# Sonita Singh

**Paper Chemistry Researcher**

Tree resin is very sticky stuff! It is also the basis for my research project. The plantation pine trees that are used to make paper in Tasmania have a high concentration of resin and it causes problems in the paper making process. It sticks to machinery and can damage the paper. I am working on a way to use air bubbles to remove this resin from the process water. Removing the resin would save time and money for fixing machinery and improve the paper quality. It would also allow more recycling of water in the factory, reducing the environmental impact.

I grew up in northern Tasmania and loved exploring in the bush, collecting shells on the beach and playing in the garden. I was fascinated by science because it provided explanations for things in nature. Things like how plants can use energy from the sun to grow and how a bird's feathers help it to fly. I read children's science books and learned about the atoms and molecules that make up the world around us. I was also inspired by TV shows including David Attenborough's nature documentaries and a show called Beyond 2000 which looked at future technologies and inventions.

I studied maths and science at high school but also did practical subjects like art and adventure education. I eventually studied chemistry at the University of Tasmania which allowed me to work in a variety of interesting jobs around Australia. These included solar cell development, patent examination and photosynthesis research. I have now returned to the University of Tasmania to undertake a PhD and my current work is supported by the Norske Skog paper mill near Hobart and the Australian Research Council.

I enjoy research because I am good at performing detailed experiments and I love learning. It is also fun to have the variety of working in the lab one day, in my office the next and then sometimes to visit the paper mill or travel to a conference to share my work and meet other scientists. Through my research, I hope to make a difference that can help the Tasmanian paper industry and the environment.

**For more information**: www.utas.edu.au/chemistry, www.norskeskog.com/Business-units/Australasia/Norske-Skog-Boyer

**www.YoungTassieScientists.com**