

CNA (Universidad de Sevilla-Junta de Andalucía-CSIC)

A guide for CNA first time users

What can CNA do for me?

There is a variety of problems that can be solved using CNA accelerators. Here are some cases:

1. I have an arqueological sample, and I want to date it. You need radiocarbon, which is carried out in the MICADAS accelerator. (Access application)

2. I have some material, and I want to know its composition, or its layer structure. You need <u>IBA techniques</u>, which are carried out in the <u>3MV tandem</u>. (Access application)

3. I have a particle detector, and I want to check how it works. You need to produce charged particles in the <u>3MV Tandem</u>, or in the <u>Cyclotron</u>. (Access application to Tandem experiments) (Access application to Cyclotron experiments)

4. I have a new solar cell, and I want so see how resistant it is to radiation. You need photon irradiation, which is carried out in the $\frac{60}{Co}$ irradiator. (Access application to Irradiator experiments)

5. I have a natural sample of water, or sediment, and I want to see if it has traces of some rare isotope. Using the <u>AMS accelerator</u>, you can do this analysis. (<u>Access application</u>)

6. I have a new molecule, which can be traced with PET isotopes, and I want to see how it affects animal models. Using the <u>PET / CT Scanner</u> of the CNA, this study can be performed. (<u>Access application</u>)

How can I access CNA?

You need to fill a <u>beam time application</u>. Make sure that you make a compelling case, because your application will be evaluated by a member of CNA scientific committee. Once approved, your proposal will be allocated beam time, and carried out. We will send you the results, as well as an invoice for the usage fees (<u>Price list</u>). Note that you will have to acknowledge the usage of CNA facilities in all relevant publications, as well as let us know them.

Página | 1



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Will I get help from CNA staff?

Yes indeed. Your first contact should be <u>solicitudescna@us.es</u>, which will direct you to the relevant member of the staff, which will help you filling the application and performing the measurement.

If requested, you can also get help improving the proposal, the measurement conditions, and the scientific analysis and interpretation of the data. In that case, we expect that the relevant CNA staff is incorporated as co-authors in the relevant publications.

Are the results of my measurements confidential?

The results of the measurements belong to the users which propose the measurement. This is especially relevant for measurements requested by companies. However, CNA will keep confidential records of all measurements carried out, the confidentiality ensured by ISO procedures. In the case of measurements proposed by research organizations, CNA expects that the measurements will be eventually make public, either through scientific publications or through patents. These publications should acknowledge the usage of CNA facilities. CNA can make use of general information about the experiments, for the purpose of the bi-annual reports and CNA promotion.

Do I need to be physically at CNA to perform the measurement?

Not necessarily. Standard measurements can be carried out by CNA staff alone. However, other more complex measurements require the interaction of the user and CNA staff, and this is facilitated by the user presence during the experiment. CNA staff will be willing to discuss with the users, to explain the techniques, and to explore future improvements and collaborations.

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Página | 2