

Laboratorul 3: Laboratorul de Cinetica Chimica
Chemical Kinetics Department

2022

Lucrari publicate in reviste clasificate ISI/Papers in ISI ranked journals

V. Giurcan, M. Mitu, C. Movileanu, D. Razus, D. Oancea, Numerical study of laminar flame propagation in $\text{CH}_4\text{-N}_2\text{O-N}_2$ at moderate pressures and temperatures, Journal "Fizika Goreniya i Vzryva" (Combustion, Explosion, and Shock Waves), (Issue 1) 2022. (IF =0.946)

2021

Lucrari publicate in reviste clasificate ISI/Papers in ISI ranked journals

G. Patrinoiu, J.M. Calderon-Moreno, S. Somacescu, A. Musuc, T. Spataru, P. Ionita, O. Carp, Rational Functionalization Towards Redox-Active TEMPO Stable Free-Radical-Hydrochar Composites, ChemSusChem, 2021, 14(9), 2042-2049. (IF = 8.928).

M. Tudose, E.M. Anghel, E.N. Hristea, M. Voicescu, S. Somacescu, D.C. Culita, A.M. Musuc, F. Dumitrascu, A. Hanganu, A. Kuncser, F.L. Zorila, M. Alexandru, M.A. Acasandrei, D.I. Savu, Benzofurazan derivatives modified graphene oxide nanocomposite: Physico-chemical characterization and interaction with bacterial and tumoral cells, Materials Science and Engineering C, 2021, 123, 112028. (FI = 7.328)

M. Filip, G.Petcu, E. M. Anghel, S. Petrescu, B. Trica, P. Osiceanu, N. Stanica, I. Atkinson, C. Munteanu, M. Mureseanu, V. Parvulescu, FeTi- SBA-15 magnetic nanocomposites with photocatalytic properties, Catalysis Today 366 (2021) 10-19 (IF = 6.766)

A. M. Musuc, V. Anuta, I. Atkinson, I. Sarbu, V. T. Popa, C. Munteanu, C. Mircioiu, E. A. Ozon, George M. Nitulescu, M. A. Mitu, Formulation of chewable tablets containing carbamazepine- β -cyclodextrin inclusion complex and F-melt disintegration excipient: the mathematical modeling of the release kinetics of carbamazepine, Pharmaceutics, 2021, 13(6), 915; (IF = 6.321)

A.V. Paduraru, A.M. Musuc, O.C. Oprea, R. Trusca, F. Iordache, B.S.Vasile, E. Andronescu, Synthesis and Characterization of Photoluminescent Ce(III) and Ce(IV) Substituted Hydroxyapatite Nanomaterials by Co-Precipitation Method: Cytotoxicity and Biocompatibility Evaluation. Nanomaterials 2021, 11, 1911. (IF = 5.076)

A. Sandulescu, C. Anastasescu, F. Papa, M. Raciulete, A. Vasile, T. Spataru, M. Scarisoreanu, C. Fleaca, C. N. Mihailescu, V. S. Teodorescu, N. Spataru, M. Zaharescu, I. Balint, Advancements on Basic Working Principles of Photo-Driven Oxidative Degradation of Organic Substrates over Pristine and Noble Metal-Modified TiO_2 . Model Case of Phenol Photo Oxidation, Catalysts, 11, 487, (2021) (IF = 4.146)

C. Anastasescu, I.C. Gifu, C. Negrila, R. Socoteanu, I. Atkinson, J.M. Calderon-Moreno, C. Munteanu, G. Plavan, S.A. Strungaru, B. Cheatham, A.-V. Malaroiu, V.S. Teodorescu, M. Anastasescu, M. Zaharescu, I. Balint, V. Lazarescu, Morpho-structural properties of ZnSe, TiO_2 -ZnSe materials and enzymatic activity of their bioinorganic hybrids with lysozyme, Materials Science and Engineering B, 272, 2021, 115350 (IF = 4.051)

C. Movileanu, V. Giurcan, M. Mitu, D. M. Razus, D. Oancea, Ignition by low-voltage electric discharges of

diluted and undiluted C₃H₈-air mixtures, *Ind. Eng. Chem. Res.*, <https://doi.org/10.1021/acs.iecr.1c02306>, accepted (IF = 3.720).

M. Mitu, E. Brandes, S. Zakel, W. Hirsch, Explosion regions and limiting oxygen concentrations of methyl propionate, methyl acetate, dimethyl carbonate with air and inert gas mixtures, *J. Loss Prev. Process Ind.*, 69, 104384, (2021). (IF = 3.660)

M. Mitu, T. Stolz, E. Brandes, S. Zakel, Burning and explosion behaviour of ethanol/water - sucrose mixtures, *J. Loss Prev. Process Ind.*, 71, 104451, (2021). (IF = 3.660)

F. Khoshnaw, C. Marinescu, A. Sofronia, C. Munteanu, M. Marcu, L. E. Barbulescu, C. Ciobota, E. M. Cojocaru, S. Tanasescu, A. Paraschiv, Microstructural and thermoanalytical characterization of super duplex stainless steel - UNS S32760-F55 *Materials Today Communications*, 28, 2021, 102644, (IF = 3.383)

M. Mitu, V. Giurcan, C. Movileanu, D. Razus, D. Oancea, Propagation of CH₄-N₂O-N₂ flames in a closed spherical vessel, *Processes* 9(5), 851 (2021). (IF = 2.847)

T. Balaci, B. Velescu, O. Karampelas, A. M. Musuc, G. M. Nițulescu, E. A. Ozon, G. Nițulescu, C. E. Gîrd, C. Fița, D. Lupuliasa, Physico-chemical and pharmaco-technical characterization of inclusion complexes formed by rutoside with β-cyclodextrin and hydroxypropyl-β-cyclodextrin used to develop solid dosage forms, *Processes*, 9(1), 26, 2021. (IF = 2.847)

V. Giurcan, C. Movileanu, A.M. Musuc, M. Mitu, Laminar burning velocity of biogas-containing mixtures. A literature review, *Processes* 9(6), 966 (2021). (IF = 2.847)

V. Giurcan, M. Mitu, C. Movileanu, D. Razus, D. Oancea, Propagation velocity of flames in inert-diluted stoichiometric propane-air mixture: pressure and temperature dependence, *Processes* 9(6), 997 (2021). (IF = 2.847)

M. Mitu, S. Zakel, E. Brandes, W. Hirsch, Ignition Temperature of Combustible Liquids in Mixtures of Air with Nitrous Oxide, *Fire and Materials*, 1-5 (2021). (IF = 2.407)

I. Dascalu, J. M. Calderon-Moreno, P. Osiceanu, V. Bratan, C. Hornoiu, S. Somacescu, Amorphous ZnO modified anatase TiO₂ thin films templated by tripropylamine and their electrical properties, *Thin Solid Films*, 2021, Volume 729, 138697 (IF = 2.183)

A.M.Musuc, D.Oancea, The structure-activity relationships from DSC data, *Rev. Roum. Chim.* 66(2) 2021 161-166 (IF = 0.278)

D. Razus, M. Mitu, V. Giurcan, C. Movileanu, Laminar flame propagation in nitrogen-diluted stoichiometric H₂-N₂O mixtures - a numerical study, *Rev. Roum. Chim.*, 66(3) 2021. doi: 10.33224/rch.2021.66.3.05 (IF = 0.278)

D. Negoescu, D. Culita, I. Atkinson, V. Bratan, S. Petrescu, V. Parvulescu, Ti-SBA-15 mesoporous photocatalysts modified with lanthanides for degradation of Brilliant Blue FCF dye in aqueous solution, *Rev. Roum. Chim.*, 66(3) 2021 287-293 (IF = 0.278)

D. Negoescu, P. Oancea, A. Răducan, M. Puiu, Degradation Of Brilliant Blue Fcf Through Photolysis, Irradiation And Photo-Fenton Processes: A Comparative Study, *Rev. Roum. Chim.*, 65(2) 2021 (IF = 0.278)

N. I. Ionescu, V. Bratan, Gas sorption phenomena solid surfaces, *Rev. Roum. Chim.*, 66(3) 2021 239-242 (IF = 0.278)

2020
Lista carti

P. Chesler, M.C. Vladut, *Senzori chimici rezistivi*, Editura Berg, ISBN 978-606-9036-60-0

Lucrari publicate in reviste clasificate ISI/Papers in ISI ranked journals

Lete, C., Chelu, M., Marin, M., Mihaiu, S., Preda, S., Anastasescu, M., Calderon-Moreno, J.M., Dinulescu, S., Moldovan, C., Gartner, M., Nitrite electrochemical sensing platform based on tin oxide films, *Sensors and Actuators, B: Chemical* (IF =7.46)

M. Chelu, H. Stroescu, M. Anastasescu, J.M. Calderon-Moreno, S. Preda, M. Stoica, Z. Fogarassy, P. Petrik, M. Gheorghe, C. Parvulescu, C. Brasoveanu, A. Dinescu, C. Moldovan, M. Gartner, High-quality PMMA/ZnO NWs piezoelectric coating on rigid and flexible metallic substrates, *Applied Surface Science*, 529, 1471352020 (IF = 6.707)

C. Movileanu, M. Mitu, V. Giurcan, D. Razus, D. Oancea Quenching distances, minimum ignition energies and related properties of propane-air-diluent mixtures, *Fuel*, 274, 2020 117836, (IF = 6.609)

A. M. Musuc, V. Anuta, I. Atkinson, V. T. Popa, I. Sarbu, C. Mircioiu, G.A. Abdalrb, M. A. Mitu, E. Adriana Ozon, Development and Characterization of Orally Disintegrating Tablets Containing a Captopril-Cyclodextrin Complex, *Pharmaceutics*, 12(8), 2020, 744. (IF = 6.321)

G. Patrinoiu, J.R. Rodriguez, Y.Wang, R. Birjega, P. Osiceanu, A.M. Musuc, Z. Qi, H. Wang, Haiyan; V. G. Pol, J.M. Calderon-Moreno, O. Carp. Versatile by design: Hollow Co₃O₄ architectures for superior lithium storage prepared by alternative green Pechini method, *APPLIED SURFACE SCIENCE* Volume: 510 Article Number: 2020, 145431 (IF = 6.182)

S. Petrescu, S. Avramescu, A.M.Musuc, F. Neatu, M. Florea, P. Ionita, Crown ether functionalized graphene oxide for metal ions sequestration, *Mat. Res. Bull.* 122, 2020, 110643, (IF = 4.641)

A. M. Musuc, L. Birzan, M. Cristea, D. Razus, A. Razus, D. Oancea, A DSC study of new compounds based on (E)-3-(azulen-1-ylidiazetyl)-1,2,5-oxadiazole *J. Therm. Anal. Calorim.*, 2020, 10.1007/s10973-020-10164-5 (IF = 4.626)

V. Bratan, P. Chesler, C. Hornoiu, M. Scurtu, G. Postole, P. Pietrzyk, A. Gervasini, A. Auroux, N. I. Ionescu, In situ electrical conductivity study of Pt-impregnated VO_x/γ-Al₂O₃ catalysts in propene deep oxidation, *J Mater Sci* (2020) 55:10466–10481 (FI = 4.22)

M. Mitu, V. Giurcan, D. Razus, D. Oancea, Influence of initial pressure and vessel's geometry on deflagration of stoichiometric methane-air mixture in small-scale closed vessels, *Energy Fuels*, 34(3), 2020, 3828-3835 (IF = 3.605)

M. Pavel, F. Papa, C. Negrila, V. Bratan, C. Munteanu, J. Pandeale-Cusu, D. Culita, I. Atkinson, I. Balint, Strategy for modifying layered perovskites toward efficient solar light-driven photocatalysts for removal of chlorinated pollutants, *Catalysts* 2020, 10(6), 637 (IF =3.520)

N. Stanica, P. Chesler, C. Hornoiu, C. Radu, S.-H. Suh, Monte Carlo modeling of bulk Gd, *Journal of Physics and Chemistry of Solids* 146 (2020) 109571, (FI = 3.442)

J. Pandeale Cusu, A. M. Musuc, D. Oancea, Thermal decomposition of new aldehyde-2, 4-dinitrophenylhydrazone: kinetic studies and thermal hazard predictions, *Thermochimica Acta*, 689, 2020, 178610 (IF = 3.115)

V. Giurcan, M. Mitu, D. Razus, C. Movileanu, D. Oancea, Additive influence on propagation parameters of propane-air mixtures, *Fire Safety Journal*, 111, 2020, 102939 (IF = 2.295)

M. G. Parvan, G. Voicu, O. C. Mocioiu, C. Hornoiu, Cementitious composites containing barium titanate for obtaining of some smart structures *Revista Romana de Materiale / Romanian Journal of Materials* 2020, 50(3), 307 – 313, (IF = 0.542)

V. Munteanu, M. Mitu, D. Razus, D. Oancea, Kinetics of isothermal ignition and combustion of some oxygenated VOCs on platinum wire, *Rev. Roum. Chim.*, 65(7-8), 2020, 693-698. (IF = 0.430)

D. Razus, M. Mitu, G. Giurcan, C. Movileanu, D. Oancea, Numerical study of pressure and composition influence on laminar flame propagation in nitrogen-diluted H₂-O₂ mixtures, *Rev. Roum. Chim.*, 65(6), 2020, 529-537. (IF=0.278)

N.I. Ionescu, V. Bratan Concerning the logarithmic law used in adsorption-desorption of solid-gas reactions *Rev. Roum. Chim* 65 (7-8), 2020, 707-709, (IF = 0.278)

2019

Lista capitole de carte

A.M. Musuc, V.T.Popa, *Rosmarinus officinalis*: A Natural Additive in Active and Biodegradable Food Packaging, capitol carte, *Agricultural Research Updates Vol. 25*, Editura Nova Science Publishers, New York, 2019, 91-124.

Lucrari publicate in reviste clasificate ISI/Papers in ISI ranked journals

G. Patrinoiu, R. Dumitru, D.C. Culita, C. Munteanu, R. Birjega, J.M. Calderon-Moreno, A. Cucos, D. Pelinescu, M.C. Chifiriuc, C. Bleotu, O. Carp, Self-assembled zinc oxide hierarchical structures with enhanced antibacterial properties from stacked chain-like zinc oxalate compounds, *Journal of colloid and interface science*, 552, 258-270 (2019); (IF = 6.361)

S. Preda, C. Anastasescu, I. Balint, P. Umek, M. Sluban, C.C. Negrila, D.G. Angelescu, V. Bratan, A. Rusu, M. Zaharescu, Charge separation and ROS generation on tubular sodium titanates exposed to simulated solar light, *Applied Surface Science*, 470, pp. 1053-1063 (IF = 6.182)

C. Bradu, C. Căpăț, F. Papa, L. Frunza, E.A. Olaru, G. Crini, N. Morin-Crini, É. Euvrard, I. Balint, I. Zgura, C. Munteanu, Pd-Cu catalysts supported on anion exchange resin for the simultaneous catalytic reduction of nitrate

ions and reductive dehalogenation of organochlorinated pollutants from water, *Applied Catalysis A: General*, 570, 120-129 (2019); (IF = 5.706)

D. Razus, M. Mitu, V. Giurcan, C. Movileanu, D. Oancea, Additive influence on maximum experimental safe gap of ethylene-air mixtures, *Fuel*, 237, 888-894 (2019). (FI = 5.578)

Greta Patrinoiu, Mohammed Dyia Hussien, José Maria Calderón-Moreno, Irina Atkinson Adina M. Musuc, Raluca N. Ion, Anisoara Cimpean Mariana C. Chifiriuc Oana Carp, Eco-friendly synthesized spherical ZnO materials: Effect of the core-shell to solid morphology transition on antimicrobial activity, *Materials Science and Engineering: C*, 97, 2019, 438-450 (IF 4.959)

M. Raciulete, F. Papa, D. Kawamoto, C. Munteanu, D.C. Culita, C. Negri, I. Atkinson, V. Bratan, J. Pandele-Cusu, I. Balint, Particularities of trichloroethylene photocatalytic degradation over crystalline RbLaTa₂O₇ nanowire bundles grown by solid-state synthesis route, *Journal of Environmental Chemical Engineering*, 7 (1), 102789 (2019); (IF = 4.30)

M. Tudose, D. Culita, M. Voicescu, A. Musuc, A.C. Kuncser, C. Bleotu, M. Popa, L. Marutescu, M.C. Chifiriuc, A. Nicolescu, C. Deleanu, Fluorescent coumarin-modified mesoporous SBA-15 nanocomposite: Physico-chemical characterization and interaction with prokaryotic and eukaryotic cells, *Microporous and Mesoporous Materials* Volume 288, 1 November 2019, Article number 109583 (IF = 4.182)

E. Andronescu, D. Predoi, I. A. Neacsu, A.V. Paduraru, A. M. Musuc, R. Trusca, O. Oprea, E. Tanasa, O. R. Vasile, A. I. Nicoara, A. V. Surdu, F. Iordache, A. C. Birca, S. L. Iconaru, B.S. Vasile, Photoluminescent Hydroxylapatite: Eu³⁺ Doping Effect on Biological Behaviour, *Nanomaterials* 2019, 9(9), 1187, (IF= 4.034)

S. Petrescu, S. Avramescu, A. M. Musuc, F. Neatu, M. Florea, P. Ionita, Crown-ether functionalized graphene oxide for metal ions sequestration, *Mat. Res. Bull.*, 2020, 122, 110643 (IF = 3.355)

I. Atkinson, V. Parvulescu, J. Pandele Cusu, E.M. Anghel, M. Voicescu, D. Culita, S. Somacescu, C. Munteanu, M. Šćepanović, Z.V. Popovic, V. Fruth, Influence of preparation method and nitrogen (N) doping on properties and photo-catalytic activity of mesoporous SrTiO₃, *Journal of Photochemistry and Photobiology A: Chemistry*, 368, 41-51 (2019); (IF = 3.261)

I. Matei, C.M. Buta, I.M. Turcu, D. Culita, C. Munteanu, G. Ionita, Formation and Stabilization of Gold Nanoparticles in Bovine Serum Albumin Solution, *Molecules*, 24 (18) 3395 (2019); (IF = 3.08)

C.D. Ene, G. Patrinoiu, C. Munteanu, R. Ene, M.C. Chifiriuc, O. Carp, Multifunctional ZnO materials prepared by a versatile green carbohydrate-assisted combustion method for environmental remediation applications, *Ceramics International*, 45 (2), 2295-2302 (2019); (IF = 3.057)

M. Ciobanu, L. Pirvu, G. Paun, S. Savin, B.G. Albu, C. Munteanu, J. Pandele Cusu, I. Atkinson, D.C. Culita, G. Petcu, V. Parvulescu, Development of a new (bio) hybrid matrix based on *Althaea officinalis* and *Betonica officinalis* extracts loaded into mesoporous silica nanoparticles for bioactive compounds with therapeutic applications, *Journal of Drug Delivery Science and Technology*, 51, 605-613 (2019); (IF = 2.606)

M. Mitu, E. Brandes, W. Hirsch, Ignition temperatures of combustible liquids with increased oxygen content in the (O₂ + N₂) mixture, *J. Loss Prev. Process Ind.*, vol. 62, 103971 (2019). (FI = 2.069)

V. Giurcan, M. Mitu, D. Razus, D. Oancea, Experimental study and detailed kinetic modeling of laminar flame propagation in premixed stoichiometric n-butane-air mixture, *Rev. Chim. (Bucharest)*, 70(4), 1125-1131 (2019). (FI = 1.755)

A. Melinescu, G. Velciu, V. Marinescu, C. Hornoiu, M. Preda, Synthesis and Stability of the Strontium Cobaltite Thermally Treated in Air, REV. CHIM, 70, No. 9, 3330-3334, 117 (2019), FI=1.605

G. Velciu, A. Melinescu, V. Marinescu, V. Fruth, C. Hornoiu, M. Pred, La_{1-x}Sr_xCoO_{3-δ} SOLID SOLUTIONS WITH A PEROVSKITE STRUCTURE (x= 0.4 and 0.5) Revista Romana de Materiale / Romanian Journal of Materials 2019, 49 (2), 173 - 178 (2019), FI=0.628

V. Bratan, N.I. Ionescu, The adsorption of O₂ on ZnO and the logarithmic law, Rev. Roum. Chim 64 (11), 981-983 (IF = 0.381)

M. Mitu, D. Razus, D. Oancea, The development of a new optical method to measure the delay time of spark ignition, Studia Universitatea Babes-Bolyai Chemia, LXIV, 2, Tom II, 309-322, (2019). (FI = 0.305).

Lucrari publicate in Proceedings

Mariana Chelu, Hermine Stroescu, Jose Calderon Moreno, Mihai Anastasescu, Silviu Preda, Mariuca Gartner, Carmen Moldovan, Marin Gheorghe, „Piezoelectric 1-D nanostructures for the energy harvesting applications”, International Conductor Conference-CAS, Sinaia, Romania, 9-11 October 2019

2018

Lucrari publicate in reviste clasificate ISI/Papers in ISI ranked journals

D. Razus, C. Movileanu, D. Oancea, Additive influence on ignition of stoichiometric ethylene-air mixture by break sparks, *Fuel*, **232**, 134–140 (2018) (FI = 4.908).

M. Filip, S. Todorova, M. Shopska, M. Ciobanu, F. Papa, S. Somacescu, C. Munteanu, V. Parvulescu, Effects of Ti loading on activity and redox behavior of metals in PtCeTi/KIT-6 catalysts for CH₄ and CO oxidation, *Catalysis Today*, 306, 138-144 (2018) (FI=4.667).

M. Mitu, E. Brandes, W. Hirsch, Additive effects on the explosion safety characteristic data of ethanol/air mixtures in closed vessels, *Process Saf. Environ. Prot.*, 117, 190-199 (2018) (FI = 4.384).

D. Razus, M. Mitu, V. Giurcan, C. Movileanu, and D. Oancea, Methane-unconventional oxidant flames. Laminar burning velocities of nitrogen-diluted methane-N₂O mixtures, *Process Safety Environm. Prot.*, **114**, 240-250 (2018) (FI = 4.384).

Dascalu, I., Somacescu, S., Hornoiu, C., Calderon-Moreno, J. M., Stanica, N., Stroescu, H., Anastasescu M., & Gartner, M., Sol-gel Zn, Fe modified SnO₂ powders for CO sensors and magnetic applications. *Process Safety Environm. Prot.*, **117**, 722-729 (2018) (FI = 3.441).

C. Anastasescu, S. Preda, A. Rusu, D. Culita, G. Plavan, S. Strungaru, J. M. Calderon-Moreno, C. Munteanu, C. Gifu, M. Enache, R. Socoteanu, D. Angelescu, M. Anastasescu, M. Gartner, I. Balint, M. Zaharescu, Tubular and Spherical SiO₂ Obtained by Sol Gel Method for Lipase Immobilization and Enzymatic Activity, *Molecules*, **23**, 1362 (2018) (FI=3.098)

- C. D. Ene, G. Patrinoiu, C. Munteanu, R. Ene, M. C. Chifiriuc, O. Carp, Multifunctional ZnO materials prepared by a versatile green carbohydrate-assisted combustion method for environmental remediation applications, *Ceramics International* (FI = 3.057)
- E. Craciun, L. Predoana, I. Atkinson, I. Jitaru, E. M. Anghel, V. Bratan, C. Gifu, C. Anastasescu, A. Rusu, V. Raditoiu, E. Vasile, M. Anastasescu, I. Balint, M. Zaharescu, Fe³⁺-doped TiO₂ nanopowders for photocatalytic mineralization of oxalic acid under solar light irradiation, *J. Photochem. Photobiol. A: Chem.*, **356** (2018) 18-28 (FI = 2.62).
- M. Mitu, D. Razus, D. Oancea, Effect of CO₂ dilution on propane-air isothermal catalytic combustion on platinum, *J. Thermal Anal. Calorim.*, **131**, 175–181 (2018). (FI = 2.209).
- N. Dulgheru, M. Gartner, M. Anastasescu, M. Stoica, M. Nicolescu, H. Stroescu, I. Atkinson, V. Bratan, I. Stanculescu, A. Szekeres, P. Terziyska, M. Fabian, Influence of compositional variation on the optical and morphological properties of Ge-Sb-Se films for optoelectronics application, *Infrared Physics and Technology*, **93**, 260–270 (2018) (FI = 1.89).
- Dascalu, I., Hornoiu, C., Calderon-Moreno, J. M., Enache, M., Culita, D., & Somacescu, S. (2018). Sol-gel synthesis of ZnO/Zn 2-x Fe x TiO₄ powders: structural properties, electrical conductivity and dielectric behavior. *J. Sol-Gel Sc. Technol.*, **86**(1), 151-161. (FI = 1.75).
- M. Mitu, E. Brandes, Analysis of reaction products after ignition process of 1-octanol/air mixtures on a hot surface, *Rev. Chim. (Bucharest)*, 69(11), 2991-2995 (2018) (FI = 1.605).
- M. Mitu, V. Giurcan, D. Razus and D. Oancea, Inert gas influence on propagation velocity of methane–air laminar flames, *Rev. Chimie*, **69**, 196-200 (2018). (FI = 1.605).
- M. Mitu, D. Razus, D. Oancea, Coupled catalytic/gas phase ignition of propane-oxygen-inert mixtures on an isothermally heated platinum filament supported on quartz bar, *Rev. Chimie*, **69**, 870-874 (2018) (FI = 1.41).
- O. C. Mocioiu, I. Atkinson, J. Cusu-Pandele, V. Bratan, S. Petrescu, D. I. Baila, M. Vasile, A.-M. Mocioiu, Structural and physico-chemical characterization of Zn-doped SiO₂ glasses obtained by sol-gel route, *Rev. Roumaine Chim.*, **63** (2018) 419-424. (FI = 0.37).
- V. Bratan, N.I. Ionescu, Oscillations in the system adsorbed carbon/catalytic surface, *Rev. Roumaine Chim.*, **63** (2018) 725-728. (FI = 0.37)
- D. Negoescu, A. Vasile, V. Bratan, C. Hornoiu, C. Munteanu, M. Scurtu, M. Teodorescu, I. Atkinson, F. Papa, I. Balint, Thermosensitive Triblock Copolymer Templated Synthesis OF Pt-Cu Supported ON TiO₂: Investigation OF Their Catalytic Activity For CO Oxidation Reaction, *Rev. Roumaine Chim.* 63(9) 2018 829-835 (FI = 0.37).
- G. Dobrescu, V. Bratan, N. I. Ionescu, The fractal dimension of oscillations in system CO-Pd/TiO₂, *Rev. Roumaine Chim.* 53(5-6) 2018 455-458 (FI = 0.37)
- M. Pavel, F. Papa, D. Culita, C. Munteanu, I. Atkinson, V. Bratan, J. Pandele-Cusu, R. State, I. Balint. Impact of RbLaTa₂O₇ layered perovskite synthesis conditions on their activity for photocatalytic abatement of trichloroethylene, *Rev. Roumaine Chim.* 63(9) 2018 821-828 (FI = 0.37)

M. Chelu, C. Munteanu, R. State, I. Atkinson, A. Rusu, V. Bratan, A. Musuc, I. Balint, F. Papa, Enhanced photocatalytic activity of ZnO nanoparticles obtained by "green" synthesis with well dispersed Pd-Au bimetallic nanoparticles, *Rev. Roumaine Chim.* 63(9) 2018 837-845 (FI = 0.37).

2017

Lucrari publicate in reviste clasificate ISI/Papers in ISI ranked journals

V. Bratan, C. Munteanu, C. Hornoiu, A. Vasile, F. Papa, R. State, S. Preda, D.C. Culita, N.I. Ionescu, CO oxidation over Pd supported catalysts—In situ study of the electric and catalytic properties, *Appl. Catal. B: Env.*, 207 (2017) 166-173. FI = 12.12.

M. Mitu, V. Giurcan, D. Razus and D. Oancea, Inert Gas influence on Laminar Burning Velocity of Methane-Air Mixtures, *J. Hazard. Mater.*, **321**, 440–448 (2017). FI = 6.434.

B. Firtat, Carmen Moldovan, Costin Brasoveanu, George Muscalu, M. Gartner, M. Zaharescu, Paul Chesler, Cristian Hornoiu, Susana Mihaiu, Cristina Vladut, Izabella Dascalu, Vlad Georgescu, Ion Stan, *Sensors and Actuators B: Chemical*, Volume 249, 2017, 647-655, ISSN 0925-4005, I.F. (2016) = 5.401

C. Anastasescu, M. Zaharescu, D. Angelescu, C. Munteanu, V. Bratan, T. Spataru, C. Negrila, N. Spataru, I. Balint, Defect-related light absorption, photoluminescence and photocatalytic activity of SiO₂ with tubular morphology, *Solar Energy Mater. Solar Cells*, 159 (2017) 325-335 (FI = 4,78).

C. Movileanu, D. Razus, A. Musuc, D. Oancea, Additive influence on quenching distances and minimum ignition energies of ethylene-air mixtures, *Fuel*, 193, 401–410 (2017). I.F. (2016) = 4.601.

M. Mitu, E. Brandes, Influence of pressure, temperature and vessel volume on explosion characteristics of ethanol/air mixtures in closed spherical vessels, *Fuel*, **203**, 460-468 (2017). I.F. (2016) = 4.601

R. State, M. Scurtu, A. Miyazaki, F. Papa, I. Atkinson, C. Munteanu, I. Balint, Influence of metal-support interaction on nitrate hydrogenation over Rh and Rh-Cu nanoparticles dispersed on Al₂O₃ and TiO₂ supports, *Arabian J. Chem.* 10(7) 2017 975-984 (FI =4,55).

O. Carp, A. Tirsoaga, R. Ene, A. Ianculescu, R. Negrea, P. Chesler, G. Ionita, R. Birjega, *Ultrasonics Sonochemistry* 36 (2017) 326–335. I.F. (2016) = 4.218

M. Tudose, M. C. Chifiriuc, C. Ghica, D. C. Culita, S. Somacescu, A. M. Musuc, C. Bleotu, Lipoic acid functionalized SiO₂@Ag nanoparticles. Synthesis, characterization and evaluation of biological activity, *Materials Science & Engineering C*, 49(1), 499-506 (2017) I.F. (2016) = 4.164

I. C. Gîfu, M. E. Maxim, A. Iovescu, L. Aricov, E.L. Simion, A. R. Leontieș, M. Anastasescu, C. Munteanu, D.F.Anghel, Natural aging of multilayer films containing hydrophobically modified poly (acrylate) s or their complexes with surfactants, *Appl. Surface Sci.*, **412**, 489-496, (2017) (FI = 3,39).

C.F. Rusti, V. Badilita, A.M. Sofronia, D. Taloi, E.M. Anghel, F. Maxim, C. Hornoiu, C. Munteanu, R.M. Piticescu, S. Tanasescu, Thermodynamic properties of the Ba 0.75 Sr 0.25 TiO₃ nanopowders obtained by hydrothermal synthesis, *J. Alloys and Compounds*, **693**, 1000-1010 (2017). I.F. (2016) = 3.133.

A. Vasile, M. Scurtu, C. Munteanu, M. Teodorescu, M. Anastasescu, I. Balint, Synthesis of well-defined Pt nanoparticles with controlled morphology in the presence of new types of thermosensitive polymers, *Process Safety and Environmental Protection*, **108**, 144-152 (2017). I.F. (2016) = 2.905.

V. Giurcan, M. Mitu, D. Razus, and D. Oancea, Pressure and Temperature Influence on Propagation Indices of n-Butane-Air Gaseous Mixtures, *Process Safety and Environmental Protection*, **111**, 94-101 (2017). I.F. (2016) = 3.441.

T. Spătaru, T. Kondo, C. Anastasescu, I. Balint, P. Osiceanu, C. Munteanu, N. Spătaru, A. Fujishima, Silica veils-conductive diamond powder composite as a new propitious substrate for platinum electrocatalysts, *J. Solid State Electrochem.* **21** (4), 1007-1014 (2017) (FI = 2,32).

M. Mitu, D. Razus, D. Oancea, Effect of CO₂ dilution on propane-air isothermal catalytic combustion on platinum, *J. Thermal Anal. Calorim.*, 131(1) 2017 175-181 I.F. (2016) = 1.953.

M. Mitu, V. Giurcan, D. Razus, M. Prodan and D. Oancea, Propagation Indices of Methane-Air Explosions in Closed Vessels, *J. Loss Prev. Process Ind.*, **47**, 110-119 (2017). IF = 1.982.

D. Razus, M. Mitu, V. Giurcan and D. Oancea Propagation indices of methane-nitrous oxide flames in the presence of inert additives, *J. Loss Prev. Process Ind*, 49(Part B) 2017 418-426 IF= 1.982.

D. C. Culita, C. M. Simonescu, R. E. Patescu, S. Preda, N. Stanica, C. Munteanu, O. Oprea, Polyamine Functionalized Magnetite Nanoparticles as Novel Adsorbents for Cu (II) Removal from Aqueous Solutions, *J. Inorg. Organometallic Polymers Mater.* **27** (2), 490-502 (2017) (FI = 1,58).

M. Mitu, E. Brandes, Investigation of reaction products obtained from ignition process of n-heptane / air mixtures on free hot surface, *Rev. Chimie, Bucharest*), **68**(5), 1035-1039 (2017). I.F. (2016) = 1.232.

M. Prodan, C. Lupu, I. Nălboc, A. S. Moța, C. Munteanu, Microelements influence on coal oxidation and the environmental pollution implications, *Environm. Eng. Managem. J.*, 16, 1347-1353 (2017) (FI = 1,10).

C. Orbeci, R. Stănescu, D. Negoescu, V. Pârvulescu, Synthesis, characterization and functionalization of MCM-41 for the removal of organic compounds from wastewaters, *Environm. Eng. Managem. J.*, 16, 553-560 (2017) (FI = 1,513)

C. Movileanu, M. Mitu, D. Razus, V. Giurcan and D. Oancea, Propagation indexes of C₂H₄-N₂O-N₂ deflagrations in elongated closed vessels, *Rev. Roumaine Chim.*, **62**, 357-363 (2017). I.F. = 0.370.

M. Mitu, D. Razus and D. Oancea, Overall Kinetics of Gas-Phase Ignition of n-Pentane-Air Mixtures using an Isothermally Heated Platinum Filament, *Rev. Roumaine Chim.*, **62**, 613-618 (2017). I.F. (2016) = 0.246.

V. Bratan, N.I. Ionescu, Oscillations in the system CO/catalytic surface, Rev. Roum. Chim., 62 (2017) 621 (FI=0.25)

2016

Lucrari publicate in reviste clasificate ISI/Papers in ISI ranked journals

A. J. Shakir, D. C. Culita, J. Calderon-Moreno, A. Musuc, O. Carp, G. Ionita, P. Ionita, Covalently grafted TEMPO on graphene oxide: A composite material for selective oxidations of alcohols, Carbon, **105**, 607–614 (2016). I.F. = 6.337.

G. Patrinoiu, J. M. Calderón-Moreno, R. Birjega, D. C. Culita, S. Somacescu, A. M. Musuc, T. Spataru, O. Carp, Sustainable one-pot integration of ZnO nanoparticles into carbon spheres: morphology, optical and electrochemical properties manipulation, Physical Chemistry Chemical Physics, 18, 30794—30807 (2016). I.F. = 4.123

Paul Chesler, Cristian Hornoiiu, Susana Mihaiu, Cristina Vladut, Jose M. Calderon Moreno, Mihai Anastasescu, Carmen Moldovan, Bogdan Firtat, Costin Brasoveanu, George Muscalu, Ion Stan and Mariuca Gartner, Beilstein J. Nanotechnol. 2016, 7, 2045–2056. I.F. (2016) = 3.13

I. Atkinson, E. M. Anghel, L. Predoana, O. C. Mocioiu, L. Jecu, I. Raut, C. Munteanu, D. Culita, M. Zaharescu, Influence of ZnO addition on the structural, in vitro behaviour and antimicrobial activity of sol-gel derived CaO-P₂O₅-SiO₂ bioactive glasses, Ceram. Int., 42 (2016): 3033-3045. I.F. = 2.986.

I. Dascalu, S. Preda, D. Culita, J. M. Calderon-Moreno, P. Osiceanu, C. Hornoiiu, M. Anastasescu, S. Somacescu, M. Gartner, Structural, textural, surface chemistry and sensing properties of mesoporous Pr, Zn modified SnO₂-TiO₂ powder composites, Ceram. Int., **42**, 14992-4998 (2016). I.F. = 2.986

P. Chesler, C. Hornoiiu, S. Mihaiu, C. Munteanu, M. Gartner, Tin–Zinc oxide composite ceramics for selective CO sensing, Ceram. Int., 42, 16677–16684 (2016). I.F. = 2.986

M. Mitu, M. Prodan, V. Giurcan, D. Razus and D. Oancea, Influence of inert gas addition on propagation indices of methane–air deflagrations, Process Safety Environm. Protection, **102**, 513-522 (2016). I.F. = 2.905

T. Spătaru, L. Preda, P. Osiceanu, C. Munteanu, M. Marcu, C. Lete, N. Spătaru, A. Fujishima, Electrochemical Deposition of Pt–RuO_x ·nH₂O Composites on Conductive Diamond and Its Application to Methanol Oxidation in Acidic Media, Electrocatalysis, 7 (2016): 140-148. I.F. = 2.398.

- M. Duta, L. Predoana, J.M. Calderon-Moreno, S. Preda, M. Anastasescu, A. Marin, I. Dascalu, P. Chesler, C. Hornoiu, M. Zaharescu, P. Osiceanu, M. Gartner, Nb-doped TiO₂ sol-gel films for CO sensing applications, *Materials Science in Semiconductor Processing*, **42** (3), 397–404 (2016). I.F. = 2.359
- M. Duta, M. Anastasescu, J.M. Calderon-Moreno, L. Predoana, S. Preda, M. Nicolescu, H. Stroescu, V. Bratan, I. Dascalu, E. Aperathitis, M. Modreanu, M. Zaharescu, M. Gartner, Sol-gel versus Sputtering Indium Tin Oxide Films as Transparent Conducting Oxide Materials, *J. Materials Science: Materials in Electronics*, **27**, 4913–4922 (2016). I.F. = 2.325
- S. Mihaiu, I. M. Szilágyi, I. Atkinson, O. C. Mocioiu, D. Hunyadi, J. Pandeale-Cusu, A. Toader, C. Munteanu, S. Boyadjiev, J. Madarász, G. Pokol and M. Zaharescu, Thermal study on the synthesis of the doped ZnO to be used in TCO films, *J. Therm. Anal. Calorim.* 124 (2016): 71-80. I.F. = 1.953.
- M. Tudose, D.C. Culita, A.M. Musuc, G. Marinescu, S. Somacescu, C. Munteanu. C. Bleotu, M.C. Chifiriuc, Multifunctional Silver Nanoparticles_decorated silica functionalized with retinoic acid with anti-proliferative and antimicrobial properties, *J. Inorg. Organomet. Polym*, 26, 1043-1052 (2016). I.F. = 1.577.
- P. Chesler, C. Hornoiu, V. Bratan, C. Munteanu, G. Postole, N. I. Ionescu, T. Juzsakova, A. Redey and M. Gartner, CO sensing properties of SnO₂-CeO₂ mixed oxides, *Reaction Kinetics Mechanism and Catalysis*, **117**, 551–563 (2016). I.F. = 1.264.
- V. Giurcan, M. Mitu, D. Razus, D. Oancea, Laminar flame propagation in rich ethane-air-inert mixtures, *Rev. Chimie*, **67**, 1084-1089 (2016). I.F. = 1.232.
- A. A. K.Klaif Rikabi, M. Balaban (Chelu), I. Harabor, P. C. Albu, M. Segarceanu, G. Nechifor, Iono-molecular Separation with Composite Membranes I. Preparation and characterization of membranes with polysulfone matrix, *Rev. Chimie*, **67**, 1658-1665 (2016). I.F. = 1.232.
- M. Prodan, M. Mitu, D. Razus, D. Oancea, Ignition and Propagation properties of Methane-Air Mixtures from Early Stages of Pressure History in Closed Vessels, *Rev. Roumaine Chim*, **61**, 299-307 (2016). I.F. = 0.246.
- G. Dobrescu, N. I. Ionescu, The Fractal Dimension of Oscillations in Methanol-Oxygen System, *Rev. Roum.Chim*, 2016, 61, 307-310. I.F. = 0.246.
- A. Vasile, C. Hornoiu, C. Munteanu, N. I. Ionescu, T. Yuzhakova and Á. Rédey, In situ impedance spectroscopy measurements for CeO₂-SnO₂ mixed oxides catalysts, *Rev. Roum. Chim.*, **61**, 503-509 (2016). I.F. = 0.246
- V. Giurcan, M. Mitu, C. Movileanu, D. Razus, Temperature, Pressure and Dilution Effect on Laminar Burning Velocity of Propane-Air, *Rev. Roumaine Chim*, **61**, 517-524 (2016). I.F. = 0.246.
- V. Bratan, N. I.Ionescu, Oscillations in the system carbon monoxide-TiO₂, *Rev. Roum. Chim.*, **61**, 665-669 (2016). I.F. = 0.246
- G. Marinescu, D. C. Culita, L. Patron, S. Nita, N. Stanica, A. M. Musuc, C. Bleotu, M. Popa, C. Kamerzan, M. C. Chifiriuc, Synthesis, characterization and evaluation of the antimicrobial and cytotoxic activity of two novel complexes of Gd(III) with piroxicam and meloxicam, *Rev. Roum.Chim.* **61**, 779-787 (2016). I.F. = 0.246.

2016

Lucrari publicate in reviste non-ISI (reviste clasificate de CNCSIS) - Papers in journals accepted by CNCSIS

D. Oancea, M. Prodan, D. Razus, Investigation of Laminar Flame Propagation of the Most Hazardous Confined Methane/Air Mixture using Pressure-time Records in a Small Vessel, *New Front. Chem. (Former: Ann. West Univ. Timisoara – Series Chem.)* 25, 64-72 (2016).

N. I. Ionescu, The evaluation of scientific papers. Lights and shadows, *Revista de Politica Stiintei si Scientometrie – Serie Noua*, Vol 5, Issue 2 ,130-132, 2016.

2015

Lucrari publicate in reviste clasificate ISI/Papers in ISI ranked journals

A. Miyazaki, K. Matsuda, F. Papa, M. Scurtu, C. Negri, G. Dobrescu, I. Balint, Impact of particle size and metal-support interaction on denitration behavior of well-defined Pt-Cu nanoparticles *Catalysis Sci. & Technol.*, 5.1 (2015): 492-503. I.F. = 5.426.

I. Mihalache, A. Radoi, M. Mihaila, C. Munteanu, A. Marin, M. Danila, M. Kusko, C. Kusko, Charge and energy transfer interplay in hybrid sensitized solar cells mediated by graphene quantum dots, *Electrochimica Acta*, 153 (2015) 306-315. I.F. = 4.803.

R. A. Mitran, D. Berger, C. Munteanu, C. Matei, Evaluation of Different Mesoporous Silica Supports for Energy Storage in Shape-Stabilized Phase Change Materials with Dual Thermal Response, *J. Phys. Chem. C*, 119 (27) (2015) 15117-15184. I.F. = 4.772.

S. Tanasescu, A. Milea, O. Gingu, F. Maxim, C. Hornoiu, S. Preda, G. Sima, A correlation between thermodynamic properties, thermal expansion and electrical resistivity of Ag – 28 % Cu nanopowders processed by mechanical alloying route, *Physical Chemistry Chemical Physics* 17 (42), 28322-28330 (2015). I.F. = 4.493.

C. Anastasescu, N. Spataru, D. Culita, I. Atkinson, T. Spataru, V. Bratan, C. Munteanu, M. Anastasescu, C. Negri, I. Balint, Chemically Assembled Light Harvesting CuO_x-TiO₂ p-n Heterostructures, *Chem. Eng. J.* 281 (2015) 303-311. I.F. = 4.321.

A. Stan, C. Munteanu, A. M. Musuc, R. Birjega, R. Ene, A. Ianculescu, I. Raut, L. Jecu, M. Badea Doni, E.M. Anghel, O. Carp, A general, eco-friendly synthesis procedure of self-assembled ZnO-based materials with multifunctional properties, *Dalton Trans.*, 2015, 44, 7844-7853. I.F. = 4.197.

D. Visinescu, M. Scurtu, R. Negrea, R. Birjega, D. C. Culita, M. C. Chifiriuc, C. Draghici, J. Calderon Moreno, A. M. Musuc, I. Balint, O. Carp, Additive-free 1,4-butanediol mediated synthesis: a suitable route to obtain nanostructured, mesoporous spherical zinc oxide materials with multifunctional properties, *RSC Advances*, 2015, 5, 99976. I.F. = 3.840.

M. Mitu, D. Razus, V. Giurcan, D. Oancea, Normal burning velocity and propagation speed of ethane–air: Pressure and temperature dependence, *Fuel*, **147**, 27–34 (2015). I.F. = 3.520.

M. Mitu, E. Brandes, Explosion parameters of methanol–air mixtures, *Fuel*, **158**, 217-223 (2015). I.F. = 3.611.

D. Berger, L. Bajenaru, S. Nastase, R.-A. Mitran, C. Munteanu, C. Matei, Influence of structural, textural and surface properties of mesostructured silica and aluminosilicate carriers on aminoglycoside uptake and in vitro delivery, *Micropor. Mesopor. Mat.*, 206 (2015) 150-160. I.F. = 3.349.

T. Spataru, L. Preda, C. Munteanu, A. I. Caciuleanu, N. Spataru, A. Fujishima, Influence of boron-doped diamond surface termination on the characteristics of titanium dioxide anodically deposited in the presence of a surfactant, *J. Electrochem. Soc.* 162, 8 (2015) H535-H540. I.F. = 3.266.

M. Nicolescu, M. Duta, S. Mihaiu, C. Munteanu, M. Anastasescu, P. Osiceanu, A. Marin, S. Preda, I. C. Vacaresteanu, D. Anghel, M. Modreanu, M. Zaharescu, M. Gartner, Properties of In-N codoped p-type ZnO nanorods grown through a two-step chemical route, *Appl. Surf. Sci.* 344 (2015) 196-204. I.F. = 2.711.

E. Buixaderas, E. M. Anghel, I. Atkinson, P. Simon, V. Bratan, S. Petrescu, Combustion synthesis and structural characterization of the $\text{TiB}_2\text{-(Na}_2\text{O}\cdot 2\text{B}_2\text{O}_3\text{-Al}_2\text{O}_3\text{)}$ composites, *Ceramics Intern.*, 41 (2015) 2680-2689. I.F. = 2.605.

S. Mihaiu, A. Toader, I. Atkinson, O. C. Mocioiu, C. Hornoiu, V. S. Teodorescu, M. Zaharescu, Advanced ceramics in the $\text{SnO}_2\text{-ZnO}$ binary system, *Ceramics International*, 41 (3), Part B, (2015), 4936–4945. I.F. = 2.605

D. C. Culita, C. M. Simonescu, M. Dragne, N. Stanica, C. Munteanu, S. Preda, O. Oprea, Effect of surfactant concentration on textural, morphological and magnetic properties of CoFe_2O_4 nanoparticles and evaluation of their adsorptive capacity for Pb(II) ions, *Ceram. Int.* 41 (10) (2015) 13553-13560. I.F. = 2.605.

A. Zaharia, A. Sarbu, A. L. Radu, K. Jankova, A. Daugaard, S. Hvilsted, F. X. Perrin, M. Teodorescu, C. Munteanu, V. Fruth, Preparation and characterization of polyacrylamide-modified kaolinite containing poly [acrylic acid-co-methylene bisacrylamide] nanocomposite hydrogels, *Appl. Clay Sci.*, 103 (2015) 46-54. I.F. = 2.467

A. Zaharia, A. Sarbu, A. L. Radu, K. Jankova, A. Daugaard, S. Hvilsted, F. X. Perrin, M. Teodorescu, C. Munteanu, V. Fruth, Preparation and characterization of polyacrylamide-modified kaolinite containing poly [acrylic acid-co-methylene bisacrylamide] nanocomposite hydrogels, *Appl. Clay Sci.*, 103 (2015) 46-54. I.F. = 2.467.

M. Tudose, D. Culita, C. Munteanu, J. Pandele, E. Hristea, P. Ionita, I. Zarafu, M. Chifiriuc, Antibacterial activity evaluation of silver nanoparticles entrapped in silica matrix functionalized with antibiotics, *J.Inorg. Organomet. Polym. Mat.*, 25 (4) (2015) 869-878. I.F. = 2.336.

C. Movileanu, V. Gosa, D. Razus, Propagation of ethylene–air flames in closed cylindrical vessels with asymmetrical ignition, *Process Saf. Environm. Prot.*, 2015, **96**, 167–176. I.F. = 2.078.

L. Predoana, S. Preda, M. Anastasescu, M. Stoica, M. Voicescu, C. Munteanu, R. Tomescu, D. Cristea, Nanostructured Er³⁺-doped SiO₂-TiO₂ and SiO₂-TiO₂-Al₂O₃ sol-gel thin films for integrated optics, *Optical Materials*, 46 (2015) 481-490. I.F. = 1.981.

A.M. Musuc, R. D., A. Stan, C. Munteanu, R. Birjega, O. Carp, Synthesis, characterization and thermoreactivity of some methylcellulose-zinc composites, *J. Therm. Anal. Calorim.* 120 (2015) 85-94. I.F. = 1.781.

F. Maxim, D. Berger, F. Teodorescu, C. Hornoiu, C. Lete, S. Tanasescu, Low-temperature synthesis and thermodynamic and electrical properties of barium titanate nanorods, *Journal of Nanomaterials*, 6(1), 184-193. (2015). I.F. = 1.644.

P. Ionita, V. Dinoiu, C. Munteanu, I. M. Turcu, V. Tecuceanu, T. Zaharescu, E. Oprea, C. Ilie, D. Anghel, G. Ionita, Antioxidant activity of rosemary extracts in solution and embedded in polymeric systems, *Chem. Pap.*, 69 (6) (2015) 872-880. I.F. = 1.468.

V. Giurcan, D. Razus, M. Mitu, D. Oancea, Prediction of flammability limits of fuel-air and fuel-air-inert mixtures from explosivity parameters in closed vessels, *J. Loss Prev. Process Ind.*, 34, 65-71 (2015). I.F. = 1.409.

A. M. Ariciu, T. Staicu, M. Micutz, M. V. Neacsu, P. Ionita, V. Tecuceanu, C. Munteanu, G. Ionita, Investigations on carboxy dibenzylidene sorbitol hydrogels using EPR spectroscopy, *Appl. Magn. Reson.* (2015) 1395-1407. I.F. = 1.167.

R. State, F. Papa, G. Dobrescu, C. Munteanu, I. Atkinson, I. Balint, A. Volceanov, Green synthesis and characterization of gold nanoparticles obtained by direct reduction method and their fractal dimension, *Environ. Eng. Man. Journal*, 14 (2015) 587-593. I.F. = 1.065.

A.A.K.K.Rikabi, A.Cuciureanu, M.Chelu, A.R.Miron, C.Orbeci, A.G.Popa, M.M.Craciun, Proteins Ultrafiltration using Polysulfone-polyaniline and Polysulfone-magnetite Nanoparticles Composite Membranes, *Rev. Chim. (Bucharest)*, 66, (8), 1093-1099 (2015). I.F. = 0.956.

R. State, F. Papa, C. Munteanu, I. Balint, A. Ion, A. Volceanov, Synthesis and characterization of pvp (Polyvinyl pyrrolidone) stabilized gold nanoparticles, *Rom. J. Mat.*, 45 (3) (2015) 262-266. I.F. = 0.563

P. Chesler, C. Hornoiu, V. Bratan, C. Munteanu, M. Gartner, N.I. Ionescu, CO sensing properties of TiO₂, *Rev. Roumaine Chim.*, 60 (2-3) (2015): 227-232. I.F. = 0.250.

2015 Proceedings

N. I. Ionescu, C. Hornoiu, Heterogeneous catalytic oscillatory reactions, *Proc. of Symposium On Form and Pattern of the Humboldt Club Romania, Bucharest, 2015*, C. Vasilescu, M.L. Flonta, I. Craciun Eds., Ed. Academiei Romane, pp. 166-176. ISBN: 978-973-27-2531-3

D. Razus, Reaction Pathways in the high temperature oxidation of hydrocarbons, Proc. of Symposium On Form and Pattern of the Humboldt Club Romania, Bucharest, 2015, C. Vasilescu, M.L. Flonta, I. Craciun Eds., Ed. Academiei Romane, pp. 140-152. ISBN: 978-973-27-2531-3.

C. Movileanu, D. Razus, M. Mitu, V. Giurcan, D. Oancea, Explosion of C₂H₄-N₂O-N₂ in Elongated Closed Vessels, Proc. 7th European Combustion Meeting, Budapesta, Ungaria (2015).

2014

Lista capitole de carte

C. Movileanu, D. Razus, V. Giurcan, V. Gosa, *Flame propagation of ethylene-air mixtures in closed tubes* in G.D. Roy, S.M. Frolov - Transient Combustion and Detonation Phenomena: Fundamentals and Applications, Torus Press, 2014.

Lucrari publicate in reviste clasificate ISI/Papers in ISI ranked journals

T. Spătaru, P. Osiceanu, M. Anastasescu, G. Pătrinoiu, C. Munteanu, N. Spătaru, A. Fujishima, Effect of the chemical termination of conductive diamond substrate on the resistance to carbon monoxide-poisoning during methanol oxidation of platinum particles, *J. Power Sources*, 261 (2014) 86-92. I.F. = 6.217

I. Mihalache, A. Radoi, C. Munteanu, M. Kusko, C. Kusko, Charge storage and memory effect in graphene quantum dots – PEG600 hybrid nanocomposite, *Organic Electronics*, 15 (2014) 216-225. I.F. = 3.827.

G. Patrinoiu, J. M. Calderon-Moreno, S. Somacescu, N. Spataru, A.M. Musuc, R. Ene, R. Birjega, O. Carp, Carbonaceous spheres: versatile intermediary of metal oxide spherical structures synthesis, *Eur. J. Inorg. Chem.*, 1010-1019 (2014). I.F. = 2.942.

M. Mitu, D. Razus, V. Giurcan and D. Oancea, Experimental and numerical investigation of laminar burning velocity of ethane-air mixtures of variable initial composition, temperature and pressure, *Energy & Fuels*, 28, 2179–2188 (2014). I.F. = 2.790

T. Spataru, L. Preda, P. Osiceanu, C. Munteanu, M. Anastasescu, M. Marcu, N. Spataru, Role of surfactant-mediated electrodeposited titanium oxide substrate in improving electrocatalytic features of supported platinum particles, *Appl. Surf. Sci.*, 288 (2014) 660-665. I.F. = 2.711.

I. Atkinson, E.M. Anghel, C. Munteanu, M. Voicescu, M. Zaharescu, ZrO₂ influence on structure and properties of some alkali lime zinc aluminosilicate glass ceramics, *Ceramics Intern.*, 40 (5), (2014) 7337-7344. I.F. = 2.605.

L. Todan, T. Dascalescu, S. Preda, C. Andronescu, C. Munteanu, D. C. Culita, A. Rusu, R. State, M. Zaharescu, Porous nanosized oxide powders in the MgO-TiO₂ binary system obtained by sol-gel method, *Ceramics Intern.*, 40 (10), (2014) 15693-15701. I.F. = 2.605

F. Papa, A. Miyazaki, M. Scurtu, A. C. Ianculescu, I. Balint, Morphology, chemical state of nanometric-sized Pt-Cu and Pt-Ag particles and their photocatalytic activity for mineralization of methanol, *J. Nanoparticle Res.*, 16 (2), 1-12, 2014. I.F. = 2.184.

- S. Peretz, M. Florea-Spiroiu, D.F. Anghel, C. Munteanu, D. Angelescu, C. Stoian, G. Zgherea, Chitosan-sodium lauryl ether sulfate particles and their use for adsorption of Cu(II) ions, *J. Appl. Polym. Sci.* (2014) 131, 40059. I.F. = 1.768.
- T. Spătaru, P. Osiceanu, L. Preda, C. Munteanu, N. Spătaru, A. Fujishima, Influence of electroformation regime on the specific properties of cobalt oxide-platinum composite films deposited on conductive diamond, *Thin Solid Films*, 556 (2014) 81-86. I.F. = 1.759.
- V. Giurcan, D. Razus, M. Mitu and D. Oancea, Numerical Study of Laminar Flame Propagation in Ethane-air Mixtures, *Central Eur. J. Chem.*, **12** (3), 391-402 (2014). I.F. = 1.329.
- I. Călinescu, D. Martin, D. Ighigeanu, A. Gavrilă, A. Trifan, M. Patrascu, C. Munteanu, A. Diacon, E. Manaila, G. Craciun, Nanoparticles synthesis by electron beam radiolysis, *Central Eur. J. Chemistry*, 12, (2014) 774-781. I.F. = 1.329.
- V. Bratan, C. Munteanu, C. Hornoiu, F. Papa, N. I. Ionescu, Study of CO oxidation over TiO₂ - anatase by simultaneously kinetic and electrical measurements, *Reac. Kinet. Mech. Cat.* 112 (1), (2014) 51-60. I.F. = 1.170.
- F. Hutanu, M. Badea Doni, C. Munteanu, S. Petrescu, M. Marcu, Improved stability and catalytic activity of screen printed electrode modified with PB in the presence of anionic surfactant, *Rev. Chimie* 65, 1 (2014) 39-43. I.F. = 0.810.
- C. Andronescu, V. Fruth, E. Volceanov, R. Scurtu, C. Munteanu, M. Zaharescu Microwave sintering of Sr and Mg-doped lanthanum gallate (LSGM) solid electrolytes, *Rom. J. Mat.*, 44 (2014) 79-87. I.F. = 0.563.
- T. Dascalescu, L. Todan, A. Rusu, S. Preda, C. Andronescu, D. Culita, C. Munteanu, M. Zaharescu, Nanosized Al₂O₃-TiO₂ oxide powder with enhanced porosity obtained by sol-gel method, *Rev. Roumaine Chim.* 59 (2014) 125-134. I.F. = 0.311.
- V. Bratan, C. Munteanu, P. Chesler, D. Negoescu, N. I. Ionescu, Electrical characterization and the catalytic properties of SnO₂/TiO₂ catalysts and their Pd-supported equivalents, *Rev. Roumaine Chim.* 59 (2014) 335-341. I.F. = 0.311
- D. Razus, V. Giurcan, M. Mitu, D. Oancea, Physico-chemical parameters of C₂ hydrocarbon-air flames resulted from computed and measured laminar burning velocities, *Rev. Roumaine Chim.*, 59 (6-7) 405-413 (2014). I.F. = 0.311
- M. Mitu, V. Munteanu, D. Razus and D. Oancea, Kinetics of Isothermal Catalytic Ignition and Combustion of LPG-air Mixtures on Platinum Wire, *Rev. Roumaine Chim.*, 59, 727-732 (2014). I.F. = 0.311
- N. I. Ionescu, Grain boundary controlled electron transfer in oxide/gas systems, *Rev. Roumaine Chim.* 59 (6-7) (2014): 417-419. I.F. = 0.311

Lucrari publicate in reviste non-ISI (reviste clasificate de CNCSIS) - Papers in journals accepted by CNCSIS

N.I. Ionescu, Un index de cuantificare a valorii unei cercetari, Revista de Politica Stiintei si Scientometrie (serie noua) 3, 108 (2014).

Proceedings 2014

C. Movileanu, D. Razus, V. Giurcan and V. Gosa, Flame propagation of ethylene-air mixtures in closed tubes, Proc. Symp. on Pulsed and Continuous Detonations, St. Petersburg, June 2014, pp. 68-72.

C. Movileanu, D. Razus, V. Giurcan and V. Gosa, Pressure evolution of ethylene-air explosions in enclosures, Proc. FMC Symp. Cracovia, Poland, 2014, J. Physics, Conf. Series, 08/2014, 530(1): 012014, doi:10.1088/1742-6596/530/1/012014.

2013

Lucrari publicate in reviste clasificate ISI/Papers in ISI ranked journals

A. Vasile, V. Bratan, C. Hornoiu, M. Caldararu, N. I. Ionescu, T. Yuzhakova, Á. Redey, Electrical and catalytic properties of cerium-tin mixed oxides in CO depollution reaction, Applied Catalysis B: Environmental, 140–141 (2013) 25– 31. I.F. = 5.825.

R. D., F. Papa, I. Balint, D.C. Culita, C. Munteanu, N. Stanica, A. Ianculescu, L. Diamandescu, O. Carp, Mesoporous cobalt ferrite: A rival of platinum catalyst in methane combustion reaction, Appl. Cat. A: Gen., 467, (2013) 178–186. I.F. = 3.41.

C. Movileanu, D. Razus and D. Oancea, Additive effects on pressure rise rate and deflagration index of ethylene-air explosions in closed vessels, Fuel, 111, 194-200 (2013). I.F. = 3.406.

M.L. Dianu, A Kriza, A. M. Musuc, Synthesis, spectral characterization, and thermal behavior of mononuclear Cu (II), Co (II), Ni (II), Mn (II), and Zn (II) complexes with 5-bromosalicylaldehyde isonicotinoylhydrazone, J. Thermal Anal. Calorim. 112 (2), 585-593 (2013) . I.F. = 2.206.

A.M. Musuc, M. Badea-Doni, L. Jecu, A. Rusu and V.T. Popa, FTIR, XRD, and DSC analysis of the rosemary extract effect on polyethylene structure and biodegradability, J Therm Anal Calorim 114 (1) (2013) 169-177. I.F. = 2.206.

S. Preda, V. Teodorescu, A. Musuc, C. Andronescu, M. Zaharescu, Influence of the TiO₂ precursors on the thermal and structural stability of titanate based nanotubes, J. Mater. Res. 28(3) (2013) 294-303. I.F. = 1.713.

L. Jecu, E. Grosu, I. Raut, M. Calin, A. Musuc, G. Vlad, Biodegradation of poly(hydroxybutyrate)/poly(vinyl alcohol) blends by filamentous fungi, Environm. Eng. Managem. J., 12(2), 2013, 209-416. I.F. = 1.117.

F. Teodorescu, C. Lete, M. Marin, C. Munteanu, N. Totir, A novel glucose biosensor based on poly(azulene-co-3-tiophene acid) conducting films, Rev. Chim., 64 (2013) 1, 15-21. I.F. = 0.677.

V. Giurcan, D. Razus, M. Mitu and V. Schröder, Limiting Oxygen Concentration and Minimum Inert Concentration of Fuel/Air/Inert Gaseous Mixtures Evaluation by means of Adiabatic Flame Temperatures and Measured Fuel/Air Lower Flammability Limits, *Rev. Chimie (Bucuresti)*, **64**, 1445-1453 (2013). I.F. = 0.677.

M. Dinu, R. Ancuceanu, V. Radulescu, D. C. Ilies, C. Munteanu, C. Arama, A comparative morphological and chemical study of the seeds from *trigonella foenum graecum* (L.) and *t. caerulea* (L.) ser. *Species, Farmacia* 61 (2013) 1069-1081. I.F. = 0.578.

N. I. Ionescu, Role of time scales in heterogeneous catalytic oscillatory reactions, *Rev. Roumaine Chim.* 58, 251 (2013). I.F. = 0.393.

S.M. Mihaiu, J. Madarasz, G. Pokol, I.M. Szilagyi, T. Kaszas, O.C. Mocioiu, I. Atkinson, A. Toader, C. Munteanu, V.E. Marinescu, M. Zaharescu, Thermal behavior of ZnO precursor powders obtained from aqueous solutions, *Rev. Roumaine Chim.* 58 (2013) 335-345. I.F. = 0.393.

A. Vasile, C. Hornoiu, V. Bratan, D. Negoescu, M. Caldaru, N. I. Ionescu, T. Yuzhakova, Á. Redey, In situ electrical conductivity of propene interaction with SnO₂-CeO₂ mixed oxides, *Rev. Roumaine Chim.*, 58 (4-5) (2013) 365-369. I.F. = 0.393.

M. Tudose, C. Munteanu, G. Marinescu, D. Culita, P. Ionita, The influence of redox chemical surface treatments on silver nanoparticles, *Digest J. Nanomat. Biostruct.* 8 (2013) 1761-1770. I.F. = -

Proceedings 2013

V. Giurcan, D. Razus, M. Mitu, C. Movileanu and D. Oancea, Experimental and Numerical Investigation of Laminar Burning Velocity of Fuel/Air/Inert Gaseous Mixtures of Variable Initial Temperature and Pressure, *Proc. 6th Eur. Comb. Meeting, Lund, Sweden, 2013*, 6 pp.

M. Mitu, E. Brandes, Sicherheitstechnische Kenngrößen von Alkohol/Luft-Gemischen – Explosionsdruck, zeitlicher Druckanstieg, Verbrennungsgeschwindigkeit, *PTB-Berichte 13. BAM/PTB-Kolloquium zur chemischen und physikalischen Sicherheitstechnik: Vorträge des 269. PTB-Seminars Juni 2013*. Eds. M.I Beyer und T. Stolz. ISBN 978-3-95606-062-5.

A.M. Musuc, L. Jecu, M. Badea-Doni, V.T. Popa, The use of DSC technique in evaluation of poly(vinyl alcohol)/bacterial cellulose composites biodegradability *Proc. XIV Intern. Conf. Thermal analysis and Calorimetry in Russia, St. Petersburg, September 2013*, pp. 260-262.

2012

Lucrari publicate in reviste clasificate ISI/Papers in ISI ranked journals

C. Movileanu, V. Gosa and D. Razus, Explosion of gaseous ethylene-air mixtures in closed cylindrical vessels with central ignition, *J. Hazard. Mater.*, 235-236, 108-115 (2012). I.F. = 3.925.

- M. Mitu, V. Giurcan, D. Razus and D. Oancea, Temperature and pressure influence on ethane-air deflagration parameters in a spherical closed vessel, *Energy & Fuels*, 26(8), 4840-4848 (2012). I.F. = 2.853.
- D. Razus, V. Brinzea, M. Mitu, C. Movileanu, and D. Oancea, Burning Velocity of Propane-Air Mixtures from Pressure-time Records during Explosions in a Closed Spherical Vessel, *Energy & Fuels*, 26, 901-909 (2012), I.F. = 2.853.
- J. Pandele Cusu, A. Musuc, D. Oancea, Thermal stabilities of some benzaldehyde 2,4-dinitrophenylhydrazones, *J. Thermal Anal. Cal.*, 109.1 (2012): 123-129. I.F. = 1.982.
- L.V. Ababei, A. Kriza, C. Andronescu, A.M.Musuc, Synthesis and characterization of new complexes of some divalent transition metals with 2-acetyl-pyridyl-isonicotinoylhydrazone, *J. Therm. Anal. Calorim.* 107(2) 2012 573-584 (IF = 1.982)
- J. Pandele Cusu, A. Musuc, D.Oancea, Kinetic analysis of thermal decomposition in liquid and solid state of 3-nitro and 4-nitro-benzaldehyde-2,4-dinitrophenylhydrazones, *J. Thermal Anal. Cal.* 109.1 (2012): 255-263. I.F. = 1.982.
- J. Pandele Cusu, A.M.Musuc, M. Matache D.Oancea, Kinetics of exothermal decomposition of some ketone-2,4-dinitrophenylhydrazones, *J. Thermal Anal. Cal.* 110.3 (2012): 1259-1266. I.F. = 1.982.
- C. Munteanu, Monica Caldararu, V. Bratan, P. Yetisemiyen, G. Karakas, N.I. Ionescu, Electrical and catalytic properties of SnO₂/TiO₂ measured in operando conditions, *Reac. Kinet. Mech. Cat.*, 105, 13-22 (2012), I.F. = 1.104.
- M. Scurtu, S. Mihaiu, M. Caldararu, M. Zaharescu, Surface evolution of the Sn-Ce-O powders in various atmospheres, *Reac. Kinet. Mech. Cat.*, 105, 135-144 (2012) I.F. = 1.104.
- M. Scurtu, C. Hornoiu, M. Caldararu, C. Munteanu, G. Postole, N.I.Ionescu, T. Yuzhakova, A. Redey, Influence of the reactant gas on the electrical properties of alumina-supported tin dioxide catalysts, *Reac. Kinet. Mech. Cat.*, 105, 163-172 (2012) I.F. = 1.104.
- V. Brinzea, M. Mitu, C. Movileanu, A. Musuc, D. Razus and D. Oancea, Propagation Velocities of Propane-air Deflagrations at Normal and Elevated Pressures and Temperatures, *Rev. Chimie*, 63(3), 289-292 (2012). I.F. = 0.538.
- C. Movileanu, M. Mitu, V. Giurcan, A. Musuc, D. Razus, D. Oancea, Numerical Study of Diluent Influence on Burning Velocity of Acetylene-Air Mixtures, *Rev. Roum. Chim.*, 57(2), 215-222 (2012). I.F. = 0.331
- D. Razus, M. Mitu, V. Brinzea, A. Musuc and D. Oancea, Kinetic Modeling of Flame Propagation in Gaseous Propane-Air Mixtures, *Rev. Roum. Chimie*, 57(7-8), 675-681 (2012). I.F. = 0.331
- N.I. Ionescu, Role of the third adsorbed species in the heterogeneous catalytic oscillatory reaction, *Rev. Roumaine Chim.*, 57.7-8 (2012): 683-686. I.F. = 0.331

Lucrari publicate in reviste clasificate ISI/Papers in ISI ranked journals

D. Razus, V. Brinzea, M. Mitu, C. Movileanu and D.Oancea, Temperature and Pressure Influence on Maximum Rates of Pressure Rise during Explosions of Propane-Air Mixtures in a Spherical Vessel, *J. Hazard. Mater.*, **190** (2011) 891–896. I.F. = 4.173.

C. Movileanu, D. Razus, and D. Oancea, Additive Effects on Burning Velocity of Ethylene-Air Mixtures, *Energy & Fuels*, **25**(6), 2444–2451 (2011). I.F. =2.721

D. Oancea, V. Munteanu, D. Razus and M. Mitu, A Simplified Kinetic Model for Isothermal Catalytic Ignition: Propane/Air Mixture on Platinum Wire, *J. Therm Anal Calorim*, **103** , 911-916 (2011), I.F. = 1.604.

L. V.Ababei, A. Kriza, C. Andronescu, A. M. Musuc, Synthesis and characterization of new complexes of some divalent transitional metals with N-isonicotinamido-4-chlorobenzalaldimine, *J. Serb. Chem. Soc.* **76**(8) (2011) 1103-1115. I.F. = 0.879.

V. Brinzea, M. Mitu, C. Movileanu, D. Razus and D. Oancea, Deflagration Parameters of Stoichiometric Propane-Air Mixture during the Initial Stage of Gaseous Explosions in Closed Vessels, *Rev. Chimie*, **62** (2), 201-205 (2011). I.F. = 0.599.

C. Movileanu, M. Mitu, V. Brinzea, A. Musuc, M. Mocanu, D. Razus and D. Oancea, Adiabatic Flame Temperature of Fuel-Air Mixtures, in Isobaric and Isochoric Combustion Processes, *Rev. Chimie*, **62** (4), 376-379 (2011). I.F. = 0.599.

C. Munteanu, Monica Caldararu, D. Gingasu, M. Feder, L. Diamandescu, N.I. Ionescu, In situ electrical conductivity and catalytic properties of copper ferrite synthesized by non-conventional methods, *Reac. Kinet. Mech. Cat.*, (2011) 104 (2011) 357-368, I.F. = 0.930

V. Fruth, C. Andronescu, C. Hornoiu, E. Tenea, A. Rusu, R. Scurtu, Processing of (La,Sr)(Ga,Mg)O(3) solid electrolyte using an enhanced solid state technique, *Rom. J. Materials*, 2011, 41, 1, 56-63, I.F. =

C. Movileanu, D. Razus and D. Oancea, Additive effects on explosion pressure and flame temperature of stoichiometric ethylene-air mixture in closed vessels, *Rev. Roumaine Chim.*, **56**(1), 11-17 (2011). I.F. = 0.418

D. Oancea, V. Munteanu, D. Razus and M. Mitu, Temperature and Pressure Effect on the Isothermal Catalytic Ignition of n-Hexane/Air Mixtures on Platinum, *Rev. Roumaine Chim.*, **56**(3), 255-260 (2011), I.F. = 0.418

N.I. Ionescu, Kinetics of gas desorption from solid surfaces, *Rev. Roumaine Chim.*, **56**, 483-488 (2011). I.F. =

N.I. Ionescu, Role of the non-reactive species in the heterogeneous catalytic oscillatory reactions, *Rev. Roumaine Chim.*, **56**, 853-857 (2011). I.F. = 0.418

V. Bratan, P. Chesler, A. Vasile, L. Todan, M Zaharescu, M. Caldararu, Surface properties and catalytic oxidation on V2O5-CeO2 catalysts, *Rev. Roumaine Chim.*, **56** (10-11) 1055-1065 (2011), I.F. = 0.418.

Lucrari publicate in reviste non-ISI (reviste clasificate de CNCSIS) - Papers in journals accepted by CNCSIS

M. Mitu, V. Brinzea, A. Musuc, D. Razus and D. Oancea, Deflagration parameters of propane–air mixtures in a closed cylindrical vessel, UPB Bulletin, **73**(3), 17-26 (2011). ISSN: 1454-2331.

2010

Carti

G. Postole and A. Auroux, Surface acid-base characterization of containing Group IIIA catalysts by adsorption microcalorimetry, in *Advances in Fluid Catalytic Cracking: Testing, Characterization, and Environmental Regulations*. Mario Occelli Ed., Boca Raton: CRC Press, 2010, pp. 199-257. ISBN 978-1-4200-6254-0.

Lucrari publicate in reviste clasificate ISI/Papers in ISI ranked journals

G. Postole, B. Chowdhury, B. Karmakar, K. Pinkia, J. Banerji and A. Auroux, Knoevenagel condensation reaction over acid-base bifunctional nanocrystalline $Ce_xZr_{1-x}O_2$ solid solutions, J. Catal. **269** (2010) 110-121. I.F. = 5.415.

S. Cai, M. Caldararu and K. Sohlberg, Connecting atomic-scale surface structure to macroscopic surface conductance through calculation of both energetic and entropic contributions to charge-carrier/surface interactions, J. Phys. Chem. C., **114** (2010) 3991–3997. I.F. = 4.224.

D. Razus, V. Brinzea, M. Mitu and D. Oancea, Temperature and pressure influence on explosion pressures of closed vessel propane–air deflagrations, J. Hazard. Mater., **174** (2010) 548-555. I.F. = 3.723

M. Caldararu, M. Scurtu, C. Hornoiu, C. Munteanu, T. Blasco, J.M.L. Nieto, Electrical conductivity of a MoVTaNbO catalyst in propene oxidation measured in operando conditions, Catal. Today (2010), 155 (3-4) 311-318, I.F. =2.993.

D. Razus, V. Brinzea, M. Mitu and D. Oancea, Burning Velocity of LPG (Liquefied petroleum gas)–Air Mixtures in the Presence of Exhaust Gas, Energy & Fuels, 24 (2010) 1487–1494. I.F. = 2.444.

N. Preda, E. Rusen, A. Musuc, M. Enculescu, E. Matei, B. Marculescu, V. Fruth, I. Enculescu, Synthesis and properties of poly(methyl methacrylate-2 acrylamido-2-methylpropane sulfonic acid/PbS hybrid composite, Mater. Res. Bull. 45(8) 2010 1008-1012 (IF = 2.145)

D. Razus, V. Brinzea, M. Mitu and D. Oancea, Experimental and computed burning velocities of propane-air mixtures, Energy Convers. Managem., **51**, 2979-2984 (2010), I.F. = 2.054.

D. Oancea, V. Munteanu, D. Razus, Isothermal catalytic combustion of n-pentane/air mixtures on platinum wire, J. Therm. Anal. Calorim., **102**, 993-1000 (2010).

A. Kriza, M.L. Dianu, C. Andronescu, A.E. Rogozea, A.M. Musuc, Synthesis, spectral and thermal studies of new cooper (II) complexes with 1,2-di(imino-2-aminomethylpyridyl)ethane, *J. Thermal Anal. Cal.* **100** (2010) 929-935. I.F. = 1.752.

L. V. Ababei, A. Kriza, A. M. Musuc, C. Andronescu, E. A. Rogozea, Thermal behaviour and spectroscopic studies of complexes of some divalent transitional metals with 2-benzoil-pyridil-izonicotinoylhydrazone, *J. Thermal Anal. Cal.* **101** (3), 987-996 (2010); I.F. = 1.752.

A. Kriza, M. L. Dianu, N. Stanica and A. M. Musuc, Tranzition metal M(II) complexes with isonicotinoylhydrazone-9-anthraldehyde, *J. Serb. Chem. Soc.*, **75** (11), 1515-1531 (2010), I.F. = 0.611.

V. Brinzea, M. Mitu, D. Razus, D. Oancea, Overall activation parameters of propane oxidation in flames from normal burning velocities, *Rev. Roumaine Chim.*, **55** (2010) 55-61. I.F. = 0.311.

N. Musat, V. Munteanu, D. Razus and D. Oancea, Flame ignition and quenching of n-butane-air mixture at various initial pressures. *Critical Properties, Rev. Roumaine Chim.*, **55** (2010) 99-103. I.F. = 0.311.

N. I. Ionescu, N. I. Jaeger, P. J. Plath, C. Hornoiu, Ignition of catalytic oxidation of ethanol in oscillatory regime, *Rev. Roumaine Chim.* **55** (2010) 105-108. I.F. = 0.311.

N.I. Ionescu, Subsurface oxygen involved in kinetics of oscillatory heterogeneous catalytic reactions, *Rev. Roumaine Chim.* **55** (2010) 349-354. I.F. = 0.311.

N. I. Ionescu, M. Caldararu, Adsorption kinetics in the system ZnO fine powder/O₂, *Rev. Roumaine Chim.*, **55** (2010) 365-367. I.F. = 0.311.

Lucrari publicate in reviste non-ISI (reviste clasificate de CNCSIS) - Papers in journals accepted by CNCSIS

V. Brinzea, M. Mitu, C. Movileanu, Adina Musuc and D. Razus, Expansion Coefficients and Normal Burning Velocities of Propane-Air Mixtures by the Closed Vessel Technique, *Analele Univ. Bucuresti, Chimie*, **19** (2), 31-37 (2010).

V. Munteanu, M. Mitu, D. Oancea, Incipient phase of the catalytic ignition of lean n-heptane-air mixture, *Anal. Univ. Bucuresti – Chimie* **19**(1), 49 – 53 (2010).

2009

Carti/Books

M. Caldararu and C. Munteanu, Aplicații neconvenționale ale feritelor – catalizatori și senzori catalitici, Chap. 7 in O. F. Caltun, I. D., G. Dascalu, L. Hrib, M.N. Palamaru, A. Iordan, M. Feder, H. Chriac, N. Lupu, V. Vilceanu, M. Caldararu, C. Munteanu, B. Negulescu, *Ferite de cobalt magnetostrictive*, Editura Universitatii Al. I. Cuza, ISBN 978-973-703-414-4, Iasi 2009.

Lucrari publicate in reviste clasificate ISI/Papers in ISI ranked journals

G. Postole, S. Bennici, A. Auroux, Calorimetric study of the reversibility of CO pollutant adsorption on high loaded Pt/carbon catalysts used in PEM fuel cells, *Appl. Catal. B: Env.*, 92 (2009) 307-317. I.F. = 5.252.

D. Razus, V. Brinzea, M. Mitu and D. Oancea, Explosion characteristics of LPG-air mixtures in closed vessels, *J. Hazard. Mater.*, 165(1-3) (2009) 1248-1252. I.F. = 4.144.

R. Scurtu, N.I. Ionescu, M. Lazarescu, V. Lazarescu, Surface states and field effects at p- and n- doped GaAs(III)/a solution interface, *Phys. Chem. Chem. Phys.*, 11 (2009) 1765-1770. I.F. = 4.116.

G. Postole, M. Caldararu, B. Bonnetot, A. Auroux, Characterization of high surface area hexagonal boron nitride by in situ electrical conductivity, *Diamond and Related Materials*, 18 (2009) 1052-1056. I.F. = 2.092.

A. Musuc, D. Razus and D. Oancea, Thermal Stabilities of New Synthesized N-Methoxy-Polynitroanilines Derivatives, *J. Thermal Anal. Cal.*, 98 (3) (2009) 779-784. I.F. = 1.587.

O. Staicu, D. Razus, V. Munteanu, D. Oancea, Heterogeneous catalytic ignition of n-butane/air mixtures on platinum, *Central Eur. J. Chem.*, 7 (2009) 478-485. I.F. = 1.065.

T. Yuzhakova, A. Redey, M. Caldararu, J. Kovacs, G. Postole, C. Hornoiu, A. Vasile, E. Domokos, SnO₂-CeO₂ Oxidation Catalysts, *Environ. Eng. Manag. J.*, November/December 2009, Vol.8, No.6, 1403-1406, I.F. (2009) = 0.885.

D. Razus, V. Brinzea, M. Mitu, C. Movileanu and D. Oancea, Inerting effect of the combustion products on the confined deflagration of liquefied petroleum gas-air mixtures, *J. Loss Prev. Process Ind.*, 22 (2009) 463-468. I.F. = 0.810.

D. Razus, V. Brinzea, M. Mitu and D. Oancea, Initial pressure and mixture composition influence on LPG-air confined explosions, *Rev. Chimie*, 60(8) (2009) 750-754. I.F. = 0.552.

N.I. Ionescu, Kinetic model for heterogeneous catalytic oscillatory reactions, *Rev. Roumaine Chim.*, 54 (2009) 339-342. I.F. = 0.284.

C. Munteanu, N.I. Ionescu, M. Feder, L. Diamandescu and M. Caldararu, Electrical properties of iron oxide as a catalyst in deep propane oxidation, *Rev. Roumaine Chim.* 54 (2009) 1057- 1063. I.F. = 0.284.

Lucrari publicate in reviste non-ISI (reviste clasificate de CNCSIS) - Papers in journals accepted by CNCSIS

V. Brinzea, D. Razus, M. Mitu and D. Oancea, Overall activation energy of propane-air combustion in laminar flames, *Analele Univ. Bucuresti, Chimie*, 8(1) (2009) 35-41.

C. Movileanu, V. Brinzea, M. Mitu, D. Razus and D. Oancea, Explosion pressures of confined deflagrations propagating in gaseous mixtures of lower alkanes with air, *Analele Univ. Bucuresti, Chimie*, 18 (2) (2009) 39-46.

L. Predoana, B. Malic, M. Kosec, M. Scurtu, M. Caldararu, M. Zaharescu, Phase Formation and Electrical Properties of the LaCoO_3 Obtained by Water- Based Sol-Gel Method with Citric Acid, Processing and Application of Ceramics, 3 [1-2] (2009) 39–42.

Lucrari publicate in Proceedings

N. Musat, V. Munteanu, D. Razus and D. Oancea, Critical properties for ignition and quenching of flammable n-butane-air mixture with variation of the initial pressure, Proc. 3-rd European Combustion Meeting, Vienna, Austria, April 2009.

T Yuzhakova, A. Redey, M. Caldararu, J. Kovacs, C. Hornoiu, A.Vasile, H. Nasser, E. Domokos, A.Utasi, Az $\text{SnO}_2\text{-CeO}_2$ (5 and 10 m/m% SnO_2) Morfológiai szerkezet és az oxidációs reakciókban mért katalitikus aktivitása közötti kapcsolót, (The Influence of the Surface Structure on the Catalytic Activity of $\text{SnO}_2\text{-CeO}_2$ (5,10wt%) in the Oxidation Reactions), Proc. 5th Karpate Basin Environmental Sci. Conf., Cluj-Napoca, Romania, ISSN 1842-9815, Martie 26-28, 2009.

2008

Lucrari publicate in reviste clasificate ISI/Papers in ISI ranked journals

G. Postole, M. Caldararu, B. Bonnetot, and A. Auroux, Influence of the Support Surface Chemistry on the Catalytic Performances of PdO/BN Catalysts, J. Phys. Chem. C 112 (2008) 11385–11393. I.F. = 3.396.

D. Oancea, O. Staicu, V. Munteanu and D. Razus, Catalytic Combustion of the Stoichiometric n-Butane / Air Mixture on Isothermally Heated Platinum Wire, Catal. Lett., 121 (2008) 247–254. I.F. = 2.021.

N. I. Ionescu, N. I. Jaeger, P.J. Plath, C. Hornoiu, Activation energy of ignition for catalytic oxidation of ethanol in oscillatory regime J. Therm. Anal. Calorim., 92 (2008) 381-384. I.F. = 1.630.

V. Georgescu, G. Dobrescu, F. Papa and N.I. Ionescu, Total oxidation of benzene using Cu-Cr mixed oxides, React. Kinet. Catal. Lett, 94 (2008) 345. I.F. = 0.610.

G. Dobrescu, E. Balabanova, M. Zaharescu, N.I. Ionescu, TEM micrographs fractal analysis of silica powders, Rev. Roumaine Chimie, 53 (2008) 217-222. I.F. = 0.284.

O. Staicu, V. Munteanu, D. Razus and D. Oancea, Overall Kinetics of Isobutane Catalytic Combustion on a Platinum Wire at High Temperatures, Revue Roum.Chim., 53 (2008) 277 – 282. I.F. = 0.284.

N. I. Ionescu, Kinetics of adsorption and desorption in solid-gas system and the logarithmic rate law, Rev. Roumaine Chimie, 53 (2008) 535-541. I.F. = 0.284.

N.I. Ionescu and M. Caldararu, Desorption kinetics in the ZnO nanopowder/ O_2 system, Revue Roum. Chim, 53 (2008) 603-611. I.F. = 0.284.

Lucrari publicate in reviste non-ISI (reviste clasificate de CNCSIS) / Papers in journals accepted by CNCSIS

E. Brandes, K. Eckert, P. Herrmann, M. Mitu, Vapour pressures can be calculated for regulatory purposes, *European Coatings J.*, 10 (2008) 34-39.

Lucrari publicate in Proceedings

D. Razus, D. Oancea, V. Brinzea, M. Mitu, C. Movileanu, Experimental and computed burning velocities of propane-air mixtures, *Proc. 7-th ISPHMIE, Sankt Petersburg, Russia, 2008*, p. 155-165.

2007

Lucrari publicate in reviste clasificate ISI/Papers in ISI ranked journals

S. Cai, M. Caldararu, V. Chihala, C. Munteanu, C. Hornoiu and K. Sohlberg, Possible dual-charge-carrier mechanism of surface conduction on γ -alumina, *J.Phys.Chem.C.* 111, (2007) 5506-5513. I.F. = 4.115.

M. Caldararu, C. Munteanu, P. Chesler, M. Carata, C. Hornoiu, N.I. Ionescu, G. Postole, V. Bratan, Supported oxides as combustion catalysts and as humidity sensors. Tuning the surface behavior by interphase charge transfer, *Micropor. Mesopor. Mater.* 99 (2007) 126-131. I.F. = 2.796.

G. Postole, B. Bonnetot, A. Gervasini, C. Guimon, A. Auroux, N.I. Ionescu, M. Caldararu, Characterisation of BN-supported PdO catalyst used for hydrocarbons oxidation, *Appl. Catal. A*, 316 (2007) 250-258. I.F. = 2.630.

G. Postole, A. Gervasini, M. Caldararu, A. Auroux, B. Bonnetot, Is BN an appropriate support for metal oxide catalysts?, *Appl. Catal. A*, 325 (2007) 227-236. I.F. = 2.630.

D. Razus, C. Movileanu and D. Oancea, The rate of pressure rise of gaseous propylene-air explosions in spherical and cylindrical enclosures, *J. Hazard. Mater.*, 139 (2007) 1-8. I.F. = 1.855.

L. Predoana, B. Malic, M. Kosec, M. Carata, M. Caldararu and M Zaharescu, Characterization of LaCoO_3 powders obtained by water-based sol-gel method with citric acid, *J. Eur.Ceram.Soc.*, 27, (2007) 4407- 4413. I.F. = 1.576.

V. Fruth, G. Dobrescu, V. Bratan, C. Hornoiu, S. Preda, C. Andronescu and M. Popa, Structural and electrochemical features of Bi_2O_3 -based fast oxide ion conductors, *J. Eur. Ceram. Soc.*, 27(13-15) (2007) 4421-4424. I.F. = 1.576.

A. Musuc, D. Razus and D. Oancea, Kinetics of exothermal decomposition of 2-nitrophenylhydrazine and 4-nitrophenylhydrazine using DSC non-isothermal data, *J.Thermal Anal. Calorim.*, 90 (2007) 807-812. I.F. = 1.483.

D. Razus, C. Movileanu, V. Brinzea and D. Oancea, Closed vessel combustion of propylene-air mixtures in the presence of exhaust gas, *Fuel*, 86 (2007) 1865-72. I.F. = 1.829.

N. Ionescu, M. Caldararu, C. Hornoiu, C. Munteanu, Activation energy for the ignition of the catalytic oxidation of methanol in oscillatory regime, *React. Kinet. Catal. Lett.*, 91(2) (2007) 257-262. I.F. = 0.514.

E. Brandes, M. Mitu, D. Pawel, The lower Explosion Point - a Good Measure for Explosion Prevention: Experiment and calculation for pure compounds and some mixtures, *J. Loss Prev. Process. Ind.*, 20 (2007) 536-540. I.F. = 0.419.

D. Razus, M. Mitu, V. Brinzea and D. Oancea, Pressure evolution during confined deflagration of n-butane/air mixtures, *Rev. Chim.(Bucuresti)*, 58 (2007) 1170-1175. I.F. = 0.261.

A. Musuc, C. Popescu, D. Razus and D. Oancea, Non-isothermal kinetic analysis of thermal decomposition of 2, 4-dinitrophenylhydrazine, *Rev. Roumaine Chim.*, 52 (2007) 561-567. I.F. = 0.208.

N. I. Ionescu, M. Caldararu, C. Hornoiu, C. Munteanu, Overall activation energy of methanol oxidation in oscillatory regime, *Rev. Roumaine Chimie*, 52, (2007) 765-771. I.F. = 0.208

Lucrari publicate in reviste non-ISI (reviste clasificate de CNCSIS) / Papers in journals accepted by CNCSIS

D. Razus, D. Oancea, V. Brinzea, M. Mitu, V. Munteanu, Experimental and computational study of flame propagation in propane-, n-butane- and liquefied petroleum gas-air mixtures, *Proc. 7-th European Comb. Meeting, Chania, Greece, April 2007, paper VI-9 (2007)*.

A. Musuc, D. Razus and D. Oancea, A DSC Study of the Thermal decomposition of 2-Methoxyamino-3,5-Dinitro-Pyridine, *Analele Univ. Bucuresti, Chimie*, 16(I) (2007) 25-30.

O. Staicu, V. Munteanu, D. Razus and D. Oancea, A First-Derivative Method to Evaluate the Kinetic Parameters from Transients of Catalytic Ignition on Platinum Wires, *Analele Univ. Bucuresti, Chimie*, 16(II) (2007) 85-91.

T. Yuzhakova, Á. Rédey, M. Caldararu, A. Auroux, M. Scurtu, G. Postole, H. Nasser, J. Fazakas, Adsorption capacity of tin oxide supported catalysts to capture air pollutants, *Proc. 2nd International Conference on Thermal Engines and Environmental Engineering MET IME, Galati 2007, Editura S.C.Jigotto S.R.L., 2 (2007) 165-170*.

T. Yuzhakova, A. Redey, M. Caldararu, M. Scurtu, C. Munteanu, J. Kovacs, Electrical properties of SnO₂-Pt/Al₂O₃ in reductive atmosphere, *J. Environ. Eng. Management*, 6(5) (2007) 337-478.

T. Yuzhakova, A. Redey, M. Caldararu, A. Auroux, M. Scurtu, G. Postole, H. Nasser, J. Fazakas, Adsorption capacity of tin oxide supported catalysts to capture air pollutants, *The Annals of Dunarea de Jos - University of Galati, Fascicle IV-Refrigerating Technique, Internal Combustion Engines, Boilers and Turbines-XI (2007) 117-121*.

Lucrari publicate in Proceedings

D. Razus, D. Oancea, V. Brinzea, M. Mitu and V. Munteanu, Experimental and computational study of flame propagation in propane-, n-butane- and liquefied petroleum gas-air mixtures, *Proc. 7-th European Comb.*

Meeting, Chania, Greece, April 2007, VI-9. ISBN –

E. Brandes, M. Mitu, R. Sturm, Reaction Products of n-Heptane / Air Mixtures after Ignition on Free Hot Surfaces, Proc. of the 21st ICDERS, Intern. Colloq. on the Dynamics of Explosions and Reactive Systems, Poitiers, France, WIP-273, 2007.

2006

Lucrari publicate in reviste clasificate ISI/Papers in ISI ranked journals

G. Postole, A. Gervasini, C. Guimon, A. Auroux, B. Bonnetot, Influence of the preparation method on the surface characteristics and activity of boron nitride supported noble metal catalysts, J. Phys. Chem. B 110(25) (2006) 12572-12580. I.F. = 4.033.

D. Razus, C. Movileanu, V. Brinzea, D. Oancea, Explosion Pressures of Hydrocarbon-Air Mixtures in Closed Vessels, J. Hazard. Mater., 135 (2006) 58-65. I.F. = 1.855.

A. Musuc, D. Razus, D. Oancea, Kinetic analysis of isothermal decomposition of 2,4-dinitrophenylhydrazine using differential scanning calorimetry, Thermoch. Acta, 448 (2006) 130-135. I.F. = 1.417.

D. Razus, M. Molnarne, C. Movileanu, A. Irimia, Estimation of LOC (Limiting Oxygen Concentration) of Fuel/Air/Inert Mixtures at Elevated Temperatures by means of adiabatic flame temperatures, Chem. Eng. Process., 45 (2006) 193-197. I.F. = 1.129.

D. Razus, D. Oancea and C. Movileanu, Burning velocity evaluation from pressure evolution during the early stage of closed-vessel explosions, J. Loss Prev. Process Ind., 19 (2006) 334-342. I.F. = 0.419.

G. Postole, A. Gervasini, A. Auroux, B. Bonnetot, Boron nitride supported metal catalysts: Influence of the metal and of the preparation method. Recent Developments in Advanced Materials and Processes, Book of selected papers presented at 7th Yugoslav Materials Res. Soc. Conf.-YUCOMAT 2005, Trans. Tech. Publ. Ltd, Switzerland, pp. 203-210, 2006. I.F. = 0.399.

M. Mitu, E. Brandes, D. Pawel, Lower explosion limits, lower explosion points and flash points of (1-octanol + n-amyl acetate) mixtures, Rev. Chimie, 57(7) (2006) 770-772. ISSN: 0034-7752. I.F. = 0.287.

E. Brandes, D.H., Frobese, M. Mitu, Safety Characteristics of Ethanol / Automotive Petrol Mixtures, Oil Gas-European Magazine, 32(4), 199-202 (2006). I.F. = 0.494

G. Dobrescu, M. Anastasescu, N.I. Ionescu, M. Rusu, Analyzing STM images of Cu(110) in dilute hydrochloric acid using the dynamic scaling method, Rev. Roumaine Chim., 51 (2006) 187-193. I.F. = 0.208.

G. Dobrescu, N.I. Ionescu, Monica Caldararu, The fractal dimension of oscillation in SnO₂/humid O₂ system, Rev Roum Chim, 51 (2006) 283-289. I.F. = 0.208.

N. I. Ionescu, M. Caldararu, Desorption kinetics in the Zn/O₂ system, Rev. Roumaine Chim., 51, (2006) 521-526. I.F. = 0.208.

D. Razus, C. Movileanu and D. Oancea, Inhibition of premixed C₃H₆-air flames by CH₂BrCl, Rev. Roumaine Chim, 51 (2006) 531-537. I.F. = 0.208.

Lucrari publicate in reviste non-ISI (reviste clasificate de CNCSIS) - Papers in journals accepted by CNCSIS

E. Brandes, M. Mitu, D.H. Frobese, Sicherheitstechnische Kenngrößen ethanolhaltiger Ottokraftstoffe, Technische Überwachung, 9 (2006) 23-26.

T. Yuzhakova, A. Redey, M. Caldararu, A. Auroux, M. Carata, G. Postole, C. Hornoiu, H. Nasser, Study of Pt/Sn-Al catalyst for environmental application, J. Environ. Eng. Management (Proc. The 3rd Intern. Conf. Environm. Eng. Managem., ICEEM/03, Sept. 2006, Iasi, Romania), 5 (2006) 559-567.

V. Munteanu, O. M. Staicu and D. Oancea, Quenching distances of stoichiometric ethylene-air mixture with CO₂ addition, Analele Univ. Bucuresti-Chimie, 15 (II) (2006) 53-57.

E. Ionescu, Cr. Diaconescu, N.I. Ionescu, Reactii biochimice in regim oscilant, Analele Univ. Spiru Haret, Medicina Veterinara, 6-7 (2006) 31.

G. Dobrescu, M. Anastasescu, N.I. Ionescu, M. Rusu, Surface reconstruction on a larger scale of Cu(110) in dilute hydrochloric acid : a dynamic scaling approach, Proc. 15th Intern. Conf. On control Systems and Computer Sci., CSCS – 15, Interdisciplinary Applications of Fractal Analysis, IAFA 2005, Bucharest (2006), p. 51-55.

G. Dobrescu, D. Berger, Fl. Papa, I. Fangli, N. I. Ionescu, M. Rusu, Fractal analysis of micrographs and adsorption isotherms of perovskites, Proc. 15th Intern. Conf. Control Systems Computer Sci, CSCS-15. Interdisciplinary Applications of Fractal Analysis. Bucuresti, (2006) p. 56-61.

Lucrari publicate in Proceedings

E. Brandes, M. Mitu, D. Pawel, The lower Explosion Point – a Good Measure for Explosion Prevention, Proc. 6-th Intern. Symp. on Hazards, Prevention, and Mitigation of Industrial Explosions (ISHPMIE), Halifax, Nova Scotia, Canada, vol. II, 509-516 (2006).

2005

Lucrari publicate in reviste clasificate ISI/Papers in ISI ranked journals

G. Postole, M. Caldararu, N.I. Ionescu, B. Bonnetot, A. Auroux, Boron nitride: a high potential support for combustion catalysts, Thermochem. Acta, 434 (2005) 150-157. I.F. = 1.230.

V. Munteanu, N. Musat, D. Razus and D. Oancea, Ignition of LPG/air mixtures by high voltage and low voltage sparks, Rev. Chimie, 56 (2005) 951-954. I.F. = 0.278.

N.I. Ionescu, N.I. Jaeger, P.J. Plath, M.A. Liauw, C. Hornoiu, Overall activation energy of ethanol oxydation in oscillatory regime, *Rev. Roumaine Chim.*, 50 (2005) 663-670. I.F. = 0.208.

D. Oancea, D. Razus and M. Mitu, Critical temperature-pressure data for ignition of stagnant propylene-air mixtures on platinum filaments, *Rev. Roumaine Chim.*, 50 (2005) 991-997. I.F. = 0.208.

N.I. Ionescu, M. Caldararu, C. Hornoiu, C. Munteanu, Thermokinetic oscillations in catalytic oxidation of methanol, *Rev. Roum Chimie*, 50 (2005) 985-990. I.F. = 0.208.

Lucrari publicate in reviste non-ISI (reviste clasificate de CNCSIS)

M. Caldararu, V. Chihaiia, K. Sohlberg, C. Munteanu, C. Hornoiu and M. Carata, Water and proton mobility on γ -alumina and Sn/ γ -alumina: A combined electrical conductivity and semiempirical PM3 study, *Prog. Catal*, 14(1-2) (2005) 9-20.

D. Razus, C. Movileanu, V. Branzea and D. Oancea, Overall activation parameters of propylene oxidation in premixed flames, *Analele Univ. Bucuresti-Chimie*, 14 (I-II) (2005) 209-214.

A. Urda, I. Sandulescu, M. Carata, Conversion of C₆ hydrocarbons on Zn/H(Na, K)L zeolite, *Analele Univ. Bucuresti-Chimie*, 14 (I-II) (2005) 81-87.

G. Postole, A. Gervasini, M. Caldararu, C. Guimon, B. Bonnetot, A. Auroux, Acid site distribution of boron nitride supported gallium oxide catalysts, *Proc. 7th Mediterranean Conf. Calorim. Thermal Analysis*, Thessaloniki, Grecia, Ed. M. Lalia-Kantouri, pp. 310-313 (2005).

Lucrari publicate in Proceedings

D. Razus, C. Movileanu and D. Oancea, Effect of exhaust gas dilution on burning velocity of propylene-air mixtures, *Proc. 19-th Intern. Symp. Comb. Proc.*, Beskidy, Poland, 2005, pp.221-229. ISBN: 83-922381-1-7.

V. Munteanu, A. Gutkowski, D. Razus, D. Oancea and J. Jarosinski, Comparison between two methods for direct measurement of quenching distances of ethylene/air mixtures, *Proc. 19-th Intern. Symp. Comb. Processes*, Beskidy, Poland, 2005, pp. 213-220. ISBN: 83-922381-1-7.

E. Brandes, M. Mitu, D. Pawel, Flash-Point or Lower Explosion Point – Which one to choose for Explosion-Prevention? - *Proc. European Combustion Meeting (ECM) 2005*, Louvain-la-Neuve, Belgium, pp.179-185 (2005).

E. Brandes, M. Mitu, D. Pawel, Temperature Dependence of the Lower Explosion Limits of Pure Components and Mixtures, *Proc. 20-th Intern. Colloq. on the Dynamics of Explosions and Reactive Systems (ICDERS)* Montreal, Canada, 2005, PIII-Explosion 1055.