



#### Navigation

- [UCBNE Home Page](#)
- [Overview](#)
- [Undergraduate](#)
- [Graduate](#)
- [News and Events](#)
- [People](#)
- [Research](#)
- [Services](#)
- [Careers](#)
- [Class Schedule](#)
- [Fall 2011 Class Schedule](#)
- [Spring 2011 Class Schedule](#)
- [NE Courses and Websites](#)
- [create content](#)
- [Public Forums](#)
- [Colloquiums](#)
- [ANS Berkeley Student Section](#)

#### Home

#### UCB Rain Water Sampling Results

##### [Back to UCB Air Sampling Page](#)

The following are results for rain water samples taken on the roof of Etcheverry Hall on UC Berkeley campus beginning on 3/17/2011.

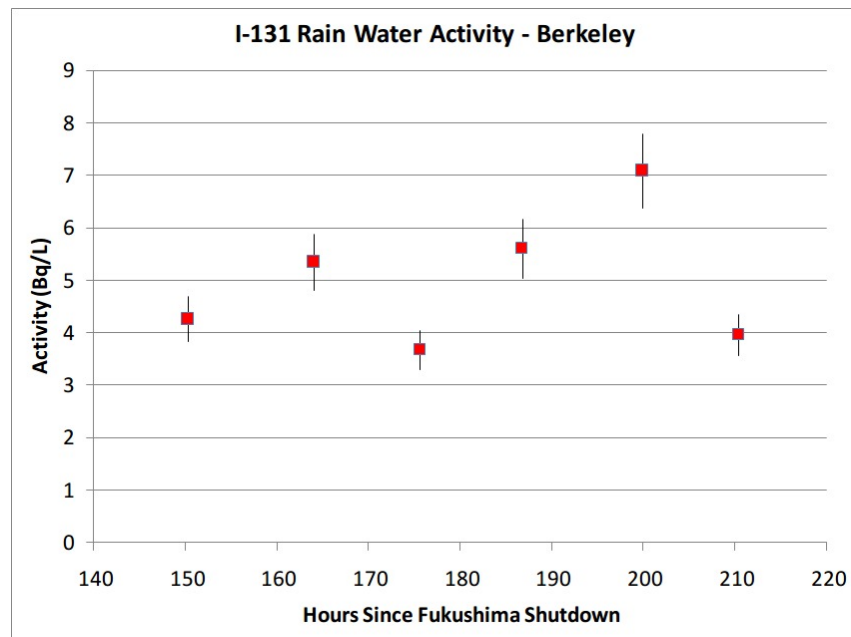
We are providing two numbers for each of the isotopes. The first is a standard concentration unit of Becquerel per liter (Bq/L) which describes the number of particles decaying over the period of one second. For the general public, we have converted this number to an exposure dose per liter consumed. The number in parentheses is the number of liters of water that one would need to consume to equal the radiation exposure of a single round trip flight from San Francisco to Washington D.C. (0.05 mSv).

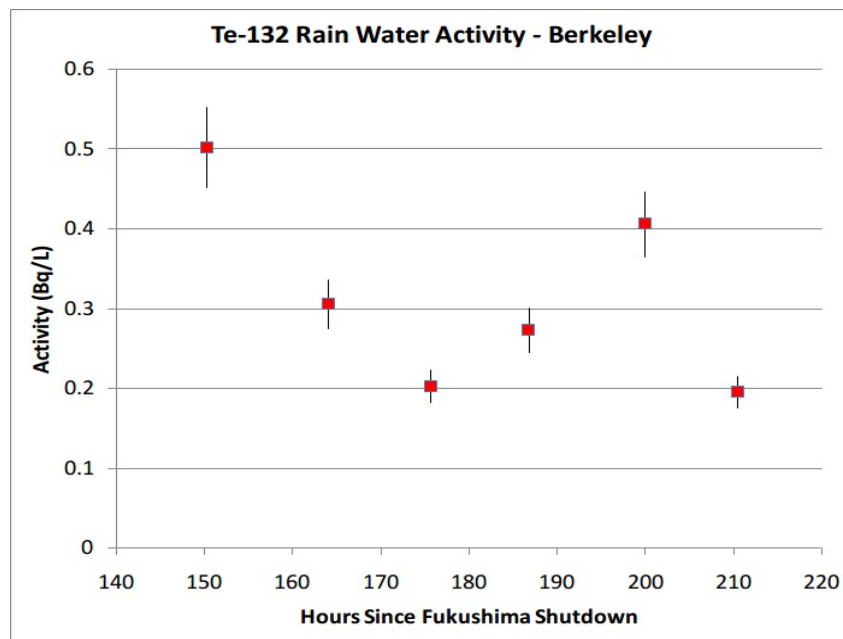
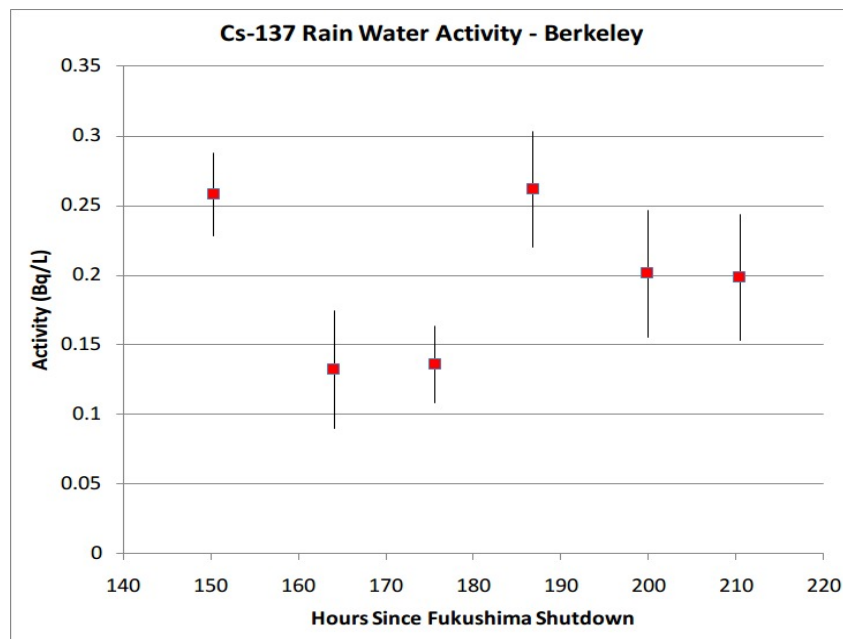
##### [How Effective Dose is Calculated](#)

For example, in the rain water we collected in 18 hours between March 17 and March 18 we observe an activity of the isotope of I-131 (Iodine-131) of 4.26 Bq/l. At this level, you would need to drink 632 liters of this rain water to obtain the same radiation effects you obtain on a round-trip flight between San Francisco and Washington D.C. Therefore, the increase in radiation levels in the rain water due to the events in Japan remain extremely small.

We will continue to monitor radiation levels in air and water in the foreseeable future and will provide the measured radiation levels here.

##### [Description of Rainwater Collection Experiment](#)





		Water Vol. (L)	I131	I132	Cs134	Cs137	Te132	Be7*	Data
Start	End	Liters	Bq/L (liters**)	Bq/L (liters**)	Bq/L (liters**)	Bq/L (liters**)	Bq/L (liters**)	Bq/L (liters**)	
3/17 18:00	3/18 12:00	4.425	4.27 (632)	0.50 (535191)	0.21 (11565)	0.26 (10467)	0.50 (48357)	1.1 (1.5E6)	data
3/18 13:00	3/18 20:30	5	5.36 (503)	0.37 (728184)	0.12 (20338)	0.13 (20380)	0.31 (79404)	1.4 (1.16E6)	data
3/18 20:40	3/19 10:00	5	3.68 (735)	0.29 (922957)	0.09 (27134)	0.14 (19865)	0.20 (119672)	1.62 (1.0E6)	data
3/19 10:15	3/19 21:45	5	5.61 (480)	0.21 (1.29E6)	0.24 (10204)	0.26 (10322)	0.27 (88820)	0.90 (1.8E6)	data
3/19 21:45	3/20 11:30	5	7.10 (380)	0.44 (608993)	0.27 (8891)	0.20 (13414)	0.41 (59803)	0.82 (1.98E6)	data
3/20 11:30	3/20 18:45	2.826	3.97 (680)	0.21 (1.27E6)	0.20 (12349)	0.20 (13599)	0.20 (124242)	2.72 (5.95E5)	data

\* Be-7 is observed normally due to it being cosmogenically produced in the atmosphere

\*\* The number in parentheses is the number of liters of water that one would need to consume to equal the radiation exposure of a single round trip flight from San Francisco to Washington D.C. (0.05 mSv).

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