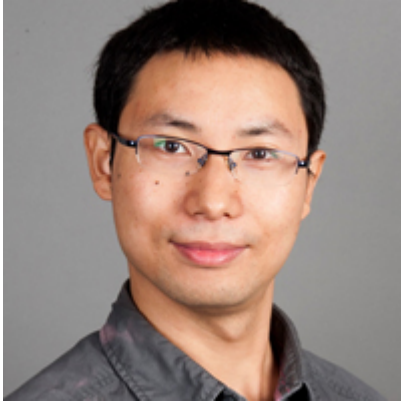




SEG Mentor

Yongjun Lu



Contact Information

Geological Survey of Western Australia (GSWA)
100 Plain Street
East Perth, WA 6004, Australia

+61-439 880 118

yongjun.lu@dmirs.wa.gov.au

Current Position and Focus (areas of research and/or interest in economic geology)

Senior Geochronologist Isotope Geologist at GSWA
My research interest and passion lies in predicting magmatic-hydrothermal mineral deposits from Archean to Cenozoic by understanding the three critical elements of mineral system, including architecture, fertility and transient geodynamics. My work involves multi-disciplinary and multi-scale research to unravel the three elements leading to ore formation in Archean Yilgarn Craton and Tibet. Specifically, I use various isotopic systems (Sm-Nd and Lu-Hf) to image the lithospheric architecture through time and unravel its relations to mineral system distribution. These continental-scale isotopic mapping can be integrated with geophysical images to help extract regional mappable exploration target. I also use magma fertility approach from continental to deposit scale by investigating the whole-rock geochemistry and accessory mineral chemistry such as zircon and apatite as pathfinders to fertile magmatic intrusions. The zircon and apatite chemistry are particularly promising as tools vectoring prospective magmatic rocks given they record not only ages, but also the intensive magmatic parameters that are critical for ore formation such as temperature, redox and hydration states.

Relevant Education/Work Experience

2015–Present: Senior Geochronologist Isotope Geologist, Geological Survey of Western Australia
2013–2015: Research Fellow, Centre for Exploration Targeting, the University of Western Australia
2012–2013: Research Associate, Centre for Exploration Targeting, the University of Western Australia
2008–2012: PhD, the University of Western Australia (UWA), Perth, Australia
2005–2008: MSc, Peking University, Beijing, China
2001–2005: BSc, China University of Geosciences (CUGB), Beijing, China

Hobbies and Interests

Table tennis; running; travel; music; history

Nationality

China

SEG Activities (e.g. positions held, former student membership details)

2018 SEG Lindgren Fellow

2016 Associate editor for SEG special publication on Tethys Volume and invited keynote speaker for SEG 2016: Tethyan Tectonics and Metallogeny, Turkey

Personal Philosophy on Mentoring

Mentoring is a learning experience for both parties and helps drive continuous improvement. I'm looking forward to interacting with passionate geoscientists.

Languages Comfortable Communicating With

English and Chinese

Other Relevant Information

Associate Investigator, Australian Research Council (ARC) Centre of Excellence for Core to Crust Fluid Systems (CCFS), Macquarie University (<http://ccfs.mq.edu.au/>)

Adjunct Senior Research Fellow, Centre for Exploration Targeting, School of Earth Sciences, the University of Western Australia

University Associate, John de Laeter Centre, Department of Physics and Astronomy, Curtin University

Councillor (2016-2019) for Society for Geology Applied to Mineral Deposits (SGA; <https://e-sga.org/about/council/>)

Secretary, the 6th International Archean Symposium (6IAS; <http://6ias.org/>)

Treasurer, Specialist Group in Geochemistry, Mineralogy & Petrology (SGGMP), Geological Society of Australia (https://www.gsa.org.au/Public/Specialist/Geochemistry_Mineralogy_Petrology_SGGMP/Public/Specialist_Groups/Geochemistry_Mineralogy_Petrology_SGGMP.aspx?hkey=685a7342-1755-4297-9378-c34fd1733da5)

Committee member of Geoconferences (<http://geoconferences.org.au/>)

Reviewer for *Nature Geoscience*, *Science Advance*, *Geology*, *Earth-Science Reviews*, *Journal of Petrology*, *Economic Geology*, *Mineralium Deposita*, *Chemical Geology*, *Contributions to Mineralogy and Petrology*, *American Mineralogist*, *Precambrian Research*, *Lithos*, *Ore Geology Reviews*, *Gondwana Research*.