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Field extraction of radon from the spring water into olive oil for healing purposes

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Carcinogenity of residential radon (222Rn) is already scientifically discredited. Positive correlation between radon and lung cancer is based on LNT (Linear-no-threshold-theory) only. No correlation here, when assumption-free statistics applied. On the other hand, radon is successfully used in balneology due to its strong hormetic effects.
In radon balneotherapy, in some cases, the natural source activity for a stronger treatment may be inadequate low. Therefore, a field experiment was made to produce a highly active preparation, by extracting radon from water into olive oil, on a technical scale.
The spring of Bretislav (*2016) was used as a source of radon water (http://www.estudanky.eu/11000-radonka-pramen-bretislav). Its actual parameters were: Activity 12123 Bq/L of 222Rn, flow rate 2.8 L/min, temperature 8.0 ℃.
Extraction was carried out in a “2 L”glass separating funnel. 2 liters of fresh water were always used. The starting amount was 120 ml of food-grade, non-virgin olive oil. The 165 ml bubble was left in the funnel to facilitate the mixing of the phases. A time snap was also taken from the all off extraction steps. After shaking (1 min), the phases were separated (2-4 min) and the water was poured, the gamma activity of the oil in the funnel was measured by sensitive scintilometer and a 1 ml sample was taken for later LSC determination of Rn on a field basis.
Gradually, 9 subsequent extractions were performed over a total time of 1 h 27 min. a 76 ml of oil with an activity of 130 kBq/L of 222Rn was obtained finally. Gama activity grew gradually, with an equilibrium level of 84 % after the ninth extraction. On the other hand, oil is saturated about 100 % already in the third extraction; in a total time of 23 min.
Radon partition coefficient water / olive oil of 10.7 was found, although upto 45 reported in the broad literature.
Radon oil was used by the author’s team for healing purposes in the evening.

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