Resource Summary Report

Generated by Kravitz on Sep 10, 2026

PetDB

RRID:SCR_002209
Type: Tool

Proper Citation

PetDB (RRID:SCR_002209)

Resource Information

URL: http://www.earthchem.org/petdb

Proper Citation: PetDB (RRID:SCR_002209)

Description: Accepts and provides access to geochemical and petrological data for ocean floor igneous and metamorphic rocks, (whole rock, volcanic, glass, mineral, and melt inclusion analyses), and mantle and lower-crustal xenolith samples. Data are compiled primarily from the published literature. Authors are encouraged to submit their datasets and databases to EarthChem.

Abbreviations: PetDB

Synonyms: PetDB - the Petrological Database

Resource Type: data or information resource, database

Keywords: petrological, geochemical, chemical, isotopic, mineralogical, rock, mineral, melt inclusion, igneous, metamorphic, ocean floor, mid-ocean ridge, basalt, abyssal, peridotite, xenolith, petrology, mantle

Funding: NSF

Availability: Free, Freely available

Resource Name: PetDB

Resource ID: SCR_002209

Alternate IDs: nlx_154723, r3d100011235

Record Creation Time: 20220129T080212+0000

Record Last Update: 20260905T133116+0000

Ratings and Alerts

No rating or validation information has been found for PetDB.

No alerts have been found for PetDB.

Data and Source Information

Source: SciCrunch Registry

Usage and Citation Metrics

We found 21 mentions in open access literature.

Listed below are recent publications. The full list is available at Kravitz .

Qiu KF, et al. (2025) The mantle source of REE-rich alkaline silicate magmas can be enriched by continent-derived sediment subduction. Nature communications, 16(1), 11191.

Liu CT, et al. (2025) The sub-arc mantle has remained oxidized since the Neoproterozoic oxygenation event. Nature communications, 16(1), 7675.

Ernst DM, et al. (2025) Polynomial modelling of high-quality yet incomplete rare earth element data sets and a holistic assessment of REE anomalies. Scientific reports, 15(1), 5360.

Yu Z, et al. (2025) Deep mantle earthquakes linked to CO2 degassing at the mid-Atlantic ridge. Nature communications, 16(1), 563.

Munch FD, et al. (2024) Deep mantle plumes feeding periodic alignments of asthenospheric fingers beneath the central and southern Atlantic Ocean. Proceedings of the National Academy of Sciences of the United States of America, 121(46), e2407543121.

Timmerman S, et al. (2023) Sublithospheric diamond ages and the supercontinent cycle. Nature, 623(7988), 752.

Aulbach S, et al. (2022) Evidence for oxygen-conserving diamond formation in redox-buffered subducted oceanic crust sampled as eclogite. Nature communications, 13(1), 1924.

Liu CZ, et al. (2022) Archean cratonic mantle recycled at a mid-ocean ridge. Science advances, 8(22), eabn6749.

Weiss Y, et al. (2021) Helium in diamonds unravels over a billion years of craton metasomatism. Nature communications, 12(1), 2667.

Li H, et al. (2021) Basalt derived from highly refractory mantle sources during early Izu-Bonin-Mariana arc development. Nature communications, 12(1), 1723.

Zhang Y, et al. (2021) Serpentinite-derived slab fluids control the oxidation state of the subarc mantle. Science advances, 7(48), eabj2515.

Gar??on M, et al. (2021) Episodic growth of felsic continents in the past 3.7 Ga. Science advances, 7(39), eabj1807.

Yu X, et al. (2020) Non-mantle-plume process caused the initial spreading of the South China Sea. Scientific reports, 10(1), 8500.

Chen S, et al. (2019) Molybdenum systematics of subducted crust record reactive fluid flow from underlying slab serpentine dehydration. Nature communications, 10(1), 4773.

Belay IG, et al. (2019) Origin of ocean island basalts in the West African passive margin without mantle plume involvement. Nature communications, 10(1), 3022.

Ranaweera LV, et al. (2018) Circa 1 Ga sub-seafloor hydrothermal alteration imprinted on the Horoman peridotite massif. Scientific reports, 8(1), 9887.

Ge R, et al. (2018) Remnants of Eoarchean continental crust derived from a subducted proto-arc. Science advances, 4(2), eaao3159.

Liu C, et al. (2017) Geochemical and mineralogical evidence that Rodinian assembly was unique. Nature communications, 8(1), 1950.

Zhang GL, et al. (2016) Interactions of the Greater Ontong Java mantle plume component with the Osbourn Trough. Scientific reports, 6, 37561.

Cheng H, et al. (2016) Jurassic zircons from the Southwest Indian Ridge. Scientific reports, 6, 26260.