Virtual Conference on Chemistry and its Applications

Research and Innovations in Chemical Sciences: Paving the Way Forward

1st to 31st August 2020

This is to certify that

S. Hadi

participated in the Virtual Conference on Chemistry and its Applications, VCCA-2020 (1st to 31st August 2020) and gave a keynote presentation entitled

"The Potential Application of Organotin(IV) Carboxylate Compounds in Medicinal Chemistry".

Chairman of the Organising Committee

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Welcome Message

Chemistry is one of the subjects of Science for understanding and explaining makeup and changes of everything that has mass and occupies space. Chemistry has permeated the study of different branches of Science. In the previous years, we organised the Virtual Conference on Computational Chemistry (2013-2015) and Computational Science (2016-2019). This year, due to travel restrictions as a result of COVID-19, we are organizing the Virtual Conference on Chemistry and its Applications, VCCA-2020, from 1st to 31st August 2019. The theme for VCCA-2020 is "Research and Innovations in Chemical Sciences: Paving the Way Forward".

VCCA-2020 offers an opportunity for researchers to present their work, interact using a virtual platform, discuss problems and find possible solutions. Virtual conference has gained popularity and one of the advantages is the lower cost involved for participation. One simply has to have access to the internet or e-mail to be involved in the conference and one does not have to be always online. 300 participants from 48 countries have registered for the conference. We received 194 abstracts and there 5 Nobel Prize presentations, 33 keynote presentations and 153 presentations.

As part of VCCA-2020, we will mark the Schrödinger day and International Youth Day on 12th August 2020 to commemorate the birth anniversary of Erwin Schrödinger by having a capacity building workshop. The workshop in collaboration with Elsevier will be targeted to young scientists who will embark on research. The programme of the workshop will consist of live interactions and talks related to research induction.

We would like to thank the International Advisory Members and reviewers of the abstracts. We would also like to acknowledge the endorsement of the virtual conference by IUPAC and the support from the ICTP, OPCW and Springer. We are planning to have the proceedings of VCCA-2020 as publications in Pure and Applied Chemistry and a book of proceedings to be published by De Gruyter. We would also like to acknowledge all facilities from the University of Mauritius.

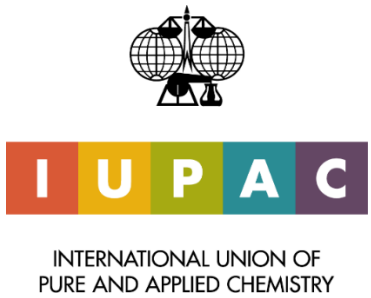
We look forward to your participation and we hope that one will have an enriching experience extending over one month.

Professor Ponnadurai Ramasami

Chairman of VCCA-2020
Personal Chair in Computational Chemistry, University of Mauritius
Visiting Professor, University of Johannesburg
Professor Extraordinarius, University of South Africa

Endorsement of VCCA-2020

International Union of Pure and Applied Chemistry



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The Potential Application of Organotin(IV) Carboxylate Compounds in Medicinal Chemistry

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The organotin(IV) carboxylate and its derivatives are widely known since the derivative of these compounds are very active and strong even at very low concentration [1]. Thus, these compounds continue to attract more attention to be used in many biological activities such as anti-cancer [2,3], anti-malarial [4], anti-bacterial [5] and anti-fungi [6]. We have previously synthesized and performed some activity studies of organotin(IV) benzoates [3-6]. In this work, we reported the anti-bacterial and anti-malarial activity studies of some organotin(IV) derivatives. The targeted compounds were prepared from their organotin(IV) chlorides *via* the intermediate products of dibutyltin(IV) oxide, diphenyltin(IV) dihydroxide and triphenyltin(IV) hydroxide, respectively, followed by reacting the intermediate products with some carboxylic acids. The anti-malaria activity was performed against *Plasmodium falcifarum*. While the anti-bacterial activity was performed against *Pseudomonas aeruginosa* and *Bacillus subtilis*. The results showed that the IC_{50} of all organotin(IV) compounds tested were little bit higher than the chloroquine as the positive control, however one advantage is that the organotin(IV) compounds are not resistent to the *Plasmodium*, thus making the use of organotin(IV) as anti-malaria is widely opened. The triphenyltin(IV) compound is more potent to be used as anti-malaria and has potential to be developed as anti-malarial drug in the near future. The results of anti-bacterial activity revealed that the triphenyltin(IV) derivative was the most active compound although it is less active compared to the chloramphenicol.

References

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