

Download Comets; Their Origin, Nature And History

The solid, core structure of a comet is known as the nucleus. Cometary nuclei are composed of an amalgamation of rock, dust, water ice, and frozen carbon dioxide, carbon monoxide, methane, and ammonia. As such, they are popularly described as "dirty snowballs" after Fred Whipple's model. However, some comets may have a higher dust content, leading them to be called "icy dirtballs".

How Did Water Come to Earth? It took an out-of-this-world arrival to get that perfect chemical combination for water to fill our planet. The origin of water on Earth, or the reason that there is clearly more liquid water on Earth than on the other rocky planets of the Solar System, is not completely understood. There exist numerous more or less mutually compatible hypotheses as to how water may have accumulated on Earth's surface over the past 4.5 billion years in sufficient quantity to form oceans.

A much stronger test of this creationist argument is to look for the remains of giant meteorite impacts. Their craters might not be a snap to identify, due to erosion and burial, but we can at least expect to find a number of them if the geologic column is truly ancient.