonylations aryl bromides
 catalysis **heck reaction** boron ligands
palladium halides **alkenols** cyclisations
 cross-coupling **indoles** copper furans
alkenes coupling steroids biaryles
 homogeneous catalysis

The Semantic GrowBag organises author keywords of documents based on their actual usage. It analyses the first and higher order co-occurrence of keywords using a biased PageRank algorithm and generates a graph of nodes (keywords) and their relations. The example shows the keyword cloud for the Heck reaction. You can see keywords representing the concept of the Heck reaction, including reactands, products, catalysts and reaction type.