

## HIGHLIGHT # 6 - COMMERCIALISATION

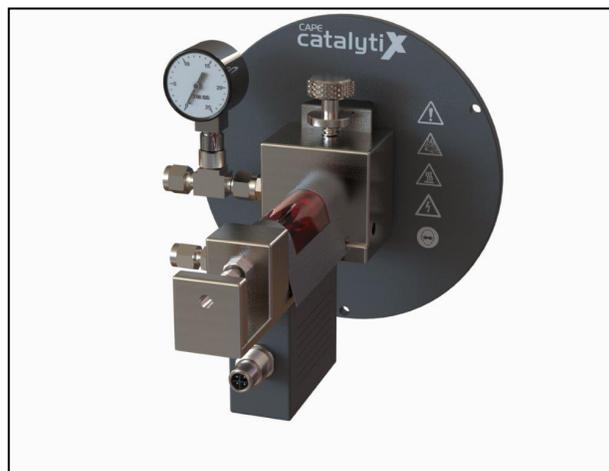
### Background

<https://capecatalytix.com/>

Cape Catalytix (Pty) Ltd was established in 2017 to service a customer demand for custom-made laboratory-scale scientific equipment developed by UCT in its own laboratories. The company manufactures catalytic reaction test units as well as in-house developed analytical instruments and custom-manufactured equipment for its clients. Cape Catalytix is a spin-off company from the University of Cape Town (UCT), based on 30 years' experience in catalytic reaction research and development.

### Products & Services

The company sells custom-made laboratory test equipment (primarily catalytic reaction test units, but also separate sub-components and comparable equipment), and IP-protected laboratory analytical equipment. The company intends to explore associated service provision options.



The company has the exclusive license to manufacture and sell the *in situ* XRD Reaction Cell from UCT. The *in situ* XRD Reaction Cell was originally developed as part of a c\*change project, with further work being done by the company to ensure the commercial readiness of the *in situ* XRD Reaction Cell.

Details of the capabilities of the *in situ* XRD Reaction Cell are provided in a separate brochure.

**Fig 1: *in situ* XRD Reaction Cell**

A Controller has also been developed to control the device (see Fig 2).

The company is working together with three global vendors of XRD equipment to ensure that the device can be fully integrated into their XRD machines. The vendors will either purchase the *in situ* XRD Reaction Cell from the company for onward sales, or alternatively the company will sell directly to the end-user.



The controller allows for the control of additional heating zones as well as optional ancillary devices, inclusive data logging

An integrated and detachable iPad interface permits remote Wi-Fi operation.

**Fig 2: Controller for *in situ* XRD Reaction Cell**



The catalytic reaction test units are similar to test units used by the c\*change student cohort, but the company has also conducted further work to ensure the commercial readiness of the catalytic test units.

The test units are custom-designed, specific to each chemical reaction(s) to be investigated on the unit. The unit is easily moveable and can be easily attached to laboratory utilities or extraction facilities. Control can be automated.

**Fig 3: Catalytic Reaction Test Unit**

## Relationship to c\*change

The company founders are all past or current members of c\*change. The products are mostly used by catalysis practitioners. In particular, the *in situ* XRD Reaction Cell is a patented device with inventors being past or current members of c\*change.

## Impact

It is anticipated that the market will be largely global and that if the products launch successfully there could be significant recognition of South Africa's innovation and commercialisation potential in the field of catalysis.