

## OUTGASSING OF EARTH AND REMOTE SENSING

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The earthquakes are not only physical process, but also geological, geochemical and geodynamic one. Especially, the outgassing of the Earth is very important scientific basis of the research of earthquake genesis and its accurate predication. The Earth can be considered as a gas-filled planet. Based on the mantle fluid research, we postulated that Earth has at least five gas-spheres: atmosphere; upper crust gas-sphere; middle crust gas-sphere; upper mantle gas-sphere; outer core gas-sphere (Du, Letian, 1993). The outgassing of Earth takes place under large gradient of pressure, temperature, density from core to surface, and is the cause of a series of natural hazards, such as earthquakes, volcanism, EL Nino, forest firing, strong raining, drought etc., which have proven by our successful short-term forecasting of the earthquakes. The remote sensing technology are very useful and efficient methods for monitoring of Earth outgassing and green house effects of these emitted gases. Besides, this technology can be also used for finding of oil-gas fields and submarine hydrated