

Andrew Harvie, a postdoctoral fellow in the department of chemistry, talks about the Open Polarimeter – a small open-hardware project funded by the NTNU Nano Impact Fund

Can you briefly describe what your project's about?

We've designed a chemical polarimeter (a common instrument in analytical chemistry) and released it as open hardware. It's easy to build and, despite costing just \$250, is a research-grade instrument that's fit for use in an analytical lab. We call it "Opol", the **O**pen **P**olarimeter.



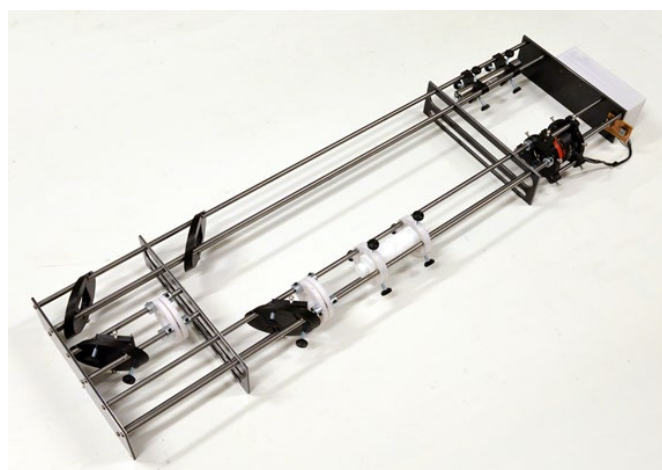
Andrew Harvie, photo: David Moe Almenningen

Why did you apply for funding from the Nano Impact Fund?

As the project was in a new area for us, we needed funding to buy various materials and tools that we didn't already have in the lab. The Impact Fund offered a convenient way to finance this small, standalone project, and it didn't require us to fill out large amounts of paperwork.

Where would you have applied if the Impact Fund didn't exist?

I'm not sure. I don't know of any other scheme that offers convenient, tailored grants like this. The project was too small to merit an application to the Research Council of Norway. Without this funding, Opol would probably have remained a pipedream.



How long did it take to complete the application form?

About ten minutes! (I'd written a bit of the text already).

How long did it take to get approval?

We heard back in a week, and then we got started straight away.

What has the funding allowed you to do?

We were able to buy the basic tools we needed to develop the instrument (3D printer accessories, filament, drill bits etc.), and various electronic components. We've

been able to reuse a lot of the tools for other projects we're involved in.

Where can people find out more about your project?

We published a paper describing the complete polarimeter in Chemistry – Methods (<https://doi.org/10.1002/cmtd.202000057>). The paper provides detailed build instructions, and all the files you need to make one yourself. You should do it! The paper was selected as a cover article for Issue 3, and the Impact fund covered the production costs for the cover art too.

Would you apply again?

Already have! Watch this space for some more interesting open hardware projects...

If you have any questions about the Impact Fund or Opol, then feel free to contact Andrew at andrew.j.harvie@ntnu.no