

LISTA DE LUCRĂRI

LISTA CELOR MAI RELEVANTE 10 LUCRĂRI ȘTIINȚIFICE PUBLICATE ÎN DOMENIUL TEZEI DE ABILITARE

1. **Radulescu-Grad M. E.**, Popa S., Boran S. Moșoarcă G., Synthesis, Characterization and CIEL*a*b*color space study of two eco-friendly stilbene azoic dyes, *Studia Universitatis Babes-Bolyai Chemia*, **2026**, 71(1), 19-30, WOS:001733206300002, <https://doi.org/10.24193/subbchem.2026.1.02>
2. **Radulescu-Grad M. E.**, Boran S., Mosoarca G., Popa S., Analysis and color studies of some symmetrically structured disazo-stilbene dyes based on non-genotoxic, 4,4'-diaminostilbene-2,2'-disulfonic acid, *Processes*, **14**, 1295, **2026**, WOS:001749606600001, <https://doi.org/10.3390/pr14081295>
3. **Radulescu-Grad M. E.**, Popa S., Mosoarca G., Gherman V. D., Investigation of Low-Toxicity Azoic Direct Dyes Synthesized from 4,4'-Diaminobenzanilide, *Processes*, **13**, 2505, **2025**, WOS:001557590700001, <https://doi.org/10.3390/pr13082505>
4. Costea L., **Radulescu-Grad M.E.**, Fafilek G., Electrochemical and density functional theory studies of some newly synthesized azo-stilbene chromogenic structures, *Monatshefte für Chemie*, **2024**, 155:493–505, WOS:001182233700001, <https://doi.org/10.1007/s00706-024-03189-1>
5. **Radulescu-Grad M.E.**, Visa A., Milea M.S., Lazau R.I., Popa S., Funar-Timofei S., Synthesis, spectral characterization, and theoretical investigations of a new azo-stilbene dye for acrylic resins, *Journal of Molecular Structure*, **2020**, 1217, 128380. WOS:000544054000013, <https://doi.org/10.1016/j.molstruc.2020.128380>
6. **Grad M.E.**, Simu G.M., Muntean S.G., Ilia G., Synthesis, characterization and colour determination using CIELAB colour space of stilbene dyes, *Journal of the Iranian Chemical Society*, **2013**, 10(4), 807-816, WOS:000319514200022, <https://doi.org/10.1007/s13738-012-0216-y>
7. **M.E.Grad**, S.G. Muntean, G.M. Simu, Gh. Ilia, Dye derived from 4,4'-diaminobenzanilide. Colour evaluation, *Proceedings of the 18th International Symposium on Analytical and Environmental Problems, with Special Emphasis on Heavy Metal ions as Contaminants*, 24 Sept. **2012** Szeged, Hungary, p.182-185, ISBN:978-963-306-165-7.
8. Atchana J., Simu G.M., Hora S.G., **Grad M.E.**, Tchatchueng J.B., Benguellah B.L., Kamga R., Removal of some disazo compounds from water by photocatalysis, *Journal of Food Agriculture & Environment*, **2011**, 9(1), 457-460, WOS:000288779300089, <https://doi.org/10.1234/4.2011.1987>
9. Simu, G.M., Dragomirescu, A., **Grad, M.E.**, Savoiu-Blaint, G., Andoni, M., Bals, G., Azo compounds with antimicrobial activity, in *Proceedings of the 14th International Electronic Conference on Synthetic Organic Chemistry*, 1–30 November **2010**, MDPI: Basel, Switzerland, <https://doi.org/10.3390/ecsoc-14-00492>
10. Simu, G.M., Dragomirescu, A., **Grad, M.E.**, Andoni, M., Synthesis and In Vivo Imagistic Skin Evaluation of a New Disazo Dye Derived from 4,4'-Diaminostilbene-2,2'-Disulfonic Acid, in *Proceedings of the 13th International Electronic Conference on Synthetic Organic Chemistry*, 1–30 November **2009**, MDPI: Basel, Switzerland, <https://doi.org/10.3390/ecsoc-13-00209>

TEZA DE DOCTORAT

Grad M.E. Contribuții la sinteza unor coloranți direcți nebenzidinici, Editura Politehnica, Timișoara, seria 4, inginerie chimică nr.24 , **2009**, 217 pag., ISSN 1842-8223, ISBN 978-973-625-835-0

ARTICOLE IN EXTENSO PUBLICATE ÎN REVISTE CU FACTOR DE IMPACT
INDEXATE IN BAZA DE DATE WEB OF SCIENCE - CORE COLLECTION

1. Simu G., Funar-Timofei S., Kurunczi L., Hora S., Schmidt W., **Grad M.**, Synthesis and study of adsorption isotherms of a tris-azo direct dye on cotton fibres. *Cellulose Chemistry and Technology*, **2004**, 38, 409-4016. WOS:000229625200010
2. Simu G.M., Hora S.G., **Grad M.E.**, Sisu E.N., Direct dyes derived from 4,4'-diaminobenzanilide: Synthesis, physicochemical properties and colouristic evaluation of some new trisazo direct dyes, *Revista de Chimie*, **2004**, 55(11), 873-876. WOS:000225717300012
3. Simu G.M., Hora S.G., **Grad M.E.**, Sisu E.N., Direct dyes, derivatives from 4,4'-diaminobenzanilide. Synthesis, physicochemical properties and colouristic evaluation of some new trisazo direct dyes, *Revue Romaine de Chimie*, **2005**, 50(2), 113-117. WOS:000230799000004
4. Simu G.M., Muntean S.G., **Grad M.E.**, Chicu S.A., Sisu E.N.V., Direct derivative dyes of 4,4-diaminobenzanilide III. Obtaining, characterization and toxicity evaluation of some new symmetrical disazo dyes, *Revista de Chimie*, **2006**, 57(10), 1038-1040. WOS:000242700500011
5. **Grad M.E.**, Simu G.M., Muntean S.G., Lupea A.X., Synthesis, characterization and colour study inside the CIELAB colour space of some derivatives symmetric disazo dyes of 4,4'-diaminostilbene-2,2'-disulfonic acid, *Revista de Chimie*, **2007**, 58(2), 214-217. WOS:000245736800019
6. **Grad M.E.**, Raditoiu V., Wagner L., Raditoiu A., Lupea A.X., Sinteza si caraderizarea unor cromogeni derivati ai acidului 4,4'-diaminostiben-2,2'-disulfonic, *Revista de Chimie*, **2007**, 58(8), 786-790. WOS:000249456200018
7. **Grad M.E.**, Simu G.M., Lupea A.X., Tomas S., Pascariu A., Synthesis and colour assessment of some new stilbene azo dyes, *Revue Roumaine de Chimie*, **2008**, 53(2), 107-111. WOS:000260534300003
8. **Grad M.E.**, Raditoiu V., Popa S., Jurcau D., Lupea A.X., Colour and Tinctorial Behaviour of Some Chromogens Derivatives of 4,4'-diaminostilbene-2,2'-disulphonic Acid, *Revista de Chimie*, **2008**, 59(12), 1355-1360. WOS:000261704800016
9. Atchana J., Simu G.M., Hora S.G., **Grad M.E.**, Tchatchueng J.B., Benguella B.L., Kamga R., Removal of some disazo compounds from water by photocatalysis, *Journal of Food Agriculture & Environment*, **2011**, 9(1), 457-460, WOS:000288779300089
10. Muntean S.G., Paska O., Coseri S., Simu G.M., **Grad M.E.**, Ilia G., Evaluation of a functionalized copolymer as adsorbent on direct dyes removal process: Kinetics and equilibrium studies, *Journal of Applied Polymer Science*, **2013**, 127(6), 4409-4421. WOS:000312940400026
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12. Muntean S.G., **Radulescu-Grad M.E.**, Sfârloaga P., Dye adsorbed on copolymer, possible specific sorbent for metal ions removal, *RSC Advances*, **2014**, 4(52), 27354-27362. WOS:000338643500035
13. Muntean S.G., Todea A., **Radulescu-Grad M.E.**, Popa A., Decontamination of colored wastewater using synthetic sorbents, *Pure and Applied Chemistry*, **2014**, 86(11), 1771-1780. WOS:000345063300014
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15. **Radulescu-Grad M.E.**, Visa A., Milea M.S., Lazau R.I., Popa S., Funar-Timofei S., Synthesis, spectral characterization, and theoretical investigations of a new azo-stilbene dye for acrylic resins, *Journal of Molecular Structure*, **2020**, 1217, 128380. WOS:000544054000013
16. Popa S., **Radulescu-Grad M.E.**, Perdivara A., Mosoarca G., Aspects regarding colour fastness and adsorption studies of a new azo-stilbene dye for acrylic resins, *Scientific Reports*, **2021**, 11(1), 5889. WOS:000630515100013
17. Mosoarca G., Vancea C., Popa S., Boran S., **Radulescu-Grad M.E.**, Crystal violet removal from aqueous solutions using dry bean pods husks powder - optimization and desorption studies, *Ovidius University Annals of Chemistry*, **2022**, 33(2), 129-134. WOS:000843699700001
18. Mosoarca G., Vancea C., Popa S., **Radulescu-Grad M.E.**, Boran S., Powdered adsorbent obtained from bathurst burr biomass for methylene blue removal from aqueous solutions, *Journal of The Serbian Chemical Society*, **2023**, 88(3), 327–341. WOS:000835424700001
19. Mosoarca G., Vancea C., Popa S., Boran S., Negrea P., **Radulescu-Grad M.E.**, Studies Regarding Copper Ions Removal from Wastewaters Using Oak Wood Ash and the Effect of Exhausted Ash as Soil Amendment, *Studia Universitatis Babes-Bolyai Chemia*, **2023**, 68(1), 193-209. WOS:000973917200012
20. Costea L.V., **Radulescu-Grad M.E.**, Fafilek G., Electrochemical and density functional theory studies of some newly synthesized azo-stilbene chromogenic structures, *Monatshefte für Chemie*, **2024**, 155(5), 493-505. WOS:001182233700001
21. Mosoarca G., Vancea C., Popa S., **Radulescu-Grad M.E.**, Dan M., Tanasie C., Boran S., Adsorption of Methylene Blue onto Environmentally Friendly Lignocellulosic Material Obtained from Mature Coltsfoot (*Tussilago farfara*) Leaves, *Polymers*, **2025**, 17(11), 1549. WOS:001505718700001
22. **Radulescu-Grad M.E.**, Popa S., Mosoarca G., Gherman V.D., Investigation of Low-Toxicity Azoic Direct Dyes Synthesized from 4,4'-Diaminobenzanilide, *Processes*, **2025**, 13(18), 2505. WOS:001557590700001
23. **Radulescu-Grad M.E.**, Popa S., Boran S., Mosoarca G., Synthesis, Characterization and CIEL*a*b* Color Space Study of Two Eco-Friendly Direct Stilbene Azoic Dyes, *Studia Universitatis Babes-Bolyai Chemia*, **2026**, 71(1), 19-30. WOS:001733206300002
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ARTICOLE IN EXTENSO, PUBLICATE ÎN REVISTELE ȘI VOLUMELE UNOR
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1. G. Simu, S. Timofei, L. Kurunzi, E. Dulău, **M. Grad**, C. Bologa, Application of the multimodal adsorption by cotton of some benzidine-free direct dyes, *Annals of West University, Timișoara, Series of Chemistry*, **1999**, 8, 31-36, ISSN:1224-9513.
2. G. Simu, S., Hora, **M. Grad**, L. Bugariu, Synthesis and colouristic properties of a tetrakis azo direct dye derived from 4,4'-diaminobenzanilide, *Annals of West University, Timișoara, Series of Chemistry*, **2002**, 11 (1), 43-48, ISSN:1224-9513
3. Simu, G., Funar-Timofei, S., Kurunczi, L., Hora, S., **Grad, M.**, Bugariu, L., The Influence of Temperature on the Thermodynamics of Direct Dye Adsorption on Cotton, *Annals of West University, Timișoara, Series of Chemistry*, **2003**, 12(3), 1059-1066, ISSN:1224-9513
4. Hora, S., Simu, G., Rad, R., Popa, A., **Grad, M.**, Acid orange dye attached to copolymer (styrene-divinylbenzene) functionalized with quaternary phosphonium salts, for Zn(II) ions removal, *Chem. Bull. "Politehnica" Univ. (Timișoara), Romania, Ser. Chem. Environ. Eng.*, **2004**, 49, 63(1-2), 35-38, ISSN:1224-6018
5. **Grad, M.**, Simu G., Hora, S., Chicu, S.A., Sisu, E., Synthesis and colouristic properties of an orange disazo direct dye free of benzidine, *Chem. Bull. "Politehnica" Univ. (Timișoara), Romania, Ser. Chem. Environ. Eng.*, **2004**, 49, 63(1-2), 31-34, ISSN:1224-6018
6. Simu, G., Funar-Timofei, S., Hora, S. **Grad, M.**, Application of linear regression analysis in the evaluation of the thermodynamic parameters of cellulose fibres dyeing with azo direct dyes, *Chem. Bull. "Politehnica" Univ. (Timișoara), Romania, Ser. Chem. Environ. Eng.*, **2004**, 49, (63), (1-2), 39-42, ISSN:1224-6018
7. Hora, S., Simu, G., **Grad, M.**, Direct, non-Benzidinic Azo Dyes. Synthesis and Characterization, *Annals of West University, Timișoara, Series of Chemistry*, **2004**, 13(1), 51-56, ISSN:1224-9513
8. **Grad, M.**, Simu, G., Hora, S., Synthesis in Non-Aqueous Medium of Some Symmetrical Disazo Direct Dyes Derived from 4,4'-Diaminostilbene-2,2'-Disulphonic Acid, *Annals of West University, Timișoara, Series of Chemistry*, **2004**, 13(1), 27-32, ISSN:1224-9513
9. Simu, G.; Hora, S.; **Grad, M.** Trisazo Direct Black Dyes Free of Benzidine, *Annals of West University, Timișoara, Series of Chemistry*, **2004**, 13(1), 45-50, ISSN:1224-9513
10. **Grad M.E.**, Popa S., Spectrophotometric study in the CIELAB uniform color space of symmetrical disazoic stilbene dye, *Scientific and Technical Bulletin of the „Aurel Vlaicu” University of Arad. Series: Chemistry, Food Science & Engineering*, **2006**, 11, 42-45, 1582-View of Vol. 11 (2006): Science and Technical Bulletin, ifi Series: Chemistry, Food Science and Engineering
11. **Grad, M.** Simu, G. Tomici, S. Lupea, A.X., Disazo symmetrical dyes derived from 4,4'-diaminostilben-2,2'-disulphonic acid. Colour analysis. (Coloranți disazoici simetrici derivați ai acidului 4,4'-diaminostilben-2,2'-disulfonic, Studiu de culoare), *Studia Universitatis Seria Stiin[ele Vieții, V. Goldiș Arad*, **2007**, 17/1, 75-78, ISSN: 1584-2363
12. **Rădulescu-Grad M.E.**, Muntean S.G., Todea A., Verdeș O., Andelesc A., Synthesis and characterization of new metal complex, *Chem. Bull “Politehnica” Univ. (Timișoara), Romania*, **2015**, 60(74), 2, 37-40, ISSN:1224-6018, [http://chemicalbulletin.upt.ro/admin/articole/59500art_2\(37-40\).pdf](http://chemicalbulletin.upt.ro/admin/articole/59500art_2(37-40).pdf)
13. S.G. Muntean, M.A. Nistor, A.A. Andelesc, **M.E. Rădulescu-Grad**, R. Ianos., Magnetite nanocomposite, application for decontamination of wastewaters, *Chem. Bull “Politehnica” Univ. (Timișoara), Romania*, **2016**, 61(75), 2, 66-71, ISSN:1224-6018, [http://chemicalbulletin.upt.ro/admin/articole/93362art_5\(66-11\).pdf](http://chemicalbulletin.upt.ro/admin/articole/93362art_5(66-11).pdf)

- 14. Radulescu-Grad, M.E.**, Vlase, G., Ilia, G., Andelescu, A., Popa, S., Lupea, A.-X., Amido black 10b dye copper complex-synthesis, characterization and color analysis, *Revista de Chimie*, **2020**, 71(8), 27-38, <https://doi.org/10.37358/RC.20.8.8276>
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- 16. Mosoarca, G., Vancea C., Popa S., Boran S., Rădulescu-Grad, M.E.**, Equilibrium study regarding crystal violet dye adsorption on raspberry leaves powder, *The Annals of "Dunarea de jos" University of Galati Fascicle IX Metallurgy and Material Science (Galați), Romania*, **2022**, 45(2), 38-43, ISSN: 2668-4748, <https://doi.org/10.35219/mms.2022.2.07>

ARTICOLE IN EXTENSO, PUBLICATE ÎN VOLUMELE UNOR MANIFESTĂRI ȘTIINȚIFICE INTERNAȚIONALE DESFĂȘURATE ÎN STRĂINĂTATE

- 1.Grad, M.E.**, Simu, G.M.; Muntean, S.G.; Lupea, A.X.: Physico-Chemical Properties and Trichromaticity Colorimetry of some New Azo Stilbene Dyes, *Proceedings of the 14th International Symposium on Analytical and Environmental Problems*, 24 September **2007**, Szeged, Hungary, p. 344-347, ISBN 978-963-87720-0-8
- 2. Simu, G.M.; Chicu, A.; Muntean, S.G.; Grad, M.**: Synthesis, Physico-chemical Properties and Toxicity Evaluation of Some Disazo Derivatives, *Proceedings of the 14th International Symposium on Analytical and Environmental Problems*, 24 September **2007**, Szeged, Hungary, p. 192-195, ISBN 978-963-87720-0-8
- 3.Simu, G.M.; Muntean, S.G.; Grad, M.; Agrigoroaie, G.**: Experimental Study on the Correlation Between Direct Azo Dye Affinity for Cellulosic Substrate and Chromatographic Values, *Proceedings of the 15th International Symposium on Analytical and Environmental Problems*, 22 September **2008**, Szeged, Hungary, p. 254-257, ISBN 978-963-482-903-4
- 4. Grad, M.E.**; Simu, G.M.; Milea, M.; Pădure, M.A.; Lupea, A.X.: Synthesis, Physico-Chemical Properties and Colour Assesment of Some New Stilbene Azo Dyes, *Proceedings of the 15th International Symposium on Analytical and Environmental Problems*, 22 September **2008**, Szeged, Hungary, p. 242-245, ISBN 978-963-482-903-4
- 5. Muntean, S.G.; Grad, M.E.**; Simu, G.M.: Spectroscopic and mathematic Studies of the Agregation of a Direct Dye Derived from 4,4'-Diaminostilbene-2,2'- Disulfonic Acid, *Proceedings of the 16th International Symposium on Analytical and Environmental Problems*, 28 September **2009**, Szeged, Hungary, p. 309-312, ISBN 978-963-482-975-1
- 6.Grad, M.E.**, Simu, G.M., Lupea, A.X., Azo Stilbene Dyes. Colorimetric Analysis, *Proceedings of the 16th International Symposium on Analytical and Environmental Problems*, 28 September **2009**, Szeged, Hungary, p.349-352, ISBN:978-963-482-975-1
- 7. Grad, M.E.**, Muntean, S.G., Simu, G.M., Colour Expression in the CIELAB Colour Scale of New Stilbene Dyes, *Proceedings of the 17th International Symposium on Analytical and Environmental Problems*, 19 september **2011**, Szeged, Hungary, p.351-354. ISBN:978-963-306-146-6
- 8. Simu, G.M.; Muntean, S.G.; Grad, M.E.**: Experimental Study of the Interaction of one Local Anesthetic with a Cellulose Type Support, *Proccedings of the 17th International Symposium on Analytical and Environmental Problems*, 19 september **2011**, Szeged, Hungary, p. 355-358, ISBN 978-963-306-146-6
- 9. Muntean, S.G., Grad, M.E.**, Simu, G.M., Does an Aromatic Chloride Substitute Position Influence the Aggregation Properties of Direct Dyes?, *Proceedings of the 17th International*

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10.M.E.Grad, S.G. Muntean, G.M. Simu, Gh. Ilia, Dye derived from 4,4'-diaminobenzanilide. Colour evaluation, *Proceedings of the 18th International Symposium on Analytical and Environmental Problems, with Special Emphasis on Heavy Metal ions as Contaminants*, 24 Sept. **2012** Szeged, Hungary, p.182-185, ISBN:978-963-306-165-7

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13.Rădulescu-Grad M.E., Funar-Timofei Simona, Uv/Vis spectral simulation of a symmetrical diazo direct dye by the Hartree-Fock approximation, *Proceedings of the 26st International Symposium on Analytical and Environmental Problems*, 23-24 Nov., **2020**, Szeged, Hungary, p.133-137, ISBN: 978-963-306-771-0

ARTICOLE IN EXTENSO PUBLICATE ÎN VOLUMELE UNOR MANIFESTĂRI ȘTIINȚIFICE INTERNAȚIONALE DESFĂȘURATE ÎN ROMÂNIA

1. Hora, G. Simu, S. Funar-Timofei, **M. Grad**, L. Bugariu, Synthesis and study of adsorption isotherms of a trisazoic direct dye on cotton fibre, *Proceedings of the 4rd Regional Symposium Young People and the Multidisciplinary Research Hungary-Romania-Yugoslavia*, Ed. Sudura, Timisoara, **2002**, p.474-479, ISBN 973-8359-10-4.

2. Simu, G.; Dragomirescu, A., **Grad M.E.**; Andoni, M.: New Azo Dyes Based on 4,4'-Diaminostilbene-2,2'-Disulfonic Acid. Synthesis and Evaluation of Their Human Skin Tolerance. *Proceedings of the 3th Edition of the Symposium with international participation "New Trends and Strategies in the Chemistry of Advanced Materials"*, 5-6 November **2009**, Timișoara, România, **2009**, p.50-53, ISSN 2065-0760

3. G. Balș, **M. E. Grad**, O. Pașka, G.M. Simu, Preliminary results on the preparation of a γ -cyclodextrin inclusion complex with a disazo dye, *Proceedings of the 3th Edition of the Symposium with international participation "New Trends and Strategies in the Chemistry of Advanced Materials"*, 5-6 November **2009**, Timișoara, România p.93-96, ISSN 2065-0760

4. **M.E. Grad**, G.M. Simu, S.G. Muntean, The analysis of a new direct based dye on non-mutagenic 4,4'-diaminostilbene-2,2'-disulphonic acid by means of tri-stimulus colorimetry, *Proceedings of the 3th Edition of the Symposium with international participation "New Trends and Strategies in the Chemistry of Advanced Materials"*, 5-6 November **2009**, Timișoara, România p.85-88, ISSN 2065-0760

5. S.G. Muntean, **M. E. Grad**, Spectroscopic and mathematical studies of the aggregation of a direct dye derived from 4,4'-diaminostilbene-2,2'-disulphonic acid, *Proceedings of the 3th Edition of the Symposium with international participation "New Trends and Strategies in the Chemistry of Advanced Materials"*, 5-6 November **2009**, Timișoara, România, p.77-80, ISSN 2065-0760

6. Balș, G. Simu, G.M. **Grad**, **M.E.**, Muntean, S.G. Paska, O., Preparation and Primary characterization of an Encapsulated Disazo Stilbenic Dye in γ -Cyclodextrin, *Proceedings of*

the 4th Edition of the Symposium with international participation "New Trends and Strategies in the Chemistry of Advanced Materials", 4-5 November **2010**, Timișoara, România, p.180-183, ISSN 2065-0760.

7. Grad, M.E. Simu, G.M., Muntean, S.G. Balș, G., Chromatic Characterization of a New Azo-Stilbene Compound, *Proceedings of the 4th Edition of the Symposium with international participation "New Trends and Strategies in the Chemistry of Advanced Materials"*, 4-5 November **2010**, Timișoara, România, p.120-123, ISSN 2065-0760.

8. Atchana, J. Simu, G.M. Muntean, S.G., **Grad, M.E.**, Paska, O., Tchatchueng, J.B., Benguellah, B.L., Kamga, R. Kinetics of the Photocatalytic Removal of Some Azo Compounds From Aqueous Solutions, *Proceedings of the 4th Edition of the Symposium with international participation "New Trends and Strategies in the Chemistry of Advanced Materials"*, 4-5 November **2010**, Timișoara, România, p.70-74, ISSN 2065-0760.

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Semnătura candidat

15.06.2026

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