



SPP1833

Building a
Habitable Earth

PROGRAMME

General Meeting 2022 - Tübingen

SPP 1833 "Building a Habitable Earth"

Zoom-Link: <https://uni-koeln.zoom.us/j/3570455637>

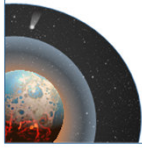
Wednesday, April 6th: Origin and early evolution of life

- 14.00-14.20 Carsten Münker, Köln: Introductory remarks and update on SPP activities
- 14.20-14.40 Florian Kurzweil, Köln: Tungsten isotope cycling in modern marine basins and implications for paleoredox reconstructions
- 14.40-15.00 Julius Havsteen, Tübingen: Decoding the marine oxygenation state across the GOE - preliminary ⁹⁸Mo data from the Duitschland/Rooihooft Formation South Africa
- 15.00-15.20 David Ernst, Bremen: Are ferromanganese crusts modern analogues for Precambrian BIFs?
- 15.20-15.50 *Coffee break*
- 15.50-16.10 Manfred Vogt, Heidelberg: Graphitic Inclusions in Zircon from Cambrian Granite: Implications for the Preservation of Hadean Biosignatures
- 16.10-16.30 Lena Weimann, Göttingen: Organic matter in sedimentary barites from 3.5 billion-year-old Dresser Formation Pilbara Craton
- 16.30-16.50 Eric Runge, Tübingen: Exploring the geobiology of ancient hydrothermal sulfides - a multidisciplinary approach to early life on Earth
- 16.50-17.10 Michelle Gehringer, Kaiserslautern: On the trail of oxygenic photosynthesis in ancestral Cyanobacteria on early Earth
- 18.30 *optional: Joint Dinner in the restaurant „Neckarmüller“ (at one`s own expenses)*

Thursday, April 7th: Archean Processes

- 9.00-9.30 Martin van Kranendonk, Sydney KEYNOTE: The 3.5 Ga Dresser caldera complex: Habitat of the earliest, most convincing evidence of life on Earth
- 9.30-9.50 Mario Trieloff, Heidelberg: Outgassing history and early atmospheric processes recorded by paleoatmospheric noble gases in Archean rocks
- 9.50-10.10 Nils Messling, Göttingen: ¹⁸²W variations in the Paleo-Archean Kaapvaal and Singhbhum Craton: Implications for the extent of Hadean mantle heterogeneity
- 10.10-10.40 *Coffee Break*
- 10.40-11.00 Jonas Tusch, Köln: Recycled roots of Hadean protocrust – A possible OIB endmember?
- 11.00-11.20 Jonathan Lewis, Berlin: Sulfur and hafnium isotope constraints on depletion and refertilization history of Eoarchean mantle peridotites
- 11.20-11.40 Silvia Volante, Bochum: New U–Pb and P–T constraints for the Laxfordian tectono-metamorphic event in the southern and northern regions of the Archean Lewisian Gneiss Complex, NW Scotland: implications for Palaeoproterozoic reworking during Nuna amalgamation
- 11.40-12.00 *Short Break*
- 12.00-12.20 Christoph Heubeck, Jena: BASE: Eight boreholes and three tunnels through 3.5 km of Early Archean shallow-water strata investigate the setting of early life
- 12.20-12.40 Deon Janse van Rensburg, Jena: Reassessing evidence of Moon/Earth dynamics from tidal bundles at 3.2 Ga Moodies Group
- 12.40-13.00 Sebastian Reimann, Jena: Are the world's oldest postulated eolian sandstones (Moodies Group, Barberton Greenstone Belt, 3.2 Ga) truly eolian?
- 13.00-14.00 *Lunch Break (Catering will be provided)*





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- 14.00-14.20 Dmitry Semenov, Heidelberg: Towards making habitable Earths: the importance of pre-natal physical and chemical conditions
- 14.20-14.40 Janos Kodolányi, Mainz: Constraining ^{60}Fe -abundance in the early Solar System using in situ analysis of pristine chondritic material
- 14.40-15.00 Jan Leitner, Mainz: Nitrogen isotope systematics of inorganic N-carriers in chondritic meteorites
- 15.00-16.00 *Coffee Break and Poster Session*
- 16.00-16.20 Wafa Abouchami, Köln: Cadmium isotope dichotomy in lunar soils
- 16.20-16.40 Mario Fischer-Gödde, Köln: The Archean rock record of late accretion – New constraints from highly siderophile elements
- 16.40-17.00 Sara Vulpius, Berlin: Is the volatile release contributing to early Earth's atmosphere underestimated?

Friday, April 8th: Early Oceans

- 9.00-9.20 Wanli Xiang, Göttingen: Carbonates between early Archean pillow basalts - important archives for reconstructing early Earth's environments
- 9.20-9.40 Ashley Martin, Hannover: The reliability of microbialites as archives for reconstructing the redox state of seawater using U isotopes: a summary
- 9.40-10.00 Andreas Pack, Göttingen: Triple O isotope composition of ancient carbonates—concepts, analytical challenges and results
- 10.00-10.30 *Coffee break*
- 10.30-11.00 Plenary Discussion about Final report and Colloquium of the SPP 1833

