

## **Project: Studying single catalytic conversion events using fluorescence correlation spectroscopy**

"By studying single catalyst particles using optical microscopy and spectroscopy, we aim to circumvent limitations of current ensemble-based techniques, in order to understand the fundamental steps involved in heterogeneous catalysis."

*Stijn Hinterding (UU)*



### **Can you do a short presentation about you?**

I was born in Arnhem, grew up in the Dutch country side and did both my bachelor and master in Chemistry at Utrecht University. Right now I do my PhD in two research groups at Utrecht University: Inorganic Chemistry & Catalysis (chemistry) and Soft Condensed Matter (physics).

### **How is living in another city like Utrecht?**

Compared to the small town I grew up in, Utrecht is a lively city. There are lots of things to do and lots of people to hang out with, which is great. On the other hand, I sometimes miss the peace and quiet of the country side.

### **Would you advice a friend to come to the Netherlands?**

Yes, though weather- and mountain-wise we've got some improvements to do.

### **How/why did you finish in Utrecht?**

I chose to stay in Utrecht because I like the city and there was a vacancy for a PhD-candidate position.

### **How did you become interested in science?**

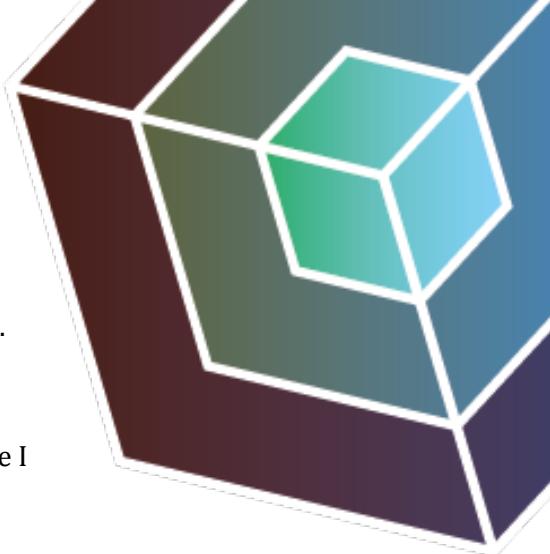
I don't remember, I think I was already interested in science from a very early age.

### **Did you know right away that you wanted to be a research scientist?**

No, at first I wanted to draw cartoons for a living.

### **What do you enjoy the most about your research?**

I look forward to building an optical setup (almost) from scratch, with a microscope, mirrors, single-photon detectors, lasers and what-have-you.



**What is your biggest motivation?**

Recording spectra/microscopy images/<other data> that makes you say: "you know, that's actually pretty damn cool".

**How do you see yourself fitting in the MCEC project?**

My project is a bridge between physics and chemistry, where I use optical spectroscopy to study reaction kinetics.

**If you had a time machine and 2 beers, with which scientist would you like to meet?**

Aristotle.

**Which is the most memorable "Eureka" moment in your life (not necessarily connected to science)?**

Probably the time where it just 'clicked' and I finally managed to ride a bike without my parents' or side-wheel support.

**Which scientific term/phenomena you think is the most misused by media?**

Not misused but misunderstood: length scales. Viewing the "powers of ten" film should be mandatory for every child in elementary school. Or put them behind a TEM, whichever is easier.

**What do you like to do in your spare time?**

I like to skateboard, read books, and play computer games.

**Is science the answer to everything?**

No.

**What do you want to do after finishing your PhD?**

I'm not sure yet.