

Alfred Kröner 1939–2019



Alfred Kröner passed away on May 22, 2019. With him the Earth Sciences lost a dynamic, productive and energetic geologist who made major contributions to our understanding of the geological evolution particularly of Eurasia and Africa.

Alfred was born in 1939 in Kassel, Germany. He studied Geology at the Technical University of Clausthal-Zellerfeld, the University of Vienna and the Technical University of Munich, where he received his Diploma in Geology. Subsequently he was a student at the University of Cape Town in South Africa, which awarded him a PhD in 1968. Before embarking on his long and productive academic career he gained practical experience as an exploration geologist in Africa and Namibia, strengthening and deepening his knowledge of African regional geology. His first academic position was as Senior Research Fellow and later Acting Director of the Precambrian Research Unit of the University of Cape Town. During his time in South Africa he became an expert on the regional geology of Africa and this was also the start of a lifelong affection for this region of the world where he studied geological evolution until his death. In 1977 he moved back to Germany to become a Full Professor of Geology at the Johannes Gutenberg University of Mainz. He retired from this position in 2006. At Mainz he started a close relationship with the Max Planck Institute for Chemistry where he was permitted to use the mass spectrometer

one full day per week, which meant for Alfred 24 hr. He understood very early on that time is a key parameter in geology and absolute time is better than relative time to constrain geological processes and events. Thus it came like a great gift to him that he learned how to get zircon ages for rocks using the evaporation method and later to perform SHRIMP analyses. This was for years his major research tool that allowed him to quantify the geological history of large parts of the world, mostly in southern Africa, India, Sri Lanka and China, with a special emphasis on Precambrian regions. For many regions of the world he was the first to obtain robust ages and develop a dynamic geological model on which subsequent studies could build. While at the University of Mainz he started close scientific collaboration with geologists in China and was probably one of the first western geologists to visit the country as a geologist, work with Chinese scientists and initiate research projects there. After his retirement he accepted an invitation to start a long-term relationship with the SHRIMP Centre of the Chinese Academy of Geological Sciences (CAGS) in Beijing, where he spent six months every year, from where he was able to travel the world to study Precambrian rocks and to constrain them with the best zircon SHRIMP dates.

In addition to his scientific output that resulted in more than 400 research papers in Earth Science journals and books, he also provided great service to the community by enabling and initiating research projects. If a geological problem interested him, he found a way to get to the relevant region, do field work there (ignoring or dismissing any potential and real obstacles) and bring the samples home, always trying to involve local geologists in the project and thus enhance their careers. Local political issues did not interest him, he wanted to study the rocks, and this is what he did. He always tried to help geologists finding ways and means to obtain laboratory data needed for their research, although he never maintained a laboratory. He always encouraged young researchers to publish their results and as a good example, he seemingly wrote his own papers faster than others could read them.

As a service to the community he was very active in the development of the journal *Terra Nova* where he served as a Scientific Editor from 1996 until 2012, remaining an active member of the Editorial Board until 2018. He was a major force that directed the journal, ensured its broad scope and scientific quality. He was one of the key persons who “rescued” the journal when its original publisher the European Union of Geosciences became part of EGU and the journal needed a new publisher. We are particularly grateful to Alfred for putting in the time and energy to ease this transition and supporting the journal as one of its editors for so many years.

The scientific community appreciated Alfred's work through several awards. He received the Jubilee Medal by the Geological Society of South Africa, the Ananda Coomaraswamy Memorial Medal by the Geological Society of Sri Lanka, the Emanuel Boricky Medal by Charles University in Prague, the Provincial Distinguished Service Medal by Johannes Gutenberg University of Mainz, the Steinmann Medal by the Geologische Vereinigung of Germany, and the Friendship Award by the Chinese State Administration of Foreign Experts Affairs in Beijing. Also he was made an Honorary Professor of the Northwest University of Xian in China, an Honorary Fellow of the Geological Society of America, an Honorary Professor of the Chinese Academy of Geological Sciences, Beijing. In 1999 he gave the invited Du Toit Memorial Lecture of the Geological Society of South Africa, and in 2017 he received a special award by the Chinese Academy of Geological Sciences in Beijing for reaching an impressive H-Index of 100.

All those who have met Alfred were always amazed to see that his energy seemed endless and he was constantly moving and producing, everywhere and all the time. His enthusiasm for Geology was unlimited and contagious; it infected and inspired many.

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