

Ben Feringa was won over to chemistry because his professor took him seriously as a student. More than forty years later **George Hermens** feels the same in Feringa's lab. The Master's student talks about his experiences.

Master's student 'You really belong'

Chemistry was actually my second choice. Dentistry, orthodontics, that's what I was after. These fields attracted me for their rapid results: crooked teeth could be straightened into a perfect line in just 18 months. But I missed out on the ballot and so I decided to choose the subject I liked best at school – chemistry. Conducting experiments, running tests, that's what excited me. I also decided to give it everything I had. And it's proved to be a really good choice.

Right from the start we had the practicals that I'd looked forward to so much. I saw PhD students and other researchers working in the labs and I thought: that's what I want to do, this is where I want to be. The first year I did course units together with maths and physics students. One of the lecture series was given by Ben Feringa. What makes his lectures so special is that he transports you into chemistry by telling stories. Not molecule A reacts with molecule B to make substance C. No, instead he talks about the researcher who discovered the reaction, how the discovery was made and the fact that he's been to the researcher's home. The reaction becomes very real to you and so you remember it. With some formulas I still find myself thinking back to Feringa's lectures.

In chemistry you conduct a proper research study as part of your Bachelor's. I chose Feringa's research group, which is carrying out research on 'light switches'. I



liked it so much that I went on to do my Master's research here too. I'm investigating light switches that work as molecular memory. The molecules I'm working on switch from one state to another under the influence of light. In principle, that's the foundation of memory, a 1 or a 0. I'm trying to stack these molecules by sticking extra groups onto them, because it's this stacking that's needed to make molecular memory. It's real pioneering work. If we ultimately succeed in making memory in this way, we'll enable data storage that is many times smaller than present storage methods.

The first time I went to Feringa's room as a Bachelor's student I was quite wound up. But that tension quickly disappeared. He makes you feel at home in the group straight-away. He welcomes you to the team and from that moment you really belong. It also means that he expects input from you. He expects you to contribute problems yourself, which he is then happy to discuss. He sets the bar very high. Feringa marked my Bachelor's thesis himself. Not just a quick once-over, but several times, and with comments and suggestions. You find that passion in the entire team. Everyone helps one another, and you as a student, to make something of your project. There's almost no hierarchy. Perhaps the best example of this is the annual barbecue that Feringa organizes in his garden at home for all the subgroups, where students are always welcome.'