

XIII. Radioactive Materials

Section XIII of the Modifications of Activities Planned for 2007-2008 lists any changes in the radioactive materials used during this time period and provides information regarding their form, nuclide, site, and specific use.

Add

PROJECT	NUCLIDE	FORM	SITE	USE
V-457-E (Hutchins)	¹⁴ C	¹⁴ C - Sodium Bicarbonate	R/VIB ODEN/ Sweden	Southern Ocean phytoplankton productivity studies (incudations).
V-457-E (Yager)	¹⁴ C ¹⁴ C ¹⁴ C ¹⁴ C ¹⁴ C ¹⁴ C	¹⁴ C - Sodium Bicarbonate (non-volatile liquid) ¹⁴ C - Leucine (non-volatile liquid) ¹⁴ C - Mixed AminoAcids (non-volatile liquid) ¹⁴ C - Glucose (non-volatile liquid) ¹⁴ C - Lipids (non-volatile liquid) ¹⁴ C - Lindane (non-volatile liquid)	R/VIB ODEN/ Sweden	Southern Ocean phytoplankton productivity studies (incubations) bacterial productivity
B-016-L	³ H	³ H - Leucine	R/V <i>Laurence M. Gould</i>	Palmer, Antarctica Long Term Ecological Research Project: Climate Migration, Ecological Response, and Teleconnections in an Ice-Dominated Environment (Phytoplankton Group)

PROJECT	NUCLIDE	FORM	SITE	USE
B-024-M	³ H	³ H ₂ O	<i>McMurdo Station</i>	Capital expenditure, lactation energetics and the importance of foraging to Weddell seals and their pups
B-069-M	⁴⁵ Ca	⁴⁵ Ca	<i>McMurdo Station</i>	Collaborative Research: RUI - Impacts of elevated pCO ₂ on a dominant aragonitic pteropod (Thecosomata) and its specialist predator (Gymnosomata) in the Ross Sea
B-195-M	¹⁴ C ³⁵ S	³⁵ S sodium sulfate ¹⁴ C acetate ¹⁴ C sodium bicarbonate ¹⁴ C methane	<i>McMurdo Station</i>	Collaborative Research: Microbial Diversity and Function in the Permanently Ice-Covered Lakes of the McMurdo Dry Valleys, Antarctica
B-234-M	¹⁴ C ³ H	¹⁴ C – Sodium Bicarbonate ³ H – Thymidine ³ H –Leucine	McMurdo Station/Dry Valleys	IPY- Plankton Dynamics in the McMurdo Dry Valley Lakes during the Transition to Polar Night
B-422-M	¹⁴ C ³ H	¹⁴ C – Toluene ³ H – Thymidine ³ H – Toluene ¹⁴ C – Sodium Bicarbonate ³ H –Leucine ¹⁴ C - Leucine ¹⁴ C – Glucose ¹⁴ C – Acetate	McMurdo Station/Dry Valleys	The Role of Natural Legacy on Ecosystem Function and Structure in a Polar Desert.

<u>PROJECT</u>	<u>NUCLIDE</u>	<u>FORM</u>	<u>SITE</u>	<u>USE</u>
G-091-M	¹³⁷ Cs	¹³⁷ Cs - Sealed Source	McMurdo Vicinity	ANDRILL
I-153-M	²⁴¹ Am	²⁴¹ Am - Sealed Source	McMurdo Vicinity	A Science Management Office for the United States Component of the International Trans Antarctic Expedition (US ITASE SMO) – A Collaborative Program of Research from Taylor Dome to South Pole

Delete

<u>PROJECT</u>	<u>NUCLIDE</u>	<u>FORM</u>	<u>SITE</u>	<u>USE</u>
B-002-N	³ H ³⁵ S ¹⁴ C	³ H - Leucine ³⁵ S - Methionine ¹⁴ C - DMSO ³⁵ S - DMSP ¹⁴ C - DMSP	R/V <i>Nathaniel B. Palmer</i>	Impact of solar radiation and nutrients on biogeochemical cycling of DMSP and DMS in the Ross Sea
B-047-N	¹⁴ C	¹⁴ C – Sodium Bicarbonate	<i>Nathaniel B. Palmer</i>	Study to determine the influence of UV radiation of phytoplankton growth rates
B-228-N	¹⁴ C ³ H ⁵⁵ Fe	¹⁴ C-Sodium Bicarbonate ¹⁴ C-Leucine ³ H-Thymidine ⁵⁵ Fe- Ferrous Chloride ¹⁴ C-Glucose	<i>Nathaniel B. Palmer</i>	Study of growth rates, metabolism, and the influence of iron availability on phytoplankton communities

PROJECT	NUCLIDE	FORM	SITE	USE
B-200-N	³ H	³ H - Thymidine/Leucine	R/V <i>Nathaniel B. Palmer</i>	Interactive effect of UV vertical mixing on phytoplankton and bacterial productivity of Ross Sea Phaeocystis bloom
B-203-N	¹⁴ C	¹⁴ C - Bicarbonate	R/V <i>Nathaniel B. Palmer</i>	Interactive effects of UV and vertical mixing and phytoplankton and bacterioplankton in the Ross Sea
B-272-N	¹⁴ C	¹⁴ C - Bicarbonate	<i>Nathaniel B. Palmer</i>	Study of the influence of UV radiation on phytoplankton growth rates
B-386-N	¹⁴ C	¹⁴ C - Sodium Bicarbonate	R/V <i>Nathaniel B. Palmer</i>	Study of the influence of UV radiation on phytoplankton growth rates
O-215-N	⁶³ Ni	⁶³ Ni – Foil	R/V <i>Nathaniel B. Palmer</i>	ANSLOPE - Cross slope exchanges at the Antarctic Slope Front (source is inside an electron capture detector of a gas chromatograph)
B-022-P	³ H ¹⁴ C	³ H - Tryptophan ¹⁴ C - Tryptophan	Palmer Station	B-022-P