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PAPER TITLE Tritium Level in Blood as a Measure to Determine the Dose due to
..... Organically Bound Tritium.

AUTHOR(S) NAME(S) Masahiro Saito

SUBMITTING AUTHOR

LAST NAME Masahiro **FIRST NAME** Saito **TITLE** Prof.

AFFILIATION Research Reactor Institute of Kyoto Univ. TEL 724-52-0901

STREET Kumatori-cho, Sennan-gun. **FAX** 724-53-5810

CODE 590-04 **CITY** Osaka **COUNTRY** Japan

PRESENTING AUTHOR (IF DIFFERENT)

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ABSTRACT (See instructions overleaf)

A significantly large contribution of the organically bound tritium (OBT) to the total absorbed dose in human body after tritium intake has been emphasized by many authors. In the present research, an animal experiment using mice was performed to find possible correlation between the tritium level in the blood and that averaged for the total body after intake of OBT. A mixture solution of five tritiated amino-acids was administered to male DDY mice and the tritium level in the blood, urine, total body, spleen, liver, brain, kidney and testis was determined after various periods. It was found that there is a strong correlation between the tritium level in the blood and the body-averaged tritium concentration. The accumulated dose that is estimated on the basis of the blood tritium level gave a conservative estimation for the body-average accumulated dose. The dose commitment estimated from the tritium level in the urine gave an estimated dose for 55 days periods which is about 60 percent of the body-averaged dose.