

DEAR management board of TANDEM

Experiment Title ̀Nuclear pollution from Fukushima accident affecting
the Western Pacific Coast of California Measured by high sensitive analyses
performed with Accelerator Mass Spectrometry (AMS) ̀
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Short presentation of the scientific project

In cadrul cercetarilor noastre provitor le poluarea mediului inconjurator, in
cadrul colaborarii cu Universitatea Tucson , Arizone si in cadrul Programului
ARTIE , s-a preconizat initierea cercetarii intitulata :

̀Nuclear pollution from Fukushima accident affecting the Western Pacific Coast
of California Measured by high sensitive analyses performed with Accelerator
Mass Spectrometry (AMS) ̀

In urma accidentului de la Fukushima, din anul trecut s-a format un front marin,
con, in, nd o mare cantitate de defeuri radioactive deversate in momentul
accidentului si care s-a deplasat pe liniile de curent din Oceanul Pacific spre
Coasta de West a SUA.

Impactul maxim este calculat conform modelelor de transport sa aib,, loc la
sf, rfitul lunii iunie 2013. Dimensiunea si componenta nucleara a acestui val de
poluare poate fi urm,,rita si determinata experimental cu mare acurate, e prin
metoda AMS, ob, in, nd si datele necesare de evaluarea reala a polu,,rii mediului
si consecin, elor pe teren lung.

Pentru realizarea acestei cercet,,ri am beneficiat de colectare de probe de apa
din ocean pe durata a 10 s,,pt,,m, ni , prin voluntariat asigurat de Universitatea
San Diego. Apa a fost colectata ba-s,,pt,,m, nal si cantitatea actual,, colectat,, a
ajuns la 60 l.

Mauratorile si determinarea graficului de poluare sunt urgent necesare si mai
ales pe seama noii contaminari produse recent de TEPCO in urma taifunului Man-
yi, care a obligat operatorul sa deverseze material radioactive.

Beam time request(unit=8 hours) : 30
Desired Period : nov. 2013-apr 2014

Desired beam properties

Type : 127I, 129I
Energy(MeV) : 1
Intensity(p/nA) : 300
Vacuum Requests : 10-7

Special requirements for detectors, electronics, aquisition system

1 MV tandem accelerator Laboratory

Minimal information needed for the radiological risk evaluation:

a)Source activity : none
b)Use of open sources :
c)Estimate of the residual activity as a result of irradiation : none
d)Means of storage/transportation for irradiated targets : none

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