

### **AICAT-GICAT news**

June 2020

### **Free distribution**

Bollettino dell'Associazione Italiana di Calorimetria e Analisi Termica



Associazione Italiana di Calorimetria e Analisi Termica Termica | <u>http://www.aicat-gicat.it/index.html</u> **Issue Content** \_\_\_\_\_ **Obituary** \_\_\_\_\_ **Breaking news** \_\_\_\_\_ **ICTAC A Short Guide** \_\_\_\_\_ 2019 Events \_\_\_\_\_ 2020 Events \_\_\_\_\_ 2020 in...papers \_\_\_\_\_ **Upcoming Events** \_\_\_\_\_ **Job opportunities** 

Organization chart - new

\_\_\_\_\_

AICAT-GICAT Board

Come iscriversi

Responsabile: Ignazio Blanco – Dipartimento di Ingegneria Civile ed Architettura - Università degli Studi di Catania - V.le A. Doria 6 95125 Catania iblanco@unict.it

#### **Obituary of Prof. Cheila Gonçalves Mothé**

I met first time Professor Mothé during the ICTAC Congress organized by NATAS in Orlando in 2016. She presented a lecture entitled "Kinetic Study of Thermal Degradation Mechanism and Lifetime Prediction of Cashew Polysaccharide" during a section I chaired. What immediately impressed me was the passion in exhibiting her research results and her enthusiasm that these results were linked to a product (Cashew gum) of her land, Brazil. She started her academic journey back in the early 70's in the Federal University of Rio de Janeiro, graduating in Chemical Enginering. In 1976 she was invited by Prof. Paulo Costa Pereira to be an Assistant Professor at the Department Technological Chemistry. She obtained her master degree in Polymer Science and Technology Program, from 1979 to 1983, under the mentorship of Prof. Chaki Azuma, conducting her work about synthesis of photosensitive polymers, an innovative subject at the time. In 1992 she graduate a D.Sc from University of São Paulo - Brazil/ University of the Air - Japan, having her thesis entitled "Synthesis, characterization and thermoanalytical study of phenolic resins isolated from cashew nut shell liquid". She had the mentorship of the prestigious Prof. Ivo Giolito, who was one of the pioneers in the introduction and dissemination of thermal analysis in Brazil.



Prof. Cheila Gonçalves Mothé during the ICTAC 16

She did her first post-doctoral training at Cornell University in 1998, at Food Science Department headed by awarded Emeritus Prof. M. Andy Rao. The publication of the textbook "Thermal Analysis of Materials" in 2002 certainly solidify Prof. Mothé contribution about some of her most relevant experimental research regarding thermal analysis to the Brazilian scientific community. At the Cleveland State University, in 2003, she went on to do her second post-doctoral training under the guidance of Prof. Alan Riga, to study thermal analysis of polymeric bio membranes. The year 2005 was a very unique year in her career, because she became the first black titular female professor at UFRJ approved by public concourse. Her accomplished will be register in the history of the university as an example of hard work, dedication, resilience and courage. Her professional activities, besides a full professor at university, included Regional Editor of JTAC (2012-2020); NATAS Member and Volunteer (2001-2017); Honorary Member of the Group of the Hungarian Chemical Thermoanalytical Society (2010); CNPq ad hoc consulter for more than 10 years; Fellow of the African Scientific Institute (2011-2020); President and Vice of the Brazilian Society of Science and Technology RJ Food Regional (2007–2017); President of the Brazilian Association of Rheology (2010-2020); Vice-President and President of Brazilian Association of Thermal Analysis and Calorimetry (2008-2020). Coordinator of three laboratories: Natural and Synthetic Polymers Technology, Rheology Laboratory and Thermal Analysis Laboratory at UFRJ/Brazil. She received many awards during her whole life, confirming her excellence in research, Metanor/Copenor de Química Award (1986); Honorable Mention (1986, 1989, 1994, 1996, 1997, 2000, 2002, 2005, 2011, 2013 and 2017); Chemical Award of the Year and Medal (2006) by CRQ-Brazil; 1st place XI Award Abrafati-Petrobras Science in Paint (2008); Leopoldo Hartmnn Award (2010); Oscar Niemeyer Award de Trabalhos Científicos e Tecnológicos - CREA-RJ (2013); Inovação ValorPneu Award (2nd place, 2015), Lisbon/Portugal; 16th ICTAC Award, FL/USA (2nd place, 2016). During her life she had more than 400 works published in national and international journals and congresses and she was author of 10 books and deposited over 10 patents. She dedicated most of her research to study polymers, polyssaccharides, and sustainable materials development. One of her major accomplished could be attributed to the Anacardium Occidentale L., most known as cashew, in which she performed an extensive study approaching different part including cashew nut shell liquid (CNSL), pseudofruit, exsudate and cashew gum. She worked actively during her whole life at university dedicated to teaching, with more than 10,000 class time, and encouraging her students to believe in the importance of a good and ethical scientific research to promote the technical scientific development of her country.

Prof. Mothé was very much admired by her colleagues, students and acknowledged by her many accomplished. She had a brilliant mind and at the same time she was a humble, kind with generous heart person to assist anyone who ask for her guidance. AICAT offers heartfelt condolences to her two daughters Michelle and Danielle and her husband Heitor. I personally will never forget his contagious smile.

### **Breaking news**



Prof. Wei-Ping Pan

#### **TA-Instruments – ICTAC Award**

The ICTAC Executive Committee presided by Mr. Wim de Klerk and the Scientific Award Committee chaired by Prof. Riko Ozao are delighted to announce that the recipient of the 2020 TA-Instruments – ICTAC Award is Prof. Wei-Ping Pan, Sumpter Professor Emeritus of Chemistry at the Western Kentucky University.

By this scientific award sponsored by TA Instruments, ICTAC would like to recognize Prof. Pan's outstanding contributions to the field of thermal analysis. The award will be presented at the 17<sup>th</sup> ICTAC Congress <u>https://ictac2020.jordan.pl/en</u> 29 August - 3 September 2021

#### **Rigaku-ICTAC Young Scientist Award**

The ICTAC Executive and Scientific Awards Committees announced the Winner of the 2020 Rigaku-ICTAC Young Scientist Award: Dr. Kento Shiota, Assistant Professor of Institute of Advanced Sciences at Yokohama National University (Japan). Dr. Shiota is an outstanding young scientist and has made his contribution in the fields of energetic materials and loss prevention of the chemical industry, especially regarding the thermal hazard evaluation of reactive chemicals. His winning paper is "Thermal and kinetic analysis on pyrolysis reaction of hydroxylammonium nitrate solution".

#### **ICTAC Travel Grants**

The ICTAC Executive Committee and the Scientific Award Committee ICTAC also congratulates the following ICTAC Travel Grant recipients:

- Dr. Steven Araujo Ecole Nationale Supérieur d'Arts et Métiers (France)
- Dr. Gage Patrick Ashton University of Huddersfield (UK)
- Dr. Gabriela Hotová University of Ostrava (Czech Republic)
- Dr. Francesca Saitta University of Milan (Italy)

The ICTAC Travel Grants aim to encourage young scientists to develop their careers in the fields of thermal analysis and calorimetry.



Dr. Francesca Saitta

#### ICTAC Kinetics Committee recommendations for analysis of multi-step kinetics

The Kinetics Committee of the International Confederation for Thermal Analysis and Calorimetry developed the third series of recommendations, providing guidance on kinetic analysis of multi-step processes as measured by thermal analysis methods such as thermogravimetry (TGA) and differential scanning calorimetry (DSC).

https://www.sciencedirect.com/science/article/pii/S004060312030246X

# International Confederation for Thermal Analysis & Calorimetry (ICTAC). A Short Guide



Prof. Edward Charsley

#### The Early Days

The 1960s were an exciting time for thermal analysis and calorimetry. The field was growing rapidly and the range of commercially available equipment was expanding, including the introduction of both power-compensated and heat flux differential scanning calorimeters. In addition, a significant number of scientists were engaged in building their own equipment, particularly in the fields of simultaneous thermogravimetry-differential thermal analysis and calorimetry which together already covered the temperature range from 20 to over 1800 K.

At the time there was no international forum where thermal analysts or calorimetrists could meet regularly.

Having corresponded with thermal analysts in thirty countries, the unanimous support for an international thermal analysis meeting lead Robert Mackenzie and John Redfern from the UK, to decide to organise the First International Conference on Thermal Analysis in Aberdeen, Scotland in September 1965. With Robert as Chairman and John Redfern as Secretary, they were joined on the organising committee by Rudolf Bárta (Czechoslovakia), Leo Berg (USSR), Lázsló Erdey (Hungary), Connie Murphy (USA) and Toshio Sudo (Japan), with Bruce Mitchell providing invaluable local support [1]. It is interesting to note that, in this time of innovations, only one month before and quite independently, because the two communities did not know each other yet, Edouard Calvet gathered 150 calorimetrists in the First International Symposium of Microcalorimetry in Marseille.

The Conference on Thermal Analysis, which was held in the Natural Philosophy Building of the University of Aberdeen, was attended by some 300 scientists from 29 countries. One of the undoubted highlights of the meeting was the lavish Civic Reception hosted by the Lord Provost of Aberdeen where the delegates were entertained by the Aberdeen Ladies Pipe Band.

The success of the meeting resulted in a Second International Conference being held in Worcester, Mass, USA in 1968 where the International Confederation for Thermal Analysis (ICTA) formally came into being. In 1992, at 10<sup>th</sup> ICTA, the name was formally changed to ICTAC to reflect the large calorimetric component of its membership. ICTAC now has 24 Affiliated National Societies with a combined membership of 5000 and some 500 individual members.



Prof. Jean Rouquerol

#### **ICTAC Congresses**

Since 1965, the ICTA Congress, has travelled around the world as shown by the list in Table 1. The meetings are hosted by a National Group affiliated to ICTAC and the choice of venue is decided at the Council meeting held at the preceding Congress. This is based on the presentations made by National Groups who have submitted invitations and there is always healthy competition to host the meeting. In addition to the Congress technical sessions, provision is normally made for a social outing one afternoon, both to allow delegates to see more of the host country and to facilitate informal discussions.

There is close collaboration between ICTAC and ESTAC and since 1988, the organisations have synchronised the dates of their conferences so that there is a two year interval between them. This has the additional benefit that reciprocal facilities can be provided for hosting committee meetings before the start of the conferences.

Due to the coronavirus pandemic, the 17<sup>th</sup> ICTAC Congress in Krakow has had to be postponed and will now take place from August 29<sup>th</sup> to September 3<sup>rd</sup> 2021.

Year	Congress	Venue
1965	1 <sup>st</sup> ICTA	Aberdeen, Scotland
1968	2 <sup>nd</sup> ICTA	Worcester, Massachusetts, USA
1971	3 <sup>rd</sup> ICTA	Davos, Switzerland
1974	4 <sup>th</sup> ICTA	Budapest, Hungary
1977	5 <sup>th</sup> ICTA	Kyoto, Japan
1980	6 <sup>th</sup> ICTA	Bayreuth, Federal Republic of Germany
1982	7 <sup>th</sup> ICTA	Kingston, Ontario, Canada
1985	8 <sup>th</sup> ICTA	Bratislava, Czech Republic
1988	9 <sup>th</sup> ICTA	Jerusalem, Israel
1992	10 <sup>th</sup> ICTA	Hatfield, England
1996	11 <sup>th</sup> ICTAC	Philadelphia, Pennsylvania, USA
2000	12 <sup>th</sup> ICTAC	Copenhagen, Denmark
2004	13th ICTAC	Chia Laguna, Sardinia, Italy
2008	14 <sup>th</sup> ICTAC	Sao Pedro, Brazil
2012	15 <sup>th</sup> ICTAC	Osaka, Japan
2016	16 <sup>th</sup> ICTAC	Orlando, Florida, USA
2021	17 <sup>th</sup> ICTAC	Krakow, Poland

Table 1. ICTA & ICTAC Congresses

#### **ICTAC Administration**

Any important decision is taken by the ICTAC Council, which meets every second year and where every country with an Affiliated National Group has а representative. In the meantime, the affairs of ICTAC are conducted by an Executive Committee. This consists of five Officers -President (Wim de Klerk, the Netherlands); Vice-President (Nobuyoshi Koga, Japan); Secretary (Queenie Kwok, Canada), Treasurer (Vesa-Pekka Lehto, Finland); Membership Secretary (Yonko Morikawa, Japan); plus the immediate Past-President (Donald Burlett, USA) and the Chairman of the Scientific Commission (Crisan Popescu, Romania). Each of the constituent National Groups are represented by an Affiliate Councillor.

In addition, there is an ICTAC Advisory Committee consisting of immediate-past members of the Executive. They have the task of providing advice to their respective successors and to the Executive.



Relaxing in Kyoto, 5<sup>th</sup> ICTAC 1977 L to R: Hans-Rudolph Oswald (President 1971-74); John Redfern (co-organiser 1<sup>st</sup> ICTA); Harry McAdie (President 1977-1980); Patrick Gallagher (President 1982-85); Robert Mackenzie (co-organiser 1<sup>st</sup> ICTA)

Table 1. Scientific Committees

Scientific Commission					
Scientific Commission	Committee	Chair	Co-Chair		
The scientific work of ICTAC is carried out by the Scientific Commission which is composed of	Kinetics	Sergey Vyazovkin (USA)	Jiri Malek (Czech Republic)		
Scientific Committees covering the disciplines shown in Table 2. The Scientific Committees are normally	Thermodynamics & Thermochemistry	Sergey Verevkin (Germany)	Stefano Vecchio Ciprioti (Italy)		
disbanded when they have	Materials	Guy Van Assche	Giuseppe Lazzara & Arnon		
achieved their aims and new		(Belgium)	Chaipanich		
Committees are opened when		-	(Italy) (Thailand)		
there is a need for a particular	Instruments &	Dimitri Ivanov	Luis Perez-Maqueda		
scientific area to be addressed.	Methods	(France)	(Spain)		
Some examples of Scientific	Standards &	Paul van Ekeren	Haruka Abe		
Committee publications are given	Nomenclature	(the Netherlands)	(Japan)		
in references (2-5).	Education	Ranjit Verma	Imre Szilagyi		
		(India)	(Hungary)		

**ICTAC Awards** 

#### Robert Mackenzie Memorial Lectureship

The Robert Mackenzie Memorial Lectureship was established in 2000 to commemorate the unique contribution of Robert Cameron Mackenzie, one of the co-founders of ICTAC, to the formation and development of ICTAC. The Lecture Fund was established with contributions from Dr Mackenzie's family, friends and colleagues from around the world, in addition to those from learned societies, thermal analysis instrument manufacturers and ICTAC itself. The Memorial Lecturer is chosen by the ICTAC Executive and the Lecture is given at each ICTAC Congress immediately following the Opening Ceremony.



Flyer of the 13th ICTAC 2004 held in Chia Laguna - Italy

#### Scientific Awards

The winners of the ICTAC Awards are selected by the Scientific Awards Committee composed of an international group of experienced scientists with a diverse background in thermal analysis and calorimetry. This year's Awards are linked to 17th ICTAC.

The TA Instruments-ICTAC Award is made to the candidate who has made an outstanding contribution to the science of thermal analysis and calorimetry and/or shown significant leadership to the profession of thermal analysis and calorimetry.

The TA Instruments - ICTAC Award winner for 2020 is Professor Wei-Ping Pan, Western Kentucky University, USA.

The Rigaku-ICTAC Young Scientist Award & ICTAC Travel Grant programme aims to strengthen the future of ICTAC by helping outstanding young scientists to develop their careers in the fields of thermal analysis and calorimetry by enabling them to present a paper on their research at an ICTAC Congress. Candidates must be under the age of 32 years at the start of the Congress.

The Rigaku-ICTAC Young Scientist Award is for 2020 is Dr Kento Shiota, Yokohama National University, Japan.

The choice of the ICTAC Travel Grant recipients is based on the ranking order provided by the Awards Committee for candidates for the Rigaku-ICTAC Young Scientist Award. The 2020 Travel Grants have been awarded to:

Dr Steven Araujo (France), Dr Gage Ashton (UK), Dr Gabriela Hotová (Czech Republic) and Dr Francesca Saitta (Italy).



Social events at the 13<sup>th</sup> ICTAC 2004 held in Chia Laguna – Italy. Prof. Hiroshi Suga (Pioneer of the advanced thermal science) and his wife with the characteristic local characters.

#### Service Awards

The Award of Honorary Lifetime Membership of ICTAC was established in 1988. It is conferred by the ICTAC Council on a Member for outstanding and sustained service to ICTAC. The number of Honorary Members at any one time may not exceed six and Honorary Members are ex-officio non-voting Members of ICTAC Council.

The ICTAC Distinguished Service Award was introduced in 2000. The Award is conferred by Council on a Member who has given outstanding service to ICTAC.

Many Hogy Larly Provost. artrude Mungley FIRST INTERNATIONAL CONFERENCE ON THERMAL ANALYSIS of & Trop Rudolf Ba 6th - 9th Septer ber, 1965. Praha 6 Hrad cany Micurinova ulice Convelien B. Abur Baillio J. J. RECEPTION Toolio Sudo Tologo Uneversity of Education THE BEACH BALLROOM, ABERDEEN kjo. Japan BY THE Morman Hogy hord Provort LORD PROVOST, MAGISTRATES AND TOWN COUNCIL OF THE CITY OF ABERDEEN The P.R.S. ON Tuesday, 7th September, 1965. 8 p.m. - 11 p.m. Wach PROGRAMME Sept 1965-1ª ICTA

Signed Programme for the Civic Reception, 1st ICTA, Aberdeen 1965

#### Edward Charsley

University of Huddersfield, UK

#### References

1. Origin and Development of the International Confederation for Thermal Analysis (ICTAC), R.C. Mackenzie, J.Therm.Anal., 40 (1993) 5-28.

2. Sample Controlled Thermal Analysis, O. T. Sørensen and J. Rouquerol, eds., Kluwer Academic Publications, Dordrecht, 2003.

3. ICTAC Kinetics Committee recommendations for collecting experimental thermal analysis data for kinetic computations, S.Vyazovkin, K.Crissafis, M.L. Di Lorenzo, N.Koga, M.Pijolat, B.Roduit, N. Sbirrazzuoli and J.J.Suňol, , Thermochim Acta 590 (2014) 1-23.

4. ICTAC Nomenclature of Thermal Analysis (IUPAC Recommendations 4014), T.Lever, P. Haines, J.Rouquerol, E.L.Charsley, P.Van Eckeren and D.J.Burlett, Pure Appl. Chem., 86 (2014) 545-553.

Jean Rouquerol

Aix Marseille Université-CNRS, France

### 2019 Events

#### Materials Committee (MC) Meeting at CEEC-TAC5 & Medicta 2019



#### Sapienza University of Rome, Aug. 31st, 2019

<u>Participants</u>: Ignazio Blanco, Michelina Catauro, Arnon Chaipanich, L. Favergeon, Luis Perez Maqueda, Alfred Menyhard, Crisan Popescu, Andrei Rotaru, J. Farjas Silva, J.J. Suñol, Stefano Vecchio Ciprioti

Duration: 2 hours

Topics discussed:

- A brief conclusions from the Workshop during CEEC-TAC5 & Medicta 2019 in Rome, Italy
- Preparation of the Materials Workshop during ICTAC 2020 in Krakow, Poland

#### Conclusions:

- \_ Conclusion by MC is to investigate 'Size' of materials
- MC concluded 'Clay' as the material to be investigated using TG or TG/DSC.
- Factors affecting the results are considered by the committee
- Preparation of the Materials Workshop
  - MC considered the contributors (TG or TG/DSC Measurements) for the workshop as follows:

Ignazio Blanco, Crisan Popescu, Michelina Catauro, L. Favergeon, Giuseppe Lazzara (+Processing & distributor of clay samples), Luis Perez Maqueda, Alfred Menyhard, Andrei Rotaru, J. Farjas Silva, J.J. Suñol, Stefano Vecchio Ciprioti, Guy Van Assche

• The results will be presented at ICTAC 2020, ≈2 hours at ICTAC 2020 parameters.



Participants at the Materials Committee (MC) Meeting at Sapienza University of Rome

### 2020 Events

### SCUOLA DI CALORIMETRIA E ANALISI TERMICA, applicazioni alla diagnostica e conservazione dei Beni Culturali, 11-12-13 Febbraio 2020, Centro Conservazione e Restauro *La Venaria Reale*

La Scuola ha visto la partecipazione di 20 studenti formalmente iscritti, che hanno seguito lezioni ed esercitazioni programmate per 7 ore complessive al giorno.

La prima giornata è stata comunque aperta alla partecipazione di docenti del CCR (Centro di Conservazione e Restauro) e della Università di Torino.

Hanno tenuto lezioni e presentato case studies docenti di UNIMI (Fessas, Schiraldi), UNIPA (Cavallaro, Lazzara) e UNIPI (Duce, Pizzimenti, Tinè), tutti membri dell'AICAT.

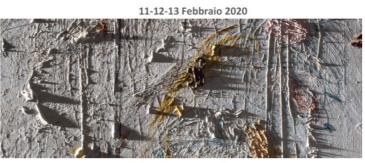
Gli studenti hanno ricevuto copia di tutte le slide utilizzate per lezioni ed esercitazioni.

E' stato predisposto un questionario di valutazione che ogni studente è stato invitato a far pervenire in tempi brevi.

La Scuola è stata inserita nel programma EU Short Cycle Courses on Thermal Analysis (SC-ThAnMa, <u>http://thanma.web.auth.gr/</u>) al quale partecipa il prof. Dimitrios Fessas.



SCUOLA DI CALORIMETRIA E ANALISI TERMICA applicazioni alla diagnostica e conservazione dei Beni Culturali



Centro Conservazione e Restauro La Venaria Reale Via XX Settembre, 18 - Venaria Reale (Torino)

METTLER TOLEDO



NETZSCH Proven Excellence.

#### Contributi

Alberto Schiraldi, Chimica e Fisica per il Restauro e la Conservazione dei Beni Culturali: la Diagnostica

Maria Rosaria Tinè, Le analisi termiche e la calorimetria nella scienza dei materiali

Dimitrios Fessas, Le Pergamene: indicizzazione del danno e dell'invecchiamento mediante calorimetria e analisi termica. Progetto EU SC-ThAnMa

Celia Duce, I leganti (olio lino per pittura ad olio, proteine per tempere e resine alchidiche come leganti industriali)

Giuseppe Lazzara, Cinetica Fenomenologica: velocità di reazione, effetto della T, effetto catalitico

Dimitrios Fessas, Calorimetria DSC e IC: dalle transizioni dei materiali alla contaminazione microbica

Alberto Schiraldi, Invecchiamento artificiale

Giuseppe Cavallaro, Legni archeologici bagnati

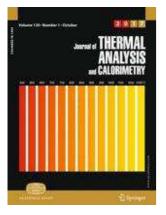
Giuseppe Cavallaro, Termogravimetria: campionamento e trattamento dati

Dimitrios Fessas, Attività dell'acqua

Alberto Schiraldi, Proprietà meccaniche e reologiche dei materiali

Silvia Pizzimenti, La selezione dei materiali per l'impermeabilizzazione di "tuttomondo". uno studio su hydrophase® e disboxan 450®

### Italian manuscripts on JTAC 2020



January 2020, Volume 139, Issue 1, pp 375–382

Isothermal calorimetry for monitoring of grape juice fermentation with yeasts immobilized on nylon-6 nanofibrous membranes

Ksenia Morozova, Mariachiara Armani & Matteo Scampicchio

January 2020, Volume 139, Issue 2, pp 1463–1478

Non-isothermal pyrolysis of grape marc

Enelio Torres-Garcia & Paola Brachi

March 2020, Volume 139, Issue 6, pp 3427–3440

Optimisation of heat treatment of Al-Cu-(Mg-Ag) cast alloys

Mohammadreza Zamani, Stefania Toschi, Alessandro Morri, Lorella Ceschini & Salem Seifeddine

May 2020, Volume 140, Issue 4, pp 1859-1869

#### Probenecid and benzamide: cocrystal prepared by a green method and its physico-chemical and pharmaceutical characterization

Giovanna Bruni, Francesco Monteforte, Lauretta Maggi, Valeria Friuli, Chiara Ferrara, Piercarlo Mustarelli, Alessandro Girella, Vittorio Berbenni, Doretta Capsoni, Chiara Milanese & Amedeo Marini

June 2020, Volume 140, Issue 5, pp 2409-2420

Thermodynamic study of mixtures containing dibromomethane. II: volumes and enthalpies at 298.15 K

Enrico Matteoli, Luciano Lepori & Silvia Porcedda

July 2020, Volume 141, Issue 1, pp 37-44

Significance of exponential space- and thermal-dependent heat source effects on nanofluid flow due to radially elongated disk with Coriolis and Lorentz forces

Basavarajappa Mahanthesh, Giulio Lorenzini, Feteh Mebarek Oudina & Isac Lare Animasaun

### Italian manuscripts on TA 2020



January 2020, Volume 683, 178478

**Thermal stability of soil carbon pools: Inferences on soil nature and evolution** C. Natali, G. Bianchini, P. Carlino

February 2020, Volume 684, 178475

An experimental investigation into the operation of an electrically heated tobacco system V. Cozzani, F. Barontini. T. Mc Grath, B. Mahler, M. Nordlund, M. Smith, J. P. Schaller, G. Zuberc

March 2020, Volume 685, 178512

The correctness of *Cp* measurements by DSC, actions to do and not to do I. Blanco

April 2020, Volume 686, 178546

Thermal stability and flame retardance of EVA containing DNA-modified clays Ewa Rajczak, Rossella Arrigo, Giulio Malucelli

May 2020, Volume 687, 178583

Heat capacity and thermodynamic functions of di-,tri- and tetramethylammonium lead iodide perovskites from 289 to 473 K

S. Vecchio Ciprioti, A. Ciccioli, M.L. Mele, P. Russo, G. Pulci, A. Latini

Manuscript submission @ https://www.evise.com/profile/#/TCA/login

### **Upcoming Events**

Due to the COVID 19 pandemic, all events have so far been canceled or postponed. Below is reported a summary with the old schedule and the new one if available.

	Congress	Old schedule	New schedule
AicaT	XLII National Conference on Calorimetry, Thermal Analysis and Chemical Thermodynamics,	Udine June 17th -19th 2020 Postponed	N.A.
-IGTAC 2020-	17th International Confederation for Thermal Analysis and Calorimetry Congress (ICTAC 2020)	30 August-04 September 2020, Krakow, Poland <b>Postponed</b>	29 August – 3 September 2021, Krakow, Poland
Abratec	XII Congresso Brasileiro de Análise Térmica e Calorimetria & V Congresso Pan-Americano de Análise Térmica e Calorimetria,	05 a 07 de Abril de 2020   Rio de Janeiro/RJ – Brasil <b>Postponed</b>	N.A.
	29th Symposium on Thermal Analysis and Calorimetry "Eugen Segal" of the Commission for Thermal Analysis and Calorimetry of the Romanian Academy (CATCAR29)	6-8 May 2020, Craiova, Romania <b>Postponed</b>	20-24 October 2020, Bucharest
STK	Swiss Society for Thermal Analysis and Calorimetry Annual Meeting 2020,	12-13 May 2020 Zurich, Switzerland <b>Postponed</b>	N.A.
AFCAT	50èmes Journées de Calorimétrie et d'Analyse Thermique,	May 25-28, 2020, island of Porquerolles, France <b>Postponed</b>	2021
RT/C Moscow 2020	XVIth International Conference on Thermal Analysis and Calorimetry in Russia (RTAC-2020)	July 5 – 10, Moscow, Russia <b>Postponed</b>	N.A.

### Job opportunities



PhD Scholarship in Chemical Engineering

Monash University Monash

Australia

#### The Opportunity

Expressions of interest are sought from outstanding candidates for Masters by Research or PhD study in Chemical Engineering, within the Faculty of Engineering.

#### **Candidate Requirements**

Applicants will be considered provided they fulfil the criteria for Masters by Research & PhD admission at Monash University. Details of the relevant requirements are available at <u>www.monash.edu/graduate-research/future-students/apply</u>

To be eligible to apply for domestic postgraduate research scholarships an applicant must be an Australian citizen, an Australian Permanent Resident or a New Zealand citizen.

Submit an EOI online: here. Expressions of Interest shall comprise of:

- A cover letter addressed to your chosen Academic Supervisor that includes a brief statement of applicants suitability. Please review our Academic Research profiles here.
- A Curriculum Vitae
- A full statement of Academic Record, supported by scanned copies of relevant certified documentation if applicable
- Contact detail of two academic referees

Note: applicants who already hold a PhD degree will not be considered.

Professor - Artificial Intelligence for Materials and Computational<br/>Chemistry - 2001253<br/>Job Field: Tenure Stream<br/>Faculty / Division: Faculty of Arts and Science<br/>Department: ChemistryUNITY<br/>Division: Faculty of Arts and ScienceDepartment: ChemistryJob Posting: May 15, 2020<br/>Job Closing: Jun 22, 2020, 11:59pm EST



#### **Candidate Requirements**

Applicants must hold a PhD degree in Chemistry, Materials Science or Physics or a related area, with a demonstrated exceptional record of excellence in research and teaching in the area of A.I. for Materials and Computational Chemistry. We seek candidates with significant expertise in methods development and machine learning methodologies for chemistry. Applicant expertise and research interests may include the generation of new molecular and materials representations, or the use of AI for the understanding and exploration of chemical and materials space or for improving the accuracy of simulation methods. We seek candidates whose research and teaching interests complement and strengthen our existing departmental strengths in <u>Materials Science and Engineering</u> and <u>Chemistry</u>. Candidates must also demonstrate a commitment to equity, diversity, and inclusion.

Info: https://utoronto.taleo.net/careersection/10050/jobdetail.ftl?job=2001253



Postdoctoral Position in Chemistry and Chemical Engineering Shanghai Jiao Tong University School of Chemistry and Chemical Engineering - China

#### **Candidate Requirements**

1. Aged under 35, have obtained or about to obtain the doctoral degree. Have research background in micro/nano device processing, magnetism study, nano material synthesis, electrochemistry, chemical modification, physical property, etc.; research background in two-dimensional material, physics or microelectronic study is a plus;

2. Good English reading and writing skills, proficiency in reading English literature; have published research papers in relevant authoritative journals as the first author, and have the ability to carry out scientific research independently;

3. With physical and mental health, have strong sense of responsibility, enthusiasm and dedication for scientific research, teamwork spirit and good communication ability.

#### **Contact Information**

Please send detailed resume (including personal information, study and work background, paper list, project experience, expertly mastered experimental skills, etc.), summary of doctoral thesis, published paper, and representative works to Professor Zhou Lin Email: linzhou@sjtu.edu.cn

PhD Researcher in Thermochemical Energy Storage Materials University of Twente Faculty of Engineering Technology -Netherlands



#### The challenge

Thermochemical heat storage (TCH) is a promising technology for the efficient utilization of renewable energy all over the year. One of the main challenges of the TCHS is to design and fabricate thermochemical storage materials (TCMs) with superb thermal and physical properties and great cyclic stability.

#### **Candidate Requirements**

- You hold a Master's degree in applied physics or materials engineering or similar subjects.
- A background in experimentation, knowledge of materials characterization and thermal energy storage technologies is desirable.
- Previous knowledge in designing experimental apparatus and test methods.
- Your writing skills are good you have written technical reports and/or scientific papers.
- You have strong analytical skills and the ability to work independently as well in a team.
- You have excellent communication skills.
- You are fluent in English, both spoken and written.
- You have experience in doing multidisciplinary based research.
- You have an interest in contributing to a high quality, impactful working team with several post docs and PhD candidates.

#### Application

You are welcome to contact Dr. Mohammad Mehrali or Dr. Mina Shahi for any questions you might have. Contact: m.mehrali@utwente.nl or m.shahi@utwente.nl

Info: https://utoronto.taleo.net/careersection/10050/jobdetail.ftl?job=2001253



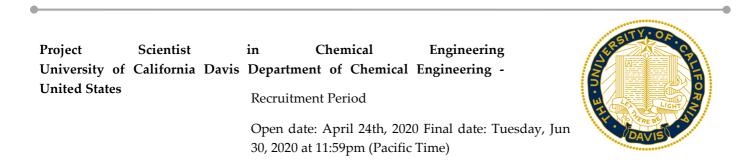
Visiting Professor of Materials Science and Engineering University of California Los Angeles -United States Recruitment Period Up to Jun 30, 2020 at 11:59pm (Pacific Time)

#### Description

The Department of Materials Science and Engineering at the UCLA Henry Samueli School of Engineering and Applied Science invites highly qualified applications for non tenure track Visiting Professor positions during the 2019-20 Academic Year. The level of appointment will be commensurate with the applicant's qualifications. A Ph.D. (or equivalent) in Materials Science or related engineering fields and an excellent track record in teaching is required.

#### Requirements

Curriculum Vitae - Your most recently updated C.V.; Cover Letter (Optional); Statement of Research (Optional); Statement of Teaching (Optional); Statement on Contributions to Equity, Diversity, and Inclusion



#### Description

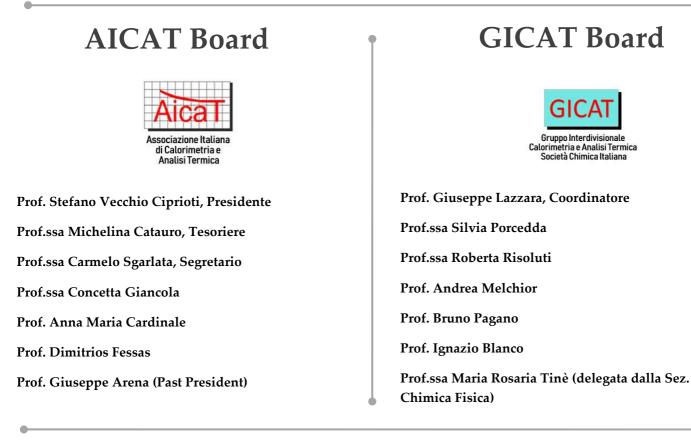
A research position for a Project Scientist is immediately available at the McDonald-Nandi Laboratory (http://mcdonaldnandi.ech.ucdavis.edu), Department of Chemical Engineering, University of California, Davis to work on the projects that need to transgenically/transiently express, measure, and characterize pharmaceutical proteins in lettuce and Nicotiana benthamiana. The successful candidate should have outstanding and appropriate research experience and should provide evidence of effective and innovative research in the areas listed below. The duration of this position is initially for one year and extendable depending on performance and availability of funding.

#### Required qualification and skill:

Candidates must have a Ph.D. degree in Biochemical/Chemical engineering, Molecular Biotechnology, Plant Biotechnology, or other related disciplines with skills in lettuce plant growth, protein purification, and characterization for the above-mentioned tasks.

#### Learn More

More information about this recruitment: http://mcdonald-nandi.ech.ucdavis.edu



### **Come iscriversi all'AICAT**

La scheda di iscrizione può essere inviata al Presidente:

Prof. S. Vecchio Ciprioti, Dipartimento di Scienze Chimiche, Università degli Studi di Catania, Viale A. Doria, 6, 95125 Catania e-mail: stefano.vecchio@uniroma.it Tel. +39. 06-4976-6906

.

oppure, insieme al pagamento della quota biennale (€ 50,00 per le persone fisiche, € 400,00 per Enti o Industrie) inviato tramite vaglia/assegno al Tesoriere:

Prof.ssa M. Catauro, Dipartimento DII, Università degli Studi della Campania Luigi Vanvitelli, Via Roma 29, Aversa email: michelina.catauro@unicampania.it

Banca UniCredit - Agenzia Roma Boncompagni (00712)

Ragione Sociale: Associazione Italiana di Calorimetria ed Analisi Termica (A.I.C.A.T.)

Codice BIC Swift: UNCRITM1712

IBAN IT 91 L 02008 05211 000101707406

Scheda di Iscrizione: http://www.aicat-gicat.it/doc2/Subscrition%20form.rtf

## **Come iscriversi al GICAT**

Nell'ambito della iscrizione annuale alla Società Chimica Italiana, oltre alla scelta della Divisione cui afferire, può essere formulata anche l'adesione ai Gruppi Interdivisionali, nella fattispecie bisogna optare per il Gruppo Interdivisionale di Calorimetria ed Analisi Termica

Scheda Iscrizione: https://www.soc.chim.it/iscrizione/new