

## **Crystal Growth Using a Floating Zone Furnace: A Few Months Down the Line**

**R. Macquart<sup>1</sup>, C. Ling<sup>1,2</sup>**

<sup>1</sup> *School of Chemistry, University of Sydney, Sydney, NSW, Australia*

<sup>2</sup> *Bragg Institute, ANSTO, Menai, NSW, Australia*

The floating zone furnace is one of the most powerful tools currently available for the growth of large single crystals of high-melting point oxides, nitrides, intermetallics, etc. suitable for Bragg, diffuse, and inelastic neutron scattering experiments. We have very recently acquired Australia's first floating-zone furnace, fortuitously timed to coincide with the commissioning of the quasi-Laue single crystal neutron diffractometer KOALA and the inelastic neutron spectrometers TAIPAN, SIKA, and PELICAN at OPAL. This presentation will provide an update on our early experiences with the instrument in the context of a few oxide crystals and give a few useful guidelines for interested collaborators.



Figure 1: A ruby rod grown using the floating zone furnace.