

Who are the women involved in STEM?

When I grew up I knew I wanted to be

A chemist. At the age of 12 I saw a picture of the atoms in water and got fascinated by how water molecules reorganise when transitioning from gas to liquid to solid and back. After that, all I could think of was learning more about atoms, those tiny particles that make up everything.

Professional

Top-level responsibilities

I develop and manage research projects that use virtual models to understand materials chemistry.

As a researcher in a university I also supervise PhD students and junior research fellows, and I teach physical and materials chemistry to undergraduate students.

Day-to-day work and skills

I apply my science skills to study the chemistry behind the formation and the reactivity of minerals in the environment and in our body, such as kidney stones, bones and shells. I apply communication skills to share my research findings, by writing research papers, delivering presentations to other scientists and my local community, and developing STEAM (science, technology, engineering, arts, mathematics) outreach activities for kids.

Personal

Current location and community

Perth, Western Australia

My interests and hobbies

Cooking, writing, crafts of various kinds depending on the mood (knitting, painting, building toys from recycled items), swimming.

I am passionate about

Science and cooking, and the strong link between them.

What I would say to 16-year-old me

The best has still to come. It will come, and it will be worth the wait and the effort.



Raffaella Demichelis

Senior Research Fellow

Curtin University

I have had a passion for science and mathematics since childhood.

I graduated and got a PhD in chemistry at the University of Torino in Italy.

I moved to Australia for a research job at Curtin University.

I am now building my own research team at Curtin, after receiving funding from the Australian Research Council.

I want to learn more about the difficulties experienced by other research scientists, to help promoting good research practices and creating a more flexible and diverse national research environment.

I want to understand how certain minerals can naturally harvest carbon dioxide from their environment and convert it into fuel, to explore new sustainable ways of producing energy.