Yoseph Datu Adiatma

Qualification Summary

PhD in Earth Science with experience in sedimentology, chemostratigraphy, isotope geochemistry, and numerical modeling. My research centers in reconstructing changes in geologic processes using geochemical proxies (e.g., $\delta^{13}C$, $^{87}Sr/^{86}Sr$, $\delta^{44/40}Ca$, $\delta^{7}Li$, ε_{Nd}) and their roles in shaping the macro-evolution of life on Earth.

Education

Fall 2023	PhD in Earth Science, The Ohio State University
Fall 2018	MS in Earth Science, The Ohio State University
Spring 2014	BS in Geology, Institut Teknologi Bandung

Academic Appointments

2024 - present — Postdoctoral Research Associate, Florida State University
Perform geochemical analyses (I/Ca, Fe speciation) on Paleozoic-aged sedimentary rocks to reconstruct the paleoredox states of Cambrian - Ordovician seawater.

Fall 2023 — Postdoctoral Research Associate, The Ohio State University
Performed calcium isotope analyses ($\delta^{44/40}Ca$) on Paleozoic-aged carbonate rocks and developed numerical models to constrain the role of diagenesis in affecting geochemical proxies in carbonate rocks.

2019 - 2023 — Graduate Research Associate, The Ohio State University,
Collected samples, p*erformed geochemical analyses ($\delta^{7}Li$, $^{87}Sr/^{86}Sr$, ε_{Nd}, Sr/Ca, $\delta^{44/40}Ca$) on Ordovician-aged carbonate rocks, and developed a suite of numerical models to reconstruct changes in global silicate weathering and its role in causing multimillion year climate cooling.*

Publications

Peer-reviewed articles

2024 — **Adiatma, Y.D.**, Saltzman, M.R., Liu X-M., Wang, X-K., Edwards, C.T., *Lithium isotope stratigraphy and Ordovician weathering.* Earth and Planetary Science Letters 647, 119030.
Adiatma, Y.D., Saltzman, M.R., Griffith, E.M., 2024. *Calcium isotope constraints on a Middle Ordovician carbon isotope excursion*. Earth and Planetary Science Letters 641, 118805.

2022 — Avila, T.D., Saltzman, M.R., **Adiatma, Y.D.**, Joachimski, M.M., Griffith, E.M., Olesik, J.W., 2022. *Role of seafloor production versus continental basalt*

weathering in Middle to Late Ordovician seawater $^{87}Sr/^{86}Sr$ and climate. Earth and Planetary Science Letters 593, 117641.

2022 Conwell, C.T., Saltzman, M.R., Edwards, C.T., Griffith, E.M., **Adiatma, Y.D.**, 2022. *Nd isotopic evidence for enhanced mafic weathering leading to Ordovician cooling*. Geology.

2019 **Adiatma, Y.D**., Saltzman, M.R., Young, S.A., Griffith, E.M., Kozik, N.P., Edwards, C.T., Leslie, S.A., Bancroft, A.M., 2019. *Did early land plants produce a stepwise change in atmospheric oxygen during the Late Ordovician (Sandbian ~458 Ma)?* Palaeogeography, Palaeoclimatology, Palaeoecology 534, 109341.

Manuscripts in review / in preparation

in review Wang, X-K., Liu, X-M., Husinec, A., Cao, C., Dera, G., **Adiatma, Y. D.**, *Lithium isotope evidence for enhanced hydrothermal activity in the Jurassic*

Teaching Experience

Fall 2024 ESC1000 Introductory Earth Science
Florida State University, Department of Earth Ocean & Atmospheric Science
- Instructor of records

Spring 2023 ES2155 – ENR2155 Energy and Environment
The Ohio State University, School of Earth Sciences and School of Environment and Natural Resources
- Guest lecture (an overview of Earth system and the anthropogenic climate change)

Summer 2023 ES5189 Field Geology
The Ohio State University, School of Earth Sciences
- Assisted students during field camp (6 weeks) in Utah

Spring 2022 ES1200 Introduction to Earth Science Lab.
The Ohio State University, School of Earth Sciences
- Taught lab sessions and held office hours

Fall 2020 ES1122 Earth through Time
The Ohio State University, School of Earth Sciences
- Taught lab sessions and held office hours
- Spearheaded efforts to create an online version of the lab materials

Spring 2019 ES1122 Earth through Time
The Ohio State University, School of Earth Sciences
- Taught lab sessions and held office hours

ES1121 Dynamic Earth
The Ohio State University, School of Earth Sciences
- Taught lab sessions and held office hours

Spring – Fall 2013 Sedimentology (undergraduate head TA)
Institut Teknologi Bandung, Faculty of Earth Sciences and Technology
- Conducted training for new teaching assistants
- Prepared lab materials
- Graded exams and quizzes
- Coordinated class fieldtrips for >80 students

Fall 2013 Well Logging and Petrophysics
Institut Teknologi Bandung, Faculty of Earth Sciences and Technology
- Taught lab sessions and held office hours

Honors and Awards

2022 The Michael S. Johnson Outstanding Graduate Student Award, The Ohio State University, School of Earth Sciences

2010 – 2013 Dean's List, Institut Teknologi Bandung, Faculty of Earth Sciences and Technology

Research Grants

2020 Graduate Student Research Grants, Geological Society of America ($2800)

2020 Grants-in-Aid, American Association of Petroleum Geologist ($2500)

2017 - 2021 Friends of Orton Hall, The Ohio State University, School of Earth Sciences (range from $1500 to $5000)

2013 L. Austin Weeks Grant American Association of Petroleum Geologist ($500)

Field Work Experience

2024 Trail Creek, Idaho, USA (12 days)

2019 Collierstown, Virginia, USA (1 week)

2018 Germany Valley, West Virginia, USA (1 week)

2018 Antelope Range, Nevada, USA (1 week)

2017 East River Mountain, West Virginia, USA (1 week)

2013 Tapin District, South Kalimantan, Indonesia (5 weeks)

Professional Associations and Leadership Roles

Indonesia Association of Geologists (IAGI) -- Geological Society of America (GSA) -- American Geophysical Union (AGU) -- American Association of Petroleum Geologists (AAPG)

Student Representative to the Graduate Study Committee at OSU School of Earth Sciences (2021)
Earth Science Delegate to the OSU Council of Graduate Students (2022)

Skills

Geochemistry and Mass Spectrometry

- Sr, Nd, Li, Ca column chemistry
- Basic operations and method development of thermal ionization mass spectrometry (TIMS)
- Basic operations and method development of inductively coupled plasma optical emission spectrometry and mass spectrometry (ICP OES and ICP MS)
- Geochemical modeling

Programming

- Python
- Matlab

Miscellaneous

- Unix-like OS operations (Ubuntu, RHEL, FreeBSD)
- Version control software (git)
- High Performance Computing (HPC)