



The Red Planet glows blue and reveals water ice lying hidden below the surface. There are huge amounts of water ice deposited in the area ranging from the planet's south pole to the 60th degree of latitude, where Mars' surface is frozen to a depth of 20 to 60 centimetres. The map depicts the celestial body in the light of 'epithermal neutrons', and its source is the US space probe, 'Mars Odyssey', which first discovered signs of large quantities of water ice. The rate of flow of these atomic particles decreases as the level of hydrogen contained in the soil increases. The colours indicate whether the detectors have registered many (red) or few (blue) neutrons. Before 'Mars Odyssey' was able to successfully peek under the Red Planet's skin, Dr. Johannes Brückner and his team of scientists at the Max Planck Institute for Chemistry in Mainz used computers and practical tests to establish the basis for their measurements. Mars tends to be a rewarding field for researchers at the Max Planck Society: Dr. Konrad Dennerl of the Max Planck Institute for Extraterrestrial Physics in Garching recently worked with the US space observatory 'Chandra' to prove for the first time that the Red Planet emits X-ray light. The causes of this fluorescent glow are the interactions of the high energy component of solar radiation with the molecules of Mars' carbon dioxide atmosphere.

MAP: UNIVERSITY OF ARIZONA & LOS ALAMOS NATIONAL LABORATORY