

This is a repository copy of *Albert: A CDT in Autonomous Robotic Systems for Laboratory Experiments*.

White Rose Research Online URL for this paper:

<https://eprints.whiterose.ac.uk/193324/>

Version: Published Version

Conference or Workshop Item:

Woodcock, Jim orcid.org/0000-0001-7955-2702 (2022) *Albert: A CDT in Autonomous Robotic Systems for Laboratory Experiments*. In: *YorRobots and RoboStar Industry Exhibition*, 11-12 Oct 2022, University of York.

Reuse

Items deposited in White Rose Research Online are protected by copyright, with all rights reserved unless indicated otherwise. They may be downloaded and/or printed for private study, or other acts as permitted by national copyright laws. The publisher or other rights holders may allow further reproduction and re-use of the full text version. This is indicated by the licence information on the White Rose Research Online record for the item.

Takedown

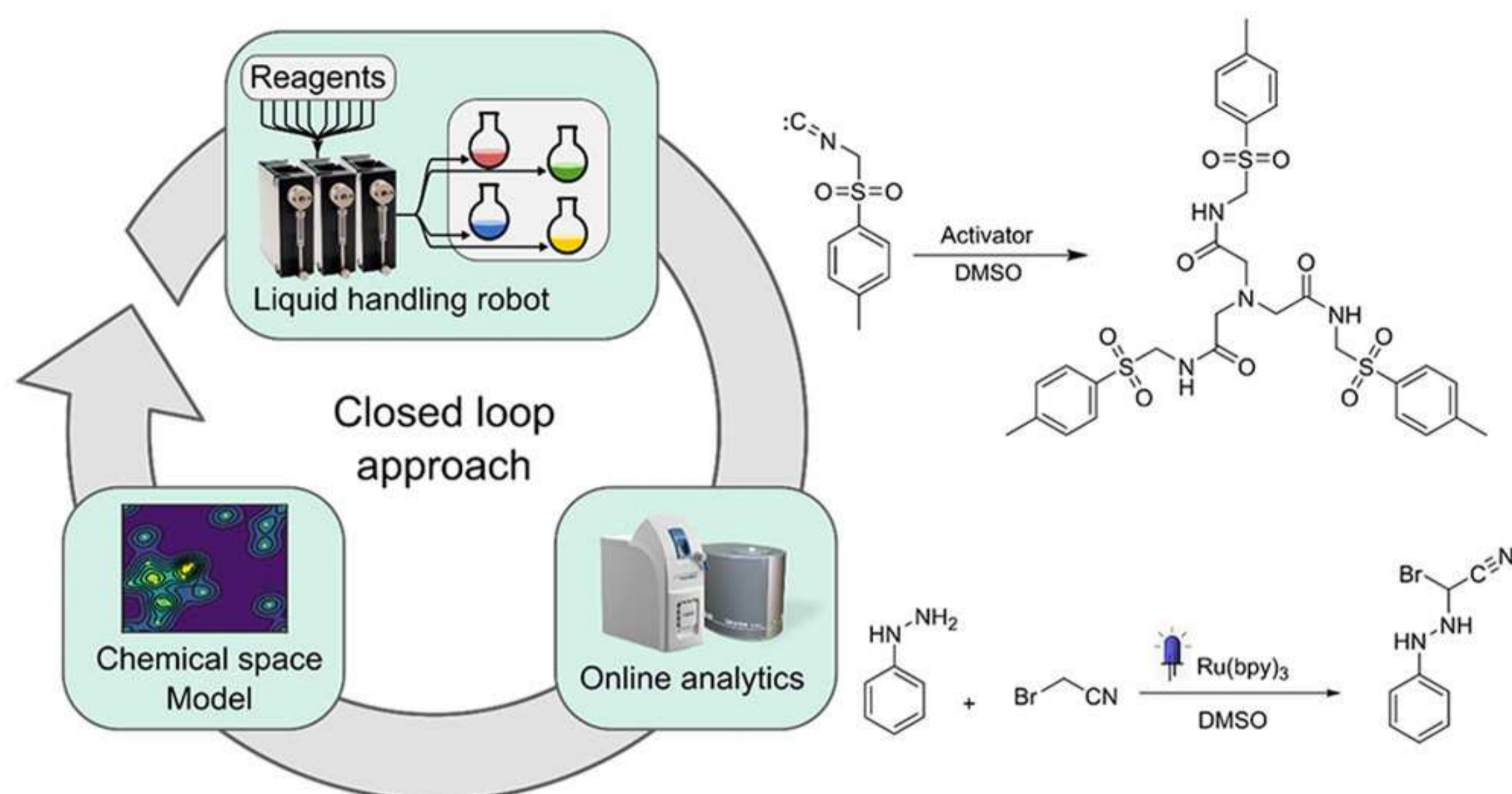
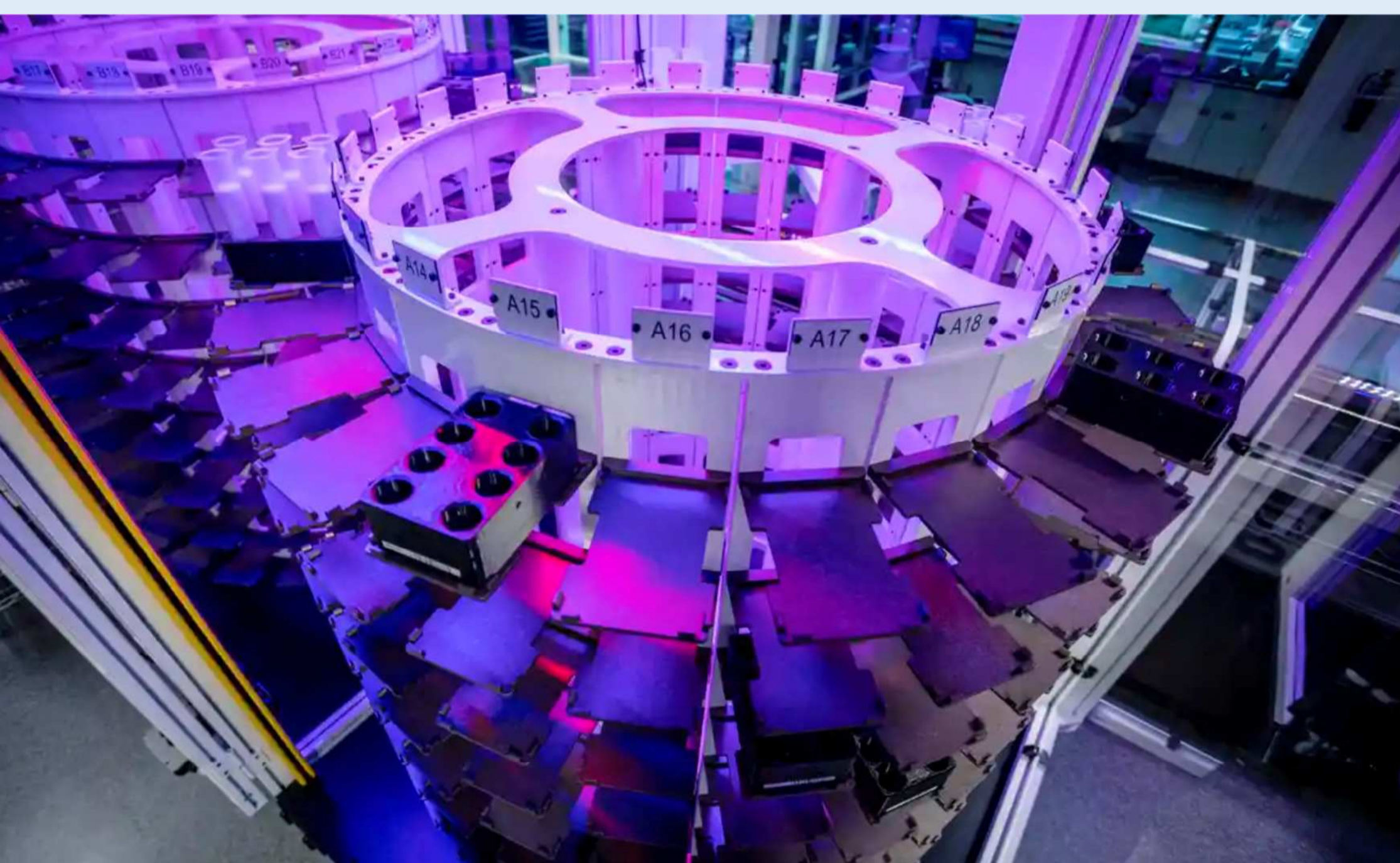
If you consider content in White Rose Research Online to be in breach of UK law, please notify us by emailing eprints@whiterose.ac.uk including the URL of the record and the reason for the withdrawal request.

Albert: A CDT in Autonomous Robotic Systems for Laboratory Experiments

RoboChemist

cleaner, greener, cheaper, safer!

Build a machine to synthesise any organic compound
 Transform Chemistry
 Free Chemistry from its artisanal roots
 Replace with high-throughput autonomous
 continuous-flow robotics



Albert Doctoral training centre

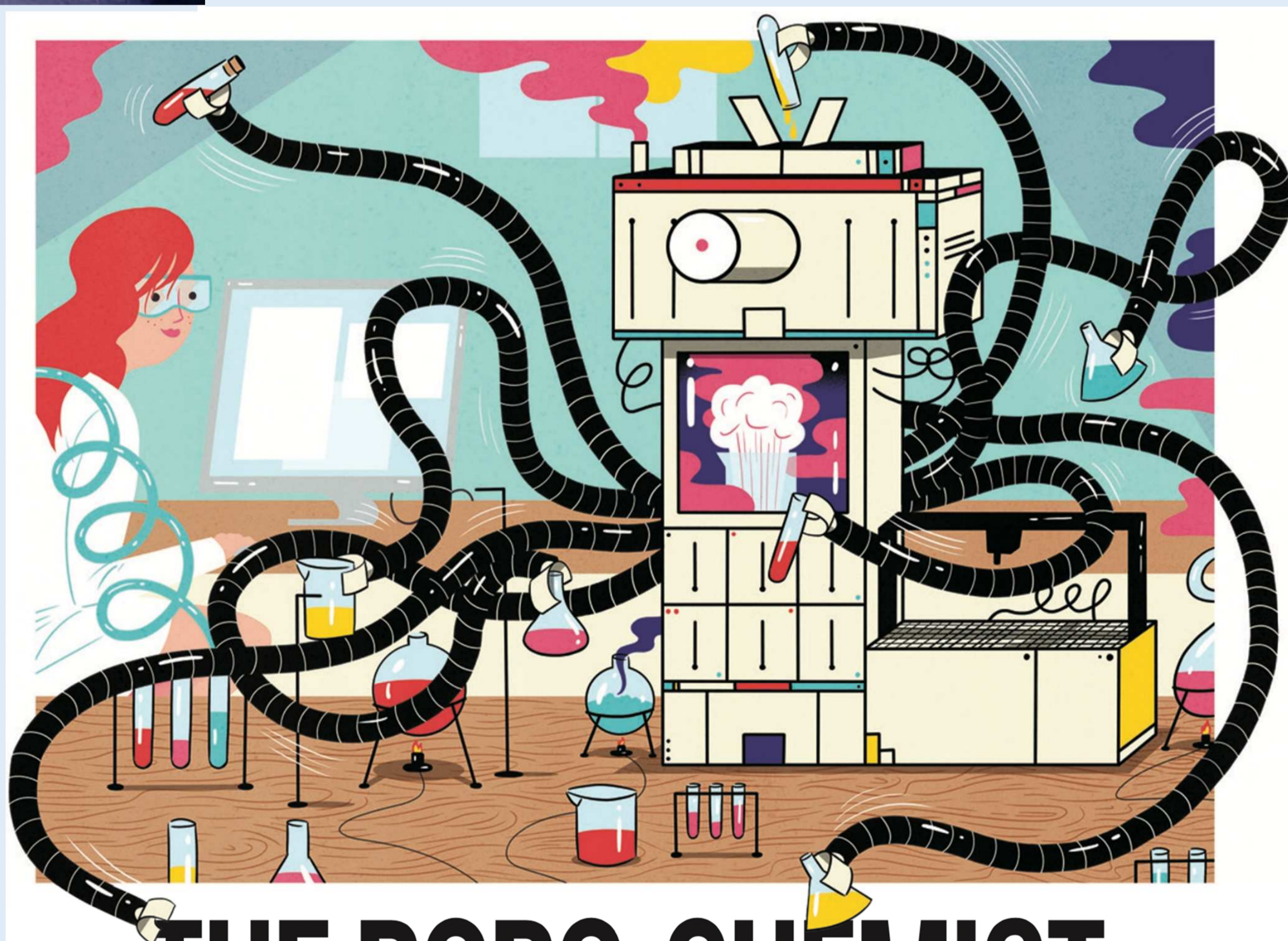
- Great advance in grand challenge for Chemistry
- YorRobots + ISA + 9 departments + 1 School
- Enhance understanding of chemical reactions
- Move liquids, mix them up, hold them for some time, heat them up
- Autonomous experiments

Robo-Chemistry

- Chemistry as a Service: enable the Global South
- Access database of existing molecule synthesis
- Map out synthesis steps
- Autonomously execute steps
- Real reagents in robotic reactors

How to engage?

- Expand industrial involvement
- Not just university chemistry
- Support needed for studentships
- Collaboration for future research



THE ROBO-CHEMIST

