

Treatise of Geochemistry, 3rd Edition: How, why, where, when, and with whom?

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Geochemical knowledge and discovery are the crossroads where geoscience subdisciplines meet – much as chemistry is often said to be the “central science”, geochemistry is the “central geoscience”. The *Treatise on Geochemistry* has become an invaluable resource to the geoscience community since the publication of the 1st edition, edited by Karl Turekian and Dick Holland, in 2004, followed by a 2^d edition in 2014. Twenty years later, two ongoing scientific revolutions are reshaping our need to understand this planet: the rapidly expanding exploration of worlds beyond our own and the unfolding of the Anthropocene. These seemingly disparate revolutions challenge us to understand how planets form, how ours differentiated to become the living world we know today, and how humans are transforming this world. Accordingly, it is time to reshape the Treatise. The 3rd edition is coming this year with entirely new chapters, streamlined into six focused and complementary volumes that span the gap between mature and established geochemical knowledge, including analytical developments and the rapidly evolving frontiers of the field.

Volume 1: Earth's Interior (*i.e.* core and mantle)

Volume 2: Earth's Lithosphere (shallow mantle, volcanism, crust, sediments)

Volume 3: Earth's Surface (atmosphere, ocean, biosphere)

Volume 4: Sustaining Society (environmental science, climate, economic/resources, archaeology)

Volume 5: Worlds Beyond (cosmochemistry, planetary geochemistry)

Volume 6: How We Know (measurements, models, experiments)

