

Important Statements on Radiometric Dating in Woodmorappe's References that He Doesn't Want You to See

Dr. Kevin R. Henke

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By only reading Woodmorappe's (1999) attack on U-Pb and other dating methods, one would get the false impression that geologists are stupid dupes of satan for using these methods. Of course, when creating his slanderous attacks on geochronology, Woodmorappe (1999) completely ignores the overwhelming positive results from U-Pb and other dating methods. The extent of Woodmorappe's (1999) distortions should be contrasted with the numerous praises given of U-Pb and other radiometric dating methods in the very references from his bibliography. Not surprisingly, Woodmorappe (1999) either ignores or improperly belittles these important statements. Here are just a few examples:

In recent years the dating of individual grains, or small groups of similar grains, of zircon and baddeleyite by the U-Pb method has provided ACCURATE and PRECISE ages of BOTH acid and basic volcanics in a variety of metamorphic terranes...[reference omitted]. (Brewer and Menuge, 1998, p. 1) [my emphasis]

In the last twenty years whole rock isotope studies have been HIGHLY SUCCESSFUL in determining the age and origin of igneous rocks suites. Together with U-Pb age determinations on zircons they have provided geologists with time framework of igneous and metamorphic events extending as least as far back as 3.8 Ga. (Bridgwater et al., 1989, p. 278) [my emphasis]

With a growing number of accessory minerals that can potentially be used for U-Pb geochronology, new and diverse applications for U-Pb dating are continually being discovered. This has created exciting opportunities because it is now possible to establish the timing of a WIDE RANGE of geological events with UNPRECEDENTED PRECISION AND ACCURACY. (Heaman and Parrish, 1991, p. 59) [my emphasis]

Three relations between the U-Pb ages and field observations STRONGLY SUPPORT the GENERAL RELIABILITY of the U-Pb ages. (1) Almost all

of the U-Pb ages are compatible with the order of emplacement of the granitoid sequences where the order has been established by field relations. (2) The absence of younger ages for samples from deformed facies or adjacent to younger intrusions indicates that neither deformation nor reheating has reset the original crystallization ages. (3) The ages of samples from the same granitoid sequences are generally in good agreement, though some differ by amounts greater than the laboratory error of 2 PERCENT for each sample...[reference to table omitted]. (Stern et al., 1981, p. 5) [my emphasis]

U-Pb dating of zircon, a POWERFUL TOOL in geochronology, is based on the rather unique association of two coupled U-Pb decay systems with a highly refractory and fairly abundant host-mineral phase. (Hansmann and Oberli, 1991, p. 501) [my emphasis]

Of course, NO analytical method works in all cases, whether it involves U-Pb dating or using an inductively coupled argon plasma spectrometer to measure the amount of cadmium in a water sample. As quoted by Woodmorappe (1999, p. 81), Fleck et al. (1996, p. 65) correctly states:

Our most important finding is that NO dating technique gives a reliable emplacement age in all cases, but that all methods contribute to determining the intrusive history. Patterns of age concordance or discordance from multiple techniques prove to be much more effective than any single method alone. [Fleck et al's emphasis]

Fleck et al. (1996) studied the highly complex Tuolumne Intrusive Suite within the Sierra Nevada Batholith of California, USA. Overall, the size of the batholith indicates that it took around 10 million years to completely solidify (Paterson and Tobisch, 1992, p. 293), which is bad news for young-Earth creationism. By using a number of different radiometric dating methods, Fleck et al. (1996) were able to confirm their results and date the individual magma injections in the suite. Contrary to what Woodmorappe (1999, p. 81) would have us believe, Fleck et al. (1996) found their U-Pb and other radiometric dates to be useful and reliable.

Considering the great number of positive statements about radiometric dating in Shirey (1991) and how these claims blatantly contradict the accusations in Woodmorappe (1999), it is surprising that Woodmorappe (1999, p. 33, 52, 67) would even dare to mention its existence. Shirey (1991, p. 103) repeatedly defends the validity of isochron methods and exhorts the usefulness of applying different isochron methods to the same suite of samples:

The detailed understanding of igneous systems and the role they play in the Earth's crustal and mantle evolution has been GREATLY advanced by the application of the naturally occurring long-lived radioactive decay schemes of Rb-Sr, Sm-Nd and Re-Os [my emphasis]

It is now quite common for data from several of these isotopic systems to be obtained on one suite of rocks. Each isotopic system has a different geochemical response to geological disturbances, therefore the INDEPENDENT chronometers CAN SERVE AS CHECKS ON CLOSED-SYSTEM BEHAVIOR - an important part of any study of absolute age. [my emphasis]

The multiple isochron system approach is and will continue to be an important direction in isotope geoscience.

By combing through Shirey (1991) and only looking for the limitations of the various radiometric methods, Woodmorappe (1999, p. 33, 52, 67) unfairly distorts the contents of Shirey (1991) and the overall capabilities of radiometric dating. It is clear that Woodmorappe (1999) has no commitment to properly portraying the strengths and weaknesses of different radiometric dating methods. He is only interested in sabotaging the reputations of these powerful tools for the sake of his outdated religion.

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