



## Curriculum vitae Europass

### Informații personale

Nume / Prenume

**BADEA Elena**

E-mail

[elena.badea@ucv.edu.ro](mailto:elena.badea@ucv.edu.ro)

### Domeniul ocupațional

**CHIMIE / INGINERIE CHIMICA**

### Experiența profesională

Perioada

**2012 - prezent**

Funcția sau postul ocupat

Director de proiect, Cercetator științific gradul I

Numele și adresa angajatorului

Institutul National de Cercetare-Dezvoltare Textile si Pielarie, Sucurs la ICPI, Bucuresti

Perioada

**2001 – 2015**

Funcția sau postul ocupat

Cercetator invitat (Research fellow) (in concediu fara plata la Univrsitatea dn Craiova conform articolului 255, paragraful 5 din Legea Educatiei Nationale 2011, Titlul IV Statutul Personalului Didactic)

Numele și adresa angajatorului

Dipartimento di Chimica, Università degli Studi di Torino, Italia

Perioada

**1994 / 1996 / 2001 - prezent**

Funcția sau postul ocupat

Preparator / Asistent / Lector universitar

Numele și adresa angajatorului

Departamentul de Chimie, Facultatea de Științe, Universitatea din Craiova

Perioada

**1992 -1994**

Funcția sau postul ocupat

Profesor titular de chimie si biochimie

Activități și responsabilități principale

Invatamant liceal si postliceal

### Educație și formare

Perioada

**1996 - 2001**

Calificarea / diploma obținută

PhD in Industrial Engineering, *Magna cum laude*

Numele și tipul instituției de învățământ / furnizorului de formare

Universitatea "Dunarea de Jos, Galati, Romania

Perioada

**1987 -1992**

Calificarea / diploma obținută

Inginer in Tehnologia si chimia produselor alimentare

Numele și tipul instituției de învățământ / furnizorului de formare

Facultatea de Știința și Ingineria Alimentelor, Universitatea "Dunarea de Jos, Galati, Romania

Perioada

**1987-1992**

Calificarea / diploma obținută

Diploma de Bacalaureat / Profilul Matematica-Fizica

Numele și tipul instituției de învățământ / furnizorului de formare

Colegiul National Carol I (ex Liceul Nicolae Balcescu), Craiova

### Burse de cercetare

Perioada

**Noiembrie 2001 – februarie 2002**

Calificarea / diploma obținută

University of Turin Fellowship

Numele și tipul instituției de învățământ / furnizorului de formare

Dipartimento di Chimica, Università degli Studi di Torino, Italia

Perioada

**Octombrie 2000 – martie 2001**

Calificarea / diploma obținută

NATO Outreach Fellowship granted by the Italian Research Council (CNR), Rome, Italy

Numele și tipul instituției de învățământ / furnizorului de formare

Dipartimento di Chimica, Università degli Studi di Torino, Italia



Perioada  
Calificarea / diploma obținută  
Numele și tipul instituției de învățământ / furnizorului de formare

### Stagii scurte de cercetare

Perioada  
Numele și tipul instituției de învățământ / furnizorului de formare

Perioada  
Numele și tipul instituției de învățământ / furnizorului de formare

Perioada  
Numele și tipul instituției de învățământ / furnizorului de formare

Perioada  
Numele și tipul instituției de învățământ / furnizorului de formare

Perioada  
Numele și tipul instituției de învățământ / furnizorului de formare

### Cursuri de perfecționare profesională

Calificarea / diploma obținută  
Numele și tipul instituției de învățământ / furnizorului de formare

Calificarea / diploma obținută  
Numele și tipul instituției de învățământ / furnizorului de formare

Calificarea / diploma obținută  
Numele și tipul instituției de învățământ / furnizorului de formare

### Limbi străine cunoscute

Autoevaluare  
Nivel european (\*)

**Italiana**

**Engelza**

Competențe și abilități sociale

Competențe și aptitudini organizatorice

#### Aprilie – iunie 2000

Erasmus post-graduated grant  
Dipartimento di Chimica, Università degli Studi di Torino, Italia

#### Iunie 2010

Training Course within the FP7 Project CHARISMA, Microchemistry & Microscopy Art Diagnostic Lab University of Bologna, Italy

#### Decembrie 2006

COST ACTION G8: Cultural Heritage and Science: An Interdisciplinary Approach for the Conservation of Museum Objects, University of Ghent, Belgium

#### Februarie 2004

Thermal mechanical analysis of parchments – training stage at Birkbeck College, University of London. Supervisor Dr Marianne Odlyha

#### Noiembrie 2003

Differential scanning calorimetry applied to the study of proteins, training stage at University of Milan, Italy. Supervisor Prof. Alberto Schiraldi

#### Martie 2001

Isothermal calorimetry applied to the study of biopolymers, training stage at University of Trieste, Italy. Supervisor. Prof. Attilio Cesàro

#### Octombrie 2000

Pharmaceutical applications of isothermal microcalorimetry at University of Greenwich, UK.  
Supervisor Prof. Anthony E. Beezer

#### Manager al organizatiei culturale, Cod COR 143105

Institutul Național pentru Cercetare și Formare Culturală, Ministerul Culturii

#### Expert accesare fonduri structurale și de coeziune europene, Cod COR 242213 (in conformitate cu OGnr 129/2000 Republicata)

Ministerul Educației Naționale și Ministerul Muncii și Justiției Sociale / SC Soft Skills Trainig SRL, București

#### Manager de inovare, Cod COR 242106 (in conformitate cu OGnr 129/2000 Republicata)


Ministerul Educației Naționale și Ministerul Muncii și Justiției Sociale / SC Soft Skills Trainig SRL, București

Înțelegere				Vorbire				Scriere	
Ascultare		Citire		Participare la conversație		Discurs oral		Exprimare scrisă	
	C2		C2		C2		C2		C2
	C1		C1		C1		C1		C1

(\*) [Nivelul Cadrului European Comun de Referință Pentru Limbi Străine](#)

Spirit de leader, abilitati excelente de lucru in echipe multi- si trans-disciplinare, capacitate de adaptare sporita, minte dinamica, intuitiva si creativa, capacitate de organizare evenimente multidisciplinare, capacitate de comunicare si negociere, seriozitate, capacitate de asimilare de noi informatii si abilitati, disponibilitate pentru implicare in activitati socio-culturale

- Spirit organizatoric si experienta in calitate de coordonator / principal investigator in proiecte nationale/internationale  
- Coordonare activitate de cercetare, dezvoltare si inovare in parteneriat cu mediul economico-social  
- Experienta de cercetare si academica internationala

Competențe și aptitudini tehnice	<ul style="list-style-type: none"> <li>- Tehnici de analiza termica si calorimetrie (DSC si calorimetrie izoterma)</li> <li>- Tehnici de spectroscopie vibrationala (FTIR, Raman), spectroscopie UV-Vis si spectroscopie de raze X (XRF)</li> <li>- Tehnici de spectroscopie RMN unilateral</li> <li>- Tehnici de microscopie optica, microscopie termica, SEM si TEM</li> </ul>
Competențe și aptitudini de utilizare a calculatorului	<p>Sisteme de operare Windows, Aplicații Microsoft Office          Aplicații analitice: Origin, PeakFeat, SigmaPlot          Software echipamente științifice          Utilizare email, internet, social platforms</p>
<b>Informații suplimentare</b>	<p><b>Publicații (anexa):</b></p> <ol style="list-style-type: none"> <li>1. Articole în reviste indexate ISI: <b>40</b></li> <li>2. Articole în reviste internaționale / naționale indexate BDI: <b>32</b></li> <li>3. Articole în alte reviste și în volume ale unor conferințe internaționale / naționale: <b>42</b></li> <li>4. Capitole în edituri internaționale / naționale: <b>11</b></li> <li>5. Participări la conferințe, cu susținerea unor lucrări (<b>2015-2021</b>): <b>10</b> Invited si Key-note lectures / <b>33</b> oral presentations / <b>25</b> poster</li> </ol> <p><b>Recenzor:</b> Heritage Science; Journal of Cultural Heritage; Studies in Conservation; Archaeometry; Journal of American Institute of Conservation; Journal of Thermal Analysis and Calorimetry; Thermochemica Acta; Journal of Chemical Thermodynamics; Applied Clay Science; ACS Sustainable Chemistry &amp; Engineering; Journal of Cleaner Production; Polymer Degradation and Stability; Molecules</p> <p><b>Expert</b></p> <p>Aug 2021: Expert, Proiect SIPOCA 592 - Evaluarea infrastructurilor de cercetare selectate în Roadmap 2017 și a celor nou-propuse pentru includere în Roadmap-ul național pentru perioada 2021-2027); Panel <i>Eco-nanotehnologii si materiale avansate</i>, Ministerul Cercetării, Inovării și Digitalizării</p> <p>July 2021: Expert in Panelul National pentru stabilirea provocarilor specifice României sau aspecte locale ale provocărilor globale, ce își pot găsi soluții prin cercetare și inovare în perioada 2021-2027 (Agenda Strategica de Cercetare), Panel – <i>Cultura, creativitate si incluziune sociala</i>. Unitatea Executivă pentru Finanțarea Învățământului Superior, a Cercetării, Dezvoltării și Inovării (UEFISCDI)</p> <p>Aug 2017: Expert, Proiect SIPOCA 27 - Evaluarea infrastructurilor de cercetare selectate în Roadmap 2011 și a celor nou-propuse pentru includere în Roadmap-ul național pentru perioada 2017-2021); Panel – <i>Patrimoniu Socio-Cultural</i>, Ministerul Cercetării și Inovării</p> <p><b>Expert evaluator</b></p> <p>Din 2019: Evaluator - PRIN (Projects of National Interest) Programme, Italian Ministry of Education, Universities and Research (MIUR), IT</p> <p>2019-20: Evaluator, Postdoctoral grants – University of Florence, IT</p> <p>Din 2018: Evaluator for H2020-MSCA-IF, Eureka Network, Eurostars</p> <p>Din 2013: Evaluator – Competiții PNCDI. Paneluri: Știința materialelor și inginerie, Chimie, Eco-nano-materiale, Patrimoniu Socio-Cultural. Unitatea Executivă pentru Finanțarea Învățământului Superior, a Cercetării, Dezvoltării și Inovării (UEFISCDI)</p> <p><b>Anexe</b></p> <p><b>Anexa 1</b> Lista articolelor științifice și a brevetelor (2012-2021)  <b>Anexa 2</b> Lista proiectelor de cercetare  <b>Anexa 3</b> Lista activităților în asociații profesionale, a activităților editoriale și de organizare de conferințe internaționale, premii, vizibilitate în media</p> <p><b>Bibliography</b></p> <p>Web of Science Researcher ID B-7396-2011  <a href="https://orcid.org/0000-0003-1437-2844">https://orcid.org/0000-0003-1437-2844</a>  <a href="https://www.brainmap.ro/elena-badea">https://www.brainmap.ro/elena-badea</a>  <b>Hirsch index (Web of Science): 17; 651 citations (490 without self-citations)</b>          Hirsch index (Scopus): <b>18</b>; 745 citations          Hirsch index (Google Scholar): <b>20</b>; 1152 citations</p>
Data completării	<p>Semnătura</p> 
18.01.2022	

## Anexa 1 Lista articolelor stiintifice si a brevetelor

### Lucrari indexate ISI: 2022-2012

1. G. Vyskočilová, R. Ševčík, C. Carsote, **E. Badea (corresponding author)**, Burial-induced deterioration in leather: a FTIR-ATR, DSC, TG/DTG, MHT and SEM study, *Herit Sci* 10, 7 (2022). <https://doi.org/10.1186/s40494-021-00638-6>, **Q2**, IF 2.32; DOI: 10.1186/s40494-021-00638-6.
2. Z. Sebestyén, **E. Badea**, C. Carsote, Z. Czégény, T Szabó, B Babinszki, E Jakab, Characterization of historical leather bookbindings by various thermal methods (TG/MS, Py-GC/MS, and micro-DSC) and FTIR-ATR spectroscopy, *J Anal Appl Pyrol*, 2022, 105428. Invited paper, OA Virtual Special Issue "Analytical pyrolysis and other thermoanalytical techniques in Heritage Science", **Q1**, IF 5.541 <https://doi.org/10.1016/j.jaap.2021.105428>.
3. C. Carsote, C. Sendrea, M.-C. Micu, Alina Adams, **E. Badea (corresponding author)**, Micro-DSC, FTIR-ATR and NMR-MOUSE study of the dose-dependent effects of gamma irradiation on vegetable-tanned leather, *Rad. Phys. Chem.* 189, 109712 (2021) **Q1**, IF 2.858 DOI:10.1016/j.radphyschem.2021.109712
4. F. Cappa, I Paganoni, C Carsote, M. Schreiner, **E. Badea (corresponding author)**, Studies on the effect of dry-heat ageing on parchment deterioration by vibrational spectroscopy and micro hot table method, *Polym. Degrad. Stab.*, 182, 2020, 109375. **Q1**, IF 4.062
5. N. Proietti, Valeria Di Tullio, C. Carsote, **E. Badea (corresponding author)**, <sup>13</sup>C Solid State NMR, ATR-FTIR and micro-DSC to study modern collagen based material and historical leather. *Magn. Reson. Chem.*, 58, 2020, 840-859. Invited paper, special issue on NMR in Cultural Heritage; **Q2**, IF 2.035; DOI: 10.1002/mrc.5024
6. F. Cappa, I. Paganoni, C. Carsote, **E. Badea**, M. Schreiner, Studies on the effects of mixed light-thermal ageing on parchment by vibrational spectroscopy and micro hot table method, *Herit. Sci.* 8, 15 (2019). **Q2**, IF 1.902; Note: Federica Cappa, Ilaria Paganoni, Cristina Carsote, Elena Badea and Manfred Schreiner contributed equally to this work
7. **E. Badea**, Chemistry for cultural heritage: connecting past and future, *Herit. Sci.* 7, 99 (2019) Editorial. DOI: 10.1186/s40494-019-0342-2; **Q2**, IF 1.902
8. C. Carsote and **E. Badea (corresponding author)**, Micro differential scanning calorimetry and micro hot table method for quantifying deterioration of historical leather. *Herit Sci* 7, 48 (2019) DOI:10.1186/s40494-019-0292-8: **Q2**, IF 1.902
9. **E. Badea (corresponding author)**, C. Carsote, E. Hadimbu, C. Sendrea, M. C. Lupas, The effect of halloysite nanotubes dispersions on vegetable-tanned leather thermal stability. *Herit Sci* 7, 68 (2019) DOI:10.1186/s40494-019-0310-x: **Q2**, IF 1.902
10. Z. Sebestyén, E. Jakab, E. Badea, E. Barta-Rajnai, C. Şendrea, Zs. Czégény, Thermal degradation study of vegetable tannins and vegetable tanned leathers, *J. Anal. Appl. Pyrol.* 138, 178-187 (2019) DOI: 10.1016/j.jaap.2018.12.022; IF 3.905; **Q1**
11. Bernath, I. Teodorescu, M. Ryhl-Svendsen, **E. Badea**, L. Miu, M. Guttmann, Levels of Preservation for Cultural Heritage within an Open-air Museum, *Studies in Conservation* 63 (sup1), 323-325 (2018). DOI: 10.1080/00393630.2018.1486531; IF 0.707; **Q4** (Chemistry Analytical, Applied Chemistry, Spectroscopy)
12. E. Hadimbu, **E. Badea**, C. Carsote, C. Sendrea, L. Miu Halloysite nanotubes as innovative consolidants for historical leather, *Proceedings of the 7th International Conference on Advanced Materials and Systems*, Eds. L. Albu and V. Deselnicu, p. 189-194 (2018) DOI: 10.24264/icams-2018.II.2
13. Sendrea, C. Carsote, M. Radu, **E. Badea**, L. Miu, The effect of gamma irradiation on shrinkage activity of collagen in vegetable tanned leather, *Rev. Chim.*, 68(7):1535-1538 (2017). IF 1.755; **Q3**
14. Sendrea, **E. Badea (corresponding author)**, A. Adams, Unilateral NMR and micro-DSC study of artificially aged parchments, *Rev. Chim.*, 68(8):1780-1785 (2017). IF 1.755; **Q3**
15. **E. Badea (corresponding author)**, C. Şendrea, C. Carsote, A. Adams, B. Blümich, H. Iovu, Unilateral NMR and thermal microscopy studies of vegetable tanned leather exposed to dehydrothermal treatment and light irradiation, *Microchem. J.* 129, 158-165 (2016) DOI: 10.1016/j.microc.2016.06.01; IF 3.594; **Q1**
16. C. Carsote, **E. Badea (corresponding author)**, L. Miu, G. Della Gatta, Study of the effect of tannins and animal species on the thermal stability of vegetable leather by differential scanning calorimetry, *J. Thermal. Anal. Calorim.* 124(3), 1255-1266 (2016) DOI: 10.1007/s10973-016-5344-7; IF 2.731; **Q2**
17. C. Sendrea, C. Carsote, **E. Badea**, A. Adams, M. Niculescu, H. Iovu, Non-invasive characterisation of collagen-based materials by NMR-MOUSE and ATR-FTIR, *U.P.B. Sci. Bull., Series Chemistry*, 78(3), 27-38 (2016). ISSN 1223-7027.
18. A. Cucos, C. Gaidau, **E. Badea**, L. Miu, Influence of glycerin on denaturation temperature of chrome- and vegetable-tanned leather, *Rev. Roum. Chim.*, 60(11-12), 1093-1096 (2015). IF 0.381, **Q4**
19. Z. Sebestyén, Z. Czégény, **E. Badea**, C. Carsote C. Şendrea, E. Barta-Rajnai, B. János, L. Miu, E. Jakab, Thermal characterization of new, artificially aged and historical leather and parchment, *J. Anal. Appl. Pyrol.* 115, 419-427 (2015) DOI: 10.1016/j.jaap.2015.08.022; IF 3.594; **Q1**
20. **E. Badea (corresponding author)**, G. Della Gatta, B. Palecz, Thermal properties of some small peptides (N-acetyl-amino acid-N'-methylamides) with non-polar side groups, *J. Chem. Thermodyn.*, Special Issue dedicated to the memory of the late Professor Manuel Ribeiro da Silva, Invited paper, 63, 178-182 (2014) DOI: 10.1016/j.jct.2013.12.01; IF 2.888; **Q1**
21. **E. Badea (corresponding author)**, B. Nowicka, G. Della Gatta, Thermodynamics of fusion and sublimation for a homologous series of eleven alkane- $\alpha,\omega$ -diols HO-(CH<sub>2</sub>)<sub>n</sub>-OH: Structure-related odd-even effect, *J. Chem. Thermodyn.*, 68, 90-97 (2014) DOI: 10.1016/j.jct.2013.08.019; IF 2.888; **Q1**
22. C. Carsote, P. Budrugaec, R. Decheva, N.S. Haralampiev, L. Miu, **E. Badea**, Characterization of a byzantine manuscript by infrared spectroscopy and thermal analysis, *Rev. Rou. Chim.*, 59(6-7), 429-436 (2014). IF 0.381, **Q4**

23. **E. Badea (corresponding author)**, G. Della Gatta, T. Usacheva, Effects of temperature and relative humidity on fibrillar collagen within parchment: a micro-Differential Scanning Calorimetry (micro-DSC) study, *Polym. Degrad. Stab.*, 97, 346-353 (2012) DOI: 10.1016/j.polymdegradstab.2011.12.013; IF 5.03; **Q1**

### **Lucrari indexate SCOPUS: 2021-2012**

1. C. Carsote, E. Badea (corresponding author), I. Caniola, S. Paunescu, M.-C. Lupas, C. Sendrea, L. Miu, The Homiliary of Varlaam: Scientific investigation of the leather bookbinding, *Rev. Chim*, 71(3), 2020, 51-58. IF 1.755; Q3 (Chemistry, Multidisciplinary)
2. L. Miu, E. Badea, S. M. Paunescu, C. Sendrea, M.-C. Micu (Lupas), I.-M. Caniola, A. Moldovan, Parchment, the famous writing support: from ancient times to present, *Annals of the University of Oradea: Fascicle of Textiles, Leatherwork*, 21(2): 87-92 (2020), available at <https://doaj.org/article/72c0e93cae1c4f1993f68f4205e64ab2>
3. L. Miu, E. Badea, C. Şendrea, M.-C. Micu, S. M. Păunescu, I. M. Caniola, The behavior of sheep leather parchment to artificial ageing, *Leather and Footwear Journal*, 20(3): 313-322 (2020) DOI:10.24264/lfj.20.3.9
4. L. Miu, E. Badea, C. Sendrea, Characterization of new and artificially aged parchments, *Leather and Footwear Journal*, 20(2):197-204 (2020). DOI 10.24264/lfj.20.2.10
5. C. Şendrea, M.-C. Micu, E. Hadîmbu, S. M. Păunescu, I. M. Caniola, M. Ignat, L. Miu, E. Badea, Micro DSC and NMR mouse studies of collagen-vegetable tannin interaction mechanism during leather making, *Proceedings of the 8th International Conference on Advanced Materials and Systems (ICAMS 2020)*, Eds. Gh. Coara and L. Alexandrescu, Certex, Bucharest, 2020, p. 561-566. ISSN: 2068 – 0783
6. M. Ignat, L. Miu, E. Hadîmbu, C. Şendrea, M.-C. Micu, S. M. Păunescu, I. M. Caniola, E. Badea, The influence of TiO<sub>2</sub> and nano-TiO<sub>2</sub> nanopowders in natural leather finishing for heritage or modern binding, *Proceedings of the 8th International Conference on Advanced Materials and Systems (ICAMS 2020)*, Eds. Gh. Coara and L. Alexandrescu, Certex, Bucharest, 2020, p. 501-506. ISSN: 2068 – 0783
7. Lucreția Miu, Rodica Roxana Constantinescu, Alpaşlan Durmuş Kaya, Emanuel Hadîmbu, Claudiu Şendrea, Maria-Cristina Micu, Simona Maria Păunescu, Iulia Maria Caniola, Elena Badea, Aspects regarding the effectiveness of volatile oils of the *Tanacetum vulgare* species in the conservation of heritage objects, *Proceedings of the 8th International Conference on Advanced Materials and Systems (ICAMS 2020)*, Eds. Gh. Coara and L. Alexandrescu, Certex, Bucharest, 2020, p. 513-518. ISSN: 2068 – 0783
8. L. Miu, M. Giurgincă, I.M. Caniola, M.-C. Micu, S.M. Păunescu, C. Şendrea, E. Badea, Chromatic assessment of newly manufactured leather and parchment for museum purposes, *Proceedings of the 8th International Conference on Advanced Materials and Systems (ICAMS 2020)*, Eds. Gh. Coara and L. Alexandrescu, Certex, Bucharest, 2020, p. 519-524. ISSN: 2068 – 0783
9. L. Miu, S.M. Păunescu, M.-C. Micu, I.M. Caniola, M. Ignat, C. Şendrea, E. Badea, Chemical and physico-mechanical characterizations of leather for restoration, *Proceedings of the 8th International Conference on Advanced Materials and Systems (ICAMS 2020)*, Eds. Gh. Coara and L. Alexandrescu, Certex, Bucharest, 2020, p. 525-530. ISSN: 2068 – 0783
10. O. Niculescu, C. Gaidău, E. Badea, L. Miu, D. Gurău, M. Berechet, Ecological approaches for protecting and perfuming natural sheepskin fur, *Proceedings of the 8th International Conference on Advanced Materials and Systems (ICAMS 2020)*, Eds. Gh. Coara and L. Alexandrescu, Certex, Bucharest, 2020, p. 225-230. ISSN: 2068 – 0783
11. O. Niculescu, C. Gaidău, E. Badea, L. Miu, D. Gurău, D. Simion, Special effect finish for bookbinding leather, *Proceedings of the 8th International Conference on Advanced Materials and Systems (ICAMS 2020)*, Eds. Gh. Coara and L. Alexandrescu, Certex, Bucharest, 2020, p. 231-236. ISSN: 2068 – 0783
12. L. Miu, E. Badea, C. Sendrea, The behavior of sheep leather parchment to artificial ageing, *Leather and Footwear Journal*, 19 (4), 107-112 (2019). ISSN 1583 – 4433
13. C. Carsote, L. Kövari, C. Albu, Emanuel Hadîmbu, E. Badea, L. Miu, G. Dumitrescu, Bindings of rare books from the collections of the Romanian Academy Library - a multidisciplinary study, *Leather and Footwear Journal*, 18(4), 307-320 (2018).
14. C. Sendrea, L. Miu, M. Crudu, E. Badea, The influence of new preservation products on vegetable tanned leather for heritage object restoration, *Leather and Footwear Journal*, 17(1), 9-16 (2017). ISSN: 1583-4433
15. L. Miu, I. Lungu, M. Cutrubinis, E. Badea, I. Stanculescu, Preliminary characterisation of vegetable leather used in heritage bindery, *Proceedings of the 6th International Conference on Advanced Materials and Systems (ICAMS 2016)* DOI: 10.24264/icams-2016.v.5
16. E. Badea, C. Sendrea, C. Carsote, L. Miu, G. Della Gatta, Surface characterisation of parchments by thermal microscopy and unilateral NMR, *Proceedings of the 6th International Conference on Advanced Materials and Systems (ICAMS 2016)* DOI: 10.24264/icams-2016.v.1
17. C. Sendrea, E. Badea, I. Stanculescu, L. Miu, H. Iovu, Dose-dependent effects of gamma irradiation on collagen in vegetable tanned leather by mobile NMR spectroscopy, *Leather and Footwear Journal*, 15(3), 139-150 (2015). ISSN: 1583-4433
18. E. Badea, T. Usacheva, G. Della Gatta, The use of differential scanning calorimetry to characterise collagen deterioration in parchment, invited paper, *Rossiiskii Khimicheskii Zhurnal - Zhurnal Rossiiskogo Khimicheskogo Obshchestva im. D.I. Mendeleeva (Russian Chemistry Journal)*, V. 59 (1), 28-41 (2015).
19. F. Baratta, D. Zonari, G. Fazzina, S. Ravera, E. Badea, F. Dosio, P. Brusa, A comparative study of cytotoxicity, viability and calorimetric in vitro tests for the antineoplastic drugs gemcitabine, oxaliplatin, paclitaxel and topotecan, *Gazzetta*

Medica Italiana. Archivio per le Scienze Mediche, A Journal on Internal Medicine and Pharmacology, 173(1-2), 1-12 (2014). ISSN 0393-3660, eISSN 1827-1812.

20. C. Sendrea, E. Badea, L. Miu, M. Ignat, H. Iovu, Unilateral NMR for damage assessment of vegetable-tanned leather. Correlation hydrothermal properties. Proceedings of the 5th International Conference on Advanced Materials and Systems (ICAMS 2014), Editura Certex, Bucuresti, 2014, p. 555-560.
21. O. A. Miu, E. Badea, C. Carsote, S. Ciobanu, Automatic detection of collagen fibres shrinkage activity using  $\Sigma$ - $\Delta$  filtering. In Proceedings of the 5th International Conference on Advanced Materials and Systems (ICAMS 2014), Certex, Bucharest, 2014, p. 539-542.
22. C. Carsote, P. Budrugaec, L. Miu, H.A. Karavana, E. Badea, Study of the environmental impact on vegetable tanned leather by thermal analysis. In Proceedings of the 5th International Conference on Advanced Materials and Systems (ICAMS 2014), Editura Certex, Bucuresti, 2014, p. 505-510.
23. E. Badea (corresponding author), V.P. Sommer Dorte, K. Mühlen Axelson, G. Della Gatta, R. Larsen R. Standardised methods for damage ranking in parchment: from microscopic evaluation to collagen denaturation assessment, e-Preservation Science, 9, 97-109 (2012). ISSN 1854-3928, e-ISSN 1581-9280.
24. E. Badea, W. Vetter, I. Petroviciu, C. Carsote, L. Miu, M. Schreiner, G. Della Gatta, How parchment responds to temperature and relative humidity: a combined micro DSC, MHT, SEM and ATR-FTIR study, in Proceedings of 4th International Conference on Advanced Materials and Systems (ICAMS 2012), Certex, Bucharest, 2012, p. 487-492. ISSN 2068-0783

## **Lucrări publicate în reviste și volume de conferințe cu referenți (neindexate) 2021 - 2012**

### **Reviste**

1. D. D. Filip, C. Carșote, E. Hadîmbu, I. M. Caniola, S. M. Păunescu, E. Badea, Revealing the History of the Objects. A Synergy between Restorers and Chemists (RICONTRANS Project Research), MUSEIKON, A Journal of Religious Art and Culture, 5, 2021, p. 347-352. Muzeul National al Unirii, Alba Iulia 2021. ISSN 2601-2200
2. E. Hadîmbu, S.-M. Păunescu, I.-M. Caniola, C. Carșote, E. Badea, L. Miu, Stavrofora Macrina Săucinițanu, The study of two manuscripts belonging to Dragomirna Monastery: parchment, illuminations, bookbindings, Revista de Restaurare. Conservare și Investigatii, 1/2021, p. 126-140. Muzeul National de Istorie a Romaniei, Bucuresti 2021. ISSN 2810-4617
3. C. Carșote, I. Petroviciu, G. Lazăr, E. Badea, L. Miu, M. Georgescu, Investigarea unui document de secol XV prin metode complementare de analiza / Investigation of a 15th century document by complementary methods. In: RESTITUTIO - Bilingual Conservation-restoration bulletin, vol. 11, p. 129-138 Muzeul Satului "Dimitrie Gusti", București (2017) ISSN: 2065-2992 CONScience 2017 – Muzeul National al Satului „Dimitrie Gusti” (muzeul-satului.ro)
4. Bernath, I. Teodorescu, L. Miu, E. Badea, Evaluarea zonelor de prezervare într-un muzeu în aer-liber. RESTITUTIO - Bilingual Conservation-restoration bulletin, vol.11, p.115-124. Muzeul Satului "Dimitrie Gusti", București (2017) ISSN: 2065-2992
5. E. Badea, L. Miu, V. Dragomir, G. Onoiu, I. Anania, Utilitatea monitorizării microclimatului într-un muzeu în aer liber - Proiectul Inherit. In: RESTITUTIO - Bilingual Conservation-restoration bulletin, vol. 11, p. 125 -131 Muzeul Satului "Dimitrie Gusti", București (2017) ISSN: 2065-2992
6. Z. Sebestyén, E. Badea, E. Jakab, C. Carșote, E. Barta-Rajnai, Z. Czégény, Thermal decomposition study of vegetable tanning agents and tanned leathers. In RESTITUTIO - Bilingual Conservation-restoration bulletin, vol. 10 p. 256- Muzeul Satului "Dimitrie Gusti", București (2016). ISSN: 2065-2992 CONScience 2016 – Muzeul National al Satului „Dimitrie Gusti” (muzeul-satului.ro)
7. D. Ichim, E. Badea, C. Carșote, Artificial ageing treatments of collagen-based materials: How significant they are? In RESTITUTIO - Bilingual Conservation-restoration bulletin, vol. 10 p. 257- Muzeul Satului "Dimitrie Gusti", București (2016). ISSN: 2065-2992 CONScience 2016 – Muzeul National al Satului „Dimitrie Gusti” (muzeul-satului.ro)
8. E. Badea, O. A. Miu, I. Bornoiu, C. Carșote, O. Grigore, L. Miu, P. Budrugaec, ImageMHT – A new portable equipment for the automatic determination of shrinkage activity of historical collagen-based materials. The case of some historical document from the Romanian Academy Library collection. In RESTITUTIO - Bilingual Conservation-restoration bulletin, vol. 10 p. 260-269, Muzeul Satului "Dimitrie Gusti", București (2016). ISSN: 2065-2992 CONScience 2016 – Muzeul National al Satului „Dimitrie Gusti” (muzeul-satului.ro)
9. C. Carsote, C. Sendrea, I. Petroviciu, E. Badea, L. Miu, H. Iovu, Primum non nocere – In situ non-invasive diagnosis of historical parchment and leather. In: RESTITUTIO, Bilingual Conservation-restoration bulletin, vol. 9, p. 54-63. Muzeul Satului "Dimitrie Gusti", București (2015). ISSN 2065-2992. CONScience 2015 – Muzeul National al Satului „Dimitrie Gusti” (muzeul-satului.ro)
10. Badea, C. Carsote, I. Petroviciu, L. Miu, A. Vitale Brovarone, G. Della Gatta, Archival and library parchments across west and east Europe: evenness and oddities. In: RESTITUTIO, Bilingual Conservation-restoration bulletin, vol. 9, p. 46-53. Muzeul Satului "Dimitrie Gusti", București (2015), ISSN 2065-2992. CONScience 2015 – Muzeul National al Satului „Dimitrie Gusti” (muzeul-satului.ro)
11. M-Kiss, E. Badea, C. Carsote, L. Miu, Investigarea preliminară a unor artefacte din piele provenite din săpăturile arheologice din Cetatea Timișoara. In: RESTITUTIO, Bilingual Conservation-restoration bulletin, vol. 8, 2014, p. 58-61. Muzeul Satului "Dimitrie Gusti", București (2014), Bucharest, ISSN 2065-2992. CONScience 2014 – Muzeul National al Satului „Dimitrie Gusti” (muzeul-satului.ro)
12. E. Badea, G. Della Gatta, L. Miu, C. Carșote, I. Petroviciu, R. Larsen, M. Odlyha, A. Braghieri, S. Benedetto, Damage assessment of historical parchments: a protocol for preventive conservation. RESTITUTIO, Bilingual Conservation-

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13. M. Giurginca, E. Badea, L. Miu, The effect of polluting gases on some parchment spectral characteristics. In RESTITUTIO, Bilingual Conservation-restoration bulletin, vol. 5-6, p. 182-187. Muzeul Satului "Dimitrie Gusti", București (2012), ISSN 2065-2992 CONscience 2012 – Muzeul Național al Satului „Dimitrie Gusti” (muzeul-satului.ro)

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14. E. Badea, C. Carsote, L. Miu, G. Della Gatta, Damage assessment approaches for collagen-based artefacts – simple and advanced analysis. In "The Cultural Object: From Investigation to Restoration". Postprint volume of the 6th International Seminar on Chemistry for the Conservation of Cultural Heritage (ETICCH 2019). Eds: E. Badea and A. Bernath. Oscar Print, Bucharest, 2019, p. 7-22. ISBN 978-973-668-503-3
15. C. Carsote, I. Petroviciu, G. Lazar, E. Badea, L. Miu, M. Georgescu, Investigarea unui document emis de Cancelaria Moldovei în vremea lui Ștefan cel Mare din colecția MNIR. In: Tradiție, Istorie, Armată - Sesiunea Națională de Comunicări Științifice, ediția a IV a, Muzeul Militar Național "Regele Ferdinand I", 8-9 iunie 2017, București, p.289-298.
16. P. Budrugaec, C. Carșote, A. Cucuș, E. Badea, L. Miu, Applications of thermal analysis methods in the investigation of cultural and historical objects manufactured from leather, Proceeding Book of the 3rd International Leather Engineering Congress, 21–22 May, Izmir, Turkey, 2015, p. 101-108. ISBN: 978-605-338-130-3.
17. E. Badea, L. Miu, C. Carsote, I. Petroviciu, R. Granziero, S. Perona, V. Cacchia, B. Pittari, C. Laurora, G. Della Gatta, A. Cucos, P. Budrugaec, A. Vitale Brovarone, Validazione di interventi di recupero conservativo di manufatti in pergamena. In Lo Stato dell'Arte 12, Nardini Editore, Florence, 2014, p. 463-470. ISBN:
18. E. Badea, P. Iacomussi, G. Rossi, A. Vitale Brovarone, M. Radis, G. Della Gatta, Studio e diagnosi dello stato di conservazione di pergamene antiche mediante sistemi innovativi di analisi multi spettrale. In Lo Stato dell'Arte 10, Nardini Editore, Florence, 293-298 (2012). ISBN 88-404-4219-7 <https://www.lo-dellarte-10/.nardinieditore.it/prodotto/>
19. E. Badea, I. Petroviciu, C. Carsote, L. Miu, W. Vetter, M. Schreiner, G. Della Gatta, Studio dell'effetto di temperatura e umidità relativa sulla struttura e le proprietà della pergamena, e relazione con il deterioramento a lungo termine delle pergamene storiche. In Lo Stato dell'Arte 10, Nardini Editore, Florence, Italy, 299-305 (2012). ISBN 88-404-4219-7. <https://www.lo-dellarte-10/.nardinieditore.it/prodotto/>
20. E. Badea, G. Della Gatta, Identifying environmentally sensitive parchment and leather by MHT and micro-DSC. In Preservation of Parchment, Leather and Textiles, Book of Proceedings, 1st International Seminar and Workshop on Emerging Technology and Innovation for Cultural Heritage, Bucharest, Romania, 24-26 September 2012, Eds. E. Badea, L. Miu, M. Iordanescu, Certex, Bucharest, p. 78-80. ISSN 978-973-1716-81-7.
21. A.O. Miu, V. Velican, S. Ciobanu, O. Grigore, E. Badea, Intelligent system for analysis and diagnostic of collagen-based artefacts. In Preservation of Parchment, Leather and Textiles, Book of Proceedings, 1st International Seminar and Workshop on Emerging Technology and Innovation for Cultural Heritage, Bucharest, Romania, 24-26 September 2012, Eds. E. Badea, L. Miu, M. Iordanescu, Certex, Bucharest, p. 57-61. ISSN 978-973-1716-81-7.

### Cereri de brevete

1. M. Crudu, E. Badea, M.-C. Micu, C. Sendrea, L. Miu, Compoziție pe bază de proteine recuperate din deșeuri de piele și extracte din alge brune și procedeu pentru biotăbăcirea pieilor, OSIM A/00235-30.04.2020
2. M. Crudu, E. Badea, L. Miu, C. Sendrea, Procedeu ecologic de obtinere a unor suporturi colagenice destinate industriilor creative, OSIM A/00701-31.10.2019
3. L. Miu, M. Crudu, E. Badea, Procedeu ecologic de obtinere a pieilor ovine cu proprietati antimicrobiene, OSIM A/01022-03.12.2018
4. L. Miu, E. Badea, Pergament modern pentru industriile creative. Procedeu de obtinere, OSIM A/01023-03.12.2018
5. L. Miu, M. Crudu, E. Badea, M.-D. Berechet, C. Sendrea, Compozitie cu efect antifungic si antibacterian pentru conservare curativa si preventiva a obiectelor de patrimoniu pe suport colagenic, OSIM A/00375-29.05.2018
6. O.A. Miu, S. Ciobanu, L. Miu, E. Badea, Procedeu automat de evaluare a gradului de deteriorare a artefactelor si a obiectelor istorice si arheologice din piele si pergament, OSIM A00826/05.11.2014



## Anexa 2 Lista proiectelor de cercetare (Director / Responsabil/ Promotor/ Key Expert)

### At the National Research & Development Institute for Textiles and Leather (INCDTP), ICPI Branch, Bucharest

2021 - 2023	IoT-based system for monitoring museum environment (MUSEION, E!13370), Eureka Network, <b>PROJECT IDEATION AND RESPONSIBLE</b> for INCDTP-ICPI; contract no.256/2021
2021 - 2023	Biodegradable and antimicrobial retanning agent and coating for ecological and safe leather (BioSafe Leather E!13427), Eureka Network, <b>PROJECT IDEATION AND RESPONSIBLE</b> for INCDTP-ICPI; contract no.254/2021
2021 - 2023	Advanced CleAning and Protection of TANGible culture heritage (CAPTAN, E!13805). <b>KEY PERSON</b> , Contract no. 253/2021
2019 – 2022	Integrated analytical system for the analysis and diagnostic of modern materials and contemporary art preservation (Mnemo Art), NUCLEU Programme, contract no. 4N/2019 PN 19 17-05-01. <b>PROJECT RESPONSIBLE</b>
2018 – 2020	Innovative materials and technologies for sustainable leather manufacturing for automotive (InSuLa), Manunet Project MNET17/NMCS-2303 contract no. 35/2018. <b>PROJECT DIRECTOR</b> for INCDTP-ICPI
2018-2021	Implementation and exploitation of the scientific research results in the practice of restoration and conservation of cultural goods (IMPLEMENT), contract no. 56/2018. <b>PROJECT RESPONSIBLE</b>
2018	Natural leather for Contemporary Design (Leather CoDe), contract no. 176/2018. <b>PROJECT RESPONSIBLE</b>
2018	Parchment of 21 <sup>th</sup> century. Creative re-interpretation of the traditional craftsmanship (Creative Parchment), contract no. 179/2018. <b>KEY-EXPERT</b>
2017 – 2018	Innovative methods for the preservation of collagen-based artworks (KOLLART). Experimental Demonstration Project, contract no.168/2017. <b>PROJECT DIRECTOR</b>
2017 – 2018	Eco-friendly leather manufacturing process for art and heritage bindery (PRO-ART). Experimental Demonstration Project, contract no.160/2017. <b>KEY-EXPERT</b>
2017 – 2019	Sustainable low-temperature plasma technologies for cleaning historical & archaeological artefacts from natural polymers (SUSPLART), EUREKA E! 9975. <b>PROJECT RESPONSIBLE</b> for INCDTP-ICPI
2016 – 2019	Nuclear techniques for the conservation of wooden heritage objects (NUTECO), Contract no. C5-11/2016. Research in Strategic Domains (space, nuclear) Programme (CEA-RO). <b>PROJECT RESPONSIBLE</b> for INCDTP-ICPI.
2014 – 2016	Intelligent strategy for movable cultural heritage monitoring in changing climate (INHerit), Romanian Applied Research Programme PNII 325/2014). <b>PROJECT IDEATION &amp; PROJECT RESPONSIBLE</b> for INCDTP-ICPI
2014 – 2015	Il testamento di Messer Marco Polo, Transdisciplinary project coordinated by the Marciana National Library and SCRINIUM Spa, Venice. <b>SCIENTIST IN CHARGE</b> of the non-invasive damage assessment
2013 – 2014	Assessment and mitigation of climate impact on library and archival heritage (LIBER), Romania – Hungary Bilateral Collaboration PN II 671/2013). <b>COORDINATOR</b>
2013 – 2014	Quantitative Assessment of Environmental Impact on Collagen-Based Materials for Low-Energy Climate Control in Archives and Museums (ENVICOLL), Romania – France Bilateral Collaboration PN II 713/2013. <b>PROJECT IDEATION</b> and <b>PROJECT PARTNER</b> .
2013 – 2015	Experiments aiming to establish the optimum microclimate conditions for historical parchments preservation, Romania – Austria Bilateral Collaboration PN II 549/2012. <b>Project partner</b>
2012 – 2016	Intelligent system for analysis and diagnosis of collagen-based artefacts (COLLAGE), Romanian Applied Research Programme PN 224/2012). <b>PROJECT DIRECTOR</b>
2012 – 2015	Automatic Damage Assessment System for Cultural Heritage Leathers and Parchments (ADAS, E!5837) – Eureka project. <b>PROJECT IDEATION AND KEY-EXPERT</b>
2007 – 2010	Durable materials and technologies for leather cultural heritage objects conservation and restoration to ensure viable cultural inheritance at community level (PELRESTAURO), Romanian Applied Research Programme PN 91012/2007. <b>EXTERNAL EXPERT</b>
2006 – 2008	Multidisciplinary studies on the deterioration mechanisms in historical parchment documents (PERGAMO), Romanian Programme Research of Excellence – CEEX 1165/2006. <b>EXTERNAL EXPERT</b>



### At the University of Turin, Italy

- 2013 –2014 Advanced techniques and interdisciplinary studies for improved assessment of historical parchments (ParIS, RO13MO10) - Executive Programme for Scientific and Technological Co-operation between Italy and Romania. **Co-coordinator**
- 2010 –2011 Study and diagnosis of historical parchments using improved systems for multispectral analysis (MuSA System) - Italian Science & Heritage Programme. **Co-investigator**
- 2007 –2008 Meso- and nanoscale processes in environmental deterioration of collagen based historical materials, Italian Ministry for Education and Research (MIUR) funding programme for basic research. **Project partner.**
- 2006 –2010 Old parchment evaluation, restoration and analysis (OPERA) CIPE-2004-D39 - Italian Research Programme (CIPE) – Nanoscience Domain. **Co-investigator**
- 2005 –2006 Thermodynamics of biological model compounds and complex systems in both aqueous solution and pure state - Italian Ministry for Education and Research (MIUR) funding programme for basic research. **Project partner.**
- 2005 –2006 Structural and functional nanomaterials (NANOMAT) CIPE-2004-D26 - Italian Research Programme (CIPE) – Nanoscience Domain. **Key-Expert**
- 2004 –2005 Thermodynamics of bio-pharmaceutical compounds - Italian Ministry for Education and Research (MIUR) funding programme for basic research. **Project partner**
- 2003 –2006 European Virtual Institute for Thermal Metrology (EVITherM) G7RT-CT-2002-05111. European Commission FP6 Framework. **Key-Expert**
- 2002 –2005 Improved Damage Assessment of Parchments (IDAP) EVK4-CT-2001-00061. European Commission FP5 Framework. **Project partner**
- 2002 –2003 Phase transitions and thermodynamic properties of model compounds of biological interest - Italian Ministry for Education and Research (MIUR) funding programme for basic research. **Project partner**

### Anexa 3

#### Membru in Asociatii profesionale si Comitete internationale

- 2021 Membru, Leather Panel, American Institute of Conservation
- 2020 Presedinte fondator al Sectiei Chimia pentru Patrimonial Cultural din cadrul Societatii de Chimie din Romania (SChR); membru in Comitetul de conducere al Filialei Bucuresti 2 a SChR
- 2020 Membru, European Association of Archaeologists (EAA)
- 2019 Membru fondator, Enabling Cultural Heritage Oriented European Strategies (ECHOES) European Cluster; contribution to the elaboration of ECHOES Position Paper
- 2019 Membru, Consiliul Stiintific al INCDTP, Bucuresti
- 2017 Presedinte fondator al Grupului de lucru Chimia pentru Patrimoniul Cultural din cadrul Societatii de Chimie din Romania (SChR)
- 2011 Delegat al SChR la European Chemistry Society (EuChemS), Working Party on Chemistry for Cultural Heritage (WPCCH)
- 2011 Presedinte fondator al Asociatiei Stiinta si Patrimoniul Cultural in Conexiune (i-CON)
- 2007 Membru, Comisia de Analiza termica si calorimetrie a Academiei Romane
- 2000 Membru, Italian Association for Calorimetry and Thermal Analysis (AICAT)
- 2000 Membru, Societatea de Chimie din Romania (SChR)

#### Premii si mentiuni

- 2020 Medalie de aur si Diploma pentru brevetul “Composition with anti-fungal and antibacterial effect for curative and preventive conservation of collagen-based heritage objects”, International Exhibition of Inventions and Innovations
- 2020 Medalie de aur si Diploma pentru brevetul “Modern parchment for creative industry and preparation method thereof”, 24<sup>th</sup> Edition of the International Exhibition of Inventions INVENTICA, Iasi “TRAIAN VUIA”, Timisoara
- 2019 Madalia “Petru Poni” Medal si Diploma de Onoare a Societatii de Chimie din Romania
- 2018 Diploma de excelenta pentru contributia remarcabila la promovarea si prezervarea patrimoniului cultural oferita de Fundatia Proud to be Romanian cu ocazia centenarului Romaniei Mari
- 2017 Diploma de excelenta pentru contributia exceptionala la studiul si prezervarea colectiei de manuscrise si carte rara a Bibliotecii Academiei Romane (BAR) decernata cu ocazia aniversarii a 150 de ani de la infiintarea BAR

2014 Publicarea biografiei in Editia 2014 a "Who is Who in Thermal Analysis and Calorimetry", Series: Hot Topics in Thermal Analysis and Calorimetry, Vol. 10, I.M. Szilágyi and G. Liptay Eds., Springer. Lista a celor mai cunoscuti 350 de cercetari in domeniul analizei termice si calorimetriei.

#### **Activitate didactica - Universitatea din Craiova**

Din 2018 Chimie (curs si seminar), Facultatea de Automatica, Computere si Electronica (Program studii: Mecatronica, Automatica, Electronica Aplicata, Ingineria Sistemelor Multimedia)

Din 2021 Termodinamica (curs si laborator), Facultatea de Chimie (Program de studii: Chimia mediului, Chimie farmaceutica, Biotehnologie)

1998-2001 Enzimologie (curs si laborator), Facultatea de Chimie (Program de studii: Biochimie)

Biochimie (curs si laborator), Facultatea de Chimie (Program de studii: Chimia mediului)

1994-1998 Biochimie (laborator), Facultatea de Horticultura (Program de studii: Chimia alimentelor)

#### **University of Turin**

2003 – 2008 Chimie fizica (Tutoring Course in Thermodynamics, Chemical Bond and Kinetics), Pharmaceutical Chemistry and Technology Degree Course, Faculty of Pharmacy, University of Turin, Italy

#### **Coordonare doctoranzi si cercetatori postdoc**

##### **Studenti/cercetatori in coordonare**

2021 – 2022 Ilaria Quaratesi, PhD research stage (University of Salerno, IT, with Prof. Carmine Gaeta)

2022 – 2023 Vittoria Ferrara, PhD research stage (University of Salerno, IT, with Prof. Carmine Gaeta)

Din 2019 - Maria Cristina Micu, PhD (University Politehnica of Bucharest, RO, with Prof. Ioana Lacatusu)

Din 2020 - Iulia Maria Caniola, PhD (University Politehnica of Bucharest, RO, with Prof. Nicoleta Badea)

Din 2020 - Claudiu Sendrea, Postdoc researcher (INCDTP-ICPI, Bucharest, RO)

##### **Studenti/cercetatori a caror activitate a fost coordonata in trecut**

Errica Rebba, PhD research stage (University of Turin, IT, with Prof. Gianmario Martra)

PhD students: Anna Boguszewska, now Professor at Medical University of Lublin; Admir Mas ić, now Professor at MIT, USA ; Zuzana Reckova, now at the Institute of Chemical Technology, Prague

MSC students: Silvia Ravera, now fellow at Yale University, USA (University of Turin, IT, with Prof. Giuseppe Della Gatta);

Magdalena Saczuk (University of Łódź) now Office manager at Polski Farmer

Postdocs: Tatiana Usacheva, now Professor at Technical University of Ivanovo; Cristina Carsote, now senior researcher at the National Museum of Romanian History.

##### **Coordonare teze de licenta/master**

Din 2019 Co-coordinator of multidisciplinary teams of 5 students each within the European Project Semester: "One-semester multidisciplinary and multicultural projects" coordinated by University Politehnica of Bucharest

2018 – 2021 Supervised 3 diploma students at University of Craiova

#### **Stabilire si coordonare conventii bilaterale de cercetare**

2021 -2023 Accord for Cooperation between INCDTP-ICPI, and Department of Chemistry and Biology, University of Salerno, Italy on the topic: "Development of new tanning agents for eco-sustainable tanning systems."

Responsible person for INCDTP-ICPI

2016-2019 Accord for Cooperation between INCDTP-ICPI and Department of Chemistry, University of Palermo on the topic: "Nanotechnologies in the field of cultural heritage" Responsible person for INCDTP-ICPI

2016 –2019 Accord for Cooperation between INCDTP-ICPI and Department of Humanistic Studies, University of Turin on the topic: "Preservation of written cultural heritage across West and East Europe: materials, crafts, techniques and intangible aspects" Responsible person for INCDTP-ICPI

2012 –2017 Accord for Cooperation and Scholar Exchange between the University of Craiova and Department of Chemistry, University of Turin on the topic: "Study and diagnosis of environmental deterioration of collagen-based heritage materials by advanced physical-chemical and imaging techniques". Responsible person for University of Craiova.

2006 –2009 Accord for Cooperation between the INCDTP-ICPI, Bucharest and Department of Chemistry, University of Turin on the topic: "Meso- and Nanoscale Processes in Environmental Deterioration of Collagen Based Historical Materials". Promoter

## Activitati de organizare evenimente stiintifice

Sept 2022	Chair, International Seminar and Workshop “Emerging Technology and Innovation in Conservation of Cultural Heritage” (ETICCH 7 <sup>th</sup> Edition), Sibiu, Romania
4-8 July/2022	International Board, International Congress “Chemistry for Cultural Heritage”: ChemCH 2022, Ravenna, Italy
5 May 2021	Panelist (scientist) of the Panel organised by the Leather Discussion Group of AIC with the 2021 AIC Congress on „Leather selection and use: a panel discussion on the impact of conservators’ choices”
14-17/10/2020	Organizing Committee, “39 <sup>th</sup> Dyes in History and Archaeology” (DHA) Conference, Sibiu, Romania
1-3/10/2020	Scientific Committee, International Conference “Advanced Materials and Systems” (ICA MS 2020), Bucharest, Romania
11-13/09/2019	Chair, International Seminar and Workshop “Emerging Technology and Innovation in Conservation of Cultural Heritage” (ETICCH 6 <sup>th</sup> Edition), Sibiu, Romania
27-30/08/2019	Scientific Committee, Central & Eastern European Conference on Thermal Analysis and Calorimetry: CEEC-TAC 5, Rome, Italy
18-20/10/2018	Scientific Committee, International Conference “Advanced Materials and Systems” (ICA MS 2018), Bucharest, Romania
27-30/08/2018	Scientific Committee, 12th European Symposium on Thermal Analysis and Calorimetry (ESTAC 12), Brasov, Romania
3-7/07/2018	Chair, 5 <sup>th</sup> International Congress “Chemistry for Cultural Heritage” (ChemCH 2018), Bucharest, Romania
3-14/09/2017	Chair, International Seminar and Workshop “Emerging Technology and Innovation in Conservation of Cultural Heritage” (ETICCH 5 <sup>th</sup> Edition), Sibiu, Romania
28-31/08/2017	Scientific Committee, Central & Eastern European Conference on Thermal Analysis and Calorimetry: CEEC-TAC 5, Chisinau, Republic of Moldova
3-4/11/2016	Chair, International Seminar “Emerging Technology and Innovation in Conservation of Cultural Heritage” (ETICCH 4 <sup>th</sup> Edition), Bucharest, Romania
23-25/10/2016	Scientific Committee, International Conference “Advanced Materials and Systems” (ICA MS 2016), Bucharest, Romania
5-8/07/2016	International Board, International Congress “Chemistry for Cultural Heritage”: ChemCH 202216, Brussels, Belgium
5/11/2015	Co-chair, Seminarul si Expozitia de documente istorice <i>Pergamentul...o poveste. Fața nevăzută a documentelor emise de Cancelaria domnească în vremea lui Ștefan cel Mare</i> , Biblioteca Academiei Romane, Bucuresti, Romania
25-28/08/2015	Scientific Committee, Central & Eastern European Conference on Thermal Analysis and Calorimetry: CEEC-TAC 5, Chisinau, Ljubljana, Slovenia
20-22/10/2014	Scientific Committee, International Conference “Advanced Materials and Systems” (ICA MS 2018), Bucharest, Romania
16–18/10/2014	Chair, International Seminar Emerging Technology and Innovation in Conservation of Cultural Heritage (ETICCH 3 <sup>rd</sup> Edition), Sibiu, Romania
2-5/07/2014	International Board, International Congress “Chemistry for Cultural Heritage”: ChemCH 2014, Vienna, Austria
27-20/08/2013	Scientific Committee, Central & Eastern European Conference on Thermal Analysis and Calorimetry: CEEC-TAC 5, Chisinau, Vilnius, Lithuania
3-6/09/2013	Chair, International Seminar “Emerging Technology and Innovation in Conservation of Cultural Heritage” (ETICCH 2 <sup>nd</sup> Edition), Bucharest, Romania
24–26/09/2012	Chair, International Workshop “Emerging Technology and Innovation in Conservation of Cultural Heritage” (ETICCH 3 <sup>rd</sup> Edition), Bucharest, Romania
5-10/09/2012	Scientific Committee, Central & Eastern European Conference on Thermal Analysis and Calorimetry: CEEC-TAC 5, Chisinau, Craiova, Romania
24-28/08/2011	Co-ordinator, International Workshop “Non-Invasive and Micro-Invasive Physical-Chemical Techniques for Cultural Heritage”, within MATCONS 2011, Craiova, Romania
17/10/2010	Organising Committee, Seminario “Digitalizzazione dei beni librari: duplicazione, conoscenza, conservazione”, University of Turin, Turin, Italy
14-15/09/2009	Co-coordinator, International Workshop “Conservation and Restoration of Historical Parchment and Leather”, within MATCONS 2009, Craiova, Romania

5-8/09/2008	Organizing Committee, International Seminar & Workshop “Conservation and Restoration of Parchments (CRP 2008)”, Turin, Italy
5-11 Aug 2007	Organizing Committee, 41 <sup>th</sup> International Union of Pure and Applied Chemistry (IUPAC) World Chemistry Congress, Turin, Italy
12–19/10/2004	Co-coordinator, EVITherM EC Project Workshop within the 13 <sup>th</sup> Congress of the International Confederation for Thermal Analysis and Calorimetry (ICTAC), Chia Laguna, Italy
25-26/03/2004	Co-coordinator, IDAPEC Project Mid-Term Meeting and Workshop, Turin, Italy

#### Activitate editorială

Din 2021	Member of the Scientific Committee of Annals of the University of Oradea – Fascicle of Textiles, Leatherwork, P-ISSN 1843-813X, E-ISSN 2457-4880
2020-2021	Guest editor: Special Issue of Journal of Thermal Analysis and Calorimetry dedicated to the memory of Professor Giuseppe Della Gatta (Open until July 31 <sup>st</sup> , 2021)
2019	Co-editor of the Postprint volume of the 6 <sup>th</sup> ETICCH Edition: “The Cultural Object: From Investigation to Restoration”, Oscar Print, Bucharest, 2019, ISBN 978-973-668-503-3.
Din 2019	Member of the Editorial Board of Journal of Leather Science and Engineering, Springer Open. ISSN: 2524-7859. <a href="https://jlse.springeropen.com/about/editorial-board">https://jlse.springeropen.com/about/editorial-board</a>
2018 -2019	Guest editor: Special Issue of Heritage Science dedicated to ChemCH 2018 Conference, Vol 7 (2019); <a href="https://www.springeropen.com/collections/chemch2018">https://www.springeropen.com/collections/chemch2018</a>
2015	Co-editor of “Pergamentul...o poveste. Fata ne vazuta a documentelor pe pergament emise de Cancelaria domneasca in vremea lui Stefan cel Mare” Editura Excelenta prin Cultura, București 2015. ISBN 978-606-93840-1-5; eBook, Editura Certex, București 2015. e-ISBN 978-973-1716-62
2012	Guest editor: Special Issue dedicated to MATCONS 2011 Conference, e-Preservation Science Vol 9 (2012). ISSN 1581-9280

#### Vizibilitatea activitatii de cercetare in media

In 2021, EB is taking part in the transdisciplinary project Fusion AIR - a residency program coordinated by the Association Qolony and designed to create a meeting place between artists and scientists. It aims to provide a functional collaborative infrastructure that facilitates artists' participation in scientific research, ultimately bringing technical concepts closer to a broader audience. <https://qolony.eu/fusionair-2021/>

In 2021, EB has received the invitation to participate in the program of the French Institute / French Embassy "International Day of Women and Girls in Science" - February 11, 2021, a program dedicated to success stories of women researchers in France and Romania ("stories of French and Romanian women researchers"). <https://www.facebook.com/InstitutulFrancez/posts/4151111641573981>

EB's research is frequently featured in the media. The research dedicated to safeguarding historical parchment and leather artefacts has attracted considerable media interest including *Radio Romania Cultural* ([Secretul palimpsestului lui Arhimede – Radio România Cultural \(radioromaniacultural.ro\)](https://www.facebook.com/radioromaniacultural.ro)); *Dimensiunea științifică a artei: Elena Badea – Istoria civilizației poate fi scrisă și prin istoria materialelor pe care oamenii le-au folosit – Radio România Cultural (radioromaniacultural.ro)*, *România Liberă*, Proud to be Romanian Project (<https://www.facebook.com/proudromania/videos/1788643027837775>), as well as the leading online publication for the Materials Science community, *Azo Materials AzoM* ([The Science of Heritage Preservation: Safeguarding Historical Parchment and Leather Artifact | Labcompare.com](https://www.labcompare.com)), and *Microscopy-Wiley Analytical Science* (<https://analyticalscience.wiley.com/doi/10.1002/was.00170130>).

#### Video book

In 2016, EB, in her quality as heritage scientist, took part in the filming of “Io...Archimede. Il codice perduto”, a documentary written and directed by Vittorio Muscia and produced by Cinecittà 3 Roma. The documentary was recognized as a work of national cultural interest by the Italian Ministry of Cultural Heritage and Activities and Tourism in 2017. EB wrote the essay “Sovrapposizioni / Layerings / Suprapunerii” published in the ebook that accompanies the film. In 2018, EB translated the film in Romanian.

“Io...Archimede. Il codice perduto / Archimedes. The lost codex / Lombardi Editori & Cinecittà 3, Roma, 2017/2018, p. 68-69, 2017. ISBN-10: 88-7260-244-7; ISBN-13:9-788872-602447/ ISBN-10:88-7260-263-8; ISBN-13:9-788872-602638;

Eu, Arhimede. Codicele pierdut”, Editura Muzeul Literaturii Române, București & Cinecittà 3, Roma, 2018, p.68-69. ISBN: 978-973-167-462-9

<https://www.unilibro.it/libro/muscia-vittorio/io-archimede-codice-perduto-ediz-bilingue-dvd-audio/9788872602447>