

# AICAT notizie

AICAT-GICAT news

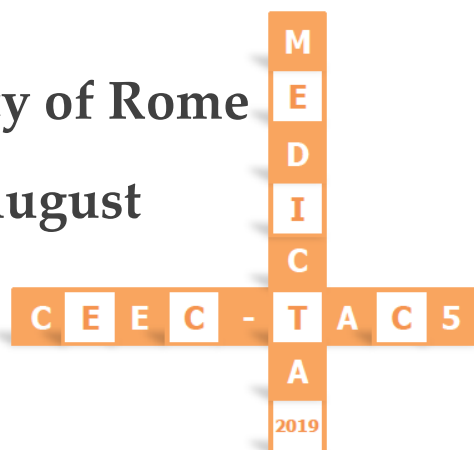
Nuova Serie

July 2019

Diffusione gratuita

Bollettino dell'Associazione Italiana di Calorimetria e Analisi Termica

“Sapienza” University of Rome  
Rome 27-30 August



*390 registrations from 41 different countries, 7 plenary Lectures, 16 invited Lectures, 4 parallel sections, exhibitions and demonstrations of the most important manufacturers of thermo-analytical and calorimetric instruments. Short Summer School on Thermal Analysis and Calorimetry. We are waiting for you in Rome.*

Associazione Italiana di Calorimetria e Analisi Termica  
| Gruppo Interdivisionale di Calorimetria e Analisi  
Termica | <http://www.aicat-gicat.it/index.html>

Have collaborated on this issue: Prof. Dr. P. Brodard, Prof. J.J. Suñol, Dr. A. Eposito, Prof. Michael Feist, Dr. Imre Miklós Szilágyi.

## Issue Content

Thermal analysis and  
Calorimetry on the  
Scientific Social

Job opportunities

Reports from  
International  
Congresses

2019 in...papers

## Future Events

CEEC-TAC 5 &  
Medicta 2019 joint  
meeting 27-30 August,  
Rome

International Meetings

## Organigrammi

Consigli direttivi

Come iscriversi

Responsabile: Ignazio Blanco –  
Dipartimento di Ingegneria Civile ed  
Architettura - Università degli Studi di  
Catania - V.le A. Doria 6 95125 Catania  
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## Thermal analysis and Calorimetry on the Scientific Social.

### How to correctly manage it?

A few weeks ago, during the review of a manuscript, when I was looking for literature references to explain an exothermic peak in a polymer composite, I came across the questions section of ResearchGate. I know this platform almost from its foundation and I always appreciated its basic idea, namely to share scientific production, research projects, in other words to share the knowledge. If I was always very quick to reply to my full texts requests, I confess, I never gave too much weight to the open questions section. And instead here I am, with that question in front of me:

"How to get the kinetic parameters from Thermogravimetric analysis of isothermal data?"



Immediately, without thinking too much, I replied that he/she could process the data with a method that I used in the past, citing an article in which we explained the use of this method and its application. Later, I read the answers given by the other 4 users who replied to the question: 3 of whom had put the link of their work and the fourth had offered to explain the TGA plot if he had received it (explain the graph? This is not the question). Later in the afternoon, with a cool head, I kept thinking about that question. The answers led me to reflect, I had also recommended one of my works (because I thought, and I still think it, could be helpful in processing those isothermal data), but was it the right answer to give? Or would it have been better to contact the user and try to explain the procedure, perhaps trying to understand what was the ultimate goal of the research? The point is, in my opinion, that on one hand the development of the internet over the past 20 years has contributed to the sharing and development of the research, on the other one this tendency to a facilitate the access to the knowledge, learning, or pseudo learning, risks to undermining the credibility of the research itself and its results. So the question I ask to my colleagues who deal with calorimetry and thermal analysis is:

how can we convey this request for knowledge, these forms of debate, within a scientifically correct and rigorous path?

Is it enough to direct the user to the right references in the literature or would it be better to train people that monitor this phenomenon and interface with these online platforms, within the international associations?

This article aims at the beginning of a debate, whose answers we will be happy to host in the next issues. Contributors can be sent to [iblanco@unict.it](mailto:iblanco@unict.it).

Ignazio Blanco

## Job opportunities



**IRCELYON Position in materials surface characterization using calorimetry and thermal analysis techniques, Lyon, France**

**Institution:** Centre National de la Recherche Scientifique (CNRS)

**Research Center:** Institut de Recherches sur la Catalyse et l'Environnement de Lyon (IRCELYON)

In the frame of the development of research activities in the area of materials thermodynamics, IRCELYON, invites applications for a tenure-track position. The selection process involves a participation to 2020 Competitive Examinations in December 2019 for Researcher Positions <https://www.dgdr.cnrs.fr/drhchercheurs/concoursch/default-en.htm>

**Contact:** Aline Auroux, Directeur de Recherche CNRS IRCELYON - UMR 5256 CNRS/Université Lyon1 2 avenue Einstein 69626 VILLEURBANNE Cedex (F)

E-Mail: [aline.auroux@ircelyon.univ-lyon1.fr](mailto:aline.auroux@ircelyon.univ-lyon1.fr)



**UNIVERSITÀ DEGLI STUDI  
DI GENOVA**

L'Università degli Studi di Genova, ha pubblicato un avviso rivolto a favorire il reclutamento, mediante "**chiamata diretta**", con le modalità di cui alla Legge 4.11.2005, n. 230 e s.m.i., di **scienziati che attualmente operano all'estero**.

In particolare, il Dipartimento di Chimica e Chimica Industriale ed il Dipartimento di Farmacia, dove sono presenti quasi tutti i docenti di settore chimico dell'Ateneo, sarebbero molto interessati a questa opportunità.

L'avviso è reperibile all'indirizzo telematico <https://unige.it/concorsi/manifestazioniinteressechiamatedirette.html>.

Gli studiosi interessati potranno presentare la manifestazione di interesse, su apposito modello disponibile al citato indirizzo telematico, improrogabilmente entro la data del 31.8.2019, a mezzo e-mail all'indirizzo [reclutamento.docenti@unige.it](mailto:reclutamento.docenti@unige.it)



**UNIVERSITÉ  
LAVAL**

**CHEMICAL ENGINEERING FACULTY POSITION**

**Workplace:** Université LAVAL - Department of Chemical engineering

The Chemical Engineering Department of Université Laval invites applications for a tenure-track appointment at the level of either Assistant, Associate or Full Professor.

Responsibilities for this position include: teaching at the undergraduate and graduate levels, participation to administrative activities, supervision of graduate students and undertaking of a strong research program in at least one of the following target areas: Environmental, green and sustainable process engineering, applied to alternative energy sources, molecules of interest, materials or waste valorization. Candidates must hold a bachelor and a doctorate in chemical engineering or in an equivalent discipline, be a member of the Ordre des Ingénieurs du Québec (OIQ) or eligible and undertake the necessary procedures to become a member of OIQ, and have a good knowledge of spoken and written French. Applications examination will start on August 26, 2019 and should comprise a cover letter, a curriculum vitae, a description of the intended research program as well as three reference letters and should be sent by email ([Bruno.gaillet@gch.ulaval.ca](mailto:Bruno.gaillet@gch.ulaval.ca) in pdf format) to Bruno Gaillet, Head of the Department. Valuing diversity, Université Laval

## Job opportunities



### Faculty Positions in Chemical and Materials Engineering

Applications are invited for tenure-track faculty positions in Chemical and Materials Engineering targeted at the assistant and associate professor levels. The successful candidates are expected to establish productive research programs in areas such as, but not limited to, thermodynamics, reactor engineering, fuel cells, process control, and renewable energy.

Candidates must hold a PhD in Chemical Engineering or Materials Engineering, or closely related field, or expect to receive one shortly after taking up their appointment. To apply email a curriculum vitae, the names of three confidential references, a statement of teaching interests and philosophy, and a statement of current research interests and plans for future research: Dr. Ken Cadien, Department of Chemical and Materials Engineering, University of Alberta, Edmonton, Alberta T6G 1H9. Please quote CMEgc2019 as the competition number in your application. Applications will be considered until the positions are filled. We thank all applicants, but advise that only those selected will be contacted for a scheduled interview. Email [cme.chair@ualberta.ca](mailto:cme.chair@ualberta.ca) All qualified candidates are encouraged to apply; however, Canadians and permanent residents will be given priority. If suitable Canadian citizens or permanent residents cannot be found, other individuals will be considered.



### Postdoctoral researcher in environmental catalysis

**Workplace:** Aalto University, Espoo and Helsinki, Finland

**Application closes on** 31.7.2019

**Place** Department of Chemical and Metallurgical Engineering

The research group of Industrial Chemistry at the Department of Chemical and Metallurgical Engineering is looking for a highly motivated. The research topic will for this Postdoctoral position will be NO<sub>x</sub> abatement with advanced catalytic technologies. The core interest is the kinetics and catalyst design of NO decomposition and to utilize the reaction in NO<sub>x</sub> abatement. The primary work tasks of the postdoctoral researcher are to carry out research, to instruct doctoral and undergraduate students and to seek funding possibilities. This is a one-year postdoctoral appointment (with possibility of extension). You should have ambition to pursue an academic career. In addition, you should have interest in and be able to contribute to the teaching tasks of the courses the group is in charge of.

The candidate should also have: PhD degree in a suitable field; Proven publication record in a related field; Good written and oral communication skills in English; Experience in carrying out independent project-based work and working in a highly collaborative environment. Please apply online through the link below and include the following attachments: Application letter; Curriculum Vitae; List of publications; Research interest description; Names and contact information for references

Please apply through our eRecruitment system (link below) no later than on **July 31<sup>st</sup>, 2019**.

For additional information, please contact Professor Yongdan Li, email: [firstname.lastname@aalto.fi](mailto:firstname.lastname@aalto.fi)

## #STK2019

# Swiss Society for Thermal Analysis and Calorimetry Annual Meeting 2019, 15.05.2019 *ARMASUISSE, General Herzog Haus, Thun, Switzerland*



The aim of the STK association (Schweizerische Gesellschaft für Thermoanalytik und Kalorimetrie), founded in 1975, is to assemble scientists and specialists from universities and industries active in the fields of thermal analysis and calorimetry.

The STK annual meeting 2019 was hosted by Armasuisse in Thun, on Wednesday May 15th, with a special emphasis on *Thermal Analysis of Materials*. Our dedicated host, Dr. Patrick Folly (Head of the specialized area Explosives and Ammunition Surveillance), together with the support of the STK scientific committee (M.-A. Aeschlimann, P. Brodard, P. Furrer, A. Hammer, R. Hilfiker, F. Mascarello, A. Raemy, F. Stoessel and J. Thun), set up a very interesting scientific program with 9 talks, further enhanced by a fascinating tour of the Armasuisse laboratories. Several exhibitors were also present.

The first invited talk, by **Alexandre Sarbach** from Armasuisse (Switzerland), brilliantly introduced us to *Heat flow calorimetry and others thermal technics applied in the ammunition surveillance and shelf life prediction*. Next, **Bertrand Roduit** (AKTS AG, Switzerland) further developed the topic by *Continuous monitoring of shelf lives of materials by application of data loggers with implemented kinetic parameters*.

Prof. Dr. Pierre Brodard, President of STK  
Haute école d'ingénierie et d'architecture  
Fribourg, University of Applied Sciences  
Western Switzerland HES-SO  
[pierre.brodard@hefr.ch](mailto:pierre.brodard@hefr.ch)

The president of STK, Pierre Brodard, then presented the **STK AWARD 2019** to **Vincent Mathot** (Katholieke Universiteit Leuven, Belgium) for his outstanding work on *Thermal behavior of crystallizing polymers*. The morning ended up with the next invited talk by **Aloïs Raemy** (Nestlé retiree, Switzerland), who discussed the *Thermal characteristics of carbohydrate cellulose in relation to safety*.

After lunch and STK General Assembly, we had the unique chance to visit the special testing facilities of the Armasuisse laboratories (see picture below). Later on, Pierre Brodard presented the **STK YOUNG SCIENTIST AWARD 2019** to **Andrei Rotaru** from the University of Craiova (Romania), for his work on *Thermal-spectroscopic studies of electroceramic relaxor materials*. **Angela Hammer** (Mettler-Toledo AG, Switzerland) completed this first afternoon session with a contributed talk.



F. Stoessel, R. Hilfiker, F. Mascarello, V. Mathot (STK Award 2019), P. Brodard



F. Stoessel, M.-A. Aeschlimann, A. Raemy, A. Rotaru (Young Scientist)

After the coffee break, **Rémi André** from Setaram Instrumentation (France) initiated in a very articulate manner the next session, about *Calorimetry and energy*. **Andreas Haselbacher** (ETH, Switzerland) went ahead with *Recent progress on high-temperature thermal energy storage with application to advanced adiabatic compressed air energy storage*, a captivating presentation of a pilot-scale plant for advanced adiabatic compressed air energy storage in the Swiss Alps. **Erwin Marti** (Basel, Switzerland), co-founder of STK more than 40 years ago, finally shared with us his thrilling and lifelong observations about *Leadership and management in the chemical industry*.

The broad and international attendance was delighted by the relaxed, friendly and scientifically sound atmosphere of the meeting. We hope that many will attend next year **STK annual meeting 2020**: for our **45<sup>th</sup> Anniversary**, we will focus on "**Mastering Heat for Environment and Processes**", on the premises of **Sika Technology in Zurich**, on the **afternoon of Tuesday 12. May and morning of Wednesday 13. May**. A surprise dinner on Tuesday evening will be offered to all registered participants: **SAVE THE DATE!**



Armasuisse testing facilities

Pierre Brodard

## Symposium GECAT “Calorimetry and Thermal Analysis in Modern Chemistry”. San Sebastian, May 29, 2019



Prof. J.J. Suñol, President of GECAT

The symposium of the Spanish GECAT (Spanish Thermal Analysis and Calorimetry Group) “Calorimetry and thermal analysis in the current Chemistry” took place on May 29, 2019 in the city of San Sebastian as part of the biennial of the Spanish Royal Society of Chemistry

The aim of the symposium was to highlight the relationship between calorimetry and thermal analysis with current chemistry, presenting the theoretical and experimental advances in the analysis of the thermal properties of different materials (polymers, ceramics, metals and their different combinations) and compounds.

The invited lecturer was Professor Giuseppe Arena of the Università degli Studi di Catania (Italy) with the lecture: Can a well-designed ITC experiment provide information on the speciation of supramolecular compartments?

The award for the best talk made by a young researcher went to Coro Echevarría from the Polytechnic University of Catalonia.

After the symposium, in the GECAT assembly Professor J.J. Suñol from the University of Girona was re-elected as president.

The GECAT prize for the best thesis in thermal analysis and calorimetry in Spain in 2018 was awarded to Beatriz Sarrión Aceytuno for her thesis entitled: Thermochemical storage systems for concentrated solar energy, under the supervision of professors Luis Allan Pérez Maqueda and José Manuel Valverde Millán, result of the collaboration between the Institute of Materials Science of Seville (ICMSE-CSIC) and the department of inorganic chemistry (University of Seville). The prize is endowed with 1,000 euros with the financial support of the Spanish Royal Society of Chemistry (RSEQ).

"GECAT co-organizes a symposium on July 15, 2019 in the city of Zaragoza within the framework of the biennial of the Spanish Royal Society of Physics. The title of the symposium is: Thermodynamics and Thermal Analysis.

<https://eventos.unizar.es/20274/section/15719/bienalrsef2019.html>

The Thermodynamics Group stands out for its transversality, bringing together researchers who contribute with both experimental and theoretical contributions in areas such as energy generation and optimization, fluids applied to industrial processes, new materials or nanotechnology. For its part, Calorimetry and Thermal Analysis Group (GECAT) activity is focused in the study of the thermal properties of matter, including both the simulation of processes and their application in specific areas of chemistry, biology or materials.



Lecture during GECAT symposium.

# 50èmes Journées de Calorimétrie et d'Analyse Thermique

## June 3-5, 2019 St-Valéry-en-Caux (Normandie)



Dr. A. Esposito, Université de Rouen

The 50<sup>th</sup> edition of JCAT (Journées de Calorimétrie et d'Analyse Thermique), which are the annual meeting of AFCAT (Association Française de Calorimétrie et d'Analyse Thermique), have been organized by the EIRCAP research team of the GPM laboratory (Groupe de Physique des Matériaux UMR CNRS 6634, Université de Rouen Normandie) in collaboration with the LSPC laboratory (Laboratoire Sécurité des Procédés Chimique EA4704, INSA Rouen).

Designed as a shorter, modern, connected and self-focused event, JCAT50 took place in the Hôtel du Casino in front of Saint-Valéry-en-Caux's harbor

(<https://www.hotel-casino-saintvalery.com/>), a place that favored relaxing, scientific exchanges and networking.

The event was attended by 70 participants and involved 27 oral presentations (including 4 short courses, 1 invited presentation, plus the plenary session dedicated to the Prix Calvet), 21 posters and several sponsors (TA Instruments, SETARAM Instrumentation, RIBORI Instrumentation, NETSZCH and Mettler-Toledo) who exposed their products in dedicated booths.

The 50<sup>th</sup> edition of JCAT have been innovating in many different ways: the choice of a confined location where everything could be reunited, the registration fees which included everything but the travel (breakfasts, lunches, dinners, coffee breaks and the social event), the creation of a dedicated website

(<https://ammelecap.wixsite.com/jcat50>), the real-time communication on the web through a dedicated Twitter account (<https://twitter.com/JCAT50rouen>) and the real-time animation of the event through a dedicated smartphone app (Smyler).



Conference Venue: Hôtel du Casino, Saint-Valéry-en-Caux, Normandie, France



Photo-group for the participants to JCAT50



The session of short-courses took place on the first day. The main topics of JCAT50 were “Polymers” and “Process safety”, but other topics related to thermal analysis and calorimetry were presented and discussed. The social event consisted in a visit of one of the most beautiful villages in France (Veules-les-Roses, a few minutes from Saint-Valéry-en-Caux). The Gala dinner took place in the Casino in Saint-Valéry-en-Caux, a few meters from the beach.

The symposium allowed researchers and industrials to talk about their work and exchange on the latest news about equipment, techniques and methodologies in the field of calorimetry and thermal analysis. Young researchers presented their activities to an audience of experts.



Francis Stoessel receives the Prix Calvet 2019 from Eric Dantras and Jean Rouquerol



Aurélie Bourdet and Bienvenu Atawa receive the awards for the best posters from Laurent Delbreilh and Rodica Chiriac

The AFCAT scientific committee attributed the Prix Calvet 2019 to Francis Stoessel, nowadays Senior Consultant at TÜV SÜD Process Safety (<https://www.linkedin.com/in/francis-stoessel-062074115/>).

Invited lecture of the conference was Emmanuel Richaud, full professor in Arts et Metiers ParisTech (Paris, France).

Two awards were attributed to the best posters: the first (traditional) award was attributed to Bienvenu ATAWA (“Effet de la pression hydrostatique sur la relaxation Debye d’une amine secondaire: cas du n-acetyl- $\alpha$ -methylbenzylamine”) by the AFCAT scientific committee; the second (brand new) award was attributed to Aurélie BOURDET (“Propriétés thermiques et mobilité moléculaire d’une nouvelle generation de copolyesters à base d’acide furandicarboxylique”) by all the participants who voted on Smyler app. At the end of the event, a short video was uploaded on GPM’s YouTube channel: <https://youtu.be/wj6FzqtX1-4>

Some photos are hereafter, all the photos are available at:

[https://drive.google.com/open?id=18suYKoxTSSwpmZ\\_wA4Rugejcidz3L9BF](https://drive.google.com/open?id=18suYKoxTSSwpmZ_wA4Rugejcidz3L9BF)

Antonella Esposito

## 23<sup>rd</sup> Calorimetry Conference in Braunschweig, Germany

For the third time since 2015, the bi-annual calorimetry conference was hosted by the Physikalisch-Technische Bundesanstalt (PTB) in Braunschweig (June 12 - 14, 2019). It is now under its third name *Kalorimetrietage* (Calorimetry days) that the widely known symposia series founded in 1973 by Günther Höhne and Wolfgang Hemminger as *Ulmer Kalorimetrietage* are being continued under the responsibility of Stefan Sarge from the PTB under the auspices of GEFTA.

Stefan Sarge, being well-known since years to the calorimetric community, received his Ph.D. from the famous Cammenga group in Braunschweig, later worked with



Prof. Michael Feist, Institute of Chemistry, Humboldt University Berlin, Germany



Heiko K. Cammenga (left) is honoured with the GEFTA Science Award. It is handed out by the GEFTA chairman Dirk Walter.

Wolfgang Hemminger, and took over in 2015 this new responsibility from his colleagues from the Freiberg Mining Academy (Gert Wolf, later Florian Mertens) who hosted the calorimetry conferences for 20 years under its second label *Ulm-Freiburger Kalorimetrietage*. Geographically, this was a somewhat surprising name (Ulm in Wurttemberg and Freiberg in Saxonia are at a distance of 470 km), but it was chosen deliberately in order to honor the great work of the founders

Höhne and Hemminger and the impressive tradition of 10 symposia held in in Ulm.

The organization committee headed by Stefan Sarge scheduled an impressively wide scientific program primarily dealing with new trends on applications of calorimetric research to life sciences in a general and a more specified way. 41 oral presentations were given together with a poster session offering 26 posters. Heiko K. Cammenga was honored with the *GEFTA Science Award* and, in his Award lecture, gave a review about „50 Years research work: Calorimetry, Thermal Analysis and much more“.



The conference chairman Stefan Sarge (right) discussing with Sabine Wraetz from the Fritz Haber Institute in Berlin



Emmerich Wilhelm from Vienna, participant of each symposium since 1973, i.e. of the early Ulmer Kalorimetrietage, then the Ulm-Freiburger Kalorimetrietage, and, finally, the actual Kalorimetrietage in Braunschweig

Interestingly enough, not only the well-known „usual suspects“ (E. Hempel, J. Lerchner, T. Maskow, F. Mertens, Ch. Schick, P. Schmidt, D. Singer, E. Wilhelm, S. Wrabetz, ...) who join nearly each calorimetry conference every two years in Braunschweig (by the way: their contributions are always interesting and welcome), but some new participants appeared at the conference. This is primarily due to new members of the organizing committee who contributed to a remarkable refreshment of the „invitation policy“: e.g. Jonathan B. Chaires from Louisville (USA) gave a well-appreciated lecture on *Calorimetry inside and outside the box*, similarly did Jose M. Sanchez-Ruiz from Granada (Spain) on

*Kinetic and thermodynamics aspects of protein folding* and C. Paetz (Erlangen) on *Liquid organic hydrogen carriers*.

An extraordinary event was the visit to the Herzog August Library in Wolfenbüttel, at a distance of 30 bus minutes from Braunschweig, directly preceding the conference dinner. At his time, in the middle of the 18th century, it was, by the number of books, the second library after the Vatican's library - really impressive.

More details can be found at the web site of the conference: <https://www.kalorimetrietage.ptb.de/>

The next, the 24<sup>th</sup> Kalorimetrietage, will again take place in Braunschweig, Germany, in two years, as usual the week after Pentecost, 26 - 28 May, 2021. Save the date!

Michael Feist

## 2<sup>nd</sup> Journal of Thermal Analysis and Calorimetry Conference and 7<sup>th</sup> V4 (Joint Czech-Hungarian-Polish-Slovakian) Thermoanalytical Conference / JTACC+V4 2019, June 18-21, 2019 Budapest, (Hungary)



Dr. Imre Miklós Szilágyi Conference Chair  
and Editor-in-Chief of

Journal of Thermal Analysis and Calorimetry opens the Conference

On 18-21 June 2019 in Budapest, in the amazing and comfortable venue of the Danubius Hotel Helia, took place the 2<sup>nd</sup> Journal of Thermal Analysis and Calorimetry Conference joint with the 7<sup>th</sup> V4 Thermoanalytical Conference. It was a special occasion because in 2019 the journal JTAC is celebrating its 50<sup>th</sup> anniversary from the foundation; thus, the editorial board, authors, reviewers, and supporters celebrated the journal by doing what they do at best, discussing about thermal analysis and calorimetry.

The location was Budapest, since the Budapest University of Technology and Economics is the origin of both the world's first commercial TG/DTA device (Derivatograph) and JTAC. Many of the scientists, from over the world, who contributed with their research to the development of the JTAC, have taken the stage as plenary lectures: **Barbara Pacewska, Alexander Bannov, Michael Feist, Wei-Ping Pan, Géza Regdon jr.**, and invited lectures: **Guy Van Assche, Dario Cavallo, Stefano Vecchio Cipriotti, Omid Mahian, M. Mohanraj, Michelle Gonçalves Mothé, Riko Ozao, Li-Xian Sun, Martin Palou, Jaroslav Sesták, Chi-Min Shu, Joan Josep Suñol, Katalin Mészáros Szécsényi, Qiang Xu, Maria Zaharescu, Irina Zvereva**. Beside tradition, innovation was also present, e.g. electronic poster sessions, conference mobile application, on-line question&answer part after lectures using sli.do, on-line participant map, etc. By the support of the Ministry of Innovation and Technology (Hungary) JTACC-V4 assigned numerous JTAC and V4 travel grants (see photo) in order to enable bright and young scientists to attend the JTACC-V4 2019 meeting and thus motivate them to keep a continuing interest and activity in the fields of Thermal Analysis & Calorimetry.



Photos from the electronic poster session

During the conference the organizing committee assigned the JTAC Scientific Excellence Award to Prof. Barbara Pacewska of the Warsaw University of Technology (Poland) for her outstanding contribution to the development of thermal analysis and calorimetry, and for the significant service provided during the years to the community of JTAC.

The JTAC Young Scientist Award was given to Dr. Alexander Bannov from the Novosibirsk State Technical University (Russia), who delivered an excellent lecture about the thermal properties of nanostructured carbon materials.

The JTAC Best Reviewer Award for the 2018 year was assigned to Prof. Joan Josep Suñol (University of Girona, Spain) for his contribution to improve the quality of JTAC by providing an outstanding number of review reports.

The birthday celebration of JTAC took place in the scenic Royal Castle at Gödöllő. The catering here and during the conference was excellent with all types of normal, vegetarian, allergen-free, etc. choices. Two free registrations to the JTACC 2021 conference were given to researchers (from Italy), who correctly filled out the funny JTAC quiz. The highlight of the night was the spectacular birthday cake, displaying the front page of the journal. Hungarian folk dance show made the event more colourful, and after that many participants could learn some steps of Hungarian dances. The celebration continued with partying.

The conference was a large success, and there were 30 % more registered (530) participants compared to JTACC 2017, from which around 350 people were on site, making JTACC-V4 2019 one of the largest thermal analysis conferences of the recent decades.

Imre Miklós Szilágyi



Dr. Alfréd Kállay-Menyhárd Conference Co-Chair and Deputy Editor-in-Chief Journal of Thermal Analysis and Calorimetry



Invited lecture of Prof. Dario Cavallo, University of Genoa, Italy



JTACC and V4 Travel Grants Ceremony



Invited lecture of Prof. Stefano Vecchio Cipriotti, University "La Sapienza" of Rome, Italy

## Articoli italiani su JTAC 2019



January 2019, Volume 135, Issue 1, pp 371–377

**A critical analysis of clustering phenomenon in Al<sub>2</sub>O<sub>3</sub> nanofluids**

Fabrizio Iacobazzi, Marco Milanese, Gianpiero Colangelo, Arturo de Risi

February 2019, Volume 135, Issue 4, pp 2111–2115

**Dual cure composites: Could body temperature offset the absence of light activation?**

M. Petrini, M. Ferrante, D. Vitale, G. Spoto

March 2019, Volume 135, Issue 5, pp 2807–2811

**Carbohydrate recognition of C3-symmetrical tripodal receptor-type 2,4,6-trisubstituted 1,3,5-triazine derivatives with antiviral activities**

Nobuko Mibu, Tomonori Ohata, Marina Sano, Jian-Rong Zhou, Kazumi Yokomizo, Hatsumi Aki, Kunihiro Sumoto

April 2019, Volume 136, Issue 2, pp 943–955

**Thermography data fusion and nonnegative matrix factorization for the evaluation of cultural heritage objects and buildings**

Bardia Yousefi, Stefano Sfarra, Clemente Ibarra-Castanedo, Nicolas P. Avdelidis, Xavier P. V. Maldague

May 2019, Volume 136, Issue 3, pp 967–993

**Impact of rock fabric, thermal behavior, and carbonate decomposition kinetics on quicklime industrial production and slaking reactivity**

Gabriele Vola, Pierangelo Bresciani, Elisa Rodeghero, Luca Sarandrea, Giuseppe Cruciani

June 2019, Volume 136, Issue 5, pp 2063–2070

**Physico-chemical and pharmaceutical characterization of sulindac–proglumide binary system**

Giovanna Bruni, Mirena Sakaj, Vittorio Berbenni, Laretta Maggi, Valeria Friuli, Alessandro Girella, Chiara Milanese, Amedeo Marini

July 2019, Volume 137, Issue 2, pp 703–709

**Application of differential scanning calorimetry to freeze-dried milk and milk fractions**

Alessandro Pugliese, Maria Paciulli, Emma Chiavaro, Germano Mucchetti

## Articoli italiani su JTAC 2019



August 2019, Volume 137, Issue 3, pp 759–766

### **Thermal behavior of a phenolic resin for brake pad manufacturing**

C. Menapace, M. Leonardi, M. Secchi, A. Bonfanti, S. Gialanella, G. Straffelini

August 2019, Volume 137, Issue 3, pp 767–778

### **Electrospun composite mats of alginate with embedded silver nanoparticles Synthesis and characterization**

Maila Castellano, Marina Alloisio, Rimah Darawish, Andrea Doderò, Silvia Vicini

Online first

### **Tb–Al–Si systems**

#### **Experimental study of the liquid–solid phase equilibria in the Al-rich corner**

Anna Maria Cardinale, Nadia Parodi

Online first

### **On the use of phase change materials applied on cork-coconut-cork panels**

#### **A thermophysical point of view concerning the beneficial effect in terms of insulation properties**

Stefano Sfarra, Stefano Perilli, Mirco Guerrini, Fabio Bisegna, Tao Chen, Dario Ambrosini

Online first

### **Experimental and numerical analysis in heat flow sensors calibration**

Gino Cortellessa, Fausto Arpino, Marco Dell'Isola, Giorgio Ficco, Luigi Iacomini, Vito Fernicola, Fabio Bertiglia

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### **Adsorption isotherms and thermal behavior of hybrids based on quercetin and inorganic fillers**

Azzurra Milia, Maurizio Bruno, Giuseppe Cavallaro, Giuseppe Lazzara, Stefana Milioto

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### **Automatic detection of moistures in different construction materials from thermographic images**

I. Garrido, S. Lagüela, S. Sfarra, F. J. Madruga, P. Arias

## Articoli italiani su JTAC 2019



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### **Synthesis and thermal characterization of monosubstituted octaphenyl POSS/polystyrene nanocomposites**

Ignazio Blanco, Lorenzo Abate, Paola Bottino, Maria A. Chiacchio

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### **Calorimetry and thermal analysis in food science**

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Alberto Schiraldi, Dimitrios Fessas

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Nabil Haman, Marco Signorelli, Celia Duce, Laura Franzetti, Dimitrios Fessas

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### **Polymorphous transitions in cocoa butter**

#### **A quantitative DSC study**

D. Fessas, M. Signorelli, A. Schiraldi

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### **Assessment of damage in old parchments by DSC and SEM**

G. Della Gatta, E. Badea, R. Ceccarelli, T. Usacheva, A. Mašić, S. Coluccia



## Articoli italiani su TA 2019



January 2019, Volume 671, pp 26-31

**Thermodynamic stability of myoglobin-poly(ethylene glycol) bioconjugates: A calorimetric study**

Chiara Pelosi, Francesca Saitta, Frederik R. Wurm, Dimitrios Fessas, Maria Rosaria Tinè, Celia Duce

February 2019, Volume 672, pp 142-149

**Effect of silica particle size on the formation of calcium silicate hydrate [C-S-H] using thermal analysis**

Riccardo Maddalena, Christopher Hall, Andrea Hamilton

February 2019, Volume 672, pp 157-161

**Structural relaxation in PLLA: Contribution of different scale motions**

Maria Cristina Righetti, Elisa Mele

June 2019, Volume 676, pp 263-270

**Integrated adiabatic scanning calorimetry, light transmission and imaging analysis of collagen deterioration in parchment**

C. Cicero, F. Mercuri, S. Paoloni, N. Orazi, U. Zammit, C. Glorieux, J. Thoen

July 2019, Volume 677, pp 60-66

**Effect of molecular weight on vitrification kinetics and molecular mobility of a polymer glass confined at the microscale**

Xavier Monnier, Daniele Cangialosi

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**Determination of the equilibrium enthalpy of melting of two-phase semi-crystalline polymers by fast scanning calorimetry**

Clément Fosse, Aurélie Bourdet, Estève Ernault, Antonella Esposito, Nicolas Delpouve, Laurent Delbreilh, Shanmugam Thiyagarajan, Rutger J. I. Knoop, Eric Dargent

## Articoli italiani su TA 2019



July 2019, Volume 677, pp 117-130

**Crystallization and self-nucleation of PLA, PBS and PCL in their immiscible binary and ternary blends**

Seif Eddine Fenni, Jun Wang, Nacerddine Haddaoui, Basil D. Favis, Alejandro J. Müller, Dario Cavallo

July 2019, Volume 677, Pages 180-185

**N,N-Diethyl-3-methylbenzamide (DEET): A mosquito repellent as functional plasticizer for poly(l-lactic acid)**

Maria Laura Di Lorenzo, Alessandra Longo

July 2019, Volume 677, Pages 186-193

**Temperature-induced polymorphism in bio-based poly(propylene 2,5-furandicarboxylate)**

Maria Cristina Righetti, Paola Marchese, Micaela Vannini, Annamaria Celli, Fabio Tricoli, Cesare Lorenzetti

August 2019, Volume 678, 178303

**Contribution of thermal analysis in the characterization of lime-based mortars with oxblood addition**

Kun Zhang, Alberto Grimoldi, Laura Rampazzi, Antonio Sansonetti, Cristina Corti

September 2019, Volume 679, 178316

**A potentiometric and microcalorimetric study of the complexation of trivalent europium with lactate: The ionic strength dependency of  $\log \beta'_n$ ,  $\Delta_r H_{m,n}$  and  $\Delta_r S_{m,n}$**

Andrej Skerencak-Frech, Franziska Taube, Pier Luigi Zanonato, Margret Acker, Petra J. Panak, Plinio Di Bernardo

## 2019 Events

### 5<sup>th</sup> Central and Eastern European Conference for Thermal Analysis and Calorimetry (CEEC-TAC 5) & 14<sup>th</sup> Mediterranean Conference on Calorimetry and Thermal Analysis (Medicta 2019) joint meeting, 27-30 August 2019, Rome, Italy



A view of La Sapienza University of Rome

The communities of Central and Eastern Europe (CEEC-TAC) and those of the countries facing the Mediterranean sea (MEDICTA) met in Rome on the next August 27th. Up to now 390 scientists from 41 different countries have confirmed their participation to the joint meeting that will be held in the prestigious venue of the Rectorate Building of Sapienza University of Rome. According to the organizers' intentions it should be a forum for discussions on current relevant research developments and to support old and new collaborations among scientists, confident that Rome, the eternal city, with its unforgettable historical monuments known all over the world could represent the most valuable setting for fruitful discussions. The main campus of “La Sapienza” University is a real city within the city located in the heart of Rome, an extraordinary place for students and teachers from around the world to meet, exchange and develop new ideas and philosophies. La Sapienza University is easily accessible from Termini station (20 minutes on foot or bus n° 310) or by the subway station of Metro B “Policlinico” (10 minutes on foot).

The conference will be preceded by a **Short Summer School on Thermal Analysis and Calorimetry**, with the following lectures:

**Jaroslav Sestak** (Pilsen, Czech Rep.) Do we know what temperature is while undertaking thermonanalytical experiments?

**Luis A. Perez-Maqueda** (Sevilla, Spain) Sample Controlled Thermal Analysis in Materials Science

**Giuseppe Arena** (Catania, Italy) Isothermal Titration Calorimetry: Hints and Tips

**Alfred Kallay-Menyhard** (Budapest, Hungary) Writing publications in the Journal of Thermal Analysis and Calorimetry



La Sapienza University Campus



Great hall of La Sapienza University of Rome

During the conference Lectures by leading scientists, in the field of thermal analysis and calorimetry, from all over the world are planned. Plenary Lectures: **Kestutis Baltakys** (Kaunas University of Technology, Lithuania); **Dimitrios N. Bikiaris** (Aristotle University of Thessaloniki, Greece); **Nobuyoshi Koga** (Hiroshima University, Japan); **Janos Kristof** (University of Pannonia, Hungary); **Vahur Oja** (Tallinn University of Technology, Estonia); **Crisan Popescu** (KAO European Research Laboratory, Germany). Invited Lectures: **Arnon Chaipanich** (Chiang Mai University, Thailand); **Svetlana Danilova-Tretiak** (A.V. Luikov Heat&Mass Transfer Institute, Belarus); **Ahmed El-Sabbagh** (Ain Shams University, Egypt); **Nathanael Guigo** (University of Cote

d'Azur, France); **Tiit Kaljuvee** (Tallinn University of Technology, Estonia); **Dana Luca Motoc** (Transilvania University of Brasov, Romania); **Cheila G. Mothe** (Federal University of Rio de Janeiro, Brazil); **Wojciech Marczak** (Institute of Occupational Medicine and Environmental Health, Poland); **Jonjaua Ranogajec** (University of Novi Sad, Serbia); **Adriana Saccone** (University of Genoa, Italy); **Chi-Min Shu** (National Yunlin University of Science and Technology-YunTech, Taiwan); **Pablo Taboada** (University of Santiago de Compostela, Spain); **Paul S. Thomas** (University of Technology Sydney, Australia); **Ranjit K. Verma** (Patna University, India); **Anna Vykydalova** (Slovak University of Technology in Bratislava, Slovakia); **Kseniya Zherikova** (Nikolaev Institute of Inorganic Chemistry, Russian Federation).

The scientific contributions will be published as full-length articles after independent reviewing in a special number of the **Journal of Thermal Analysis and Calorimetry** (Springer, IF: 2.209; Q2), **Ceramics International** (Elsevier, IF: 3.057; Q1), **Applied Clay Science** (Elsevier, IF: 3.641; Q1) and **Journal of Mining and Metallurgy, Section B: Metallurgy** (UB-TFB, Impact Factor: 1.400; Q2). <http://ceec-tac.org/conf5/publication.html>

Detailed information about the conference: <http://ceec-tac.org/conf5/welcome.html>

How to reach the city center from Leonardo da Vinci Airport: **Leonardo Express** is the train that goes straight from Fiumicino airport to Rome Termini station, it takes 30 minutes to do, it costs 14 EUR and ranges from ~ 6: 20 ~ 23: 20. <https://www.adr.it/pax-fco-treno>

## 46<sup>th</sup> Annual NATAS Conference, August 5-9, 2019, Newport, RI, USA

The North American Thermal Analysis Society offers scientists and practitioners the opportunity to explore the frontiers of thermal analysis, rheology, and materials characterization by participating in the 2019 NATAS



Conference at the beautiful Gurney's Resort and the University of Rhode Island. Presentations and posters by renowned scientists and graduate students set the stage for excellent discussions and an ideal environment to learn about state-of-the-art techniques and exciting new developments in materials research. A Technical Exhibit will feature multiple vendors presenting their latest instrumentation for thermal analytical and rheological measurements. The cordial setting provides conference attendees the opportunity to review a variety of instruments and services offered by many vendors in a single location. Plan to attend the opening invited lecture, welcome reception and student and general poster sessions, Instrument Exhibition and Conference Banquet.

Further information @ <http://www.natasinfo.org/>



46<sup>th</sup> Annual NATAS Conference's venue

## IX Simposio de Analise Termica, Goiana, Brasil 11-13 August, 2019



IX Simposio de Análise Térmica  
Goiânia - GO  
11 a 13 de Agosto de 2019



The 9th Thermal Analysis Symposium (SiAT) will be this year in Goiânia city, Brazil. This Symposium takes place in Brazil every two years. Researchers and students are warmly encouraged to registration and to send an abstract.

Date: August 11-13, 2019 Venue: Serras de Goyaz, Goiânia, Brazil

On behalf of the organizing committee: Profa. Dra. Maria Inês Gonçalves Leles, Presidente da Comissão IX SiAT-Simpósio de Análise Térmica

Further information @ <http://goiania.siat.net.br/>

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## **XLI National Congress on Calorimetry Thermal Analysis and Applied Thermodynamics 17-19 June 2020, Udine, Italy**

The next Italian National Congress on Calorimetry Thermal Analysis and Applied Thermodynamics will be held in June 2020 in the city of Udine. The meeting will take place in the wonderful venue of Toppo Wassermann Palace, which hosts the high school of the University of Udine and is located in the city center.

Details will be announced soon



XLI AICAT-GICAT Conference's venue



**Associazione Italiana  
di Calorimetria e  
Analisi Termica**



## **17<sup>th</sup> International Confederation for Thermal Analysis and Calorimetry Congress (ICTAC 2020), 30 August-04 September 2020, Krakow, Poland**

The 17<sup>th</sup> edition of the Congress of the International Confederation for Thermal Analysis and Calorimetry will be held in Krakow between late August and early September 2020. Chair of the conference is Prof. K. Pielichowski, President of the Polish Society of Calorimetry and Thermal Analysis (PTKAT).

Kraków is a historic beautiful city, and rightly viewed by many of visitors as a “magical” one. It is located in the southern part of Poland on the Vistula River in a valley at the foot of the Carpathian Plateau. Warsaw, the capital of Poland, is located 300 km to the north and 100 km south are the majestic Tatra Mountains, forming the southern border of the country. Kraków has *ca.* 800 000 inhabitants and is capital of Lesser Poland Voivodeship (province).

The importance of education and culture to the city originates from its history: the cathedral school, established in 1150, remained the finest educational establishment in Poland for over 200 years before the foundation of the Kraków Academy (later Jagiellonian University) in 1364 by Kazimierz the Great. Now in Kraków there are eighteen state and private universities, which are home to over 150,000 students, making the city a great university centre in Poland and one of the most important in this part of Europe.

Details will be announced soon



Krakow – Stare Miasto

## Consiglio Direttivo AICAT • Consiglio Direttivo GICAT



Associazione Italiana  
di Calorimetria e  
Analisi Termica

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**Prof.ssa Michelina Catauro, Tesoriere**  
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**Prof.ssa Silvia Porcedda**  
**Prof. Andrea Melchior**  
**Prof. Stefano Vecchio Cipriotti (per cooptazione)**  
**Prof. Bruno Marongiu (Past President)**



Gruppo Interdivisionale  
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Società Chimica Italiana

**Prof. Giuseppe Lazzara, Coordinatore**  
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**Prof. Alberto Schiraldi**  
**Prof. Luigi Petraccone**  
**Prof. Ignazio Blanco**  
**Prof.ssa Maria Rosaria Tinè (delegata dalla Sez. Chimica Fisica)**

## Come iscriversi all'AICAT

La scheda di iscrizione può essere inviata al Presidente:

Prof. G. Arena, Dipartimento di Scienze Chimiche, Università degli Studi di Catania, Viale A. Doria, 6, 95125 Catania e-mail: [garena@unict.it](mailto:garena@unict.it) Tel. +39.095.73.85.071

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](mailto:michelina.catauro@unicampania.it)

Banca UniCredit - Agenzia Roma Boncompagni (00712)

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

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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>