

# AICAT notizie

AICAT-GICAT news

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Bollettino dell'Associazione Italiana di Calorimetria e Analisi Termica

## CEEC-TAC5 & MEDICTA2019

5<sup>th</sup> Central and Eastern European Conference on Thermal Analysis and Calorimetry & 14<sup>th</sup> Mediterranean Conference on Calorimetry and Thermal Analysis  
27 - 30 August 2019, Roma - Italy



*Given the positive feedbacks received, mainly from foreign colleagues, we decided to maintain also in this issue some contributions in English, and we want to open it with a remind of the important Congress which will be held in Rome next August under the patronage of AICAT-GICAT, enjoy the reading.*

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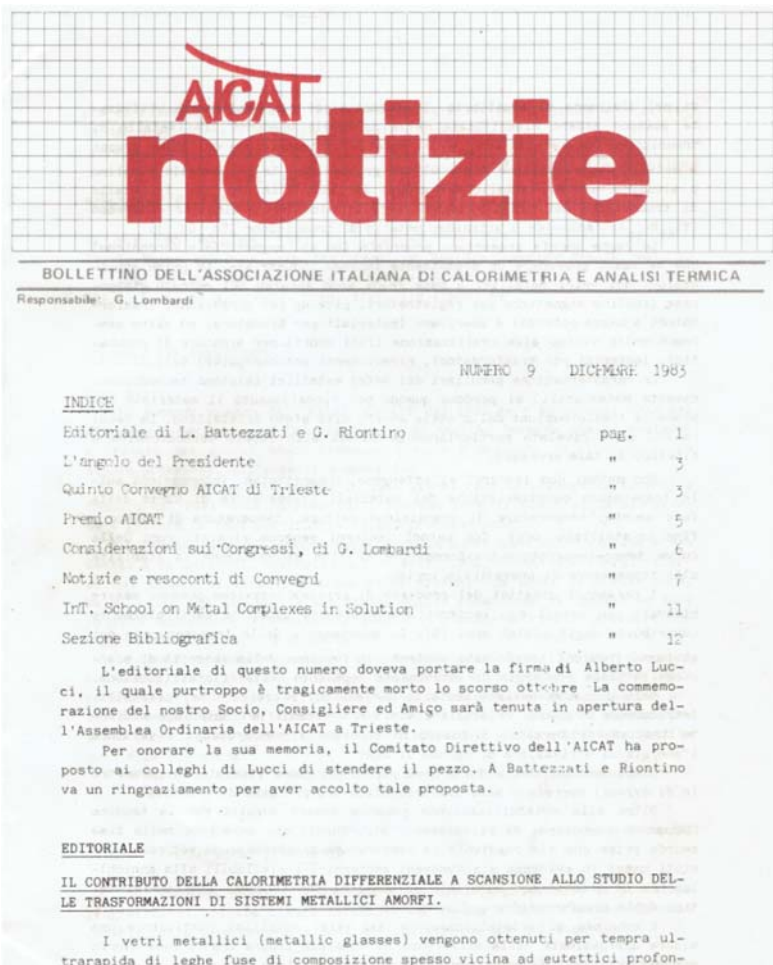
Associazione Italiana di Calorimetria e Analisi Termica

| Gruppo Interdivisionale di Calorimetria e Analisi

Termica | <http://www.aicat-gicat.it/index.html>

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## Il Premio A. Lucci



Prima pagina del Bollettino AICAT del Dicembre 1983 recante la notizia della scomparsa del Prof. Lucci

Come testimonia la copertina del numero 9 del "Bollettino AICAT notizie" riportata in figura, Alberto Lucci stava preparando l'editoriale di quel numero (Il contributo della DSC allo studio delle trasformazioni di sistemi metallici amorfi) quando scomparve prematuramente 25 anni fa nell'ottobre del 1983. I colleghi dell'AICAT da allora lo ricordano con un premio a lui intitolato e destinato a giovani ricercatori italiani che operino nel campo della Calorimetria e/o dell'Analisi Termica. La prima commissione giudicatrice, composta dai Professori Cèsaro, Lombardi, Riccardi, Rizzarelli e Venturello, si riunì proprio a Torino il 24 ottobre 1984, ad un anno dalla scomparsa di Alberto, e tra ben 11 candidati scelse di assegnare il primo Premio Lucci a Pietro Manfrinetti, oggi docente presso il Dipartimento di Chimica dell'Università degli Studi di Genova. Il premio venne conferito durante il VI Convegno AICAT, che si svolse a Napoli dal 4 al 7 dicembre 1984 nella prestigiosa sede di Castel dell'Ovo. Da quel Dicembre napoletano ben 24 colleghi si sono visti attribuire il prestigioso riconoscimento dalla Signora Antonella, moglie di Alberto, di cui sin dalla mia prima partecipazione ai congressi AICAT (Camogli 2000) ho imparato

ad apprezzare la sobrietà e l'eleganza. Nel riquadro sotto potete leggere la lista di tutte le persone insignite, e forse non è un caso che durante il prossimo Convegno AICAT di Pisa, nel venticinquennale della scomparsa di Alberto, il premio verrà assegnato al venticinquesimo giovane ricercatore.

Ignazio Blanco

## A. Lucci Award

Alberto Lucci suddenly passed away 25 years ago in October 1983. Since then AICAT colleagues remember him with a prize bearing his name and destined to young Italian researchers working in the field of Calorimetry and/or Thermal Analysis. The first selection board, composed of Professors Cèsaro, Lombardi, Riccardi, Rizzarelli and Venturello, met in Turin on 24 October 1984, one year after Alberto departure, choosing to award the first Lucci Prize to Pietro Manfrinetti, during the VI AICAT Conference, which took place in Naples from 4 to 7 December 1984. Up today 24 colleagues have been awarded the prestigious recognition by Mrs. Antonella, Alberto's wife, that embellishes with its presence all the AICAT congresses. In the box below you can read the list of all the people awarded, and perhaps it is no coincidence that during the next AICAT Conference in Pisa, in the twenty-five year anniversary of Alberto's departure, the prize will be awarded to the twenty-fifth young researcher.

Ignazio Blanco

<b>Edition n.</b>	<b>Date</b>	<b>Venue</b>	<b>Congress</b>	<b>Lucci Award</b>
6°	4-7 Dicembre 1984	Napoli	AICAT	Pietro Manfrinetti
8°	27-30 Ottobre 1986	Ferrara	AICAT - AFCAT	Michele Laus
10°	14-14 Dicembre 1988	Pisa	AICAT	Pompea Del Vecchio Claudia De Rosa Stefania Milioto
12°	11-13 Dicembre 1990	Bari	AICAT - GICAT	Marina Luciani Antonio Aronne
14°	13-17 Dicembre 1992	Udine	AICAT - GICAT	Anna Maria Celli Paolo Ghigna Elena Landi
16°	11- 16 Settembre 1994	Grado	ESTAC	Silvia Porcedda Aniello Costantini
18°	11-13 Dicembre 1996	Pavia	AICAT - GICAT	Giuseppe Graziano
20°	14-18 Dicembre 1998	Roma	AICAT - GICAT	Stefano Materazzi
22°	13-16 Dicembre 2000	Camogli	AICAT - GICAT	Corrado Tomasi
24°	15-18 Dicembre 2002	Catania	AICAT - GICAT	M. Laura Di Lorenzo Angelo Lunghi
26°	12-19 Settembre 2004	Chia Laguna	ICTAC	Luigi Petraccone Andrea Melchior
28°	11-15 Dicembre 2006	Milano	AICAT - GICAT	Giuseppe Lazzara
30°	9-12 Dicembre 2008	Pisa	AICAT - GICAT	Celia Duce
32°	26-28 Maggio 2010	Trieste	AICAT - GICAT	Bruno Pagano
36°	8-13 Settembre 2014	Cagliari	AICAT-GICAT	Giuseppe Cavallaro
38°	25-28 Settembre 2016	Ischia	AICAT-GICAT	Roberta Risoluti

## Le sedi: Milano



Professor Alberto Schiraldi, former President of AICAT (1997-2002)

Nell'aprile del 1987 presi servizio come ordinario di Chimica Fisica presso la Facoltà di Agraria della Università degli Studi di Milano, destinato al corso di laurea in Scienze e Tecnologie Alimentari, sostanzialmente gestito dal Dipartimento di Scienze e Tecnologie Alimentari e Microbiologiche (DISTAM, oggi DeFENS).

Essendomi fino ad allora occupato di elettroliti solidi e fusi, polimeri termoidurenti, diagrammi di stato e Termodinamica Chimica presso il Dipartimento di Chimica Fisica dell'Università di Pavia, sapevo poco o nulla di alimenti e relativa tecnologia. Un po' di conoscenze biologiche mi venivano dalla mia seconda laurea in Medicina e Chirurgia e dalla Specializzazione in Endocrinologia. Sicché mi diedi da fare per acculturarmi sul tema leggendo articoli e intervistando i nuovi colleghi. Mi resi subito conto che di lavoro per un chimico fisico ce n'era, eccome.

I prodotti alimentari sono intrinsecamente metastabili (anche perché ospitano microbi) e multifasici. La maggior parte di essi contiene acqua, sicché, per tradizione culturale i Tecnologi Alimentari sono sensibili ad una grandezza termodinamica, l'attività dell'acqua,  $a_w$ , e alla sua determinazione sperimentale. Questo fatto riaccese in me la speranza di poter aprire una breccia nella considerazione dei miei nuovi colleghi. Un'altra peculiarità dei prodotti alimentari è la natura polimerica dei principali ingredienti (carboidrati e proteine, di conformazione sia globulare che fibrillare) che è la causa principale della separazione di fasi disperse (vescicole, bolle, sospensioni, ecc.), nonché della transizione vetrosa di molti prodotti: insomma, "pane" per chimico-fisici.

All'epoca, in Facoltà non c'era nessun tipo di strumentazione adatta ad indagini di tipo chimico-fisico, con l'eccezione di un paio di spettrometri UV e IR, di polarimetri e gas-cromatografi presso il gruppo di Chimica Organica e Biochimica. Volendomi integrare il più possibile con i miei nuovi colleghi, scartai l'ipotesi di avvalermi di strumenti in uso presso altri Dipartimenti e Facoltà dell'Ateneo o del Politecnico: non c'era e non si sarebbe potuto creare il "feeling" con i Tecnologi Alimentari (un po' suscettibili e non disposti ad un ruolo di subalternanza culturale e scientifica rispetto a fisici, chimici e ingegneri).

Dunque si doveva partire da zero e cercare un approccio sperimentale nuovo per loro e adeguato a dare risposte dirette di interesse sia scientifico (caratterizzazione dei prodotti e della rispettiva conservabilità) che tecnologico (processi di trasformazione, packaging, trattamenti termici, ecc.). Avevo una pluriennale esperienza di indagini DTA, DSC e TG sui polimeri sintetici e sostanze inorganiche e mi sembrò una scelta ragionevole proporre l'acquisto di questo tipo di strumenti. Fortuna volle quell'anno (1988) fosse l'ultimo di un importante progetto su prodotti e processi della Tecnologia Alimentare, finanziato dal CNR. I miei colleghi disponevano di fondi rilevanti (noi Chimici non ne avevamo mai visti tanti per i "nostri" progetti) e dovevano impegnarli. Li convinsi che chiudere il progetto lanciando l'idea dell'applicazione dell'Analisi Termica agli alimenti avrebbe dato un tocco di innovazione all'impostazione della ricerca scientifica nel settore. Fu così che venne acquistato il primo calorimetro "agro-alimentare" italiano: un C80 della SETARAM. La scelta della ditta fu un altro colpo di fortuna, perché mi mise in contatto col signor BISI (allora rappresentante SETARAM in Italia) che si adoperò molto per favorire contatti diretti l'azienda di Rue Conservatoire a Lione.



Cover del libro dei contributi del primo Seminario organizzato a Milano con il patrocinio dell'AICAT



Annullo celebrativo della 11<sup>th</sup> IUPAC Conference organizzata a Como nel 1990

Nel 1988 organizzai un primo incontro agro-calorimetrico a Milano, con l'aiuto determinante degli amici Guido Barone e Giovanni Rialdi. Fu una specie di seminario interno, destinato soprattutto ai miei colleghi di Facoltà, ma ebbe un successo superiore alle mie aspettative, soprattutto perché mi permise di ottenere altri fondi per l'acquisto di uno strumento più agile del C80, cioè un Mettler DSC 20. Cominciai a pubblicare con i miei nuovi colleghi, Marco Riva e Laura Piazza, i primi a capire che l'Analisi Termica permetteva di ottenere risultati di tutto rilievo. Il C80 venne utilizzato per indagini in isoterma, mentre il Mettler diventò lo strumento

d'elezione per la routine, che, in quegli anni, fu la gelatinizzazione dell'amido.

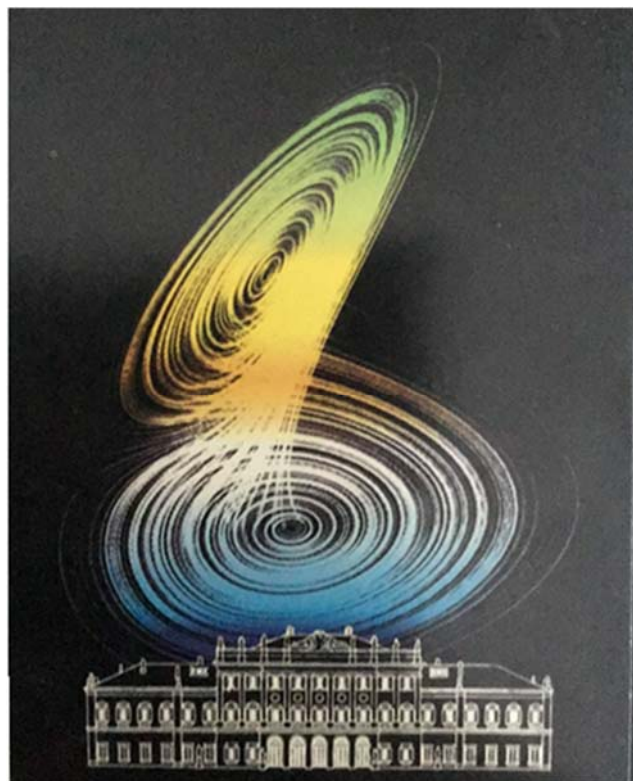
Un piccolo impianto della Nova Swisse per estrazione con fluidi supercritici (FSC), venne da me riadattato ad un uso più consono agli scopi di un laboratorio di ricerca (campioni più piccoli e più puri). Non nascondo che i FSC mi servirono per attivare nuovi contatti anche con altre sedi universitarie italiane della Tecnologia Alimentare, dove, ovviamente, non mancai di presentare l'Analisi Termica come una tecnica innovativa per il settore, alla condizione che si applicassero scrupolosamente le regole che queste indagini impongono e non si trattassero i tracciati DSC come spettri IR per analisi qualitative. Ma il C80 SETARAM ci permise di combinare calorimetria e estrazione con FSC: il mio allievo Alberto Stassi fu l'artefice del connubio.

Intanto venne acquistato il TG-DSC 111 della SETARAM: eravamo pronti per tutti i processi di evaporazione, ivi inclusi quelli in regime di Knudsen, grazie alle cellette procurate dall'amico Pino Della Gatta: cominciammo con gli alcol a lunga catena per i quali presentammo una comunicazione a Brighton con l'amico Bartek della Università di Vodz (Polonia). Ma il meglio doveva venire negli anni successivi.

Nel 1990 eravamo pronti a gestire una "panel discussion" a livello internazionale: avvenne al convegno AICAT di PISA e fu pubblicata su *Thermochemica Acta* (vol. 162, p. 253-264). Nel 1994, fui guest editor della "special issue" di *Thermochemica Acta* "Applications of Calorimetry and Thermal-Analysis to Food Systems and Processes" (vol. 246, Special Issue): parteciparono autori di rilievo internazionale.

Il nostro gruppo di quegli anni, Marco Riva, Laura Piazza, Alberto Stassi ed io, collaborò intensamente alla organizzazione della 11 IUPAC Conference, tenutasi a Como nel luglio 1990, e presieduta dai colleghi Della Gatta e Barone. Ci venne perfino concesso un annullo celebrativo.

Seguirono anni di intenso lavoro, che videro le nostre prime pubblicazioni sull'applicazione della calorimetria isoterma alle indagini microbiologiche (facevamo tesoro degli articoli di Ingmar Wadsö, allora ancora in auge): naturalmente questo significò che anche i microbiologi del DISTAM vennero



Il logo della 11<sup>th</sup> IUPAC Conference organizzata a Como nel 1990



Flyer del seminario italo-russo del 2001

“convertiti” alla calorimetria e che io mi dovetti rivedere tutto quello che avevo studiato (e praticamente dimenticato) di microbiologia.

Al gruppo finalmente si aggregò il collega Dimitrios Fessas, affidatomi dall'amico Guido Barone, che ne aveva già fatto un adepto della calorimetria applicata ai biosistemi. Fu un balzo in avanti di grande importanza: ora i chimico fisici erano in due a dividersi il compito di capire, cooptare e farsi cooptare da Tecnologi Alimentari e affini.

Dal gennaio 1997 a dicembre 2001, ebbi l'onore di presiedere l'AICAT e di sovrintendere alla organizzazione di Palma di Majorca (MEDICTA), Roma, Patrasso (MEDICTA), Camogli, Santiago de Compostela (MEDICTA).

Grazie all'intermediazione di Pino Della Gatta, andammo a Padova a recuperare un vecchio DAM, che era già passato da Trieste e Torino e giaceva inutilizzato tra strumenti di spettrometria avanzata e chimici teorici

indifferenti. Fessas lo trasformò in un “gioiellino” di ragguardevole massa (circa 300 kg) idoneo alle indagini ITC, avendo abbinato un titolatore Hamilton e implementato la interazione con un computer esterno.

Accumulammo una discreta esperienza che ci permise di scrivere il saggio del 1999, apparso su “Handbook of Thermal Analysis and Calorimetry” (chap. 16, R. Kemp Ed., Elsevier Publ., Amsterdam, 829 – 921).

Nel frattempo il gruppo di Milano si era visto approvare un progetto di ricerca (Water extractable Arabino-xylans, WEA) finanziato dalla UE, e si trovò alla guida di ben 9 altri gruppi sparsi per l'Europa. I fondi permisero l'acquisto di un micro-DSC SETARAM, con grande gioia di Fessas che conosceva lo strumento come le sue tasche avendo utilizzato il modello precedente a Napoli.

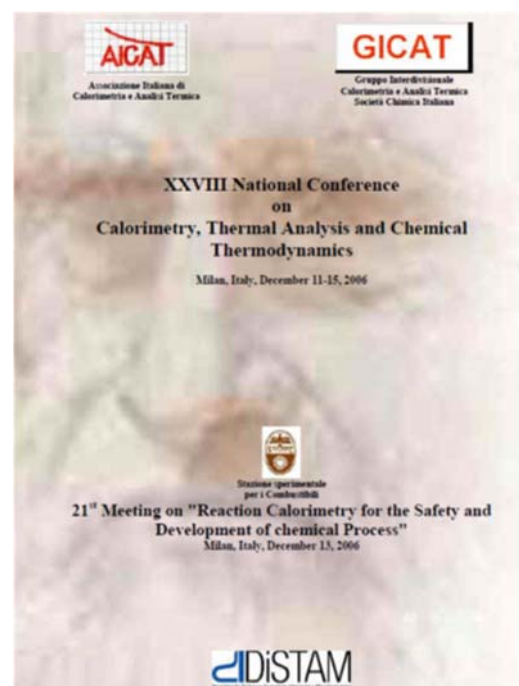
Con un finanziamento della Università di Milano, acquistammo anche un strumento IASCO per il dicroismo circolare che permetteva anche una scansione di temperatura. Lo strumento venne sistemato in un laboratorio dei colleghi biochimici della Facoltà, coi quali si instaurò una sistematica collaborazione (che dura tutt'oggi) per lo studio delle proteine.

Partì nel 2000 un progetto di collaborazione con l'Istituto di Biofisica Cellulare della Accademia Russa delle Scienze a Pushchino, finanziato dal nostro Ministero per gli Affari Esteri. Partecipava anche il gruppo Salvetti di Pisa. Nell'ambito dello stesso progetto venne organizzato un seminario italo-russo che si tenne a Mosca l'anno successivo.

Sempre in quegli ultimi anni del xx secolo, si aprì un nuovo filone di ricerca: i beni culturali. Cominciammo con le pergamene (Thermochim. Acta, 348, p. 129-137) e continuammo sullo stesso tema negli anni successivi collaborando ad un progetto Europeo (IDAP) di grande successo.

Il gruppo partecipò al progetto europeo EVITHERM dal 2003 al 2005, nonché all'altro progetto Europeo INTAS per la cooperazione con Kazakistan e Uzbekistan.

La TG-DSC111 equipaggiata con celle di Knudsen venne impiegata per la



Copertina del libro degli Abstracts del Congresso AICAT organizzato a Milano nel 2006.



Il Prof. Dimitrios Fessas ringrazia i partecipanti alla Cena Sociale del XXVIII AICAT Congress organizzato a Milano nel Dicembre 2006.

per la determinazione (in condizioni isotermitiche) dell'attività dell'acqua di vari prodotti di interesse alimentare, nonché di soluzioni saline e di non-elettroliti. I relativi articoli, almeno stando al numero di citazioni, ci valsero una certa notorietà.

Il 2004 fu l'anno del congresso ICTAC di Chia Laguna con Schiraldi come Chairman: il neo-cooptato nel gruppo, dott. Marco Signorelli, lavorò attivamente con i colleghi di Cagliari del Comitato Organizzatore.

Nel 2005 arrivò il calorimetro adiabatico a scansione di temperatura, MASC, realizzato dai colleghi di PISA guidati dal prof. Salvetti. E subito dopo il MTDSC della Perkin Elmer che permetteva di scendere a  $-150^{\circ}\text{C}$ .

Nel 2006, il gruppo di Milano organizzò il convegno AICAT, con grande successo di partecipazione, poiché inglobava anche il convegno di Reaction Calorimetry, tradizionalmente organizzato dal gruppo ENI San Donato guidato dall'amico Cardillo. Ci furono molti partecipanti di altri Paesi Europei (soprattutto, Polonia e Russia). In quella occasione venne attribuito a Privalov il premio AICAT-SETARAM e si tenne una "School of applications of Thermal Analysis and Calorimetry to Food Science and Technology".

Più tardi arrivarono i nano-calorimetri DSC e ITC con i quali Fessas si lanciò negli studi di interazione molecolare e formazione di complessi tra farmaci e dendrimeri. A questi ultimi si associarono i lavori che utilizzano i microbi come bio-sensori del rilascio di farmaci: questi ultimi studi furono prevalentemente condotti col DAM.

Nel 2009, in occasione del MEDICTA tenutosi a Marsiglia, Schiraldi ricevette l'AICAT-SETARAM Award e, negli anni successivi, Fessas venne invitato più volte dall'Associazione Ellenica di Calorimetria e Analisi Termica a tenere seminari e/o relazioni.

il gruppo di Milano ha prodotto 90 articoli a stampa, 11 capitoli di libri e 2 textbooks, dal 1988 ad oggi, e ha partecipato a quasi tutti i convegni AICAT, MEDICTA, ESTAC e ICTAC del periodo con presentazioni orali o poster.

Alberto Schiraldi

Il Professore Alberto Schiraldi è stato recentemente inserito nello Scientific Awards Committee dell'ICTAC che assegnerà gli awards

- TA Instruments - ICTAC Award
- SETARAM - ICTAC Award
- ICTAC Young Scientist Award

in occasione del 17<sup>th</sup> ICTAC Congress a Cracovia (30 Agosto – 4 Settembre 2020).

## #AICAT2018

### **XL Congresso Nazionale di Calorimetria, Analisi Termica e Termodinamica Applicata 17-19 Dicembre 2018 Centro Congressi “Le Benedettine”, Pisa, Italy**

Il prossimo congresso nazionale di Calorimetria, Analisi Termica e Termodinamica Applicata si terrà a Pisa. Chair del Congresso sarà la Professoressa Tinè (già Presidente AICAT dal 2003 al 2007), co-Chair la Professoressa Duce. Sede dell'evento sarà il Centro Congressi Le Benedettine (che offre anche la possibilità di alloggio a basso costo presso la foresteria del Centro). Il Congresso si svolgerà dal 17 al 19 Dicembre 2018. La registrazione sarà ancora possibile al desk del Congresso. Come tradizione ormai consolidata



Centro Congressi Le Benedettine

l'AICAT, con il sostegno della famiglia Lucci, assegnerà il **Premio Alberto Lucci** ad una/un giovane ricercatrice/ore italiana/o che si sia distinto nel campo della Calorimetria e/o dell'Analisi Termica, e con il sostegno della TA Instruments, il premio TA ad uno scienziato che si sia distinto nel campo della Calorimetria e dell'Analisi Termica. Il Congresso prevede la partecipazione gratuita degli studenti ed inoltre l'AICAT ha assegnato due Borse di partecipazione a giovani ricercatori operanti nell'ambito della Calorimetria e dell'Analisi Termica. Il programma prevede quattro Plenary Lectures: Konstantin Sergeevich Gavrichev della Russian Academy of Science (Calorimetric study of RE-containing high-temperature materials); Stefano Vecchio Cipriotti dell'Università Roma La Sapienza (Looking for a convincing parameter to assess the thermal stability of materials. A challenge faced up to for over 20 years); Dimitrios Fessas dell'Università di Milano (Food System Calorimetry: state of art and new challenges); Adrian Velazquez-Campoy dell'Università di Zaragoza, Spain (Seeking Complexity in Biological Interactions). Di seguito il link al programma completo:

<http://aicat.dcci.unipi.it/index.php/programme>



Piazza dei Miracoli

### **XL National Congress on Calorimetry Thermal Analysis and Applied Thermodynamics 17-19 December 2018 “Le Benedettine” Congress Center, Pisa, Italy**

The XL Italian National Congress on Calorimetry, Thermal Analysis and Applied Thermodynamics will be held in Pisa, at the “Le Benedettine” Congress Center, from 17<sup>th</sup> to 19<sup>th</sup> December 2018. Registration is still available at the conference desk. Low-cost accommodations are available at the Congress Center guesthouse. The Congress foresees the free participation of the students and in addition the AICAT has assigned two grants to young researchers working in the field of Calorimetry and Thermal Analysis. The program includes four Plenary Lectures: Konstantin Sergeevich Gavrichev from the Russian Academy of Science (Calorimetric study of RE-containing high-temperature materials); Stefano Vecchio Cipriotti from the La Sapienza University of Rome (Looking for a convincing parameter to assess the thermal stability of materials. Dimitrios Fessas from the University of Milan (Food System Calorimetry: state of art and new challenges); Adrian Velazquez-Campoy from the University of Zaragoza, Spain (Seeking Complexity in Biological Interactions). Below the link to the complete program:

<http://aicat.dcci.unipi.it/index.php/programme>



## Articoli italiani su JTAC 2018



January 2018, Volume 131, Issue 1, pp 627–631

**Dielectric relaxation of thermotropic liquid crystalline polyesters based on  $\alpha,\omega$ -alkylene-di-4-hydroxybenzoates and 4,4'-alkylenedioxy-dibenzoic acid**

Elizabeth Grillo Fernandes, Elpidio Tombari, Giuseppe Salvetti, Giancarlo Galli, Emo Chiellini

February 2018, Volume 131, Issue 2, pp 843–851

**Synthesis and thermal behaviour of phenyl-substituted POSSs linked by aliphatic and aromatic bridges**

Ignazio Blanco, Lorenzo Abate, Francesco A. Bottino

April 2018, Volume 132, Issue 1, pp 191–196

**Crystallinity of block copolymer controlled by cyclodextrin**

Vanessa Bertolino, Giuseppe Cavallaro, Giuseppe Lazzara, Stefana Milioto, Filippo Parisi

April 2018, Volume 132, Issue 1, pp 611–621

**Thermodynamic study of mixtures containing dibromomethane Excess and solvation Gibbs energies**

Enrico Matteoli, Luciano Lepori, Silvia Porcedda

May 2018, Volume 132, Issue 2, pp 869–877

**The dilatometric technique for studying sigma phase precipitation kinetics in F55 steel grade**

B. Rivolta, R. Gerosa, F. Tavasci

May 2018, Volume 132, Issue 2, pp 1065–1075

**Antioxidant and prooxidant activity of spent coffee extracts by isothermal calorimetry**

Nabil Haman, Giovanna Ferrentino, Sebastian Imperiale, Matteo Scampicchio

May 2018, Volume 132, Issue 2, pp 1367–1387

**A multi-technique nondestructive approach for characterizing the state of conservation of ancient bookbindings**

Stefano Sfarra, Mauro Regi, Mariagrazia Tortora, Cinzia Casieri, Stefano Perilli, Domenica Paoletti

June 2018, Volume 132, Issue 3, pp 1513–1522

**Synthesis, thermal and structural characterization of alumina-based pillared  $\alpha$ -Ti(IV)hydrogenphosphate**

Stefano Vecchio Cipriotti

## Articoli italiani su JTAC 2018



June 2018, Volume 132, Issue 3, pp 1601-1615

**Thermal behavior and decomposition kinetics of composite solid propellants in the presence of amide burning rate suppressants**

Djalal Trache, Filippo Maggi, Ilaria Palmucci

July 2018, Volume 133, Issue 1, pp 123-133

**Interaction of Ca, P trace elements and Sr modification in AlSi5Cu1Mg alloys**

Jovid Rakhmonov, Giulio Timelli, Giulia Basso

July 2018, Volume 133, Issue 1, pp 413-419

**Synthesis and characterization of LaFeO<sub>3</sub> powders prepared by a mixed mechanical/thermal processing route**

Vittorio Berbenni, Giovanna Bruni, Chiara Milanese, Alessandro Girella, Amedeo Marini

August 2018, Volume 133, Issue 2, pp 869–879

**CO<sub>2</sub> adsorption and desorption properties of calcined layered double hydroxides Effect of metal composition on the LDH structure**

S. Colonna, M. Bastianini, M. Sisani, A. Fina

August 2018, Volume 133, Issue 2, pp 1085–1092

**Sol-gel synthesis and thermal behavior of bioactive ferrous citrate-silica hybrid materials**

Michelina Catauro, Daniele Naviglio, Roberta Risoluti, Stefano Vecchio Cipriotti

October 2018, Volume 134, Issue 1, pp 143–155

**Thermal analysis and high heat flux testing of unidirectional carbon-carbon composite for infrared imaging diagnostic**

Mauro Dalla Palma, Davide Gaule, Antonio Pimazzoni, Roberto Pasqualotto, Gianluigi Serianni, Bernd Böswirth, Henri Greuner

October 2018, Volume 134, Issue 1, pp 549–558

**Biodegradable extruded thermoplastic maize starch for outdoor applications**

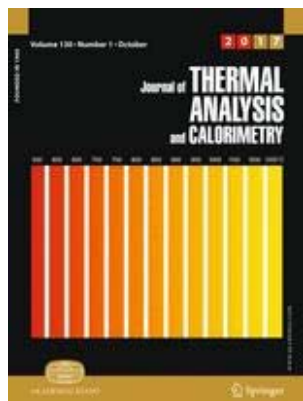
Antonella Giuri, Silvia Colella, Andrea Listorti, Aurora Rizzo, Carola Esposito Corcione

October 2018, Volume 134, Issue 1, pp 559–565

**Thermal analysis of poly(lactic acid) plasticized by cardanol derivatives**

Antonio Greco, Francesca Ferrari, Alfonso Maffezzoli

## Articoli italiani su JTAC 2018



October 2018, Volume 134, Issue 1, pp 567–574

**Thermal analysis of self-healing thermoplastic matrix nanocomposite from cyclic butylene terephthalate**

Francesca Ferrari, Antonio Greco

October 2018, Volume 134, Issue 1, pp 575–582

**One-step solvent-free process for the fabrication of high loaded PLA/HA composite filament for 3D printing**

Carola Esposito Corcione, Francesca Scalera, Francesca Gervaso, Francesco Montagna, Alessandro Sannino, Alfonso Maffezzoli

November 2018, Volume 134, Issue 2, pp 1211–1214

**Preface of MEDICTA2017**

Adriana Saccone, Anna Maria Cardinale

November 2018, Volume 134, Issue 2, pp 1253–1259

**G-triplex stability in human telomeric DNA with epigenetic modification/oxidative damage to thymine**

M. Caterino, A. Virgilio, V. Esposito, L. Petraccone, A. Galeone, C. Giancola

November 2018, Volume 134, Issue 2, pp 1261–1266

**Thermodynamics of sorption of platinum on superparamagnetic nanoparticles functionalized with mercapto groups**

Andrea Melchior, Sara Gràcia Lanas, Manuel Valiente, Marilena Tolazzi

November 2018, Volume 134, Issue 2, pp 1299–1306

**Advances in thermoanalytical techniques May aspirin interfere with  $\beta$ -thalassemia diagnosis?**

Roberta Risoluti, Giuseppina Gullifa, Maria Aurora Fabiano, Francesco Sorrentino, Patrizia Caprari, Stefano Materazzi

November 2018, Volume 134, Issue 2, pp 1317–1326

**cEST: a flexible tool for calorimetric data analysis**

Pierluigi Polese, Marilena Tolazzi, Andrea Melchior

## Articoli italiani su JTAC 2018



November 2018, Volume 134, Issue 2, pp 1327–1335

**R–Al–Si systems (R: Pr, Nd) Experimental investigation of phase equilibria in the Al-rich corner**

Anna Maria Cardinale, Nadia Parodi

November 2018, Volume 134, Issue 2, pp 1337–1344

**A novel three-cages POSS molecule: synthesis and thermal behaviour**

Ignazio Blanco, Francesco A. Bottino, Paola Bottino, Maria A. Chiacchio

December 2018, Volume 134, Issue 3, pp 1667–1680

**Effects of the nanofiller size and aspect ratio on the thermal and rheological behavior of PEG nanocomposites containing boehmites or hydrotalcites**

Rossella Arrigo, Silvia Ronchetti, Laura Montanaro, Giulio Malucelli

## Articoli italiani su TA 2018



January 2018, Volume 659, Pages 44-54

**Simulation of crystallization of isotactic polypropylene with different shear regimes**

Roberto Spina, Marcel Spekowius, Christian Hopmann

January 2018, Volume 659, Pages 96-104

**Non-isothermal crystallization behavior, rheological properties and morphology of poly( $\epsilon$ -caprolactone)/graphene oxide nanosheets composite films**

Jasim Ahmed, Giorgio Luciano, Ilaria Schizzi, Yasir Ali Arfat, Sofia Maggiore, T. Lidia Arocki Thaïc

December 2018, Volume 670, Pages 71-75

**Cold-crystallization of poly(butylene 2,6-naphthalate) following Ostwald's rule of stages**

René Androsch, Michelina Soccio, Nadia Lotti, Dario Cavallo, Christoph Schick

# Summer School and Workshop in Calorimetry and Thermal Analysis

Calorimetry and thermal methods in material science, June 17–22 2018, Lyon, France



School participants followed lessons in English

The Summer School and Workshop in Calorimetry and Thermal Analysis was intended to fill the gap between the basic thermodynamic and kinetics concepts acquired by the students during their academic formation, and the use of experimental techniques such as thermal analysis and calorimetry to answer practical questions. The course gave the students insight into the different thermal and calorimetric methods which can be employed in studies aimed at characterizing the physico-chemical properties of materials. The course gave also the basic concepts for the physicochemical comprehension of the relevant phenomena

(adsorption/desorption, melting, crystallization, phase transitions, chemical interactions and reactions). The school aiming to give a panorama on the different thermal and calorimetric methods that can be used to characterize the catalysts and several other materials used in the field of energy and green-chemistry to access the physicochemical basic knowledge of the phenomena related to the adsorption and the desorption of reagents or products during a catalytic reaction. This school was therefore focused on training in this special area of calorimetry and thermal analysis that does not really find its place in university or postgraduate training.

**Location.** The School was held on the beautiful site of Fourvière Hill in Lyon, close to the Basilique de Fourvière and Roman Theater in the « Jean Bosco » Center, where the participants have been all accommodated in single rooms. In the Center, breakfasts, lunches and dinners have been served to participants and teachers. The tradition of excellent food in Lyon has been respected.

**Organisation.** The training took place over 5 days with a reception on Sunday 17 June (with entertainment and buffet). Parallel sessions (English and French) were organized in 2 different rooms, an amphitheater able to accommodate the participants that had lessons in English and another room where participants had lessons in French. Both rooms were equipped with videoprojectors, microphones, wi-fi, air conditioning. On the other hand, the morning and afternoon coffee breaks of 30 minutes each, the lunch and dinner, the evening entertainment such as the visit of the medieval city of Pérouges, the laboratory visits (in small groups of 6 people maximum), the poster session and the round tables were held in common and allowed exchanges between Francophones and Anglophones and discussions focused on specific topics. Course materials in the form of a handout (433 pages) containing all the slides presented by the speakers were distributed to all participants. The visit of 3 Research Centers in calorimetry (IRCELYON, LMI-UCBL and SETARAM) allowed the participants to see the functioning of various equipments of thermal analysis and to ask the required questions. The speakers, who are all bilingual, have been very active in creating a great atmosphere between the groups. A poster session was organized for those who wanted to present their work and to profit of a forum of discussion with experts in different



Group photograph before the training lessons at IRCELYON, Villeurbanne



Group photograph in front of the Jean Bosco Center, location of the School



Italian students and teacher at School.

areas of science.

**Topics.** Calorimetry and thermal analysis methods, alone or linked to other techniques have been described and applied to the characterization of catalysts, oxides, metals, supports, adsorbents, polymers, composites, food, pharmaceuticals, mesoporous solids, ionic liquids, phase change materials, heat storage materials, hydrogen storage materials. Examples have been given in various domains: catalytic reactions, air and wastewater treatment, clean and renewable energies, refining of hydrocarbons, green chemistry, hydrogen production and storage, CO<sub>2</sub> capture, interseasonal heat storage, food chemistry, polymers.

The described techniques, were the following: calorimetry, DSC (differential scanning calorimetry), TGA (thermogravimetric analysis), DTA (differential thermal analysis), TPD (thermoprogrammed desorption), TPR/TPO (thermoprogrammed reduction/oxidation), and coupled techniques as Calorimetry - Volumetry, TG-FTIR, TG-DSC-MS, DSC - Gas Chromatography, Calorimetry - UV/Visible spectroscopy, Calorimetry-HPL Chromatography, Titration and flow calorimetry, modulated DSC.

**Participants.** The school was followed by PhD students, Post-docs, researchers, engineers, technical staff and technologists (a total of 52 people), belonging to academic structures as well as to private companies, already working or interested to orient their future research in the field of thermal analysis and calorimetry, and which wish to acquire skill in such methods applied to the characterization of materials. The audience consisted of participants from different nationalities (France, Switzerland, South Africa, Ukraine, Italy, Czech Republic, Japan, Mexico, United Kingdom, Croatia, Spain, Turkey, Germany, Belgium, Israel, USA and Lithuania).

**Teaching facilities.** Lectures (Power Point slides in English, lessons in both English and French); Hands-on (small groups of students); Workshops and round tables; Poster presentations by the participants; Two guided visits to calorimetry and thermal analysis laboratories (2 academic and 1 industrial); Distribution of a hard copy of the teaching material; Creation of a web-site as an interactive platform, aimed at allowing the participants to ask questions and communicate each other (for a period of 3-6 months after the end of the School).

**Teachers and Organizers.** Twelve teachers from France and various European countries among the most well known specialists in calorimetry and thermal analysis techniques, speaking fluently both French and English, have been given lessons and advices during the school.

Antonella Gervasini

Teacher	Position	Affiliation
AUROUX Aline	DR1	CNRS
GALEY Basile	PhD	CNRS
RAKIC Vesna	Professor	Université de Belgrade
GERVASINI Antonella	Professor	Université de Milan
ANDRE Rémi	Industry	Setaram
FOLLIARD Vincent	PhD	CNRS
POSTOLE Georgeta	Maître de Conférences	Université Lyon1
JOUGUET Bernadette	Ingénieur	CNRS
ZAJAC Jerzy	Professor	Université Montpellier 2
BELLAT Jean-Pierre	Professor	Université de Bourgogne
COXAM Jean-Yves	Maître de Conférences	Université Blaise Pascal, Clermont-Ferrand
CHIRIAC Rodica	Ingénieur	CNRS
LOUBENS Jacques	Ingénieur	TA-Instruments
GARDEN Jean-Luc	Directeur de recherche	CNRS

# ESTAC 2018 <sup>12<sup>th</sup></sup> European Symposium on Thermal Analysis and Calorimetry

August 27-30, 2018, Brasov, Romania

The 12<sup>th</sup> European Symposium on Thermal Analysis and Calorimetry (ESTAC12) took place in the fascinating city of Brasov, in the Transylvanian region of Romania, from 27 to 30 of August. The conference (first edition in 1976 in Salford, England), organized by Prof. Andrei Rotaru (President of the Central and Eastern European Committee for Thermal Analysis and Calorimetry CEEC-TAC), recorded an extraordinary participation, over 400 members, of researchers coming not only from the old continent. The participants, from 42 different countries, presented 493 scientific research works (4



Aula Magna "Sergiu Chiriacescu" of Transylvania University of Brasov



Conference Venue

parallel sessions, 116 oral presentations, 358 posters).

During the opening ceremony, which was held in the Teatrul "Sică Alexandrescu", ESTAC President Prof. Vesa-Pekka Lehto offered the "David Dollimore ESTAC Award" to Prof. Edward L. Charsley and to Prof. Jose L. Perez-Rodriguez; the "Eugen Segal ESTAC Award" to Prof. Jiri Malek and the "Judit Simon ESTAC Award" to Prof. Giuseppe Lazzara (Italy). Furthermore, always ESTAC offered 3 "ESTAC Grant for Exceptional Young Researcher in Thermal Analysis & Calorimetry". Before the Plenary Lecture delivered by Prof. Charsley, the Editor in Chief and the Deputy Editor in Chief of the Journal of Thermal Analysis and Calorimetry Imre Miklós Szilágyi and Alfréd Kállay-Menyhárd, awarded Prof. Ignazio Blanco (Italy) with the Best Reviewer Award. The ceremony ended with a Welcome party in the theatre foyer.



Prof. Lazzara thanks after receiving the Judit Simon ESTAC Award. From left to right: Prof. Rotaru (CEEC-TAC President), Prof. Popescu (Chairman of the Scientific Commission), Prof. Vesa-Pekka Lehto (ESTAC President), Prof. Lazzara and Dr. Judit Simon (Founder of the Journal of Thermal Analysis and Calorimetry)



Prof. Malek receives the Eugen Segal ESTAC Award from Prof. Popescu (Chairman of the Scientific Commission) and Prof. Vesa-Pekka Lehto (ESTAC President).

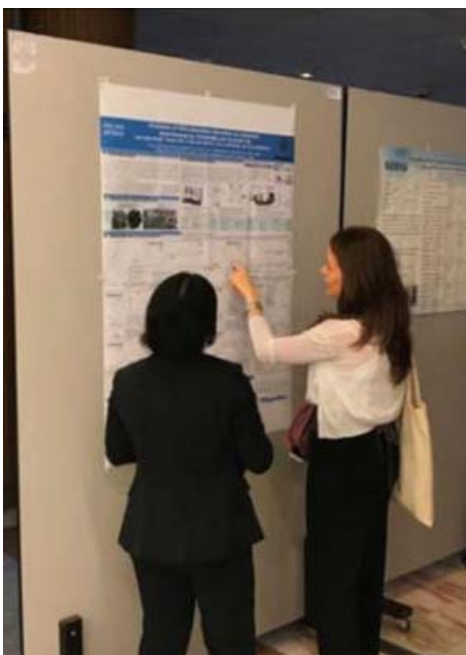
The congress starts at the Aula Magna “Sergiu Chiriacescu” of Transylvania University of Brasov, with the Plenary Lecture of Prof. Lazzara, titled Thermal Analysis and Calorimetry for Hallosite based Materials, and continued in the following days with a significant presence of Italian contributions, both as orals and posters, and the invited lecture of Prof. Alberto Schiraldi from Milan. After an amazing visit of the Peles Castle in Sinaia, the musical show of the Concertino Ensemble of Moldavia and a very nice social dinner, the congress concluded with an interesting workshop on Kinetics, Thermal Processes and Thermal Engineering.

The day preceding the symposium took place the meeting of the ESTAC Board with representatives of the affiliated national associations, during which was assigned, to the Italian group of Palermo, the organization of the next conference (ESTAC13), which therefore will take place in Sicily in September 2022.



The assignment of the David Dollimore ESTAC Award” to Prof. Edward L. Charsley and to Prof. Jose L. Perez-Rodriguez. From left to right: Prof. Rotaru (CEEC-TAC President), TA Instruments representative, Prof. Popescu (Chairman of the Scientific Commission), Prof. Charsley and Prof. Perez-Rodriguez.

Prof. Blanco receives the Best Reviewer Award from the Editor in Chief and the Deputy Editor in Chief of the Journal of Thermal Analysis and Calorimetry Dr. Imre Miklós Szilágyi and Dr. Alfréd Kállay-Menyhárd.



Discussion during the Poster Session



## CCTA 13, 13<sup>th</sup> Conference on Calorimetry and Thermal Analysis of the Polish Society of Calorimetry and Thermal Analysis, 2-6 September 2018, Zakopane, Poland



Prof. Krzysztof Pielichowski, President of Polish Society of Calorimetry and Thermal Analysis.

The first CCTA conference was held in Zakopane in 1973. Since that time Zakopane has become a place of meeting and discussion of a great number of thermal analysis theorists and practitioners from Poland and other countries from all over the world. Thus the 13<sup>th</sup> Conference on Calorimetry and Thermal Analysis (CCTA 13) took place, on 2-6 September, in the amazing Polish ski resort as the successive one in the cycle organized by the Polish Society of Calorimetry and Thermal Analysis (PTKAT) devoted to application of various thermal analysis methods in numerous fields of science and technology. The conference members were not only from Poland but also from other European countries, therefore English has become the conference language.

The conference will be held in the conference rooms of the hotel Hyrny located not far from Krupowki – main street of Zakopane.

The congress started with the Plenary Lecture of Prof. Jerzy Błażejowski, who entertained the auditorium with a lecture entitled “Thermodynamics in the description of the surrounding world and chemical processes occurring in it”. Prof. Barbara Pacewska, who delivered a PL about the “Investigation of hydration processes of different binding mixtures”, has been awarded a recognition by the PTKAT for its contribution to the development of Polish Calorimetry and Thermal Analysis. The program has been full of interesting presentations and completed by the invited lecture of Prof. Peter Šimon from the Slovak University of Technology in Bratislava (Stability predictions for solid and liquid materials); Prof. Sergey Vyazovkin, Editor in Chief of *Thermochimica Acta* (Isoconversional kinetics: From misconceptions to advances); Prof. Ignazio Blanco from the University of Catania (POSS based nanocomposites from rediscovery to current uses. A thermal investigation); Prof. Marcin Środa from the University of Science and Technology of Kraków (Thermomechanical analysis (TMA) in study of glass viscosity); Prof. János Kristóf, President of the Thermoanalytical Technical Commission of the Hungarian Chemical Society (Thermoanalytical studies on thin films and layer-structured materials).



Award to Prof. Barbara Pacewska.



Musical entertainment during the gala dinner.

## TAWN users meeting 2018, 30 November 2018, TNO, Princetonlaan, Utrecht

The TAWN users meeting 2018 took place on 30.11.2018 at TNO, Princetonlaan, Utrecht. The Dutch Society of Thermal Analysis and Calorimetry (TAWN) is a society for persons interested in Thermal Analysis and/or Calorimetry. The goal of the society is to assure that the members are well informed about the new developments in the field.

One of the speakers was prof. Alberto Schiraldi of the Dipartimento di Chimica of the Università di Milano (Italy) who talked about the use of thermal analysis in food science.

People from academia and industry presented thermal analysis related work. The audience was quite diverse – going from technical people running instruments to others studying thermodynamics, food, polymers, metals, energetic materials,... The presentations focused on method development, practical aspects of measurements, applications of a certain instrument, the characterization of a set of materials with a range of instruments,... as long as it is, of course, thermal analysis related in the broad sense of thermal analysis. Lectures were 20-30 min + some time for questions.

Main topics:

Alloys: Properties and Fabrication

Targeted Manipulation of SemiCrystalline Structure in PolyPropylene: Modelling and Prediction of Properties

DMTA - A High Performance Tool for Dynamic Mechanical Thermal Analysis

Thermomechanical properties of reversible polymer network systems based on Diels-Alder chemistry

Thermal Analysis of organic materials and analysis of thermal processes using Photo-Ionisation Mass Spectrometry

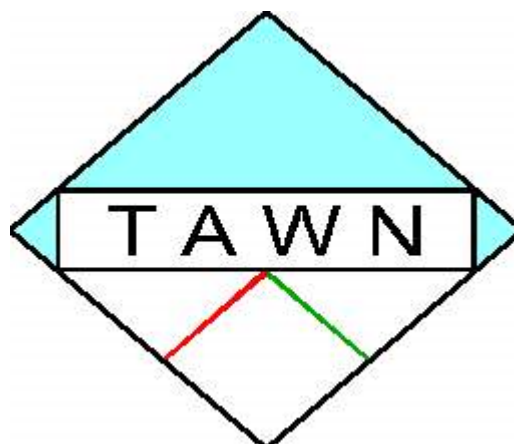
To combust or not to combust, that's the question

Fast scanning on polyamide, a kinetic study

Ageing of Civil Explosives

Predictions of thermo-oxidative stability for Polypropylene

For information about TAWN: <http://www.tawn.nl/>



## 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

Central and Eastern European Committee for Thermal Analysis and Calorimetry (CEEC-TAC), the Italian Association for Calorimetry and Thermal Analysis (AICAT) and the Interdivisional Group of Calorimetry and Thermal Analysis of the Italian Society of Chemistry (GICAT) invite you to participate at the joint 5<sup>th</sup> Central and Eastern European Conference on Thermal Analysis and Calorimetry (CEEC-TAC5) and 14<sup>th</sup> Mediterranean Conference on Calorimetry and Thermal Analysis (Medicta2019) which will be held between 27<sup>th</sup> and 30<sup>th</sup> of August 2019 in Roma/Rome, Italy.



A view of La Sapienza University of Rome

Roma is the largest city of Italy and also its capital. It is an impressive cosmopolitan city with an artistic, architectural and cultural history that has influenced the whole world and dates back to almost 3000 years ago. The ancient ruins such as the Forum and the Colosseum testify to the power of the ancient Roman Empire. In the Vatican City, home to the Catholic Church, are St. Peter's Basilica and the Vatican Museums, which house masterpieces such as the Sistine Chapel frescoed by Michelangelo.

This joint conference between the CEEC-TAC and the Medicta communities offers an important opportunity to bring together eminent scientists of the Mediterranean basin and Central & Eastern European countries working in the field of thermal analysis and calorimetry. The conference aims at reporting on current relevant research developments in the Thermal Analysis and Calorimetry field and as such will serve a forum for discussions and may also offer a good opportunity to start new collaborations. Roma, the "eternal city", venue of the Conference, is home to some of the most important and unforgettable historical monuments in the world.

Sapienza University of Rome will host the 4-day meeting; the official language at CEEC-TAC5 & Medicta2019 is English. Sapienza University of Rome, founded in 1303 by Pope Boniface VIII, is one of the oldest universities in the world, and a top performer in international university ranking. Since its foundation, Sapienza has played a significant role in Italian history and has been directly involved in the change and developments in society, economics and politics. The main campus is a real city within the city located in the heart of Rome. Sapienza University is an extraordinary place for students and teachers from around the world to meet, exchange and develop new ideas and philosophies.



A view of Rome from Gianicolo hill



Great hall of La Sapienza University of Rome

And it all takes place in one of the most breath-taking cities in the world. Roma has two international airports: Ciampino - G.B. Pastine International Airport, in Ciampino (15 km from Sapienza University of Rome), and the Leonardo da Vinci - Fiumicino Airport, in Fiumicino (30 km from Sapienza University of Rome). Roma is easily reachable by train, bus or car from other Italian airports in Italy, where line or low-cost flights arrive.



View of the Colosseum



The Trevi Fountain

**Early bird registration:** by 1<sup>st</sup> of May 2019

**Abstract submission and registration:** 1<sup>st</sup> of April 2019 - 1<sup>st</sup> of June 2019

**Abstract submission deadline:** 1<sup>st</sup> of June 2019

**Abstract acceptance notification:** by 20<sup>th</sup> of June 2019

**Payment of the regular registration fee deadline:** by 10<sup>th</sup> of July 2019

**Payment of the late registration fee or of the onsite registration fee:** after 10<sup>th</sup> of July 2019

Short course on Thermal analysis and calorimetry: 27<sup>th</sup> of August 2019 (8:30-16:30)

Registration of participants at CEEC-TAC5 & Medicta2019: 27<sup>th</sup> of August 2019 (12:00-16:00)

Opening ceremony of CEEC-TAC5 & Medicta2019 (SU): 27<sup>th</sup> of August 2019 (18:00-19:10)

Welcome Cocktail (SU): 27<sup>th</sup> of August 2019 (20:00 - 22:00)

Conference sessions (SU): 28<sup>th</sup>, 29<sup>th</sup> and 30<sup>th</sup> of August 2019 (9:00)

Conference closing (SU): 30<sup>th</sup> of August 2019 (18:00)

More information at <http://www.ceec-tac.org/conf5/welcome.html>

### 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)

## 2<sup>nd</sup> Journal of Thermal Analysis and Calorimetry Conference (2<sup>nd</sup> JTACC+V4 2019), 18–21 June 2019, Budapest, Hungary



Imre Miklós Szilágyi,  
Conference Chair, Editor-in-  
Chief of the Journal of  
Thermal Analysis and  
Calorimetry

In 2019 the journal JTAC is celebrating its 50<sup>th</sup> anniversary. Join and celebrate with us in Budapest.

The Journal of Thermal Analysis and Calorimetry (JTAC) launched a new thermoanalytical conference series in 2017 which is coming to its upcoming episode next June. During the five decades of publishing, a global community has formed around JTAC, and we wished to create an opportunity, where our editorial board, authors, reviewers, supporters, and all those who are interested in this wonderful field, can meet personally.

The conference is aimed to be an international forum for presenting the latest results on the theory, methodology and applications of thermal analysis and calorimetry through plenary, invited and contributed lectures and posters.

The rock stars of this field will of course be with us and you will have a chance to meet Jaroslav Sestak, Chi-Min Shu, Joan Josep Sunol, Stefano Vecchio Cipriotti and many others.

The event will take place at a newly revamped 4-star wellness hotel on the River Danube: Danubius Hotel Helia a fully equipped conference hotel with all the facilities to host top quality professional events. The nearby Margaret Island offers a host of recreational activities – from cycling, tennis and swimming to relaxing walks in its beautiful parks.

If you'd like to unwind after scientific presentations, our wellness centre is the perfect spot. It has an adventure pool, swimming pool, sauna and a two-storey fitness club with stunning panoramic views. The hotel's thermal bath is fed by natural thermal water from Margaret Island's springs.

We are extremely excited about this scientific birthday party! Make sure you book your place early on so you don't miss this the conference.

Imre Miklós Szilágyi

More information @ <https://jtac-jtacc.akcongress.com/>



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**

June 18–21, 2019  
Budapest, Hungary



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

The Spanish Royal Society of Chemistry (RSEQ) celebrates its XXXVII Biennial Meeting in San Sebastian, from Sunday, May 26 to Thursday, May 30, 2019, at the Kursaal Congress Center. Drs. Claudio Palomo and Mikel Oiarbide are the local managers of the organization, and Claudio Palomo chairs the Scientific Committee. The information will be updated in: <http://bienal2019.com/index.php>

The Symposium “Calorimetry and Thermal Analysis in Modern Chemistry” of the Specialized Spanish Group on Calorimetry and Thermal Analysis (GECAT) will be conducted on May 29 and will be coordinated by Drs. Marta Fernández-García and Alexandra Muñoz-Bonilla.

Prof. Giuseppe Arena from the University of Catania will be our invited speaker with the title “Can a well-designed ITC experiment provide information on the speciation of supramolecular compartments?”. Contributions to this event will be welcome.

Joan Josep Sunyol



**Kalorimetrietage, Braunschweig, 12<sup>th</sup> - 14<sup>th</sup> June 2019**

Organised by the Gesellschaft für Thermische Analyse e.V. (GEFTA) and by Physikalisch-Technische Bundesanstalt (PTB) the 23<sup>rd</sup> Kalorimetrietage will be held at Braunschweig, from 12<sup>th</sup> to 14<sup>th</sup> June 2019.

The conference is dedicated to all aspects of calorimetry and its applications in chemistry, physics, biology, medicine, industry, and environmental sciences.

Presentations from other fields of experimental thermodynamics are also welcome.

The scientific programme will be accompanied by an exhibition of calorimetric instruments from manufacturers active in this field.

The conference language is English. Presentations in German are also welcome.

Confirmed Plenary Lectures:

B. Fellmuth (Berlin): Redefinition of the SI unit Kelvin and its realization

T. Maskow (Leipzig): The future of biocalorimetry and biothermodynamics as seen by a biotechnologist

H. J. Seifert (Eggenstein-Leopoldshafen): Batteries and calorimetry

Further information @ <https://www.kalorimetrietage.ptb.de/invitation.html>



**XXII International Conference on Chemical Thermodynamics in Russia, Saint Petersburg, 19-23 June, 2019**

The XXII International Conference on Chemical Thermodynamics will be held in Saint Petersburg next June below the Topics:

Sec 1\_Development of General Methods and Tools of Chemical Thermodynamics: New Experimental Techniques, Theory and Computer Simulation ;

Sec 2\_Thermodynamics of Liquids, Fluid Mixtures, and Phase Equilibria;

Sec 3\_ Thermochemistry and Databases;

Sec 4\_Thermodynamics of interfacial and confined phenomena

Sec 5\_ Thermodynamics of Functional Materials and Engineered Self-Assembly

Special Session "100 Years from Birthday of Acad. Mikhail M. Schultz"



Confirmed Speakers: Thermodynamics and Kinetics of Biochemical and Chemical Reactions, Gabriele Sadowski, Dortmund Technical University, Germany; Aqueous Solutions for a Circular Economy, Joao Coutinho, University Aveiro, Portugal; Phase Equilibria in Reactive Biocatalytic Processes, Irina Smirnova, Hamburg-Harburg University, Germany; Modified Poisson-Boltzmann Equations with Explicit Account of Polarizable Impurities in the Context of Electric Double Layer Theory, Yuri Budkov, Higher School of Economics, ISC RAS, Russia; Mesoscopic Non-Equilibrium Thermodynamics of Organic Liesegang Rings, Ekaterina V. Skorb, ITMO University, Russia; Thermochemistry of Water Vapor/Refractory Oxide Reactions at Elevated Temperatures, Nathan Jacobson, NASA, USA; Free Energy Calculation and Local Structure: Mixing Two Liquids in Computer Simulation, Abdenacer Idrissi, Lille University, France; Thermodynamics of Fluid Polyamorphism, Mikhail Anisimov, University of Maryland, USA

Further information @ <https://events.spbu.ru/events/rcct2019>



**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/>

## Consiglio Direttivo AICAT • Consiglio Direttivo GICAT



**Prof. Giuseppe Arena, Presidente**  
**Prof.ssa Michelina Catauro, Tesoriere**  
**Prof.ssa Adriana Saccone**  
**Prof.ssa Concetta Giancola**  
**Prof.ssa Silvia Porcedda**  
**Prof. Andrea Melchior**  
**Prof. Stefano Vecchio Cipriotti (per cooptazione)**  
**Prof. Bruno Marongiu (Past President)**



**Prof. Giuseppe Lazzara, Coordinatore**  
**Prof. Carmelo Sgarlata, Segretario**  
**Prof.ssa Anna Maria Cardinale**  
**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)

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## 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>