

## CURRICULUM VITAE

**First name:** Andrei  
**Last name:** ROTARU  
**Date of birth:** 09.08.1983;  
**Place of birth:** Craiova, Romania  
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### MAIN FIELDS OF INTEREST

<i>Physical Chemistry and Thermal Properties of Advanced Materials</i>
<ul style="list-style-type: none"> <li>• <i>Thermophysical aspects of spectroscopic methods (compositional, dielectric, acoustic, mechanic).</i></li> <li>• <i>Functional electroceramic materials: dielectrics, relaxors, ferroelectrics &amp; multiferroics.</i></li> <li>• <i>Structure-properties in tetragonal tungsten bronzes (TTBs) and perovskite-related ceramics.</i></li> <li>• <i>Dynamic processes in materials: modelling the thermally-induced relaxation of dielectric dipoles.</i></li> <li>• <i>Fundamental kinetics &amp; kinetics of heterogeneous processes: isoconversional, advanced linear incremental procedures, complex kinetic methods for discriminating the kinetic models, Master plots.</i></li> <li>• <i>Thermal stability of complex inorganic precursors &amp; organic (liquid crystals, dyes) compounds.</i></li> <li>• <i>Surface Science: thin films and porous materials.</i></li> <li>• <i>Laser-assisted techniques for obtaining thin films of soft materials with applications in life science.</i></li> </ul>

### SCIENTIFIC CONTRIBUTION

Plenary & Invited lectures	Articles in scientific journals	Books & Book chapters	Conference works	Citations	Hirsch Index
31	52 (46 ISI)	1 & 2	> 80	721 (619 ISI & 102 in other IDB)	18

### PROFESSIONAL EXPERIENCE

October 2017-present day	<b>Associate Professor / Reader</b> (Tenure track faculty member) Teaching: Materials Science and Engineering; Physical and Colloidal Chemistry I, Physical and Colloidal Chemistry II; Inorganic and Analytical Chemistry; General Chemistry. <b>University of Craiova</b> , Craiova, Romania
June 2019-present day	<b>Senior Researcher II</b> , Chemical Thermodynamics Laboratory <b>Institute of Physical Chemistry “Ilie Murgulescu”</b> , Romanian Academy, Bucharest, Romania
August 2014-February 2020	<b>Senior Researcher II</b> , Photonic Processing of Advanced Materials Laboratory <b>INFLPR (National Institute for Laser, Plasma &amp; Radiation Physics)</b> , Bucharest, Romania
October 2014-February 2016	<b>Lecturer</b> (Non-tenure track faculty member) Teaching: Pharmaceutical Nanotechnologies; Introduction to Scientific Research <b>University of Medicine and Pharmacy of Craiova</b> , Craiova, Romania
April 2014-September 2015	<b>Postdoctoral Researcher</b> at the Faculty of Mathematics and Natural Sciences <b>University of Craiova</b> , Craiova, Romania
November 2010-August 2014	<b>Scientific Researcher III</b> , Photonic Processing of Advanced Materials Laboratory <b>INFLPR (National Institute for Laser, Plasma &amp; Radiation Physics)</b> , Bucharest, Romania
February 2009-May 2009	<b>Demonstrator</b> in Inorganic and Physical Chemistry <b>University of St Andrews</b> , St Andrews, United Kingdom
November 2006-November 2010	<b>Research Assistant</b> , Photonic Processing of Advanced Materials Laboratory <b>INFLPR (National Institute for Laser, Plasma &amp; Radiation Physics)</b> , Bucharest, Romania


### VISITING AND INVITED PROFESSOR/RESEARCHER

18.11.2018-30.11.2018	<b>Fukuoka University</b> , Dept. of Chemical Engineering, Japan (Invited Professor)
03.11.2018-17.11.2018	<b>Yokohama National University</b> , Dept. of Chemical & Safety Engineering, Japan (Invited Professor)
01.03.2015 –31.03.2015 01.09.2015 –30.09.2015	<b>University of Cambridge</b> , Department of Earth Sciences, UK (Visiting Researcher)
09.06.2014 –13.06.2014	<b>University of Catania</b> , Department of Chemical Sciences, Italy (Invited Professor)
03.10.2012 –12.10.2012	<b>University of Palermo</b> , Department of Physics & Chemistry, Italy (Invited Researcher)
01.05.2007 –10.05.2007	<b>Gdansk University of Technology</b> , Chemical Faculty, Poland (Invited Researcher)

## EDUCATION

2015	Postdoctoral Researcher in Chemistry	University of Craiova, Faculty of Sciences, Romania (16 months) University of Cambridge, Department of Earth Science, UK (2 months) Title: "Obtaining and functionalization of some ceramic tetragonal tungsten bronze oxides for applications as advanced dielectric, ferroelectric and multiferroic materials"
2016	Ph.D. Phys. Doctor in Physics	University of Craiova, Faculty of Sciences, Craiova, Romania Thesis title: "Thermally induced functionalization of thin films of molecular materials obtained by laser techniques"
2013	Ph.D. Chem. Doctor of Philosophy in Chemistry	University of St Andrews, School of Chemistry, St Andrews, United Kingdom Thesis title: "Novel polar dielectrics with the tetragonal tungsten bronze structure" First year report title: "Tungsten-bronze oxides as potential multiferroic materials"
2011	Ph.D. Eng. Doctor in Mechanical Engineering	University Politehnica of Bucharest, Faculty Mechanical Engineering and Mechatronics, Bucharest, Romania Thesis title: "Thermal behaviour of some solid combustibles and the non-isothermal kinetics of their decomposition and burning"
2006	B.Sc. Chem. & Phys. Bachelor of Science in Chemistry & Physics	University of Bucharest, Faculty of Chemistry, Bucharest, Romania Thesis title: "Thermal stability and non-isothermal decomposition kinetics of some aromatic azomonoether dyes" (GPA: 9.02; Graduation avg.: 10; Valedictorian)

## EDITORIAL & REVIEWING ACTIVITY

Editor (ISI journals)	<p><b>Journal of Thermal Analysis and Calorimetry</b> (<i>Associate Editor; since Jan. 2012</i>); Springer Nature; IF2019: 2.731</p> <p><b>Molecules</b> (<i>Editorial Board Member; since Jan. 2020</i>); MDPI; IF2019: 3.267</p> 
	<p><b>Journal of Thermal Analysis and Calorimetry</b> (<i>Guest Editor: 2012, 2014, 2017, 2018 &amp; 2018, 2019, 2020&amp;2020</i>); Springer Nature; IF 2019: 2.731</p> <p><b>Ceramics International</b> (<i>Guest Editor in 2019, 2020</i>); Elsevier; IF 2019: 3.830</p> <p><b>Molecules</b> (<i>Guest Editor in 2019</i>); MDPI; IF 2019: 3.267</p> <p><b>Journal of Mining and Metallurgy, Section B: Metallurgy</b> (<i>Guest Editor in 2020</i>); Technical Faculty Bor; IF 2019: 1.134</p> 
Editor (non-ISI journals)	<p><b>Applied Surface Science Advances</b> (Elsevier, <i>Coordinating Editor; since November 2019</i>) <a href="https://www.journals.elsevier.com/applied-surface-science-advances/editorial-board">https://www.journals.elsevier.com/applied-surface-science-advances/editorial-board</a></p> <p><b>European Journal of Chemistry</b> (<i>Editorial Board; since March 2015</i>)</p> <p><b>Eastern European Journal of Enterprise Technologies</b> (<i>Editorial Board; since August 2018</i>)</p> <p><b>Ceramic Sciences and Engineering</b> (<i>Editorial Board; since August 2018</i>)</p> 
Reviewer (62)	<p>*Journal of Physical Chemistry; *Journal of the American Ceramic Society; *Dalton Transactions; *RSC Advances; *Inorganic Chemistry; *Energy &amp; Fuels; *Applied Energy; *Energies; *Energy Science &amp; Engineering; *Journal of Catalysis; *Catalysts; *Reaction Kinetics Mechanisms and</p>

	<p><i>Catalysis; *Processes; *Ceramics International; *Journal of Thermal Analysis &amp; Calorimetry; *Thermochimica Acta; *International Journal of Chemical Kinetics; *Applied Clay Science; *Applied Surface Science; *Applied Physics A-Materials Science &amp; Processing; *Journal of Non-Crystalline Solids; *Optics &amp; Laser Technology; *Materials; *Sustainability; *Journal of Alloys and Compounds; *Metals; *Nanomaterials; *Molecules; *Materials Chemistry &amp; Physics; *Journal of Physics and Chemistry of Solids; *Journal of Nano Research; *Chemical Engineering Journal; *Industrial &amp; Engineering Chemistry Research; *Chemometrics &amp; Intelligent Laboratory Systems; *Pedosphere; *Journal of Applied Polymer Science; *Polymer Engineering &amp; Science; *Polymers; *EPL (Europhysics Letters); *European Physical Journal Plus; *Dyes &amp; Pigments; *Polyhedron; *Applied Organometallic Chemistry; *International Journal of Pharmaceutics; *Cellulose; *European Journal of Soil Science; *Research on Chemical Intermediates; *Acta Chimica Slovenica; *Korean Journal of Chemical Engineering; *Optoelectronic and Advanced Materials–Rapid Communications; *Chemical Papers; *Chemical Industry &amp; Chemical Engineering Quarterly; *Clays and Clay Minerals; *Coatings; *Journal of Materials Science and Nanotechnology; *Journal of Mining and Metallurgy, Section B: Metallurgy; *Journal of the Brazilian Chemical Society; *Journal of Materials Research and Technology*Fractal and Fractional; *Chemistry Journal of Moldova; *Inzynieria Materialowa Materials Engineering; *Materials Today: Proceedings.</i></p>
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### AWARDS, PRIZES & RECOGNITION

2020	<p><b>Prize of Excellence in Research for Physical &amp; Chemical Sciences 2020</b> Award offered by the “Ad Astra” Association to researchers with more than 7 years of experience and based in Romania, 29 December 2020, Bucharest, Romania</p>
2019	<p><b>STK Young Scientist Award 2019</b> Award offered by the Swiss Association for Thermal Analysis and Calorimetry at the 43<sup>rd</sup> Annual Meeting of STK 2019, Thun, Switzerland</p>
2018	<p><b>Yushu Koen Sho (Excellent Presentation Award)</b> Autumn Conference of Japan Explosives Society, 17 November 2018, Kurashiki, Japan</p>
2016	<p><b>ICTAC Young Scientist Award</b> Award offered by the International Confederation for Thermal Analysis &amp; Calorimetry at ICTAC16 (USA)</p>
2014	<p><b>Who is Who in Thermal Analysis and Calorimetry</b> Springer Verlag &amp; Akademiai Kiado Publishing Houses, Germany/Hungary</p>
2008	<p><b>ICTAC International Travel Grant Program - Award for Young Scientists,</b> Award received at ICTAC14, Sao Pedro, Brazil</p>
2007	<p><b>Fellowship of the Roberto Rocca Educational Program,</b> Romania/Argentina/United Kingdom</p>

### MEMBERSHIP AT PROFESSIONAL ASSOCIATIONS

<b>President</b>	ESTAC (European Society for Thermal Analysis and Calorimetry) 2018-2022
<b>Chairman</b>	ICTAC Scientific Committee for the Young Scientist Program 2018-2022
<b>President</b>	Central & Eastern European Committee for Thermal Analysis & Calorimetry (CEEC-TAC) 2011-
<b>Councillor</b>	International Confederation for Thermal Analysis and Calorimetry (ICTAC) 2018-2022
<b>Member</b>	CNATDCU Commission of <i>Materials Science and Engineering</i> (the National Council for Attestation of University Degrees, Diplomas and Certificates – CNATDCU) 2020-2024
<b>Member</b>	Kinetics Committee at ICTAC, Commission for Thermal Analysis and Calorimetry of the Romanian Academy, Serbian Ceramic Society

### SKILLS

<b>Scientific equipment and techniques Developed abilities</b>	Thermal analysis techniques (TGA, Hi-ResTGA, DSC, MDSC, Dilatometry). Sample controlled thermal analysis (SCTA): group of unconventional techniques for separating complex processes, kinetically driven, etc. and for enhancing materials processing ( <i>i.e.</i> CRTA, SIA). Impedance spectroscopy (IS) and dielectric analysis (DEA). Resonant Ultrasound Spectroscopy (RUS). Manipulating furnaces & materials processing at high temperatures. Scanning electron microscopy (SEM) for ceramics and solid fuels, X-Ray and Neutron Diffraction.
<b>Software</b>	Thermal and Kinetic Software ( <b>own developed: TKS-SP</b> ©) & commercial; Rietvelt X-Ray refinements (ExpGui, GSAS).

## LABORATORY EQUIPMENT

<b>Personal equipment</b>	<i>Hi-Res TGA 2950 (TA Instruments)</i>
	<i>MDSC 2920 (TA Instruments)</i>
	<i>100-Litres storage tank for liquid nitrogen with automatized transfer line (TA Instruments)</i>
	<i>Box furnaces up to 1250 °C</i>

## SCIENTIFIC & ORGANIZING ACTIVITY OF CONFERENCES

1	<i>Co-chairman (with Matko Erceg)</i>	<b>CEEC-TAC6 &amp; Medicta2022 (6<sup>th</sup> Central &amp; Eastern European Conference on Thermal Analysis and Calorimetry &amp; 15<sup>th</sup> Mediterranean Conference on Calorimetry and Thermal Analysis)</b> , 20-24 July 2021, Split, Croatia. <a href="http://www.ceec-tac.com">www.ceec-tac.com</a>
2	<i>Member of the Scientific Committee</i>	<b>International Congress on Thermal Analysis and Calorimetry</b> , 29 August -3 September 2021, Cracow University of Technology, Krakow, Poland.
3	<i>Member of the International Organizing Committee</i>	<b>International Conference on Chemical Thermodynamics in Russia (RCCT)</b> , 23 August-28 August 2021, Kazan Federal University, Kazan, Russia.
4	<i>Co-chairman (with Vlad T. Popa)</i>	<b>CEEC-PHYSCHEM2020 &amp; ROMPHYSCHEM17 (1<sup>st</sup> Central and Eastern European Conference on Physical Chemistry &amp; the 17<sup>th</sup> International Conference of Physical Chemistry in Romania)</b> , 14-18 September 2021, Craiova, Romania.
5	<i>Member of the International Organizing Committee</i>	<b>XVI International Conference on Thermal Analysis and Calorimetry in Russia RTAC-2020</b> , 5-10 July 2020, Moscow State University, Moscow, Russian Federation.
6	<i>Member of the Scientific Committee</i>	<b>51<sup>st</sup> International October Conference on Mining and Metallurgy</b> , 16-19 Oct. 2019, Bor Lake, Serbia.
7	<i>Co-chairman (with Stefano Vecchio Cipriotti)</i>	<b>CEEC-TAC5 &amp; Medicta2019 (5<sup>th</sup> Central &amp; Eastern European Conference on Thermal Analysis and Calorimetry &amp; 14<sup>th</sup> Mediterranean Conference on Calorimetry and Thermal Analysis)</b> , 27-30 August 2019, Roma, Italy. (> 370 participants).
8	<i>Member of the Scientific Committee</i>	<b>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)</b> , 18-21 June 2019, Budapest, Hungary.
9	<i>Member of the Scientific Committee</i>	<b>Alternative Energy Sources, Materials and Technologies (AESMT'19)</b> , 3-4 June 2019, Sofia, Bulgaria
10	<i>Member of the International Organizing Committee</i>	<b>XXII International Conference on Chemical Thermodynamics in Russia (RCCT-2019)</b> , 19-23 June 2019, Sankt Petersburg, Russia.
11	<i>Co-chairman (with Titus Vlase)</i>	<b>CATCAR28 &amp; MoldTAC2 (28<sup>th</sup> Symposium on Thermal Analysis and Calorimetry "Eugen Segal" of the Commission for Thermal Analysis and Calorimetry of the Romanian Academy &amp; 2<sup>nd</sup> Symposium on Thermal Analysis and Calorimetry of Moldova)</b> , 9-10 May 2019, Timisoara, Romania.
12	<i>Chairman</i>	<b>ESTAC12 (The 12<sup>th</sup> European Symposium on Thermal Analysis and Calorimetry)</b> , 27-30 August 2018, Brasov, Romania. (> 400 participants).
13	<i>Member of the Scientific Committee</i>	<b>50<sup>th</sup> International October Conference on Mining and Metallurgy</b> , 30 Sept.-3 Oct. 2018, Bor, Serbia.
14	<i>Member of the Scientific Committee</i>	<b>49<sup>th</sup> International October Conference on Mining and Metallurgy</b> , 18 Oct.-21 Oct. 2017, Bor, Serbia.
15	<i>Co-chairman (with Tudor Lupascu)</i>	<b>CEEC-TAC4 (4<sup>th</sup> Central &amp; Eastern European Conference on Thermal Analysis and Calorimetry)</b> , 28-31 August 2017, Chisinau, Moldova. (340 participants).
16	<i>Member of the International Organizing Committee</i>	<b>XXI Russian Conference on Chemical Thermodynamics in Russia (RCCT – 2017)</b> , 26-30 June 2017, Akademgorodok, Novosibirsk, Russia.
17	<i>Member of the Scientific Committee</i>	<b>48<sup>th</sup> International October Conference on Mining and Metallurgy</b> , 28 Sept.-1 October 2016, Bor, Serbia.
18	<i>Member of the International Organizing Committee</i>	<b>15<sup>th</sup> Conference on Thermal Analysis and Calorimetry in Russia</b> , 19-23 September 2016, Saint Petersburg, Russia.
19	<i>Member of the Scientific Committee</i>	<b>47<sup>th</sup> International October Conference on Mining and Metallurgy</b> , 4-6 October 2015, Bor, Serbia.
20	<i>Member of the International Scientific Committee</i>	<b>MEDICTA 2015 – 12<sup>th</sup> Mediterranean Conference on Calorimetry and Thermal Analysis</b> , 17-19 June 2015, Girona, Spain
21	<i>Co-chairman (with Romana Cerc-Korosec)</i>	<b>CEEC-TAC3 (3<sup>rd</sup> Central &amp; Eastern European Conference on Thermal Analysis and Calorimetry)</b> , 25-28 August 2015, Ljubljana, Slovenia.
22	<i>Member of the Scientific Committee</i>	<b>46<sup>th</sup> International October Conference on Mining and Metallurgy</b> , 1-4 October 2014, Bor, Serbia.



23	<i>Member of the Scientific Committee</i>	<b>45<sup>th</sup> International October Conference on Mining and Metallurgy</b> , 16-19 October 2013, Bor, Serbia.
24	<i>Member of the International Organizing Committee</i>	<b>14<sup>th</sup> Conference on Thermal Analysis and Calorimetry in Russia</b> , 23-28 September 2013, Saint Petersburg, Russia.
25	<i>Co-chairman (with Daumantas Matulis)</i>	<b>CEEC-TAC2 (2<sup>nd</sup> Central &amp; Eastern European Conference on Thermal Analysis and Calorimetry)</b> , 27-30 August 2013, Vilnius, Lithuania. (> 310 participants).
26	<i>Co-chairman (with Crisan Popescu)</i>	<b>CEEC-TAC1 (1<sup>st</sup> Central &amp; Eastern European Conference on Thermal Analysis and Calorimetry)</b> , 7-10 September 2011, Craiova, Romania, (> 300 participants).
27	<i>Member of the Scientific Committee</i>	<b>14<sup>th</sup> International Congress on Thermal Analysis and Calorimetry (ICTAC)</b> , 14-18 September 2008, Sao Pedro, Brazil.

### SCIENTIFIC & ORGANIZING ACTIVITY OF SCHOOLS & WORKSHOPS

1	<i>Co-chairman (with Matko Erceg)</i>	<b>6<sup>th</sup> Edition of Short Summer School on Thermal Analysis and Calorimetry and the 2<sup>nd</sup> International Conference for Students on Thermal Analysis and Calorimetry</b> , 20 <sup>th</sup> of July 2021, Split, Croatia.
2	<i>Co-chairman (with Oana Gingu)</i>	<b>Workshop on Editorial Aspects at ISI Journals and Ethics in Publishing Articles</b> . 15 October 2019, University of Craiova, Craiova, Romania.
3	<i>Co-chairman (with Stefano Vecchio Cipriotti &amp; Nobuyoshi Koga)</i>	<b>5<sup>th</sup> Edition of Short Summer School on Thermal Analysis and Calorimetry and the 1<sup>st</sup> International Conference for Students on Thermal Analysis and Calorimetry</b> , 27 <sup>th</sup> of August 2019, Roma, Italy.
4	<i>Co-chairman (with Tudor Lupascu &amp; Florentin Paladi)</i>	<b>4<sup>th</sup> Edition of Short Summer School on Thermal Analysis and Calorimetry</b> , 28 <sup>th</sup> of August 2017, Chisinau, Moldova.
5	<i>Co-chairman (with Romana Cerc-Korosec)</i>	<b>3<sup>rd</sup> Edition of Short Summer School on Thermal Analysis and Calorimetry</b> , 25 <sup>th</sup> of August 2015, Ljubljana, Slovenia.
6	<i>Co-chairman (with Giuseppe Lazzara)</i>	<b>2<sup>nd</sup> Summer School on “Renewable Energy Systems and Green Nanotechnologies for a Clean Environment”</b> , 15-17 July 2014, Palermo, Italy.
7	<i>Co-chairman (with Daumantas Matulis)</i>	<b>2<sup>nd</sup> Edition of Short Summer School on Thermal Analysis and Calorimetry</b> , 27 <sup>th</sup> of August 2013, Vilnius, Lithuania.
8	<i>Co-chairman (with Giuseppe Lazzara)</i>	<b>1<sup>st</sup> Winter School on “Renewable Energy Systems and Green Nanotechnologies for a Clean Environment”</b> , 14-16 December 2012, Drobeta-Turnu Severin, Romania.
9	<i>Co-chairman (with Crisan Popescu)</i>	<b>1<sup>st</sup> Edition of Short Summer School on Thermal Analysis and Calorimetry</b> , 7 <sup>th</sup> of September 2011, Craiova, Romania.

### MEMBER IN THE ASSESSING COMMITTEES OF PhD THESES

1	<i>Tadas Dambrauskas</i>	<b>Kaunas University of Technology, Kaunas, Lithuania (2019)</b>
2	<i>Rivo Rannaveski</i>	<b>Tallinn University of Technology, Tallinn, Estonia (2018)</b>
3	<i>Eva Gil-Gonzalez</i>	<b>University of Seville, Sevilla, Spain (2017)</b>
4	<i>Oleg Petuhov</i>	<b>Institute of Chemistry of Moldova, Chisinau, Republic of Moldova (2017)</b>

### MAIN COLLABORATIONS AND REFERENCE LETTERS:

Finlay D. Morrison (University of St Andrews, UK, Assoc. Prof. Dr.) [finlay.morrison@st-andrews.ac.uk](mailto:finlay.morrison@st-andrews.ac.uk)

Michael A. Carpenter (University of Cambridge, UK, Prof. Dr.) [mc43@cam.ac.uk](mailto:mc43@cam.ac.uk)

Luis A. Perez-Maqueda (CSIC Institute for Materials Science, Spain, Dr.) [maqueda@cica.es](mailto:maqueda@cica.es)

Crisan Popescu (KAO Technologies, Germany, Prof. Dr.) [crisan.popescu@kao.com](mailto:crisan.popescu@kao.com)

Jiri Kucerik (Brno University of Technology, Czech Republic, Prof. Dr.) [kucerik@fch.vut.cz](mailto:kucerik@fch.vut.cz)

Matko Erceg (University of Split, Croatia, Prof. Dr.) [merceg@ktf-split.hr](mailto:merceg@ktf-split.hr)

Anca Moanta (University of Craiova, Romania, Assoc. Prof. Dr.) [moantaanca@yahoo.com](mailto:moantaanca@yahoo.com)

Maria Dinescu (National Institute for Laser, Plasma & Radiation Physics, Prof. Dr.) [maria.dinescu@infpr.ro](mailto:maria.dinescu@infpr.ro)

Vlad T. Popa (Institute of Physical Chemistry “Ilie Murgulescu”, Dr.) [vtpopa@icf.ro](mailto:vtpopa@icf.ro)

### LANGUAGES

<b>Romanian/mother tongue</b>	<b>French/very good</b>	<b>Italian/beginner</b>
<b>English/excellent</b>	<b>German/good</b>	<b>Russian/beginner</b>

<https://scholar.google.com/citations?user=Wm7uNKYAAAAJ&hl=en&oi=ao>

<https://orcid.org/0000-0002-1307-5699>

Articles: 52 (46 ISI)

Nr.	List of Published Articles <i>Title, Authors, Journal, Volume, Pages, Year.</i>	IF year
1.	Azorubine: Physical, thermal and bioactive properties of the widely employed food, pharmaceutical and cosmetic red azo-dye material; Marian Leulescu, <b>Andrei Rotaru*</b> , Anca Moanță, Gabriela Iacobescu, Ion Pălărie, Nicoleta Cioateră, Mariana Popescu, Marius Catalin Criveanu, Emilian Morîntale, Mihaela Bojan, Petre Rotaru <i>Journal of Thermal Analysis and Calorimetry</i> , 2021, 143(6), 3945–3967, 2021	2.731 (2019)
2.	The electro-mechanical control of element NiTi shape memory alloy strip while bending, based on thermal analysis evidence; Sonia Degeratu, G.E. Subțirelu, <b>Andrei Rotaru*</b> , Nicu G. Bîzdoacă, Petre Rotaru <i>Journal of Thermal Analysis and Calorimetry</i> , 2021, 143(6), 3805–3815, 2021	2.731 (2019)
3.	Physical, thermal and biological properties of yellow dyes with two azodiphenylether groups of anthracene Carla Carabet, Anca Moanță, Ion Pălărie, Gabriela Iacobescu, <b>Andrei Rotaru*</b> , Marian Leulescu, Mariana Popescu, Petre Rotaru <i>Molecules</i> , Molecules 2020, 25(23), 5757	3.267 (2019)
4.	Ti-based composite materials with enhanced thermal and mechanical properties; Cristina Ileana Pascu, Stefan Gheorghe, <b>Andrei Rotaru*</b> , Claudiu Nicolicescu, Nicoleta Cioatera, Adrian Sorin Rosca, Daniela Sarbu, Petre Rotaru <i>Ceramics International</i> , 2020, 46 (18, Part B), 29358-29372	3.830 (2019)
5.	Local Structure and Order–Disorder Transitions in “Empty” Ferroelectric Tetragonal Tungsten Bronzes; Jason A. McNulty, David Pesquera, Jonathan Gardner, <b>Andrei Rotaru</b> , Helen Y. Playford, Matthew G. Tucker, Michael A. Carpenter, Finlay D. Morrison <i>Chemistry of Materials</i> , 2020, 32 (19), 8492–8501	9.567 (2019)
6.	Edible vegetable oils enriched with carotenoids extracted from by-products of sea buckthorn ( <i>Hippophae rhamnoides ssp. sinensis</i> ): the investigation of some characteristic properties, oxidative stability and the effect on thermal behaviour; Alexandru Radu Corbu, <b>Andrei Rotaru</b> , Violeta Nour; <i>Journal of Thermal Analysis and Calorimetry</i> , 2020, 142 (2), 735–747	2.731 (2019)
7.	Adsorption capacity of Vitamin B12 and Creatinine on highly-mesoporous activated carbons obtained from lignocellulosic raw materials; Tudor Lupașcu, Oleg Petuhov, Nina Țîmbaliuc, Silvia Cibotaru, <b>Andrei Rotaru*</b> <i>Molecules</i> , 25 (13), 3095, 2020	3.267 (2019)
8.	Induced-Hydrophilicity and in vitro Preliminary Osteoblast Response of Polyvinylidene Fluoride (PVDF) Coatings Obtained via MAPLE Deposition and Subsequent Thermal Treatment; Luminita Nicoleta Dumitrescu, Patricia Neacsu, Madalina G. Necula, Anca Bonciu, Valentina Marascu, Anisoara Cimpean, Antoniu Moldovan, <b>Andrei Rotaru*</b> , Valentina Dinca, Maria Dinescu <i>Molecules</i> , 25 (3), 582, 2020	3.267 (2019)
9.	Chromism, positional, conformational and structural isomerism in a series of Zn(II) and Cd(II) coordination polymers based on methylated azine N,N'-donor linkers; Vasile Lozovan, Victor C. Kravtsov, Elena Gorincioi, <b>Andrei Rotaru</b> , Eduard B. Coropceanu, Nikita Siminel, Marina S. Fonari <i>Polyhedron</i> , 180, 114411, 2020	2.343 (2019)
10.	Thermomechanical, calorimetric and magnetic properties of a Ni-Ti shape memory alloy wire; Gabriel Florian, Augusta Raluca Gabor, Cristian-Andi Nicolae, <b>Andrei Rotaru*</b> , Nicolae Stănică, Nicu G. Bîzdoacă, Petre Rotaru; <i>Journal of Thermal Analysis and Calorimetry</i> , 140, 527–544, 2020	2.731 (2019)
11.	Physical and thermophysical properties of a commercial Ni-Ti shape memory alloy strip; Gabriel Florian, Augusta Raluca Gabor, Cristian-Andi Nicolae, <b>Andrei Rotaru*</b> , Cornelia A. Marinescu, Gabriela Iacobescu, Nicolae Stănică, Sonia Degeratu, Oana Gîngu, Petre Rotaru; <i>Journal of Thermal Analysis and Calorimetry</i> , 138(3), 1841-1851, 2019	2.731 (2019)
12.	Structural, electrical and relaxor properties of Sc-In solid solution in tetragonal tungsten bronze ceramics;	3.830

	<b>Andrei Rotaru</b> , Finlay D. Morrison; <i>Ceramics International</i> , 45 (2) Part B, 2710-2718, 2019	(2019)
13.	Orthorhombic YBCO-123 ceramic oxide superconductor: structural, resistive and thermal properties; Ana Harabor, Petre Rotaru, Novac Adrian Harabor, Petr Nozar, <b>Andrei Rotaru*</b> ; <i>Ceramics International</i> , 45 (2) Part B, 2899-2907, 2019	3.830 (2019)
14.	Tartrazine: physical and biophysical properties of the most widely employed artificial yellow food-colouring azo dye; Marian Leulescu, <b>Andrei Rotaru*</b> , Ion Pălărie, Anca Moanță, Nicoleta Cioatera, Mariana Popescu, Emilian Morîntale, Maria Bubulică, Gabriel Florian, Ana Hărăbor, Petre Rotaru; <i>Journal of Thermal Analysis and Calorimetry</i> , 134 (1), 209-231, 2018	2.471 (2018)
15.	Thermokinetic study of CODA azoic liquid crystal and thin films deposition by matrix-assisted pulsed laser evaporation; <b>Andrei Rotaru</b> , Anca Moanță, Cătălin Constantinescu, Marius Dumitru, Horia Octavian Manolea, Andreea Andrei, Maria Dinescu; <i>Journal of Thermal Analysis and Calorimetry</i> , 128 (1), 89-105, 2017	2.209 (2017)
16.	Hydroxyapatite-alendronate composite systems for biocompatible materials; Johny Neamtu, Maria-Viorica Bubulica, <b>Andrei Rotaru</b> , Catalin Ducu, Oana Elena Balosache, Valentin Costel Manda, Adina Turcu-Stiolica, Claudiu Nicolicescu, Razvan Melinte, Mariana Popescu, Octavian Croitoru; <i>Journal of Thermal Analysis and Calorimetry</i> , 127 (2), 1567-1582, 2017	2.209 (2017)
17.	Thermal behaviour of CODA azoic dye liquid crystal and nanostructuring by drop cast and spin coating techniques; <b>Andrei Rotaru</b> , Marius Dumitru; <i>Journal of Thermal Analysis and Calorimetry</i> , 127 (1), 21-32, 2017	2.209 (2017)
18.	Thermal and kinetic study of hexagonal boric acid vs. triclinic boric acid in air flow; <b>Andrei Rotaru*</b> ; <i>Journal of Thermal Analysis and Calorimetry</i> , 127 (1), 755-763, 2017	2.209 (2017)
19.	Discriminating within the kinetic models for heterogeneous processes of materials by employing a combined procedure under TKS-SP 2.0 software; <b>Andrei Rotaru*</b> ; <i>Journal of Thermal Analysis and Calorimetry</i> , 126 (2), 919-932, 2016	1.953 (2016)
20.	Microstructural and high-temperature impedance spectroscopy study of Ba <sub>6</sub> MNb <sub>9</sub> O <sub>30</sub> (M = Ga, Sc, In) relaxor dielectric ceramics with tetragonal tungsten bronze structure; <b>Andrei Rotaru*</b> , Finlay D. Morrison; <i>Ceramics International</i> , 42, 11810-11821, 2016	2.986 (2016)
21.	Elastic and anelastic relaxations accompanying relaxor dielectric behaviour of Ba <sub>6</sub> GaNb <sub>9</sub> O <sub>30</sub> tetragonal tungsten bronze from resonant ultrasound spectroscopy; <b>Andrei Rotaru*</b> , Jason A. Schiemer, Michael A. Carpenter; <i>Journal of Thermal Analysis and Calorimetry</i> , 124 (2), 571-583, 2016	1.953 (2016)
22.	Effect of local A-site strain on dipole stability in A <sub>6</sub> GaNb <sub>9</sub> O <sub>30</sub> (A = Ba, Sr, Ca) tetragonal tungsten bronze relaxor dielectrics. Andrew J. Miller, <b>Andrei Rotaru</b> , Donna C. Arnold, Finlay D. Morrison; <i>Dalton Transactions</i> , 44, 10738-10745, 2015	4.177 (2015)
23.	Vogel-Fulcher analysis of relaxor dielectrics with the tetragonal tungsten bronze structure Ba <sub>6</sub> MNb <sub>9</sub> O <sub>30</sub> (M = Ga, Sc, In); <b>Andrei Rotaru</b> , Finlay D. Morrison; <i>Journal of Thermal Analysis and Calorimetry</i> , 120 (2), 1249-1259, 2015	1.781 (2015)
24.	Thermal behaviour and thin film deposition by MAPLE technique of functional polymeric materials with potential use in optoelectronics; Catalin Constantinescu, <b>Andrei Rotaru</b> , Anca Nedelcea, Maria Dinescu; <i>Materials Science in Semiconductor Processing</i> , 30, 242-249, 2015	2.264 (2015)
25.	Thermal behavior and antimicrobial assay of some new zinc(II) 2-aminobenzoate complex compounds with bioactive ligands; Annamaria Krajnikova, <b>Andrei Rotaru*</b> , Katarina Gyoryova, Horia Octavian Manolea, Katarina	1.781 (2015)

	Homzova, Jana Kovarova, Daniela Hudecova; <i>Journal of Thermal Analysis and Calorimetry</i> , 120, 1, 73-78, 2015	
26.	Towards novel multiferroic & magnetoelectric materials: dipole stability in tetragonal tungsten bronzes. <b>Andrei Rotaru</b> , Andrew J. Miller, Donna C. Arnold, Finlay D. Morrison; <i>Philosophical Transactions of the Royal Society A</i> , 372, 20120451, 2014	2.147 (2014)
27.	Enhancing the environmental impact of solid (un)conventional fuels' combustion by conducting a viable kinetic analysis; <b>Andrei Rotaru*</b> ; <i>Advances in Engineering &amp; Management ADEM 2012</i> , 155-158, 2012	- (2012)
28.	Thermal analysis and kinetic study of Petroșani bituminous coal from Romania in comparison with a sample of Ural bituminous coal; <b>Andrei Rotaru*</b> ; <i>Journal of Thermal Analysis and Calorimetry</i> , 110, 3, 1283-1291, 2012	1.982 (2012)
29.	Origin and stability of dipolar response in a family of tetragonal tungsten bronze relaxors; <b>Andrei Rotaru</b> , Donna C. Arnold, Aziz Daoud-Aladine, Finlay D. Morrison; <i>Physical Review B</i> , 83, 18, 184302, 2011	3.691 (2011)
30.	DSC study on hyaluronan hydration and dehydration; Jiri Kucerik, Alena Prusova, <b>Andrei Rotaru</b> , Karol Flimel, Jiri Janacek, Pelegrino Conte; <i>Thermochimica Acta</i> , 523, 1-2, 245-249, 2011	1.805 (2011)
31.	Thermokinetic study of bituminous coal and lignites from southern Romania; <b>Andrei Rotaru*</b> , Jiri Kucerik, Crisan Popescu, Marius Dumitru, Constantin Neaga; <i>Proceedings of the 43<sup>rd</sup> October Conference on Mining and Metallurgy</i> , 2011	- (2011)
32.	Matrix assisted pulsed laser evaporation of zinc benzoate for ZnO thin films and non-isothermal decomposition kinetics; <b>Andrei Rotaru*</b> , Catalin Constantinescu, Anca Mândruleanu, Petre Rotaru, Antoniu Moldovan, Katarina Győryová, Maria Dinescu, Vladimir Balek; <i>Thermochimica Acta</i> , 498, 1-2, 81-91, 2010	1.908 (2010)
33.	Computational thermal and kinetic analysis. Complete standard procedure to evaluate the kinetic triplet form non-isothermal data; <b>Andrei Rotaru*</b> , Mihai Goșa; <i>Journal of Thermal Analysis and Calorimetry</i> , 97, 2, 421-426, 2009	1.587 (2009)
34.	CdS thin films obtained by thermal treatment of cadmium (II) complex precursor deposited by MAPLE technique; <b>Andrei Rotaru</b> , Anna Mietlerek-Kropidłowska, Catalin Constantinescu, Nicu Scărișoreanu, Marius Dumitru, Michal Strankowski, Petre Rotaru, Valentin Ion, Cristina Vasiliu, B. Becker, M. Dinescu; <i>Applied Surface Science</i> , 255, 15, 6786-6789, 2009	1.616 (2009)
35.	Thermal decomposition kinetics of some aromatic azomonoethers. Part IV. Non-isothermal kinetics of 2-allyl-4-((4-(4-methylbenzyloxy)phenyl)diazenyl)phenol in air flow; <b>Andrei Rotaru*</b> , Anca Moanță, Gina Popa, Petre Rotaru, Eugen Segal; <i>Journal of Thermal Analysis and Calorimetry</i> , 97, 2, 485-491, 2009	1.587 (2009)
36.	Thermal characteristics of Ni-Ti SMA (shape memory alloy) actuators; Sonia Degeratu, Petre Rotaru, Gheorghe Manolea, Horia Octavian Manolea, <b>Andrei Rotaru*</b> ; <i>Journal of Thermal Analysis and Calorimetry</i> , 97, 2, 695-700, 2009	1.587 (2009)
37.	Isoconversional linear integral kinetics of the non-isothermal evaporation of 4-[(4-chlorobenzyl)oxy]-4'-trifluoromethyl-azobenzene; <b>Andrei Rotaru*</b> , Mihai Goșa, Eugen Segal; <i>Studia Universitatis Babeș-Bolyai Chemia</i> , 54, 3 185-192, 2009	0.086 (2009)
38.	Thermal analysis of azoic dyes; Part I. Non-isothermal decomposition kinetics of [4-(4-chlorobenzoyloxy)-3-methylphenyl]( <i>p</i> -tolyl)diazene in dynamic air atmosphere; <b>Andrei Rotaru*</b> , George Brătulescu, Petre Rotaru; <i>Thermochimica Acta</i> , 489, 1-2, 63-69, 2009	1.742 (2009)
39.	Thermal decomposition kinetics of some aromatic azomonoethers. Part III. Non-isothermal study of 4-[(4-chlorobenzyl)oxy]-4'-chloro-azobenzene in dynamic air atmosphere;	1.587 (2009)



	<b>Andrei Rotaru*</b> , Anca Moanță, Petre Rotaru, Eugen Segal; <i>Journal of Thermal Analysis and Calorimetry</i> , 95, 1, 161-166, 2009	
40.	Multifunctional thin films of lactoferrin for biochemical use deposited by MAPLE technique; Catalin Constantinescu, Alexandra Palla-Papavlu, <b>Andrei Rotaru</b> , Paula Florian, Florica Chelu, Madalina Icriverzi, Anca Nedelcea, Valentina Dincă, Anca Roșeanu, Maria Dinescu; <i>Applied Surface Science</i> , 255, 10, 5491-5495, 2009	1.616 (2009)
41.	Computational thermal and kinetic analysis. Software for non-isothermal kinetics by standard procedure; <b>Andrei Rotaru*</b> , Mihai Goșa, Petre Rotaru; <i>Journal of Thermal Analysis and Calorimetry</i> , 94, 2 367-371, 2008	1.630 (2008)
42.	Thermal decomposition kinetics of some aromatic azomonoethers. Part II. Non-isothermal study of three liquid crystals in dynamic air atmosphere; <b>Andrei Rotaru*</b> , Anna Kropidłowska, Anca Moanță, Petre Rotaru, Eugen Segal; <i>Journal of Thermal Analysis and Calorimetry</i> , 92, 1, 233-238, 2008	1.630 (2008)
43.	Thermal characterization of humic acids and other components of raw coal; <b>Andrei Rotaru*</b> , Irina Nicolaescu, Petre Rotaru, Constantin Neaga; <i>Journal of Thermal Analysis and Calorimetry</i> , 92, 1, 297-300, 2008	1.630 (2008)
44.	Thermal analysis and thin films deposition by matrix assisted pulsed laser evaporation of a 4CN type azomonoether; <b>Andrei Rotaru</b> , Catalin Constantinescu, Petre Rotaru, Anca Moanță, Marius Dumitru, Margareta Socaciu, Maria Dinescu, Eugen Segal; <i>Journal of Thermal Analysis and Calorimetry</i> , 92, 1, 279-284, 2008	1.630 (2008)
45.	Heteroleptic Cd(II) complex, potential precursor for semiconducting CdS layers. Thermal stability and non-isothermal decomposition; Anna Kropidłowska, <b>Andrei Rotaru</b> , Michal Strankowski, Barbara Becker, Eugen Segal; <i>Journal of Thermal Analysis and Calorimetry</i> , 91, 3, 903-909, 2008	1.630 (2008)
46.	Influence of the preparation method on the ampicilin incorporation in hydrotalcite-like compounds; Rodica Zăvoianu, Octavian Dumitru Pavel, Anca Cruceanu, Mihaela Florea, Ruxandra Bîrjega, <b>Andrei Rotaru</b> , Corina Bradu, Petre Rotaru; <i>Nanoporous Materials V</i> (World Scientific Publishing Co. Pte Ltd., A. Sayari & M. Jaroniec Eds.), International Symposium on Nanoporous Materials V (Nano-5), Vancouver Canada 25-28 May 2008, 717-728, ISBN-13 978-981-277-915-1, 2008	- (2008)
47.	Thermal stability of some new complexes bearing ligands with polymerisable groups; Mihaela Badea, Rodica Olar, Dana Marinescu, Eugen Segal, <b>Andrei Rotaru</b> ; <i>Journal of Thermal Analysis and Calorimetry</i> , 88, 2, 317-321, 2007	1.483 (2007)
48.	Thermal decomposition kinetics of some aromatic azomonoethers; Part I. Decomposition of 4-[(4- chlorobenzyl)oxy]-4'-nitro-azobenzene; <b>Andrei Rotaru</b> , Anca Moanță, Ion Sălăgeanu, Petru Budrugeac, Eugen Segal; <i>Journal of Thermal Analysis and Calorimetry</i> , 87, 2, 345-355, 2007	1.483 (2007)
49.	On the inappropriate fit of diffusion functions at thermal decomposition of some azomonoethers in liquid state; <b>Andrei Rotaru</b> , Anna Kropidłowska, Petre Rotaru; <i>Annals of the University of Craiova-Physics AUC</i> 17, 2, 115-118, 2007	- (2007)
50.	Kinetic study of the thermal decomposition of some aromatic ortho-chlorinated azomonoethers; 1. Decomposition of 4-[(2-chlorobenzyl)oxy]-4'-trifluoromethyl-azobenzene; <b>Andrei Rotaru</b> , Bogdan Jurca, Anca Moanță, Ion Sălăgeanu, Eugen Segal; <i>Revue Roumaine de Chimie</i> , 51, 5, 373-378, 2006	0.208 (2006)
51.	"Available Quantities" in Thermodynamics; Ion Petre, <b>Andrei Rotaru*</b> ; <i>Annals of the University of Craiova-Physics AUC</i> 15, II, 21-25, 2005	- (2005)
52.	New thermodynamic state functions; <b>Andrei Rotaru*</b> ; <i>Annals of the University of Bucharest, Seria Chimie</i> , 13, 269-275, 2004	- (2004)

## Plenary & Invited Lectures at International Conferences, Summer Schools & Universities: 31

Nr.	<p style="text-align: center;"><b>List of Plenary &amp; Invited Lectures</b> <i>Title, Authors, Type of presentation, Event, Location, Date.</i></p>
1.	Thermokinetic and (micro)structural study of various types of lingo-cellulosic materials; <b>Andrei Rotaru</b> ; Plenary lecture at the EastWest Chemistry Conference (EWCC) 2019, University of Palermo, Palermo, Italy, 13-15 November 2019.
2.	Thermal investigation and the application of advanced linear kinetic methods in the study of complex materials used as solid fuels: coals, wood and crops; <b>Andrei Rotaru</b> ; Invited lecture at the IX Simpósio de Análise Térmica (IX SiAT), Universidade Federal de Goiás – UFG, Goiânia, Brazil, 11-13 August 2019.
3.	Kinetic tools for investigating various chemical and physical processes monitored by means of thermal analysis; <b>Andrei Rotaru</b> ; Invited lecture at the University of Sao Paulo, Institute of Chemistry of Sao Carlos, Sao Carlos, Brazil, 7 August 2019.
4.	Thermal-spectroscopic studies of electroceramic relaxor materials; <b>Andrei Rotaru</b> ; Invited lecture at the Annual Meeting of the STK-Schweizerische Gesellschaft für Thermoanalyse und Kalorimetrie, ARMASUISSE, Thun, Switzerland, 15 May 2019.
5.	Heterogeneous kinetics of various systems: from functional materials and precursors to conventional solid fuels and biomass; <b>Andrei Rotaru</b> ; Invited lecture at the Fukuoka University, Fukuoka, Japan, 21 November 2018.
6.	Kinetic analysis of heterogeneous processes from thermal analysis experiments by means of TKS-SP software - A direct application for the case of conventional and unconventional fuels; <b>Andrei Rotaru</b> ; Invited lecture at the Yokohama National University, Yokohama, Japan, 13 November 2018.
7.	Advanced isoconversional and complex kinetics for the study of transformations in functional materials; <b>Andrei Rotaru</b> ; Invited lecture at Tiraspol State University, Chisinau, Republic of Moldova, 8 June 2018.
8.	Advancements regarding the $f(\alpha)$ vs. $k(T)$ terms and their contribution to kinetics of heterogeneous processes; <b>Andrei Rotaru</b> ; Invited lecture at the conference: 1 <sup>st</sup> Journal of Thermal Analysis and Calorimetry Conference and 6 <sup>th</sup> V4 (Joint Czech-Hungarian-Polish-Slovakian) Thermoanalytical Conference (JTACC+V4), Budapest, Hungary, 8 June 2017.
9.	Thermal and Electric Properties in Relaxor Electroceramic Materials; <b>Andrei Rotaru</b> ; Invited lecture at State University of Moldova, Chisinau, Republic of Moldova, 11 May 2017.
10.	Advanced kinetic methods for the study of heterogeneous processes of biomass; <b>Andrei Rotaru</b> ; Invited lecture at University of the Academy of Sciences of Moldova, Chisinau, Republic of Moldova, 19 December 2016.
11.	Resonant ultrasound spectroscopy in the study of relaxation processes in tetragonal tungsten bronzes; <b>Andrei Rotaru</b> ; Invited lecture at the conference “Advanced Ceramics and Applications V: New Frontiers in Multifunctional Material Science and Processing”; Belgrade, Serbia, 21-23 September 2016.
12.	New advanced linear kinetic methods for the study of heterogeneous processes in inorganic and organic soft materials; <b>Andrei Rotaru</b> ; Plenary lecture at the conference “XV Russian and International Conference on Thermal Analysis and Calorimetry RTAC-2016”; Sankt Petersburg, Russia, 19-23 September 2016.
13.	Thermal stability, dynamics of dipoles and elastic & anelastic relaxations accompanying the relaxor dielectric behaviour of tetragonal tungsten bronze oxides: from modelling to the development of novel ferroelectrics and further design of multiferroic materials; <b>Andrei Rotaru</b> ; Plenary lecture at the congress “16 <sup>th</sup> International Congress on Thermal Analysis and Calorimetry - ICTAC16”; Orlando, USA, 14-19 August 2016.
14.	Advanced kinetics of thermally-induced heterogeneous processes by local linear procedures; <b>Andrei Rotaru</b> ; Keynote lecture at the congress “16 <sup>th</sup> International Congress on Thermal Analysis and Calorimetry - ICTAC16” for the Kinetics symposium; Orlando, USA, 14-19 August 2016.
15.	Effect of calcination temperature and time to the internal morphology, structural, diffusional and catalytic properties of Fe <sub>2</sub> O <sub>3</sub> -Cr <sub>2</sub> O <sub>3</sub> porous material; <b>Andrei Rotaru</b> ; Invited presentation at the “7 <sup>th</sup> International Conference on Silicate Materials - BaltSilica 2016”; Kaunas, Lithuania, 26-27 May 2016.

16.	From relaxor dielectrics to multiferroics constructing phase diagrams of tetragonal tungsten bronzes with formula $A_6M Nb_9O_{30}$ (A=Ba,Sr,Ca; M=Ga,Sc,In); <b>Andrei Rotaru</b> ; Invited presentation at the “7 <sup>th</sup> Symposium on Thermodynamics and Phase Diagrams”; Bor, Serbia, 8 June 2015.
17.	A- and B-site substitutions effect on the dynamic relaxation processes in tetragonal tungsten bronzes; <b>Andrei Rotaru</b> , Finlay D. Morrison; Invited presentation at the “Advanced Ceramics and Application – III Conference”; Belgrade, Serbia, 1 October 2014.
18.	Fundamentals of modelling the kinetic and dynamic relaxation processes in ceramics, glasses, polymers and pharmaceuticals, monitored by thermal analysis, calorimetry and immittance spectroscopy techniques; <b>Andrei Rotaru</b> ; Invited presentation at the “Summer School on Thermal Analysis and Calorimetry of AICAT 2014”; Cagliari, Italy, 12-13 September 2014.
19.	The effect of thermal processing and temperature program of the dielectric analysis on the fundamental parameters of relaxation processes in ceramics; <b>Andrei Rotaru</b> ; Plenary presentation at the “XXXVI Italian Congress on Thermal Analysis, Calorimetry and Applied Thermodynamics (AICAT 2014)”; Cagliari, Italy, 8-11 September 2014.
20.	Rheology of polymeric materials. Thermal analysis: DSC, TGA, Peel Test and Pull Test for measuring the adhesion and detachment. Acoustic microscopy at the interface of thin films; <b>Andrei Rotaru</b> ; Invited presentations as Visiting Professor for Master lectures at the University of Catania, Italy, 9-13 June 2014.
21.	Sintering and measuring conditions effects on the dielectric properties of relaxor TTB ceramic materials; <b>Andrei Rotaru</b> ; Invited presentation at “Advanced Ceramics and Application – II Conference”; Belgrade, Serbia, 1 October 2013.
22.	Advanced incremental linear kinetic methods to the study of thermally-induced processes in complex materials; <b>Andrei Rotaru</b> ; Plenary presentation at the “14 <sup>th</sup> Conference on Thermal Analysis and Calorimetry in Russia”; Saint Petersburg, Russia, 27 September 2013.
23.	Thermal stability and dynamics of dipoles in lead-free relaxor dielectric ceramics with tetragonal tungsten bronze structure; <b>Andrei Rotaru</b> ; Invited presentation at the University of Palermo; Palermo, Italy, 10 October 2012.
24.	Combustion kinetics of biomass and of other complex natural-composites. The standard procedure and how to choose the appropriate methods; <b>Andrei Rotaru</b> ; Invited presentation at the University of Palermo; Palermo, Italy, 9 October 2012.
25.	Advanced linear kinetic methods for the in-depth characterization of heterogeneous processes in solid fuels: the methodology and algorithm for investigating coals and biomass; <b>Andrei Rotaru</b> ; Invited lecture at “XXXIV Italian Congress on Thermal Analysis, Calorimetry and Applied Thermodynamics (AICAT 2012)”; Roma, Italy, 7 June 2012.
26.	Investigating kinetic processes in composite materials by employing adjustable advanced linear methods; The case of fossil fuels and biomass; <b>Andrei Rotaru</b> ; Invited presentation at the Gent University, Laboratory of Chemical Technology; Gent, Belgium, 9 March 2012.
27.	Matrix assisted pulsed laser evaporation of soft functional metal-organic materials, precursors and liquid crystals. Thermal and kinetic studies for enhancing processing conditions and properties of thin films; <b>Andrei Rotaru</b> ; Invited presentation at the Vilnius University, Institute of Biotechnology, Vilnius, Lithuania, 9 March 2011.
28.	Modelling the dielectric relaxation characteristics in a family of tungsten bronzes. Origin and stability of dipolar response; <b>Andrei Rotaru</b> ; Invited presentation at the Tallinn University of Technology, Faculty of Chemical Technology and Materials, Tallinn, Estonia, 1 March 2011.
29.	Modelling the kinetics of heterogeneous processes – The procedure of choosing and correct use of the various available methods; <b>Andrei Rotaru</b> ; Invited presentation at the P.J. Safarik University in Kosice, Institute of Chemistry, Kosice, Slovakia, 23 June 2010.
30.	Kinetics of heterogeneous processes. The mystery behind methods and calculations; <b>Andrei Rotaru</b> ; Invited presentation at the Brno University of Technology, Faculty of Chemistry, Brno, Czech

	Republic., 18 December 2009.
<b>31.</b>	Utility of kinetic study for different thermal decompositions of azoic dyes; <b>Andrei Rotaru</b> ; Invited presentation at the Gdansk University of Technology, Chemical Faculty, Gdansk, Poland, 17 May 2007.