

Martian meteorite may hold clues to water on the Red Planet

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(PhysOrg.com) -- Scientists are examining fragments of a Martian meteorite to try to establish when water was freely flowing on the red planet.

Using powerful electron microscopes, Dr Martin Lee and colleagues at the University of Glasgow are painstakingly scanning a tiny chunk of a [meteorite](#) called Nakhla, which fell to Earth in 1911, reputedly hitting a dog in Egypt.

The team is looking for minerals within the meteorite that might have been carried there by water seeping through tiny pores in the rock which then crystallised.

Dr Lee, a senior lecturer in Geographical and Earth Sciences, said: “When the minerals crystallise they contain certain elements which are radioactive and therefore decay over time - [potassium](#), for example, which decays to form argon. By measuring the levels of argon we are able to determine roughly when the minerals grew and hence when the water deposited them there.

“Meteorites like this offer the best way of analysing the Martian environment and geological history as there’s more of Mars on Earth than we could ever bring back from the planet itself. It’s possible that we might even find bits of [water](#) trapped within rocks, and maybe some traces of [organic material](#) within that.

Provided by University of Glasgow

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