

INDUCTION GUIDE FOR NEW EMPLOYEES OF INSTITUTO DE CARBOQUÍMICA ICB-CSIC

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CONTENTS

- 1.- Welcome
- 2.- Introduction
- 3.- Operation
- 4.- Occupational risk prevention
- 5.- Health and safety essentials at ICB-CSIC
- 6.- Gender Equality Unit
- 7.- Waste collection and management

1. WELCOME

Welcome to the Instituto de Carboquímica (ICB-CSIC), one of the research institutes operated by CSIC in Aragon. Your successful integration as an employee of our institute is of great importance to us, and in order to facilitate your adaptation, this induction guide includes the essential aspects of its general operation and the necessary information regarding prevention of occupational risks so that you can perform your work under the safest and most effective conditions possible.

2. INTRODUCTION

2.1 WHAT IS CSIC?

CSIC stands for Consejo Superior de Investigaciones Científicas (Spanish National Research Council), the largest public institution in Spain devoted to scientific and technological research and one of the most distinguished of its kind in the European Research Area. It is affiliated to the Ministry of Science and Innovation through the General Secretariat for Research.

CSIC's mission is to promote, coordinate, develop and disseminate multidisciplinary research in science and technology in order to contribute to the advancement of knowledge and economic, social and cultural development; as well as to train researchers and provide advice to public and private entities in these fields. (Article 4 Statutes). In order to fulfil the mission entrusted to CSIC as the main agent responsible for implementing the Spanish System for Science, Technology and Innovation, it is authorized to carry out activities aimed at:

- The generation of knowledge through scientific and technological research
- The transfer of research findings, in particular to promote and create technology-based enterprises
- The provision of expert advice to public and private institutions
- The delivery of highly-specialized pre-doctoral and post-doctoral training
- The promotion of scientific culture in society
- The management of large facilities and unique science and technology infrastructure
- Presence and representation in international organizations
- Conducting targeted research

Owing to its multidisciplinary and multisectoral nature, CSIC covers all fields of knowledge. Its activity, which ranges from basic research to technological development, is organized into eight scientific and technical areas. CSIC's research activity is structured into three main areas: SOCIETY, LIFE AND MATERIA, which cover the greater part of human knowledge and under which the activity of more than 1,500 research groups at its 120 research centres falls.

More information about CSIC (information on the institution, its research centres, research projects, training and employment, intranet, technology transfer, international presence, publications, history, reports, library network, databases, etc.) can be found at www.csic.es.

The CSIC intranet (<u>www.intranet.csic.es</u>) is accessed by means of passwords provided by the CSIC head office and is divided into different sections: institutional, utilities, services, topics of interest, career opportunities, communities and corporate. CSIC employees are required to access the CSIC intranet and consult certain pages, such as <u>Occupational Risk Prevention</u>.

2.2 WHAT IS ICB-CSIC?

What we know today as the Instituto de Carboquímica (Institute of Carbon Chemistry) began its existence as the Instituto del Combustible (Fuel Institute), which was initially founded for the study of the different types of coal mined in Aragon.

The Instituto del Combustible was founded in 1940 and incorporated into the recently created CSIC with Luis Bermejo Vida as its first director. Upon his death in 1942, his successor, Vicente Gómez Aranda – then professor of Organic Chemistry in the Faculty of Science of the University of Zaragoza – arranged for the Instituto del Combustible's Madrid-based laboratory to be relocated to Zaragoza. In 1946 the Instituto del Combustible was renamed the Instituto Nacional del Combustible (National Fuel Institute) and the laboratory in Zaragoza became an internal division. Its name was again changed in 1965 to the Instituto Nacional del Carbón y sus Derivados (National Institute for Coal and Coal Derivatives), with its headquarters in Oviedo and with departments located in Zaragoza and Leon. As the result of a decision taken by CSIC in 1975, the Zaragoza department of the Instituto Nacional del Carbón y sus Derivados was raised to the category of an institute in its own right and named the Instituto de Carbiquímica.

Initially located in the Paraninfo building, sharing space with the assembly hall of the University of Zaragoza, ICB-CSIC moved into its own facility located within the Campus Río Ebro science park in 1994.

After the integration of the staff that was part of the LIFTEC (Laboratory for Research in Fluid Dynamics and Combustion Technologies) at the Institute of Carbochemistry, work 137 people, 103 from ICB and 34 from LIFTEC.

The research that is being developed is grouped into two general lines:

- I. Development of sustainable processes for the generation of energy, new raw materials and high value-added chemical products from renewable resources, studying aspects from the basic chemistry to their industrial application.
- ii. Development of devices for sustainable applications (energy, environment, ...).

2.3. ORGANIZATIONAL STRUCTURE

ICB-CSIC currently has the following organizational structure:

- Management
- Administration Division
- Institute Board
- Scientific Council
- Equality Unit.
- Administrative-Technical Services
- Scientific-Technical Services
- Departments

The institute comprises s research groups divided into two departments: Energy and Environment and Chemical Processes and Nanotechnology. It also comprises the Scientific—Technical Services Unit, Administrative—Technical Services Unit and Gender Equality Unit.

2.3.1 Department of Energy and Environment:

The main research lines of this department are:

- Hydrogen technologies: sustainable production and uses
- Devices for efficient energy storage and generation
- Processes decarbonization
- Use of waste and biomass for the production of energy, new raw materials and high value-added chemical products

The Research Groups attached to this department are:

- Combustion and Gasification
- Environmental Research
- Fuel Conversion
- Engineering of Energetic Devices and Fluidynamics

2.3.2.2 Department of Chemical Processes and Nanotechnology:

The main research lines of this department are:

- Development of sustainable nanotechnology strategies and processes for clean energy and environmental applications
- Development of chemical processes and analytical technologies related to energy and bioenergy

The **Research Groups** attached to this department are:

- Carbon Nanostructures and Nanotechnology
- Separation and Detection
- Advanced Chemical Processes

2.3.3 Administrative-Technical Services

This support unit is divided into the following services:

- 1. Administration.
- 2. Research and Scientific Dissemination Support.
- 3. IT Maintenance and Support.
- 4. Financial-Administrative Service.
- 5. General Maintenance.
- 6. Reception, Security and Switchboard.

Administration Division

The ICB-CSIC Administration Division is responsible for:

- Financial and administrative management for general services, purchasing and supply, and the upkeep of the institute's facilities, with the issuing of the applicable certifications under its competence.
- Management, oversight and control over the work of employees assigned to these duties.
- The office of the secretary of the Institute Board.

Research and Scientific Dissemination Support

The main activities of this service are:

- (a) Coordination of the participation of researchers from ICB-CSIC in important scientific dissemination projects for students and the general public (Science Week, European Researchers' Night, City Science Initiatives, Inspiraciencia and International Years).
- (b) Collaboration with educational institutions to promote scientific culture and careers in science (open days, design of educational material, events and talks at schools, workshops and competitions).
- (c) Promotion of the scientific culture to the general public: lectures, exhibitions and competitions. Women and Science Studies

IT Maintenance and Support

The IT&C Service provides IT support for all ICB-CSIC staff. It is entrusted with the maintenance of and adjustments to personal computers located in offices, laboratories and common areas in the facility (library, user's area, etc.). It also handles the maintenance of local area networks, including wireless networks and WiFi for DNS servers and e-mail (new accounts, e-mail lists), firewalls and VPN infrastructure.

2.3.4 Scientific-Technical Services

This support unit encompasses two services:

Analysis and Characterization Service

This is a research support unit that handles a wide variety of analytical and instrumental techniques for the characterization of all kinds of materials. The service currently offers a large range of services in its catalogue, including fuel characterization (elementary, immediate and calorific value analysis), ion chromatography, spectroscopic analysis (chemical analysis via ICP-OES, XPS, Raman spectroscopy, FTIR), X-ray diffraction, scanning electron microscopy (SEM), textural characterization (physisorption, mercury porosimetry, density, particle-size distribution) and thermal analysis (TGA, TPx, mass spectrometry).

The laboratory offers its services to ICB-CSIC researchers and researchers from other public research institutions and universities, and to businesses and private individuals who may require them. The mission of this service is to perform tests and to make improvements to new analytical methods with the highest technical and scientific standards, and working responsibly and transparently to ensure maximum reliability of results.

Library and archive

The Instituto de Carboquímica Library is a specialist facility belonging to the CSIC Libraries Network. It houses an important collection of books, monographs and local and international scientific journals, all dealing with coal, biomass, coal conversion processes, energy, environment, materials and instrumental techniques. It also holds a collection of geological maps of Spain and a collection of mining-related photographs and slides, in addition to a reference collection consisting of specialist dictionaries, encyclopedias, standards, handbooks, etc.

Services includes on-site consultation and reading, bibliographical and reference searches, personal borrowing and inter-library lending.

2.3.5 Equality Unit

The main aims of this unit are:

- To advise on the necessary or appropriate measures required to actively implement the principle of equality between women and men into the institute's daily activity.
- To monitor the application of the CSIC Equality Plans
- To promote the gender perspective as a cross-cutting category in all aspects of the institute's operation.
- To incorporate local and international gender equality initiatives.
- To foster forums for meeting and discussion in which to analyse the situation of women in research and science.

3. ICB-CSIC OPERATION

3.1 Staff registration and deregistration

Any individual occupying a position at ICB-CSIC for non-civil service staff or statutory staff will be assigned to a Department, Management, a Service or the Administration Division, and to a member of staff who will oversee their activity.

New employees of ICB-CSIC must first complete the following formalities:

STEP 1: new employees must go to the ICB-CSIC Financial—Administrative Service to sign the documents certifying their employment at the institute.

Civil servants: Register of service.

Contract employees: Prior to the date of incorporation, the individual must supply the required documentation (national identification document number, academic qualification, social security number, bank account details, medical certificate) and sign the contract, declaration of non-incompatibility and sworn statement in accordance with the new statute.

Research grant-holders: Acceptance document and register of service.

STEP 2: New employees must present themselves to the ICB-CSIC Financial–Administrative Service to be registered in the institute's database and a check will be made of their registration for access to the CSIC intranet.

In order to register staff, a form must be submitted with the information to be entered into the database. The following information is required:

- First name
- Surname(s).
- Tax identification number (NIF).
- Address (street name and postcode).
- Landline or mobile telephone number.
- Place and date of birth.
- Unit (of which the laboratory where services will be provided is a part).
- Laboratory (number and head researcher).
- Laboratory telephone number.
- Academic qualification.
- Employment situation (civil servant, non-civil service employee, contract employee, research grant-holder, student, research placement/internship, etc.).
- Organization (CSIC, Government of Aragon, etc.).

- Contract (employment category, position, type of research grant or contract, etc.).
- End of contract (duration of the employment situation or time to be spent at the institute).

STEP 3: The Financial-Administrative Service will inform the head of the IT Service of the new employee's incorporation into the institute and, according to their terms of employment, proceed to:

- Open an e-mail account and add it to the different e-mail lists.
- Provide printer passwords.
- Add the new employee to the staff list on the institute's website.

Once the new employee has been assigned a specific physical workplace (office, laboratory, etc.), the IT Service will proceed to connect their computer to the institute's local area network via cable, eduroam WiFi network or guest WiFi network, as applicable.

Access will be granted via the ICB-CSIC website (www.icb.csic.es) to the staff directory and all information regarding the institute's activity, in addition to information on occupational risk prevention. Furthermore, new employees will be able to access their personal information, information on research projects in progress and payroll information via the CSIC intranet (www.intranet.csic.es).

Staff deregistration

Deregistration takes place when employees terminate their employment situation at this institute. This procedure is simple in the case of contracts and research grants processed by CSIC; in all other cases, the employee must inform the Financial–Administrative Service of their discontinuance.

3.2. ICB-CSIC intranet: clocking in/out and request forms

When you enter the URL http://10.100.201.3/, you will find the applications available for ICB-CSIC staff: clocking in/out, purchasing and suppliers, analysis service request forms, IT services. This URL can only be accessed at ICB-CSIC or when the ICB-CSIC network is accessed via VPN.

3.3. Other requests

<u>Authorization for secondment:</u> The request form for travel authorization is to be found in the Management section of the website: http://www.icb.csic.es/index.php?id=460.

Annual leave, personal leave and other forms of leave: On the CSIC intranet (www.intranet.csic.es).

<u>Car park access cards</u>: Car park access cards can only be issued to holders of an employment contract with the institute. The institute accepts no liability for any damage, theft, etc. caused to any vehicles parked on the premises. A five-euro deposit is required when an application is made for a card, which is refunded when the card is returned. Applications for

cards are to be submitted to Administration, and a document acknowledging acceptance of this rule is to be signed when it is issued.

Office and locker keys: ICB-CSIC staff are entitled to a key to their office and other areas on the premises, with the following conditions:

- The use of keys is non-transferable.
- Making copies of keys is forbidden.
- Staff must report the loss of any keys.

Keys must be returned to ICB-CSIC Management or Administration upon termination of employment or when their use is no longer required. Applications for keys are to be submitted to Administration, and a document acknowledging acceptance of this rule is to be signed they are handed over.

3.4. Access and working hours

The building is open continuously between 7.45 am and 7 pm from Monday to Friday. It is closed at weekends and on public holidays.

Working hours are established every year through the instructions given by the Secretary General of CSIC, who is responsible for setting the working calendar, and are displayed on the noticeboard at ICB-CSIC. These instructions can be accessed via intranet/personal information/working calendar.

No staff members are permitted to remain on the ICB-CSIC premises outside of the previously mentioned times and days.

3.5. Common spaces and facilities

- a) Rest areas: The institute provides a rest area on the first floor of the main building and one in Nave Experimental (Experimental Facility) II, where you will find vending machines for coffee, snacks, soft drinks, etc. These spaces also have microwaves and refrigerators for heating and storing food.
- b) Meeting rooms: The institute currently has a conference room and two meeting rooms for use by staff. These must be booked in advance at Reception.
- c) Photocopier: There are three photocopiers for general use at ICB-CSIC, two of which are located in the main building one in a corridor on the ground floor and the other opposite the Management office and the third located in Nave Experimental II. Use of these photocopiers requires a personal password supplied by the IT Service.
- d) Internet and e-mail: Both the main building and experimental facilities have with wired and wireless Internet connections.

4. OCCUPATIONAL RISK PREVENTION

The CSIC website (<u>www.csic.es</u>) and, more specifically, intranet (<u>www.intranet.csic.es</u>) provide ample information on occupational risk prevention (organization, documentation, legal information, links of interest, etc.).

CSIC has chosen to design its own risk prevention service, structured as the Occupational Risk Prevention Division and made up of six Occupational Risk Prevention Services.



The Occupational Risk Prevention Service (SPRL) of Aragon serves the CSIC research institutes located in the autonomous regions of Aragon, Navarre, La Rioja, Basque Country and Asturias.

Occupational Risk Prevention Service:

This service is located in the CSIC Regional Office in Aragon at Plaza Emilio Alfaro Gracia, no 2 y 3, bajos, in Zaragoza. Telephone Nos: 976 469608 and 976 469719 (see Appendix). This Risk Prevention Service provides technical advice and support for occupational risk prevention (ORP) to Administration and employees, and to their representatives and to representative bodies.

The Health and Safety Committee of Aragon is the body jointly representing the institute and its employees with regard to ORP. Its functions are to take part in the creation and implementation and assessment of the institute's risk prevention programmes and to exercise the competences granted to it in order to identify all ORP-related aspects within the institute.

The institute's health and safety officer represents all the employees of ICB-CSIC with regard to ORP (see Appendix).

Work-related accident insurance coverage:

Work-related accidents involving CSIC are covered by the FREMAP mutual insurance company. The company provides assistance and monitoring for work-related accidents and occupational diseases. It provides assistance for any accidents that may involve employees while engaged in work both on-site and off-site, and while travelling to and from work.

If the accident is considered MINOR:

- 1. Apply first aid. The following material is available:
 - First aid kits These are located in the corridors of the institute buildings (see *Plans*). In addition, all official vehicles are equipped with portable first aid kits.
 - Emergency showers and eye wash stations located in laboratories (see *Plans*).
 - Report any incidents to your immediate superior.
- If a work-related accident requires you to be treated by the insurance provider's medical services, you must collect an assistance form that will be provided to you and filled out by the institute's secretary, and inform those responsible for ORP and your immediate supervisor. Preferentially, go to the FREMAP medical centre with the form provided.

In the event of MAJOR accidents, the casualty must be transferred directly to the nearest hospital emergency department. Prior to transfer, the *PAS* (Spanish for "*protect* yourself, *notify* emergency services, *assist* the casualty") emergency procedure must be implemented and the incident reported to the casualty's immediate superior. The report must give accurate information on:

- The place where the accident took place.
- Type of accident (intoxication, heat or chemical burn, injury, etc.).
- Number of casualties.
- The casualty's apparent state (conscious, bleeding, breathing, etc.).

It is important not to hang up before being ordered to by the emergency services operator as further details could be required.

It is recommended that a person should be available to guide the emergency services to the scene of the accident. In these cases, the emergency services telephone number is 112.

Preventive care

The preventive care provider currently under contract with CSIC is **IBERSYS**.

It is responsible for:

- Specific and routine medical examinations, according to risk.
- Vaccination: tetanus, flu, etc. Before undertaking work-related travel to countries with specific risk, you are advised to inform the Preventive Care Service of Aragon (for assessment of the specific vaccines required in each case).
- First aid training and other specific health surveillance courses.

The main websites or links of interest are:

<u>www.insht.es</u> website of the Instituto Nacional de Seguridad e Higiene en el Trabajo (National Institute for Health and Safety in the Workplace – INSHT), where ORP-related documentation of all kinds can be found. This is the best ORP-related website.

<u>www.micyt.es</u> the website of the Spanish Ministry for Industry, Consumption and Tourism MICYT) is the leading source of information on the laws governing health and safety in industry.

<u>www.mspei.es</u> the website of the Spanish Ministry of Health Policy and Equality (MSPEI) provides information on occupational health and safety regulations.

http://guindo.pntic.mec.es/lbeg0001/anexos/Anexo4-Seguridad.en.los.laboratorios.pdf A website belonging to the main manufacturers of chemical products, Panreac.

What to do in the event of an emergency

Emergency services telephone number: 112

FREMAP Emergency Department: 900 610061

ICB-CSIC staff members responsible for dealing with emergency situations (see Appendix):

Emergency Officer (EO)
Security Control Centre (SCC)
Intervention Officer (IO)
First Response Team (FRT)

In the event that the emergency alarms sound, you must make your way to the nearest emergency exit as quickly as possible. You must move along the corridors in an orderly manner and keep to the right side to allow the emergency response team to check the facilities. Once you exit the building, you must go the meeting point located outside the fence in the street Calle Miguel Luesma Castán. There is a sign indicating its exact location. On no condition is any individual to remain in the reception area to observe the work of the emergency response team.

When contacting external support services, fire and rescue service, civil protection, etc., you must provide:

- 1. THE INSTITUTE'S NAME
- 2. A DESCRIPTION OF THE SITUATION
- 3. LOCATION
- 4. NUMBER OF BUILDING OCCUPANTS
- 5. EXISTENCE OF CASUALTIES
- 6. MEASURES TAKEN
- 7. TYPE OF ASSISTANCE REQUESTED

Staff must be able to identify and locate all the emergency exits, which are indicated on the evacuation plans posted in the corridors of ICB-CSIC.

5. HEALTH AND SAFETY ESSENTIALS AT ICB-CSIC

This section explains a number of health-related ailments or problems in the workplace and their measures to prevent them when working in ICB-CSIC offices and laboratories, and in the field.

OFFICE WORK AND DISPLAY SCREEN EQUIPMENT

Health-related risks

Eye strain, muscular and skeletal disorders (tendonitis, tenosynovitis, carpal tunnel) and mental fatigue. For further information, visit the INSHT website.

Offices are places where, in addition to the typical health and safety incidents (collisions, falls, fires, etc.), other types of problems occur that are perhaps less visible but no less important. These are derived from the improper ergonomic design or use of the workplace (furniture, lighting, noise, posture, etc.) and also organization-related aspects (working hours, communication, distribution of responsibilities, etc.) We refer to muscular pain, allergies, impaired sight, stress and physical and mental fatigue. The following is a series of basic guidelines for general application that can help to prevent many of the occupational risks present in offices.

Basic guidelines

- Operators of display screen equipment are advised to take regular eye tests.
- Relaxation exercises for the head, shoulders, back, waist, arms, etc. that act on the spine and improve blood flow to the muscles are recommended.
- When performing monotonous tasks or involving large amounts of information, it is advisable to take regular 10–20-minute breaks after every 90 minutes or two hours of continuous work to counteract the negative effects of physical or mental fatigue. Halting use of the computer is not considered a rest break; make use of a rest area or do a different task.

FIELD WORK

Unlike staff who work in offices or laboratories, field work involves employees being in remote locations should situations requiring emergency assistance occur. In such cases, these basic guidelines essentially require employees to be being easily located and offer guidelines for individual action, i.e., maximum personal protection, given that there are limitations to the number of people who can provide assistance and the collective resources available.

Basic guidelines

- As far as possible, travel to remote locations should not involve a single individual. In extreme cases where this is necessary, contact must be kept with a designated

- person, reporting itinerary, estimated departure time and safe return. Before leaving, checks must be made of the condition of the vehicle, equipment and tools to be used.
- Wherever equipment, instruments, materials, etc. are to be used, you must be fully acquainted with their operation and all the safety precautions to be taken for their correct use. Rings must not be worn when performing tasks where there is a risk of becoming caught (climbing trees, climbing ladders, etc.).

LABORATORY WORK

Whenever laboratory work is to be performed at ICB-CSIC, you must communicate this to the lead researcher, who will inform laboratory management.

Laboratory work involves inherent risks that are described in the health and safety specifications NTP-432, NTP-433 and NTP-500 [in Spanish only].

These are summarized in the following section. However, it is advisable to read these specifications in their entirety.

Actions to minimize risks:

- Familiarize yourself with the characteristic hazards of the substance you are handling.
- Prior to performing a task, inform yourself of the proper way of working.
- Acquire and maintain good working practices.
- Work with material in good condition and of sufficient quantity to satisfy requirements.
- Do not accumulate materials on work surfaces. Make rational use of the available space.
- Familiarize yourself with the location of personal protective equipment (PPE: gloves, safety glasses, masks), emergency facilities and means of action (emergency showers, eye wash stations, fire blankets, fire extinguishers, emergency buttons and first aid kits).
- Take extra precautions when ethidium bromide, acrylamide or any other highly toxic or mutagenic substances are being used in your laboratory. Do not use them without authorization and/or if you have not been trained for their safe use.

General rules:

- Laboratories must be kept clean and tidy.
- Any spills, no matter how small, must be cleaned up immediately after they occur.
- No new experiments may be conducted without explicit authorization from the head of the laboratory, and no new devices or facilities may be turned on without prior knowledge of their operation, characteristics and requirements, both in general and in relation to safety.

Rules of conduct:

- As a basic rule of hygiene, all members of staff must wash their hands upon entering or leaving a laboratory and whenever they may have come into contact with any chemical product.
- Lab coats must be worn at all times fully buttoned and long hair must be tied back. The use of necklaces or wide sleeves that may become caught in laboratory equipment must be avoided.
- All work must be performed on tables or benches on which no personal objects are to be placed.
- Working alone in a laboratory is not permitted, particularly outside of normal working hours, at night, or when performing risky operations. When such work is performed, any individuals who are not involved but may be affected by it must be informed.
- It is forbidden to eat and store food in laboratories.
- On no condition may laboratory receptacles be used to hold food or drinks, or food containers be used to hold chemical products.
- Furthermore, contact lenses must not be worn if a constant eye irritation is detected, particularly when the wearing of safety glasses is not compulsory. The use of prescription safety glasses or safety glasses that can be worn over prescription glasses is recommended.

Use of products and materials:

- Before proceeding to use products and materials, always check to ensure that they are in good condition.
- The correct labelling of the chemical products received by the laboratory must be checked and prepared solutions must be properly labelled. Do not reuse containers for other products without first removing the label.
- Chemical products must be handled with care. They must not be carried in pockets, touched, tasted or pipetted by mouth. The minimum amount required for daily work must be kept in the laboratory.
- Domestic refrigerators must not be used for storing chemical products; and food and drinks must not be stored in refrigerators for chemical products.
- Test tubes must not be filled to a depth of more than 2–3 cm and must be held with the fingers, not the hands. They must always be held with tongs when heated and only heated on one side. They must not be carried in pockets, and test tube racks must be used to store them. The correct stands must be used to hold laboratory equipment whenever required.
- Reduce the use of open flames in the laboratory to the minimum necessary. Piezo-electric ignition lighters should be used to light burner wicks.
- When a task is completed, put away all materials, reagents, etc. to prevent their accumulation away from their storage areas.
- Make sure that devices, water and gas taps, etc. are turned off.
- There is a specific waste management plan. Consult your superior.

What to do in the event of a spill:

In the event of spills or discharges, you must act quickly to clean up the product immediately in order to prevent evaporation and damage occurring to facilities. The procedure for use depends on the characteristics of the product: flammable, acid, base, mercury, etc. Commercial absorbents and neutralizers are available. A list of the procedures for neutralizing and absorbing spills is contained in NTP-399.

The atmosphere in a laboratory may be toxic or explosive after an accident/incident: flask breakage, reagent spill, gas leak, etc.

The following actions are to be taken to control the risk:

If there is a minor pollution risk:

- Open all windows.
- Turn on the fume cupboard with the sash fully opened.

If there is a major pollution risk:

- Activate the emergency response system (described in Section 4 of this document).
- Evacuate staff from the premises.
- Alert the first response team, to be equipped with PPE appropriate to the risk: breathing equipment, protective clothing, gloves, etc.
- Turn off all devices with flame burners if the pollutant product is volatile and inflammable.
- Open all windows.
- Turn on the fume cupboards.
- If the cause of the incident is a spill, use the absorbent suited to the particular spill to soak it up, and then store the material in an airtight container, washing and rinsing it under running water, and always wearing gloves. If a suitable absorbent is not available, use absorbent paper.
- Bar entry to the premises until the ambient concentration of the dangerous substance in the atmosphere is no longer hazardous.
- Ambient measurements to gauge the pollutant levels.
- For instructions in the event of a gas leak, consult NTP-399

Chemical splashes in eyes and on skin:

- Immediately wash with water for 10–15 minutes, using the emergency shower when necessary. Remove any clothing and/or objects that may have been splashed by the product.
- If the splash has affected your eyes, use the eye wash station for 15–20 minutes, particularly when dealing with a corrosive or irritant substance. Do not attempt to neutralize the substance. See a doctor as quickly as possible and take the label or safety data sheet of the product with you.

<u>Dizziness or fainting resulting from a persistent toxic leak:</u>

- Protect yourself from the environment with breathing equipment before approaching the casualty.
- Transfer the casualty to a safe place and lay them on their left side.

- Loosen their clothing and anything that may be restricting movement, checking whether they have lost consciousness and are breathing normally. Take their pulse.
- Implement the *PAS* ("protect, notify, assist") emergency procedure. Start cardiopulmonary resuscitation (CPR) if necessary.
- Do not give the casualty food, drink or any products to restart their breathing.

Electrocution:

Electrocution or electric shock occurs when, owing to direct or indirect electrical contact, an individual forms part of an electric circuit, with an electrical current of a specific intensity passing through their body for a certain period of time.

The intensity depends on the voltage and the body's resistance, which in turn depends on the path the current takes and on physiological factors. The following actions are to be taken when an individual is "trapped" by the current:

- Cut off the electricity supply of the device that caused the accident before approaching the casualty in order to prevent another accident, and then transfer the casualty to a safe place.
- Implement the PAS ("protect, notify, assist") emergency procedure. Start CPR if necessary.
- Do not give the victim food, drink or any products to restart their breathing.

Heat burns:

The following instructions are for the treatment of heat burns:

- Cool the affected area by washing in plenty of cold water.
- Do not remove any clothing stuck to the skin. Cover the burnt area with clean clothing.
- See a doctor even if the area is only small and superficial.

Specific recommendations in these cases:

- Do not put anything on the skin (ointments, fat, disinfectants).
- Do not excessively reduce the casualty's temperature.
- Do not provide the casualty with food or drink.
- Do not pierce any blisters.
- Do not leave the casualty unaccompanied.

Ingestion of toxic substances:

The action to take will depend on the nature of the toxic substance ingested, for which information must be available on the label or safety data sheet. Initial action is meant to prevent the direct action of the toxic substance via its neutralization or preventing its absorption by the body. Subsequently, or at the same time, the symptoms caused by the subject are to be treated. Prompt medical attention is essential, which will normally involve transferring the casualty. This should be carried out under the appropriate conditions.

Do not induce vomiting if the casualty is convulsing or unconscious, and when dealing with a corrosive or volatile substance. In order to prevent absorption of the toxic substance, use activated charcoal or egg whites mixed with a little water. There is a list of antidotes recommended by the European Union (Resolution 90/C 329/03, Annex III). In the event of acid ingestion, drink sodium bicarbonate in solution. In the event of alkali ingestion, drinking an acidic beverage (e.g. a cola-based soft drink) is recommended.

Employees will be informed of the risk prevention guidelines to follow (risks and preventive measures corresponding to the position, emergency measure guidelines, established work procedures) and are to sign an acknowledgement of receipt when handed the documentation on health and safety in the workplace.

All ICB-CSIC staff are obligated to use protective equipment, both personal (PPE) and collective (CPE) according to their position and the operation to be performed. This obligation entails keeping the equipment in good condition and verifying its maintenance in writing.

6. GENDER EQUALITY UNIT

The equality committees in CSIC institutions were created to monitor compliance with the current equality laws in force in Spain and to implement CSIC's 2nd Plan for Equality between Women and Men (https://www.csic.es/es/el-csic/ciencia-en-igualdad/igualdad-en-el-csic). The 3rd Plan for Equality between Women and Men will be presented in late 2021. The general purpose of this plan is to "Drive and promote measures to achieve real equality within the organization, establishing equal opportunities for women and men". With the aim of channelling and coordinating these actions, the ICB-CSIC Gender Equality Unit (GEU) was created comprising:

- Isabel Suelves Laiglesia, Director
- Tomás García Martínez, Deputy Director
- María Carmen Mayoral Gastón, scientific staff and contact person
- Luis de Diego Poza, scientific staff
- Elvira Aylón Marquina, technical staff
- Ana Cristina Gracia Ruiz, administrative staff and staff representative
- Miguel Ángel Álvarez, pre-doctoral staff

The main aims of this unit are:

- To advise on the necessary or appropriate measures required to actively implement the principle of equality between women and men into the institute's daily activity.
- To monitor the application of the CSIC Equality Plans.
- To promote the gender perspective as a cross-cutting category in all aspects of the institute's operation.
- To incorporate local and international gender equality initiatives.
- To foster forums for meeting and discussion in which to analyse the situation of women in research and science.

Its specific aims are:

- To compile statistics for ICB-CSIC broken down by sex and to compare them with the Materia area of CSIC and with CSIC on the whole (staffing, finance, training).
- To promote training in equality and gender in science for ICB-CSIC employees (in-house and external courses).
- To include information on CSIC protocols (harassment, work-life balance and gender-neutral language) in inductions programmes.
- To increase the visibility of work by female researchers for the general public and students (awards, institutions, media).
- To incorporate gender analysis in research to improve the quality of research (in financing requests, in proposals, in networks).
- Dissemination activities in campaigns such as International Day of Women and Girls in Science, International Women's Day and NoMoreMatildas (talks, student visits, websites, social media).
- To work in collaboration with the CSIC Women and Science Committee and with AMIT. The following information on the situation of CSIC's 2nd Plan for Equality between Women and Men can be found on the CSIC website https://www.csic.es/es/el-csic/ciencia-en-igualdad/igualdad-en-el-csic [in Spanish only]:

- 2nd Plan for Equality between Women and Men in the Consejo Superior de Investigaciones Científicas.
- Evaluation (IV) 2nd Plan for Equality between Women and Men in the Consejo Superior de Investigaciones Científicas
- Appendix Evaluation (IV) 2nd Plan for Equality between Women and Men in the Consejo Superior de Investigaciones Científicas
- Guide to gender-neutral language of the Autonomous University of Madrid, adopted by CSIC

CSIC protocol for prevention and intervention regarding sexual harassment and sexbased harassment (extract)

One of the most important resolutions approved by CSIC in relation to equality is the **Protocol for Prevention and Intervention Against Sexual and Sex-Based Harassment** in July 2020:

- Resolution of the General Secretariat of CSIC approving the Protocol for Prevention and Intervention Against Sexual and Sex-Based Harassment at CSIC
- Complaint form for reporting sexual or sex-based harassment

The following provides an extract from the protocol and a sample of the complaint form for reporting sexual or sex-based harassment:

1. AIMS OF THE PROTOCOL

The general aim or the protocol consists of preventing possible situations of sexual or sexbased harassment in any form, at any of the institutes, centres or units of CSIC, and to deal with them effectively in the event that any of these should occur.

The definitions of the terms included in this protocol and conducts that can be considered, by way of example, sexual or sex-based harassment, respectively, are given in Appendices III and IV.

The following specific aims are established:

- To inform, educate and raise awareness in employees regarding sexual and sex-based harassment, providing guidelines for the identification of such situations, preventing and avoiding their occurrence.
- To put in place the specific structure and measures necessary to deal with and resolve any cases that occur.
- To guarantee the safety, integrity and dignity of the individuals affected, the implementation of measures applicable to each case for the protection of the presumed victims at all times, with inclusion of any precautionary measures deemed opportune.
- To eradicate harassment and, where applicable, to apply the pertinent punitive measures.

2. STATEMENT OF PRINCIPLES AND COMMITMENTS

1. All individuals who carry out their activity at CSIC are entitled to be treated with dignity and respect, without tolerating any type of sexual or sex-based discrimination. For this purpose, CSIC undertakes to ensuring a healthy working environment where any conducts that may infringe these values will be investigated and action taken.

- 2. CSIC rejects all forms of sexual and sex-based harassment, regardless of whom the victim or perpetrator is or their position in the organization, guaranteeing the right of employees to be treated with respect and dignity, and the right for all persons involved to be presumed innocent.
- 3. CSIC shall promote a preventive culture with regard to sexual and sex-based harassment through educational and informative actions that raise awareness in all employees.
- 4. Any conduct that may constitute sexual or sex-based harassment shall be reported, investigated, assessed and penalized according to the provisions of this protocol and the consolidated text of the Basic Statute of the Public Employee approved by Royal Legislative Decree 5/2015 of 30 October, with application of the specific procedure established therein that are consistent with the principles of professionalism, objectivity, impartiality, expeditiousness, respect for the individual and discretion when dealing with reports, with the consequent duty of secrecy, with prejudice to the provisions of the regulations regarding disciplinary regime.
- 5. CSIC shall support and advise the presumed victims of sexual or sex-based harassment.
- 6. All information to which reference is made in this protocol shall be dealt with in such a way as to protect the right to confidentiality with regard to the information handled and the anonymity of all individuals involved.

APPENDIX IV. CONDUCTS THAT MAY BE CONSIDERED SEXUAL OR SEX-BASED HARASSMENT.

For the purpose of providing examples, and by no means exhaustive, the following list provides a reference for behaviours constituting each of the different types of harassment:

A) Behaviours considered sexual harassment:

- Unwanted deliberate physical contact.
- Suggestive and unpleasant observations, jokes or comments about looks or appearance, and deliberate verbal abuse.
- Indecent or incriminatory provocation.
- Use of pornographic images or posters in the workplace.
- Obscene gestures.
- Secretly watching individuals in private places.
- Requests for sexual favours.
- Phone calls, letters or messages of an offensive sexual nature
- Repeated and offensive persecution for sexual integrity.
- Questions and innuendo regarding an individual's private life in relation to their sexual integrity and freedom.

B) Behaviours considered sex-based harassment:

- Derogatory comments about women or men, or values considered feminine or masculine, and in general, sexist comments based on prejudicial attitudes to gender.
- Discrediting an individual's professional merit as the result of taking of maternity or paternity leave.
- Unfavourable treatment owing to pregnancy and/or maternity leave.
- Hostile conduct against individuals men or women who exercise their rights to a work-life balance.
- Undervaluing, slighting or shunning individuals who do not behave according to the roles socially attributed to their sex.

- Engaging in discriminatory conduct against an individual merely for being a woman or man.
- Assigning meaningless or unachievable tasks (e.g. by setting unreasonable deadlines) to an individual based on their sex.
- Assigning tasks or projects below the professional capacity or skill of an individual based on their sex.
- Assigning and individual to a position below their professional capacity or category merely based on their sex.
- Spreading rumours about the sex life of individuals.
- Sharing images and/or videos of a sexual nature involving any of the organization's employees.
- Evaluating the work of individuals with contempt, unfairly or in a biased way based on their

C) Behaviour considered sexual orientation harassment:

- Engaging in discriminatory conduct based on an individual's sexual orientation.
- Addressing an individual in an offensive manner owing to their sexual orientation.
- Mocking an individual in relation to their sexual orientation.
- Using derogatory humour to belittle any sexual orientation.
- Expressing contempt for an individual's work based on their sexual orientation.
- Ignoring contributions, comments or actions (exclusion, not taking them seriously) of individuals owing to their sexual orientation.
- Unequal treatment based on an individual's sexual orientation (homosexuality, bisexuality, etc.) or the perception of this by other people.
- Evaluating the work of individuals with contempt, unfairly or in a biased way based on their sexual orientation.
- Assigning tasks or projects below the professional capacity or skill of an individual based on their sexual orientation.

D) Behaviours considered gender identity and/or expression harassment.

- Unequal treatment based on an individual's gender identity and/or expression or the perception of this by other people.
- Ignoring contributions, comments or actions of individuals owing to their gender identity and/or expression.
- Expressing contempt for an individual's capacities, skills and intellectual potential owing to their gender identity and/or expression.
- Refusing to address a transsexual individual as they require or use pronouns that do not correspond to the gender with which they identify.
- Making comments or asking questions about the person and/or genitals of a transsexual individual.
- Speaking about transsexual individuals in a derogatory manner merely owing to their being transsexual.
- Focusing conversation and/or debate with a transsexual individual on the subject of gender without the individual in question starting or encouraging the conversation.
- Joking about transsexual individuals, whether or not they are taking part in the conversation.

Here is a sample of the sexual harassment complaint form.





SECRETARÍA GENERAL ADJUNTA DE RECURSOS HUMANOS

JOLICI TOD DE INT	ERVENCIÓN POR ACOSO SE	
OLICITANTE		
 □ Persona afectada □ Representantes de los trabaja 	☐ Unidad directiva afectada dores: Junta de personal /Comité de Empre	□ Otros (especificar) sa o Delegados/as de personal
TIPO DE ACOSO		
□ Sexual	□ Por razón de sexo	☐ Otros (especificar)
DATOS PERSONALES		
Nombre y apellidos	. N	IIF Sexo
Teléfono de contacto		
DATOS PROFESIONALES D	E LA PERSONA AFECTADA	
CU	Unidad o	directiva
Vinculación laboral		
☐ Funcionaria ☐	Interina □ Laboral fija □	☐ Laboral temporal ☐ Otra
ESCRIPCIÓN DE LOS HEC	ues	
OCUMENTACIÓN ANEXA		
DOCUMENTACIÓN ANEXA	no	
☐ SÍ (especificar)	□NO	
□ SÍ (especificar)		al y por razón de sexo en el CSIC.
□ SÍ (especificar) SOLICITUD □ Solicito el inicio del Protocolo de Antes de firmar la solicitud, debe l	□ NO prevención e intervención frente al acoso sexu	al y por razón de sexo en el CSIC. de datos que se presenta en el reverso de la
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7. WASTE COLLECTION AND MANAGEMENT

ICB-CSIC has a toxic and hazardous waste collection protocol. The waste storage area is located on the ramp leading from the main building. This storage area is kept permanently locked. The key is available at Reception and will be given to any individual on request and will be noted in a register kept for this purpose. Once the storage operation is concluded, the key must be returned to Reception.

The waste storage area contains drums labelled according to each type of waste.

Contaminated glass

Contaminated plastic

Used oils

Halogenated solvents

Non-halogenated solvents

Acids

Bases

Salts

As other forms of waste are, in principle, produced in lower quantities, they are to be properly labelled and left in the storage area.

For the safe handling of wastes, they must be stored in the container in which they were produced and placed inside the corresponding drum. Transfers of reactants between containers must be avoided at all costs.

For any queries, please contact Concha Fajes cfajes@icb.csic.es