Monitoring of Radon in Taiwan Groundwaters

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Measurement of radon-222 in groundwater has been performed for earthquake prediction [1, 2, 3, 4, 5]. Igarashi reported that radon concentration in ground water increased for several months before the 1995 southern Hyogo Prefecture (Kobe) earthquake on 17 January 1995. From late October 1994 to the end of December 1994, radon concentration increased about fourfold. On 8 January 1995, 9 days before the earthquake, the radon concentration reached a peak of more than 10 times that of late October 1994 before starting to decrease.

Motivated by the report of precursory changes in ground-water radon associated with the 1995 Kobe earthquake [5], a survey of radon distribution was conducted in four groundwater areas of Taiwan. A total of 383 wells was sampled; 171wells were in Choshui River Alluvial Fan; 142 wells were in Tainan Plain; 33 wells were in Hsinchu-Miaoli Coastal Area; and 37 wells were from Ilan Plain.