Experimental study of the electrical conductivity of hydrous minerals under high P-T conditions
30 March 2016

A new paper titled "Experimental study of the electrical conductivity of hydrous minerals in the crust and the mantle under high pressure and high temperature," published in *Science China Earth Sciences*, overviews the studies of electrical conductivity measurement of hydrous minerals in recent years.

Hydrous minerals are important water carriers in the crust and the mantle, especially in the subduction zone. With the recent development of the experimental technique, studies of the electrical conductivity of hydrous silicate minerals under controlled temperature, pressure and oxygen fugacity, have helped to constrain the water distribution in the Earth's interior.

This paper emphasizes the dehydration effect and the pressure effect on the bulk conductivity of the hydrous minerals. The paper also discusses conduction mechanism of hydrous minerals and the electrical structure of the subduction zone based on the available conductivity data.


---

Provided by Science China Press


*This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.*