

# References to Studies of $^{137}\text{Cs}$ , $^{90}\text{Sr}$ and $^{239+240}\text{Pu}$ In The Pacific Ocean A Bibliography

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## Introduction

This report contains a listing of publications known to this author on reported concentrations, reviews and discussions of  $^{137}\text{Cs}$ ,  $^{90}\text{Sr}$  and  $^{239+240}\text{Pu}$  in seawater, sediment and the biota from parts of the North and South Pacific Ocean. Each reference has been assigned an accession number consisting of the first three letters of the first author's last name followed by the first letter of the first name, the year of the publication and an assigned number. Studies in both the coastal areas and the open ocean are included as well as those providing data within lagoons of coral atolls. Some references to the radionuclides in the Indian Ocean are also provided.

**Part I** contains a compilation of references to  $^{137}\text{Cs}$  and  $^{90}\text{Sr}$  in the Pacific and Indian oceans extracted from a chapter written by Volchok, Bowen, Folsom, Broecker, Schuert and Bien (Volh713107) entitled "Oceanic Distributions of Radionuclides from Nuclear Explosions" published in the 1971 National Academy of Sciences (NAS) publication, "Radioactivity in the Marine Environment" (see listing under Volh713107 in part II for the complete reference). This chapter contains a comprehensive review of reports on  $^{137}\text{Cs}$  and  $^{90}\text{Sr}$  in the world oceans made prior to 1970. The few measurements of  $^{239+240}\text{Pu}$  that were made in seawater prior to this time were also acknowledged in this chapter of the RIME report. However all references to  $^{239+240}\text{Pu}$  in the Pacific are found in sections II and III of this bibliography.

**Part II** contains additional more recent (since those in the 1971 NAS report) publications that either report or review measurements of  $^{137}\text{Cs}$ ,  $^{90}\text{Sr}$  and  $^{239+240}\text{Pu}$  in Pacific seawater and sediment. A few early publications not reported in Volh713107 are also listed in this section.

**Part III** provides recent publications that either report or review measurements of  $^{137}\text{Cs}$ ,  $^{90}\text{Sr}$  and  $^{239+240}\text{Pu}$  in marine biota from the Pacific Ocean.

This bibliography will appear as an annex to an International Atomic Energy Agency Coordinated Research Program (CRP) document entitled "World Wide Marine Radioactivity Studies". This contribution will be published as an IAEA TECDOC and will be available in early 2001. The references in this UCID were used to generate a Pacific ocean concentration data base for  $^{137}\text{Cs}$ ,  $^{90}\text{Sr}$  and  $^{239+240}\text{Pu}$  in seawater and sediment that will be part of this IAEA TECDOC.

The author is indebted to the other members of the CRP who helped in supplying some personal and other references for this bibliography. These individuals include: A. Aarkrog, Riso National Lab, Denmark; H. Nies, Federal Maritime and Hydrographic Agency, Germany; R. Delfanti, Environmental Energy Research Centre S. Teresa, Italy; S. Shima, Japan Marine Science Foundation, Japan; G. Hong, Korea Ocean Research & Development Institute, Republic of Korea; K. Buesseler, Woods Hole Oceanographic Institution, United States; K. Hirose, Japan Meteorological Agency, Japan; P. Povinec and O. Togawa, IAEA Marine Environment Laboratory, Monaco. No claim is made as to the completeness of the list of publications dealing with studies of  $^{137}\text{Cs}$ ,  $^{90}\text{Sr}$  and  $^{239+240}\text{Pu}$  in the Pacific Ocean. The author regrets omitting any relevant report (s) from this bibliography.

**Part I. References to  $^{90}\text{Sr}$  and  $^{137}\text{Cs}$  in the Pacific Ocean abstracted  
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