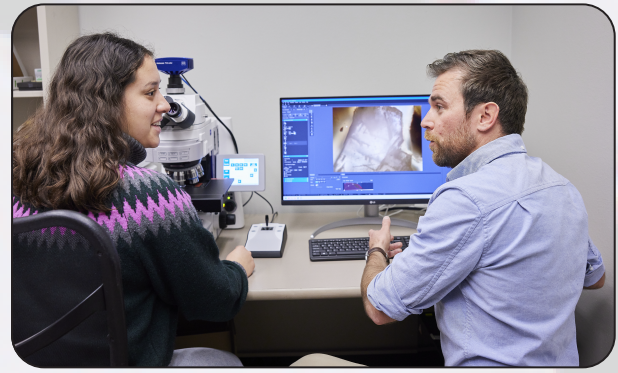


AGeS³ Lab Spotlight

Dr. Gilby Jepson
(he/him/his)

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Q: Tell us about yourself.

I represent the Structure, Tectonics, and OU Thermochronology (STOUT) Laboratory, and I am the head of the lab.

Q: What geochronologic/thermochronologic methods do you use?

Our lab applies laser ablation fission-track (LAFT) method across several mineral phases (apatite, zircon, and monazite). The LAFT method allows for FT dating, U-Pb isotope dating, and limited trace element analysis from a single spot.

Q: What kinds of projects has your lab supported through the AGeS program and what can future collaborators look forward to when working in your lab?

Since we joined the AGeS program in December 2023 our lab has not received an application through the AGeS program (we welcome applicants!). However, future collaborators can expect a focus on double-dating (U-Pb and FT) and influence of mineral geochemistry on cooling ages. This would be appropriate for users interested in detrital and multi-method geo-thermochronology applications.

Q: What is one piece of advice you would give AGeS applicants who are interested in working in your lab?

The fission-track method works best when reconstructing time-temperature paths through single-grain ages and confined tracks. As a result, make sure you budget the extra time it might take to learn how to identify and measure these features.

Q: Describe your research outside of the AGeS program.

My research focuses on how changes to the global and regional climate impacts the growth of orogenic systems and vice versa, developing new low-temperature thermochronometers (monazite fission-track) for dating structural and relief processes, and investigating how accessory phase geochemistry is modified by mid-crustal processes.

Q: What are your hobbies outside of work?

I am an avid football (soccer) player. None of this 5-a-side stuff. Just joined my fifth team/-club in Norman, OK. I also like all the classic earth sciences stuff like hiking and camping.

Q: What inspired you to get into the earth sciences?

I grew up in a small town in rural mining town in Western Australia (Kalgoorlie). So, I got into the earth sciences with the idea of working in the mining industry. However, as I finished undergraduate education I found myself much more interested in broader tectonic processes.