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## Chemical Society Annual Report to the EuCheMS Division of Chemical Education for 2021-2022

### 1. Abstract

In 2021 and 2022 the Division of Chemical Education and Dissemination of the Portuguese Chemical Society (DCED-SPQ), carried out activities intending to promote chemistry's teaching and learning and Chemistry dissemination in Society. In 2021 and 2022 the activities of the Division were constrained by the impact of COVID. Despite the pandemic context, it was possible for the SPQ to strengthen the range of teacher training actions, which resulted in greater deployment (and strengthening of members) within the community of primary and secondary school teachers.

As an outline of our activities, we would like to point out the regular and institutional cooperation with the Portuguese Ministry of Education regarding curriculum implementation and development in the middle school and students' assessment.

Regarding Chemistry teachers' professional development and support, SPQ handles short courses through the "Centro de formação da SPQ". In this context, the IX Meeting of the Division of Chemical Education and Dissemination of the Portuguese Chemical Society took place in November 2021.

Concerning the promotion of chemistry in middle schools (secondary and basic school), Chemistry Olympiads were carried out as also the *ChemRus* competition in collaboration with the Young Chemists Group collaboration of the Portuguese Chemical Society.

It is also important to highlight that DCED-SPQ is accompanying the implementation of innovators projects, regarding chemical education and science skills development in the schools.

### 2. National educational policy *Institutional Cooperation - Ministry of Education*

#### *2.1 Consultative Committee of the IAVE*

Keeping the commitment started in 2010, the Portuguese Chemical Society continued to integrate the Consultative Committee of the IAVE (Institute for Educational Evaluation), taking part in regular meetings with the National Examinations Commission where are prepared and emitted



assessments of curricula and programs, among other matters. The Portuguese Chemical Society representative at the Scientific Council of the IAVE, Dr Fernando Santos, held participation from 2019 to 2022.

## ***2.2 Identifying Learning Outcomes***

SPQ, in collaboration with the General Directorate of Education (DGE) and the Portuguese Society of Physics, continues to monitor the implementation of essential learning outcomes in the disciplines of Physical-Chemical Sciences, Physics and Chemistry A, Chemistry and Physics. In the present year the new “Essential learning outcomes”, generalized to all schools during 2018/2019, were scrutinized by the Portuguese Chemical Society representatives in the continuous evaluation of the implementation process. The Portuguese Chemical Society representative that is accompanying this process is Dr Adelino Galvão.

Since 2020/2021, the Ministry of Education is now replicating the new curriculum for the XXI century student in the parallel system of Professional Schools. The Portuguese Chemical Society was invited to lead the process regarding the Chemistry Curricular Units: The previously drawn “Constitutional” principles defining, broadly, the transdisciplinary skills a student must develop, civic education and citizenship, as well as inclusion, will be translated to the core curriculum braiding the actual subjects of each curricular unit with competences and attitudes. The project submitted to ANQEP (the Professional Schools tutelary agency) was implemented in the 2020/2021 academic year. The Portuguese Chemical Society representative that is accompanying this process is Dr. Adelino Galvão.

## **3. Events in chemical education**

### ***XXVII National Meeting of the Portuguese Chemical Society 2021***

*From 14 to 16 July 2021*

The XXVII edition of the National Meeting of the Portuguese Chemical Society took place at the University of Minho, in Braga, from 14 to 16 July 2021.

Following a year in which society has been, and continues to be, shaken by an unprecedented pandemic with serious economic, social and health consequences, chemists are called to be part of the solution in such areas as the environment, energy, food, health, and water, among many others. Thus, for this National Meeting, under the theme "Chemistry and Opportunities in the Global Society",



a scientific program consisting of international and nationally renowned speakers is being prepared that will address the central role of Chemistry and its contribution to dealing with the challenges and opportunities in a global society.

The Meeting was accredited by the SPQ Training Centre - accreditation register: CCPFC/ACC-111598/21 "Motivating for the learning of Chemistry – current challenges", - addressed to Teachers of group 510 (Teachers of Physics and Chemistry of basic education (3<sup>rd</sup> cycle) and secondary school), with 13 h credited (0.5 credit).

It is important to highlight that, before the National Meeting, SPQ created the opportunity to involve all participants through online platforms, with the aim of cultivating, promoting, and disseminating research and chemistry in Portugal. With these aims four lectures were held by young national researchers, covering a diverse range of chemistry interventions.

[\(https://xxvienspq.events.chemistry.pt/\)](https://xxvienspq.events.chemistry.pt/)

### ***1<sup>st</sup> National meeting of Chemistry history on 17 and 18 de September 2021-Aveiro***

*From 17 to 18 September 2021*

The National Meeting of The History of Chemistry was held, for the first time, seeking to add research work carried out in this area and to be a space of exchange research experience among the members of the Working group( History of Chemistry of the Portuguese Chemical Society). It is wished that it can be continued in the next year, heightening the area of History of Science, Technology and Medicine and has a critical thinking forum on the development of science and its impact on society. The 1<sup>st</sup> National Meeting on the History of Chemistry took place exclusively online through **zoom session**, considering the historical moment that is experienced.

The Meeting was accredited in the CCPFC for Teachers of Groups 230 (Mathematics and Nature Sciences teachers of the 2<sup>nd</sup> Cycle of Basic Education) and 510 (Physics and Chemistry teachers of 3<sup>rd</sup> Cycle of Basic Education and secondary education)- accreditation record CCPFC/ACC-112411/21) - History of Science and Technology. Number of accredited hours: 12 hours.

[\(https://ienhq.events.chemistry.pt/\)](https://ienhq.events.chemistry.pt/)

### ***IX Meeting of the Division of Chemistry Education and dissemination of The Portuguese Chemical Society (26 and 27 of November 2021)***

*From 26 to 27 Of November 2021*



The National Meeting took place in November 2021 entitled “Chemistry 4.0 Educating and Communicating for Inclusion and Literacy(s)”. This meeting was for teachers, researchers, and disseminators, who wish to present the results of their research and projects in the field of chemistry, education and Science didactics, experimental work, and promotion of chemistry at all levels of education, as well as exchange experiences and promote science learning outcomes in formal and non-formal contexts of teaching.

The Meeting in the CCPFC for Teachers of Group 510 (Physics and Chemistry teachers of 3<sup>rd</sup> Cycle of Basic Education and secondary education) - accreditation record: CCPFC/ACC-112598/21 - Number of accredited hours: 12 hours.

(<https://ixededq.events.chemistry.pt/>)

#### **4. Activities of the National Chemical Society**

##### ***4.1 At students' level***

##### ***Chemistry Olympiads 2021***

The Portuguese Chemistry Olympiads, also known as Chemistry Olympiads, have been organized by the Portuguese Society of Chemistry (<http://olimpiadas.chemistry.pt>). It is a competition where students, from middle and secondary schools, need to be able to solve theoretical and practical problems in Chemistry. The objectives of these Chemistry Olympiads are a) to stimulate the study and teaching of Chemistry; b) to provide a closer approach between schools and universities; c) to generate interest in chemistry among students, disseminate chemistry as a science and attract vocations to scientific and technological careers. Currently, the Chemistry Olympiads include three types:

1. *Chemistry Olympiads Plus* – directed to secondary education;
2. *Chemistry Olympiads Junior* – directed to basic education;
3. *International Chemistry Olympiads (IChO)*, *Latin American Chemistry Olympiads (OIAQ)* and the *European Science Olympiads (EUSO)* – international competitions in which the *Portuguese Society of Chemistry* ensures the representation of Portugal.

It is important to highlight that, in the 53<sup>rd</sup> Edition of the International Chemistry Olympiads, organized in Osaka – Japan, from July 24 to August 2, the Portuguese students obtained an Honourable mention at the 25<sup>th</sup> Ibero-American Chemistry Olympiad, organized in Teresina and



Parnaíba - Brazil from 2 to 10 October, Portuguese students won a Silver medal, two Bronze medals and an Honourable Mention.

(<https://olimpiadas.spq.pt>)

### ***ChemRus – 2021***

The Young Chemists Group (GQJ) of the Portuguese Chemical Society has held the *ChemRus* competition targeted at students up to 12<sup>th</sup> grade, which aimed to promote their interest in chemistry. *ChemRus* is an annual competition for chemistry students up to high school. This competition intends to reward a chemistry experience developed by the students and uploaded as a Youtube® video.

**Site:** [www.gqj.spq.pt/#chemrus](http://www.gqj.spq.pt/#chemrus)

The 10<sup>th</sup> edition (2021) theme was "Chemistry for a better world", addressed the 17 Sustainable Development Goals (SDGs) established by the United Nations in 2015 and known as the 2030 agenda.

(<https://www.gqj.spq.pt/#chemrus>)

## ***4.2 At teachers' level: Continuous Professional Development Courses***

### ***4.2.1 Training courses proposed by SPQ Centre for Continuous Professional Development of Chemistry school teachers***

The SPQ Centre for Continuous Professional Development of Chemistry school teachers was certified by the Portuguese "Conselho Científico-Pedagógico da Formação Contínua" (CCPFC) in 26-03-2018 (CCPFC/ENT-AC-0001/21). One of this SPQ structure goals is to support Chemical teachers. The training courses proposed allow teachers to scientific update and deepen knowledge. This is relevant for teacher professional evaluation and development and to create learning environments.

As in the last years, SPQ continues to promote training actions that contribute to the valorisation and motivation of chemistry teachers. In this context, SPQ offers small courses which are an aid for the teacher to organize their classes in an innovative way. In 2021 and 2022 it had four short courses (25 hours). All these training courses were held online mode.

- **A tabela Periódica: um Ícone na Centralidade da Química** (CCPFC/ACC-101645/18)  
(A Periodic table: an Icon in the Centrality of Chemistry)



- **Nomenclatura química: adequação das regras da IUPAC à língua portuguesa** (CCPFC/ACC-102892/19) (Chemical nomenclature: adequacy of the Rules of the IUPAC to the Portuguese language)
- **Conhecer a Luz para uma Cidadania Ativa** (CCPFC/ACC-104322/19) (Knowing the Light for Active Citizenship)
- **Humanidades, Artes e Ciências: A transdisciplinaridade no Ensino da Química** (CCPFC/ACC-109498/20) (Humanities, Arts and Sciences: Transdisciplinarity in The Chemistry Teaching).

This year's (2022) new teacher training courses will be proposed with the aim of promoting classroom innovative environments, the developing students' scientific skills and endorsing in teachers a holistic view of science-based on STREAM (Science & Technology, interpreted through Engineering & the Arts, all based in reading/writing and Mathematical elements).

#### 4.2.2 1 Training courses handle during SPQ meetings

- Ação de formação no âmbito do XXVII Encontro Nacional da SPQ – “Motivar para a aprendizagem da Química – desafios atuais”
- Ação de formação no âmbito do IX Encontro da Divisão de Ensino e Divulgação da Química – “Química 4.0 Educar e Comunicar para a Inclusão e Literacia(s)”
- Ação de formação no âmbito do 1º Encontro Nacional de História da Química- “Historia da Ciência e tecnologia”.

([https:// www.formacao.spq.pt](https://www.formacao.spq.pt))

### **4.3 Research level**

Recognizing the potential of the Olympics, to disseminate science, motivate students to scientific fields, stimulate new learning, help apply new teaching and learning methodologies and identify problems in science education, a pilot studio is being implemented in 2020/2021 to conduct, the first time, in Portugal, the "Experimental mini-Olympiads of science" within the scope of the discipline of “Estudo do meio” of the 1<sup>st</sup> cycle of Portuguese basic education (students age between 9 and 10 years old).

Research regarding chemistry teaching and learning in the 10.<sup>o</sup> and 11.<sup>o</sup> grades (students aged between 15 and 17 years old) started in September 2021 in a school near Lisbon. The project "Flipped



classroom with laboratory stations. Students "learning and (self)regulation in Chemistry and physics" goals are to develop students' scientific skills, increase motivation and the engagement of students in the physics and Chemistry learning process. This research project aims to deepen the knowledge regarding self-regulation, self-efficacy and the instrumentality of self-regulation learning and the learning results of chemistry and physics (school success). It will use hybrid learning environments based on practical work by stations and formative assessment. Hybrid teaching environments will use different approaches to STREAM education (Science - Technology - Reading - Engineering - Arts - Mathematics) to promote learning and enjoyment for Chemistry and Physics. This project will be carried out in a secondary school near Lisbon, in the 10th and 11th grades, during the school year, 2021/2022, and be accompanied, by the Portuguese Chemical Society, through Isabel Ribau Coutinho. Preliminary results will be published in 2022 and presented in the international meeting "Chemistry Teaching and Learning in a Global | ECRICE 2022" in Israel.

## 5. SPQ Meetings organization

The *Portuguese Chemical Society* organized in 2020 and 2021 the following international and national meetings:

### In 2021

- 2<sup>nd</sup> Meeting of the Group of Chemists Abroad (GQE) June 10, 2021- Aveiro  
(<https://2egqe.events.chemistry.pt>)
- XVII Encontro Nacional da Sociedade Portuguesa de Química- from 14 to 16 July (Braga) (<https://xxviienspq.events.chemistry.pt>)
- 1<sup>o</sup> Encontro Nacional de História da Química- 17 to 18 September (Aveiro)  
(<https://ienhq.events.chemistry.pt/>)
- XV Encontro de Química dos alimentos- From 5 to 8 September (Funchal)  
(<https://xveqa.events.chemistry.pt>)
- Lecture cycle entitled "Químicos pelo Mundo"
  - 15 October 2021 –"Da Universidade de Aveiro para os EUA: o percurso académico, os mentores, coragem & persistência & flexibilidade" - Patricia Ribeiro Pereira - Department of Radiology da Washington University School of Medicine.



- 26 November de 2021 “Carreiras internacionais os primeiros passos” -Raquel Lopes - BASF

- IX Meeting of the Division of Chemistry Education and dissemination of The Portuguese Chemical Society- From 26 to 27 November.

(<https://ixededq.events.chemistry.pt>)

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- XI Encontro Nacional de catálise e materiais porosos (XI ENCMP) & II Reunião do grupo do carbono (II RGC) - 9 to 10 December (Aveiro)

(<http://xiencmp-iirgc.events.chemistry.pt>)

#### ***Bilateral meetings 2021***

- International Symposium on Synthesis and catalysis 2021, from 31 August to 3 de September 2021 in Évora

(<http://isysycat2021.events.chemistry.pt>)

- XXI EuroFoodChem from 22 to 24 of November 2021 -Online

(<http://xxieurofoodchem.events.chemistry.pt>)

#### **6. Meetings sponsorship**

SPQ has pursued an effort of sponsoring non-SPQ chemistry meetings or activities with special emphasis to the ones related to Chemistry or Chemical Education. In this context and with the aim of inform, SPQ uses internet page to defund, not only national but also international, activities and meetings regarding chemistry. This is a simple way of disseminating indirectly knowledge in society.

(<https://www.spq.pt/agenda>)

#### **In 2021**

- 15th German Peptide Symposium (04/3/2021)
- VII Jornadas da Química (22/3/2021)
- EurJOC Virtual Symposium - Special Edition: Journée DCO (23/3/2021)
- Colóquio Digital de Estudantes de Química em Portugal (26/3/2021)
- 9º Encontro Nacional de Estudantes de Engenharia Química (29/3/2021)





- Pré-conferência XXVII Encontro Nacional da SPQ: PC1- Jose Luis Díaz de Tuesta (21/4/2021)
- The Carbon element – Key towards a sustainable society (22/4/2021)
- SCF-ChemBio Inaugural Symposium - ChemBioChem (27/4/2021)
- Virtual Event: Modern Organic Synthesis (9/4/2021)
- A QUÍMICA PARA A VIDA (12/5/2021)
- Automated Synthesis: From Planning to Execution (12/5/2021)
- ICNF 2021 - 5th International Conference on Natural Fibers (17/5/2021)
- 7th European Chemical Biology Symposium ECBS (26/5/2021)
- Symposium on Chemical and Biological Engineering – DCE21 (28/6/2021)
- 8th Conference of the Federation of European Zeolite Associations (5/7/2021)
- International Symposium on Solubility Phenomena and Related Equilibrium Processes (12/7/2021)
- 6th International Congress on Water, Waste and Energy Management (21/7/2021)
- 5th International Conference on Green Chemistry and Sustainable Engineering (21/7/2021)
- International Conference on Materials and Nanomaterials (26/7/2021)
- International Conference on Green Energy and Environmental Technology (28/7/2021)
- IUPAC | CCCE 2021 (13/8/2021)
- EuropaCat 2021 (29/8/2021)
- International Symposium on Synthesis and Catalysis 2021 (ISySyCat2021) (31/8/2021)
- 12th Ibero-American Congress on Sensors (01/9/2021)
- 4th Virtual Conference on Organometallic Chemistry (EuCOMC XXIV) (1/9/2021)
- XV Encontro de Química dos Alimentos (5/9/2021)
- YEuCat better together - an EFCATS-supported event for young researchers (6/9/2021)



- 5th EuChemS Conference on Green and Sustainable Chemistry (26/9/2021)
- Químicos pelo Mundo :: Da Universidade de Aveiro para os EUA: o percurso académico, os mentores, coragem & persistência & flexibilidade :: Patricia Ribeiro Pereira (15/10/2021)
- Iberian Symposium of Young Photochemists (ISYP) (18/10/2021)
- ChemBioGels 2021 (21/10/2021)
- Dare2Change - Innovation-Driven Agrifood Business (18/11/2021)
- XXI EuroFoodChem (22/11/2021)
- Jornada Técnica Nacional de Fotocatálisis (24/11/2021)
- IX Encontro da Divisão de Ensino e Divulgação da Química (IXDEDQ) (26/11/2021)
- Químicos pelo Mundo: Carreiras internacionais os primeiros passos :: Raquel Lopes (26/11/2021)
- XI ENCONTRO NACIONAL DE CATÁLISE E MATERIAIS POROSOS (XI ENCMP) & II REUNIÃO DO GRUPO DO CARBONO (II RGC) (9/12/2021)
- Chromatography helps in times of crisis (17/12/2021)

### In 2022

- Global Women's Breakfast 2022 (16/02/2022)
- 8th Latin American Symposium on Coordination and Organometallic Chemistry - SILQCOM8 (19/3/2022)
- 13th Inorganic & Bioinorganic Chemistry Conference (29/3/2022)
- VIII Encontro Nacional de Estudantes de Química (08/04/2022)
- 10ª edição do Encontro Nacional de Estudantes de Engenharia Química (08/04/2022)
- Químicos pelo Mundo: Da academia à indústria: um passeio por diferentes escalas e países :: Ricardo Couto (08/04/2022)
- 14th National Organic Chemistry Meeting (14ENQO) & 7th National Medicinal Chemistry Meeting (7ENQT) (20/04/2022)
- 17th European Powder Diffraction Conference EPDIC17 (31/05/2022)



- 3ª Reunião do Grupo de Químicos no Estrangeiro (22/06/2022)
- 26th international Symposium on Separation Sciences / 25th International Symposium For High-Performance Thin-Layer Chromatography (28/06/2022)
- 20th International Zeolite Conference (IZC-2022) (03/07/2022)
- XXVII National Spectroscopy Meeting (XXVII RNE)- XI Iberian Spectroscopy Meeting (XI CIE) (05/07/2022)
- 25th IUPAC International Conference on Physical Organic Chemistry (10/07/2022)
- 7th European Crystallographic School - 2022 (10/07/2022)
- 15 European Conference on Research in Chemical Education (11/07/2022)
- 5º Meeting of CQUL - "Forging bonds" (12/07/2022)
- 2º Encontro de Estudantes Chem&Biochem da Faculdade de Ciências da ULisboa (15/07/2022)
- 2º Encontro Nacional de Cristalografia (15/07/2022)
- 26th IUPAC International Conference on Chemistry Education, ICCE 2022 (18/07/2022)
- 6th International Congress on Water, Waste and Energy Management (WWEM-22) (20/07/2022)
- 5th International Conference on Green Chemistry and Sustainable Engineering (GreenCHEM-22) (20/07/2022)
- XXII International Symposium on Homogeneous Catalysis (24/07/2022)
- 2022 International Conference on Materials and Nanomaterials (M&Ns-22) (25/07/2022)
- 2022 International Conference on Green Energy and Environmental Technology (GEET-22) (27/07/2022)
- Escola Iberoamericana de Catálise 2022 (01/8/2022)
- EuChemS2020 - Chemistry Congress (28/8/2022)
- 20th International Symposium on Solubility Phenomena and Related Equilibrium Processes (04/09/2022)



- VII Jornadas Ibéricas de Fotoquímica (05/09/2022)
- International Biopartitioning and Purification Conference (BPP2022) (25/09/2022)
- XVI Encontro de Química dos Alimentos (23/10/2022)
- Joint Conference on Analytical Chemistry APCE-CECE ITP-IUPAC (06/11/2022)
- 12º Encontro Nacional de Cromatografia (05/12/2022)

## 7. Publications

### ***7.1 Chemistry – the bulletin of the Portuguese Chemical Society***

The *Portuguese Chemical Society* publishes *Bulletin of Chemistry*, (ISSN 0870-1180), a quarterly magazine, published in Portuguese. This review has news from the society and publishing popular science articles, some scientific articles on specific subject and articles devoted to chemical education and to help teachers from the secondary school. The *Chemistry* is distributed free of charge to members of the *Portuguese Society of Chemistry* and shared with some international and national associations. The average print run was 1500 copies. The volumes are available electronically to the public through the portal of the Portuguese Society of Chemistry and have pre-publication system.

#### **DOI System**

The DOI system for the contents published in the SPQ Bulletin has been implemented. The pattern of identification, together with the use of CrossRef, will allow greater visibility to published texts. We think in this way that we will meet the expectations of many partners who longed for this possibility.

(<https://www.b-quimica.spq.pt>)

The *Portuguese Chemical Society* is co-owner of ChemistryEurope which is responsible for the publication of several journals.

### ***7.2 Meetings resume book and abstract Book***

The SPQ National Meetings publish a book of resumes in English. In the Meeting of the Division of Chemistry Education and dissemination of SPQ, a book of resumes is published in Portuguese.



### **7.3 Non periodic Publications**

SPQ supported the edition of the book "Que Coisa é o Mundo (O Estado Dogmatic)", by Manuel João Monte and Sofia Miguens, edited by Porto University, press in August 2021 with isbn: 9789897463037. SPQ also supported the edition of the book "Química ao pé da letra", by João Paiva et al., edited by U.Porto (Porto University), and press in July 2021 with the isbn: 9789897462979. These two books were presented in the "IX Meeting of the Division of Chemistry Education and dissemination of The Portuguese Chemical Society".

### **8. SPQ Liaison with the chemical industry**

In the Portuguese Chemical Society, the liaison with industry is made through its "Industrial Chemistry" Group held by Professor Alberto Canelas Pais.

### **9. SPQ International and European initiatives**

Organization of the 8<sup>th</sup> EuChemS Chemistry Congress from 28 of August to 1 de September 2022 in Lisboa.

### **10. Awards and Distinctions**

#### **10.1 Ferreira da Silva Award**

Distinguishes the chemical Portuguese by the scientific work produced in Portugal, with significant contribution to the advancement of Chemistry.

The Ferreira da Silva Award - 2020 was awarded to Mário Nuno Berberan Santos, Professor at the Instituto Superior Técnico - University of Lisbon and delivered during the XXVII National Meeting of SPQ. Prize site: <https://www.spq.pt/premios/ferreira-silva>

#### **10.2 Vicente de Seabra Medal**

It is the recognition of the high quality, originality and autonomy of research work in Chemistry developed in Portugal by a researcher not over 40 years of age. The Vicente de Seabra Medal - 2020 was awarded to Gonçalo Bernardes, Director of the Biology Unit Chemistry and Pharmaceutical Biotechnology at the Institute of Molecular Medicine, Faculty of Medicine, UL and delivered during the XXVII National Meeting of SPQ. Prize site: <https://www.spq.pt/premios/vicente-seabra>



### ***10.3 Luso-Spanish Chemistry Award – Lourenço-Madinaveitia Conference***

The Portuguese-Spanish Chemistry Prize, established by the Portuguese Society of Chemistry and Sociedad Española de Química, is awarded annually, and in alternation, to Portuguese chemists and Spaniards with international projection. The 2021 Madinaveitia-Lourenço Prize was awarded to João Mano, Professor, Department of Chemistry, University of Aveiro and researcher at CICECO - Institute of Materials of Aveiro. Prize website: [www.spq.pt/premios/luso-espanhol](http://www.spq.pt/premios/luso-espanhol)

### ***10.4 Alberto Romão Dias Award***

The 5th edition of the Alberto Romão Dias Award, created by SPQ in 2009 and awarded biennially to a chemist who has distinguished himself by the high quality, originality and autonomy of the work research, developed in Portugal, in the area of Inorganic and Organometallic Chemistry was attributed to João Rocha, Professor of the University of Aveiro. The Prize will be awarded during the conference of the Division of Inorganic and Bioinorganic Chemistry of SPQ - <http://13ibcc.events.chemistry.pt/>, when the award winner will give a Guest Lesson. Prize site: [www.spq.pt/premios/romao-dias](http://www.spq.pt/premios/romao-dias)

### ***10.5 Ramôa Ribeiro Award***

SPQ's Catalysis and Porous Materials Division (DCMP) has instituted the Ramôa Ribeiro Prize to be annually during the DCMP Meeting. This Award will be awarded to a young researcher who, by the scientific work produced in Portugal, has contributed significantly for the advancement of catalysis and pore materials in any of its areas of intervention. The Ramôa Ribeiro Prize 2021 was awarded to Vânia Maria Amaro Calisto, Assistant Researcher at the University of Aveiro. Prize site: [www.spq.pt/premios/ramoa-ribeiro](http://www.spq.pt/premios/ramoa-ribeiro)

## **11 Name of delegate and deputy**

**Delegate** – Isabel Ribau Coutinho    **Deputy** – Teresa Maldonado Sousa Conceição



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