

# In this episode:

## Radioactive Clocks:





### A Closer Study of Radiometric Dating

#### SUMMARY:


In this episode Todd and Paul are joined by [Dr. Ben Clausen](#) of the [Geoscience Research Institute](#) to continue their discussion about radiometric dating. What is radiation? What makes certain atoms unstable? How are radiometric dates calculated? Find out the answer to these questions and more in the latest episode of the science podcast that's just for you!

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#### \*Show Notes

0:21 Introduction: Another addition to [Great Discussions in Creationism](#)

0:55 Watch [Episode 26: The Drippy Faucet: Exploring the Basics of Radiometric Dating](#)

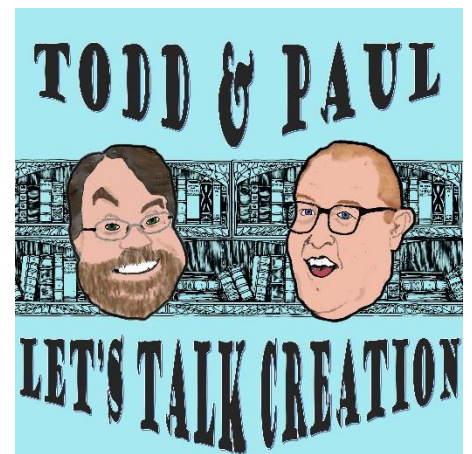
1:15 [Episode 32: What Was the Tower of Babel? Part 1](#)

[Episode 33: What Was the Tower of Babel? Part 2](#)

1:57 Introducing [Dr. Ben Clausen](#) of the [Geoscience Research Institute](#)

3:41 What is radiation? What is the difference between Alpha, Beta, and Gamma radiation?

5:52 What are the parts of an atom? (Neutrons, protons, and electrons)



7:27 What is an element? What are isotopes?

11:31 How do positive charged protons stick together in the nucleus?

14:32 Are the different types of radiation coming from a nucleus?

17:44 Why do these elements decay?

22:28 What are half-lives and how do their work?

24:52 How do we know how long a half-life is if a half-life is supposed to be long?

28:25 What are the radioactive elements that geologists are interested in?

30:37 Carbon-14 dating and its uses

31:06 Where do you find radioactive uranium?

34:12 What is the difference between a rock and a mineral?

37:06 What is the process you go through to date a rock?

45:26 What heavy liquid is used that causes quartz to float?

47:34 Does Ben do the whole process or is it given to a company do this process?

50:04 When running these dating methods is one method usually applied or is it multiple techniques? If multiple are run, are the results consistent? Are there any patterns in the data?

53:24 Have there been any advancements in the last 20-30 years of this field?

59:07 Radiometric dating is more than biased speculation

01:03:02 More work to do to solve this from a YEC perspective

01:06:03 Wrap up

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