Jim Woodcock (CS - Director), TT Arvind (Law),
Radu Calinescu(CS), Ana Cavalcanti (CS), Ian Fairlamb (Chemistry),
Cade McCall (Psychology) , Darren Reed (Sociology),
Andy Tyrell (PET), Nathan Wales (Archaeology)

Albert: A CDT in Autonomous Robotic Systems for Laboratory Experiments

RoboChemist

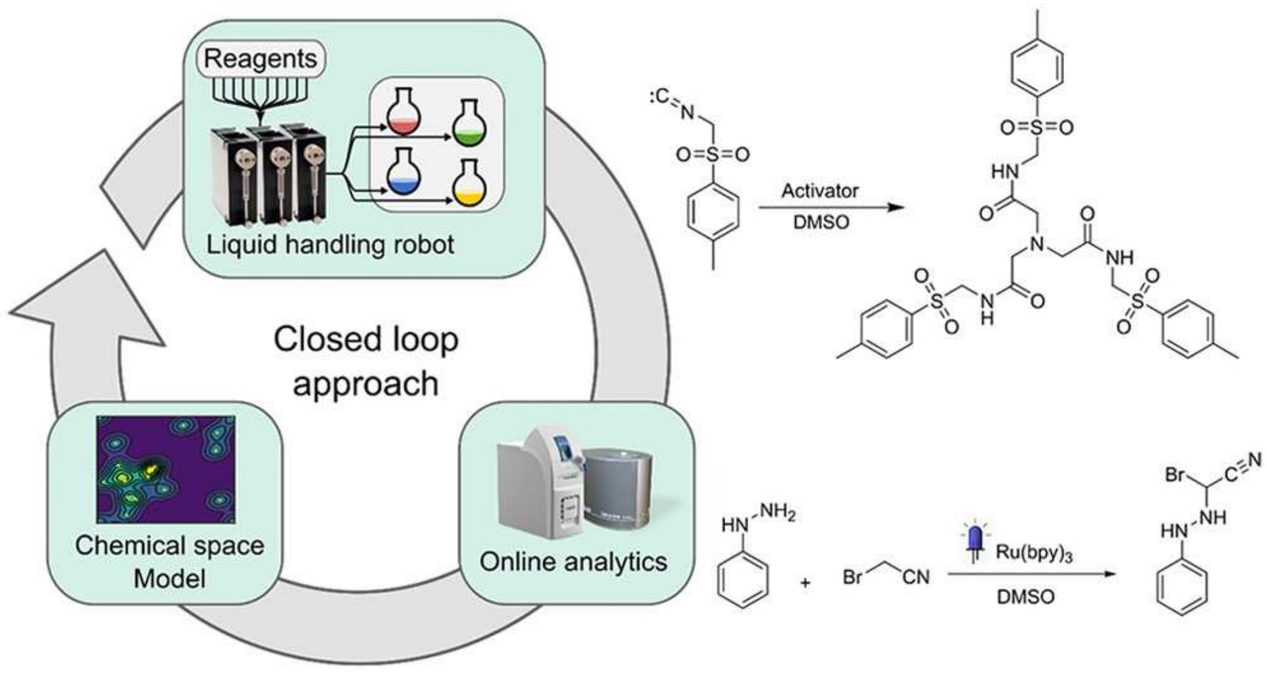
cleaner, greener, cheaper, safer!

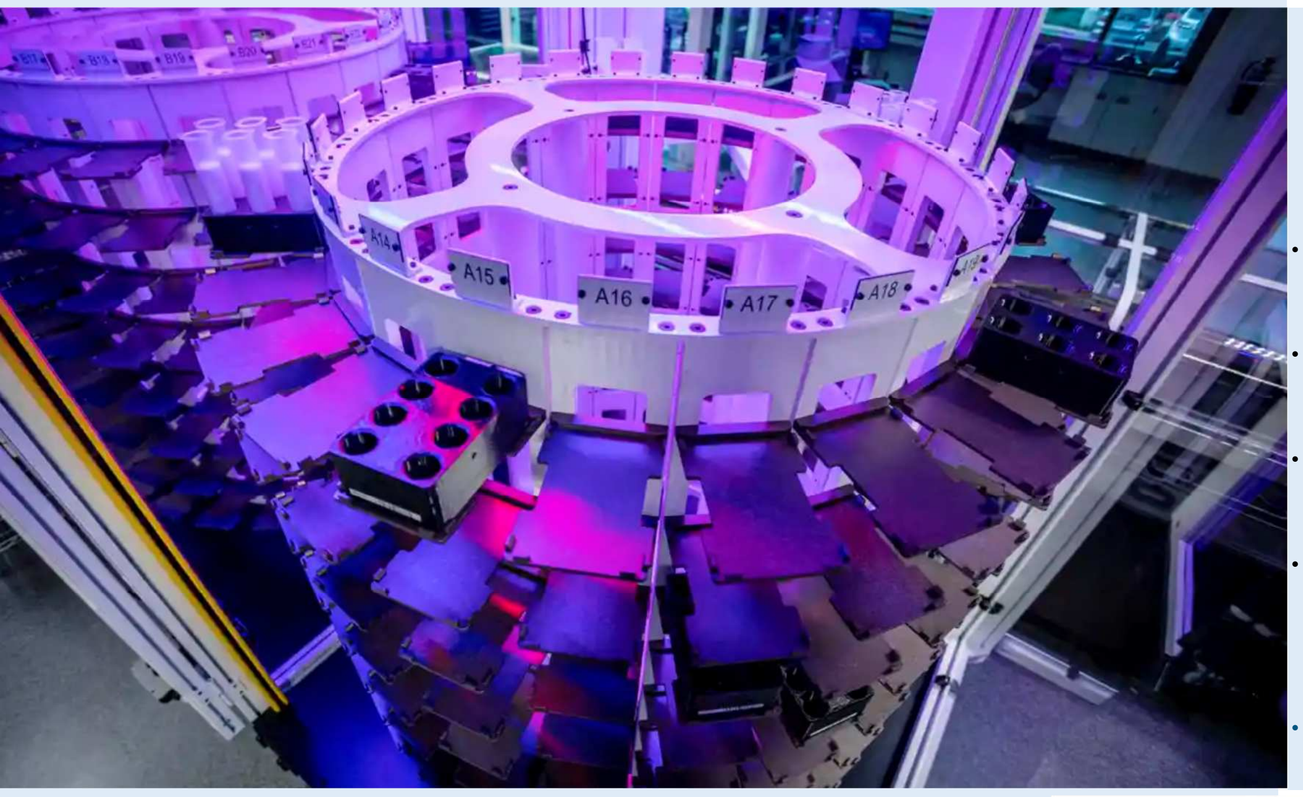
Build a machine to synthesise any organic compound

Transform Chemistry

Free Chemistry from its artisanal roots

Replace with high-throughput autonomous continuous-flow robotics





Albert Doctoral training centre

1. Great advance in grand challenge for Chemistry
2. YorRobots + ISA + 9 departments + 1 School
3. Enhance understanding of chemical reactions
4. Move liquids, mix them up, hold them for some time, heat them up
5. 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

www.york.ac.uk/yorrobots/

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UKRI Engineering and Physical Sciences Research Council