

CURRICULUM VITAE

Nume ZAVOIANU (fost STANESCU in perioada 1986-1995)

Prenume RODICA

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Locul nasterii Bucuresti

Data nasterii 4 Martie 1962

Pozitia actuala Conferentiar universitar, Catedra de Chimie Tehnologica si Cataliza

Domenii de competenta

Cataliza Heterogena; Preparare Catalizatori, Procese catalitice
(aromatizare, dimerizare alchene, hidrogenare, dehidrogenare oxidativa, oxidare),
Caracterizarea Catalizatorilor (FTIR, UV-VIS, TPD-CO₂, TPD-NH₃),

Cursuri Predate: *Procese si mecanisme in cataliză* – sectia Fizica-Chimie anul V și sectia Fizica-Chimie FF;

Chimie technologique générale– secția Chimie în limba franceză anul III

Chimie technologique générale– secția Chimie în limba franceză anul IV

Catalyse en chimie organique – anul IV la Departamentul de Stiinte ingineresti – filiera franceză la Universitatea “Politehnica” București

Procese si operatii in biotehnologie – sectia Chimie specializarea Biochimie anul II

Efecte de selectivitate in cataliza – Master Catalizatori si Procese Catalitice anul II

Procese de tratare si epurare a apelor si aerului, sectia Chimia Mediului, anul IV

Cataliza cu complexi organometalici, Master Materiale moleculare: Sinteza, Caracterizarea Fizico-Chimica si Cataliza anul I

Combustibili ecologici, Master sectia Poluarea Chimica si Mediul anul I

Mecanismul Catalizei Eterogene, Master Materiale moleculare: Sinteza, Caracterizarea Fizico-Chimica si Cataliza anul II

Publicatii

Carti:

1. Angelescu, E., Ropot, M., Zavoianu, R., 2001, Cataliza cu complexi organo-metalici, Editura Ars Docendi, ISBN 973-8118-83-2, (122 pagini)
2. Udrea, I., Stanescu, R., (Stanescu, R. e numele purtat de Zavoianu, R. pe durata casatoriei 1986-1995) Cruceanu, A., 1993, Lucrari Practice de Tehnologie Chimica Generala (vol. III), Ed. Universitatea din Bucuresti, 1993, (134 pagini)

Articole:

I. Reviste din Romania

1. Zavoianu, D., Ciocazanu, I., Moga-Gheorghe, S., Cuza, O., Zavoianu, R., Structura si reactivitatea nitrililor. Caldura de combustie si caldura de formare a unor nitrili alfa-betanesaturati derivati de la benziliden-p-clorfenilacetonitril - Revista de Chimie (Bucuresti), vol. 36, 1099 – 110 (1985)
2. Zavoianu, D., Moga-Gheorghe, S., Cuza, O., Zavoianu, R., Hidroliza nitrililor. Hidroliza alcalina a unor nitrili alfa-beta-nesaturati derivati de la benziliden-p-metoxifenilacetonitril – Revista de Chimie (Bucuresti), vol. 37/1986, 120 – 1251 (1986)
3. Szabo, A., Ballo, A., Stanescu, R., Study of the double promoted iron catalyst. 1. The electrical conductivity and its activation energy – Analele Universitatii Bucuresti-Chimie-Anul I (new series), p.83 – 90 (1992)
4. Szabo, A., Ballo, A., Stanescu, R. Study of the double promoted iron catalyst. 2. The mode of action of the promoters and the character of nitrogen chemisorption, Progress in Catalysis, 1/1992, p.41 – 48 (1992)
5. Angelescu, E., Pop, G., Pogonaru, G., Stanescu, R., Musca, G., Parvulescu, V.I., Conversion of C2-C4 olefins to aromatic hydrocarbons catalysed by H-ZSM-5 and H-ZSM-5 M2O3 zeolites (M= Ga, La, Y, In, Nd), Revue Roumaine de Chimie, 38(4), p.

411 - 423 (1993)

6. Angelescu, E., Stanescu, R., Parvulescu, V.I., Botez, L., Angelescu, A., Dimerization of ethylene on organometallic nickel catalyst, *Progress in Catalysis*, 1/1993, p.24 –30 (1993)
7. Cruceanu, A., Angelescu, E., Constantinescu, T., Stanescu, R., Angelescu, A., Thyolation of propylene over metal sulphides catalysts - *Progress in Catalysis*, 3(2)/1994, p. 55 – 63 (1994)
8. Angelescu, E., Stanescu, R. Book reviews *Proceedings of the 10th International Congress on Catalysis – New Frontiers in Catalysis – Ed. By L. Gucci, F. Solymosi, P. Tétényi, Akademiai Kiado, Budapest – Revue Roumaine de Chimie*, 39(3), p. 347-348 (1994)
9. Angelescu, E., Stanescu, R., Pop, G., Constantinescu, F., Cruceanu, A., n-Butane and nbutenes conversion to aromatic hydrocarbons over H-ZSM-5 modified by Sr, Cd, Mg, Zn, Ag – *Progress in Catalysis*, 4(1)/1995, p. 25 – 31 (1995)
10. Zavoianu, R., Angelescu, E., Nenu, C., Nastase, N., Ethylene dimerization on Pd(2,2'-bipyridine)Cl₂ encapsulated in Na(H)Y zeolites - *Revue Roumaine de Chimie*, 1999, 44(11-12), p. 1101-1106 (1999)
11. Urda, A., Sandulescu, I., Zavoianu, R., Aromatization of C₆ Hydrocarbons on Modified ZSM-5 Zeolites – *Progress in Catalysis*, vol. 10 nr. 1-2, p. 95-103, (2001)
12. Cruceanu, A., Zavoianu, R., Angelescu, E., Catalytic Desulphurisation of Gaseous Streams Containing H₂S in the Presence of Fe, Co and Cr Chelates Catalysts –*Progress in Catalysis*, vol. 10 nr. 1-2, p. 27-39, (2001)
13. Zavoianu, R., Soares Dias, A. P. V., Urda, A., Pavel, O.D., Influenta modificarii cu P, Si si Ti asupra paraselectivitatii zeolitului H-ZSM-5, *Revista de Chimie (Bucuresti)*, 54/5, p. 418-423, (2003)
14. Urda, A., Zavoianu, R., Sandulescu, I., Influenta naturii materiei prime asupra aromatizarii hidrocarburilor C₆ pe catalizatori Zn/H-ZSM-5, *Revista de Chimie (Bucuresti)*, 54/7, p. 619-623 (2003);
15. Urda, A., Zavoianu, R., Sandulescu, I., Aromatization of C₆ Hydrocarbons on Zn/HZSM-5 Catalyst - *Analele Universitatii Bucuresti, anul XII (serie noua)*, vol. I-II, p. 317-324 (2003)
16. Zavoianu, R., Urda, A., Cruceanu, A., Angelescu, E., Effect of the modification with Sn, Zr and Ce on the physico-chemical and catalytic performances of H-ZSM-5 zeolite,

- Analele Universitatii Bucuresti, anul XII (serie noua), vol. I-II, p. 325-332 (2003)
17. Zavoianu, R., Urda, A., R. Birjega, Angelescu, E., Comparison Between the Aromatisation of C₄ Hydrocarbons on Ga- and Sb-Modified ZSM-5 Zeolites Prepared by Different Techniques –Progress in Catalysis vol. 12/1, p. 69-82 (2003)
 18. Zavoianu, R., Pavel, O.D., Cruceanu, A., Preda, C., Nitu, C.S., Angelescu, E., Characterization of silica supported NiMoO₄ Doped with Ce, Cr and Zr Using Thermodesorption Techniques, – Progress in Catalysis, vol. 12, nr. 2, p. 83 – 92, (2003)
 19. Cruceanu, A., Zavoianu, R., Pavel, O.D., Angelescu, E., Removal of hydrogen sulphide from sour water –RICCCE, vol. 1, section 5, p. 78-83, (2003)
 20. Angelescu, E., Pavel, O. D., Zavoianu, R., Birjega, R., Cyanoethylation of ethanol over mixed oxides obtained from hydrotalcite precursors, Revue Roumaine de Chimie, 49 (3-4), p. 367-375, (2004)
 21. Ropot, M., Zavoianu, R., Preda, C., Pavel, O.D., Angelescu, E., 2004, Hydrogenation selective de alpha-methyl-styrene en presence du catalyseur complexe Ni(2,2'-bipy)Cl₂ depose sur matrice zeolithique – CoFrRoCA 2004, p. 510-514, Ed. Alma-Mater Bacau ISBN 973-8392-36-5
 22. Cruceanu, A., Zavoianu, R., Birjega, R., Ropot, M., 2005, Preliminary studies concerning catalytic oxidation of alkyl mercaptans from liquid petroleum cuts in the presence of Fe(III) chelates supported on hydrotalcite-like compounds – Analele Universitatii Bucuresti, anul XIV (serie noua), vol. I-II, p. 41-48 (2005)
 23. Angelescu, E., Zavoianu, R., Pavel, O.D., Angelescu, A., Ethylene dimerization on nickel 4,4'-bipyridine complex supported on faujasite type zeolites – Analele Universitatii Bucuresti, anul XIV (serie noua), vol. I-II, p. 17-24 (2005)
 24. Angelescu, E., Cruceanu, A., Zavoianu, R., Angelescu, A., Ftalocianine sulfonate de metale tranzitionale catalizatori pentru demercaptanizarea benzinelor, Revista de Chimie (Bucuresti), 57(1), p. 85-90 (2006)
 25. Zavoianu, R., Birjega, R., Pavel, O.D., Cruceanu, A., Angelescu, E., La Dimerisation de l'ethylene en presence des complexes M^{II}(2,2'-bipyridine) (M^{II} = Fe, Co) supportes sur zeolithe Y, SCIENTIFIC STUDY & RESEARCH Vol. VII (1) . p 171-183. (2006)
 26. E. Angelescu, R. Zavoianu, R. Bîrjega, A. Angelescu, O.D. Pavel, Catalytic Oxidative Demercaptanization on Mg-Al Hydrotalcites Containing Cobalt Complex Anions, Revista

de Chimie Bucuresti, 2007, vol. 58 nr. 11, 1024-1031 (2007)

27. Ropot, M., Angelescu, E., Zăvoianu, R., Bîrjega, R. The influence of the preparation of Zr(OH)₄ precursor on the catalytic performances of ZrO₂/SO₄²⁻ in the isomerization of n-butane Revista de Chimie Bucuresti 59 (3), pp. 292-296 (2008)

II. Monografii –

III. Articole in reviste internationale

1. Zavoianu, R., Angelescu, E., Nenu, C., Nastase, N., 2000, Selective dimerization of ethylene on Pt organometallic complex encapsulated in Y zeolite - in Heterogeneous Catalysis, L. Petrov, Ch. Bonev, G. Kadinov (Eds.), Institute of Catalysis, Bulgarian Academy of Sciences, Sofia, p. 447-452 (2000)
2. Zavoianu, R., Dias, C.R., Portela, M.F., 2000, Preparation and Characterisation of SiO₂-Supported NiMoO₄ Catalysts – autori:, - Heterogeneous Catalysis, L. Petrov, Ch. Bonev, G. Kadinov (Eds.), 2000 Institute of Catalysis, Bulgarian Academy of Sciences, Sofia, p. 411-416 (2000)
3. Zavoianu, R., Dias, C.R., Portela, M.F., 2001, Study of the acid-base properties of SiO₂ supported NiMoO₄ catalysts by temperature programmed desorption. Part I. Effect of the content of the active phase, Reaction Kinetics and Catalysis Letters., 72 (2), p. 201-208 (2001)
4. Zavoianu, R., Angelescu, E., Pt-2,2'-bipyridine complex encapsulated in Y zeolite catalysts for ethylene selective dimerization, Stud. Surf. Sci.Catal., vol 135, p. 4031-4038 (2001);
5. Zavoianu, R., Dias, C.R., Portela, M.F., Preparation and Characterisation of TiO₂-Supported NiMoO₄ Catalysts, Catalysis Communications 2, p. 37-42 ISSN 1566-7367; (2001)
6. Zavoianu, R., Dias, C.R., Portela, M.F., 2001, Influence of the preparation method on the phase composition of NiMoO₄ supported catalysts – CHEMPOR vol. 1, F. Ramoa Ribeiro & J.J.C. Cruz Pinto Eds., p.399-406, (2001)
7. Zavoianu, R., Dias, C.R., Portela, M.F., 2001, Oxidative Dehydrogenation of Isobutane over SiO₂-Supported NiMoO₄ Catalysts – CHEMPOR vol. 1, F. Ramoa Ribeiro & J.J.C.

Cruz Pinto Eds., p.391-397, (2001)

8. Dias, C.R., Zavoianu, R., Portela, M.F., Study of the acid-base properties of SiO₂-supported NiMoO₄ catalysts by temperature programmed desorption. Part II. Effect of the support, Reaction Kinetics and Catalysis Letters., 77 (2), p. 317-324 (2002)
9. Dias, C.R., Zavoianu, R., Portela, M.F., Isobutane ODH on SiO₂-supported nickel molybdate catalysts: Effect of the active phase loading, Catalysis Communications 3 p. 85-90 (2002)
10. Angelescu, E., Che, M., Andruh, M., Zavoianu, R., Costentin, G., Mirica, C., Pavel, O.D., Ethylene Selective Dimerization on Polymer Complex Catalyst of Ni(4,4'-bipyridine)Cl₂ Coactivated with AlCl(C₂H₅)₂, Journal of Molecular Catalysis A: Chemical, 219/1, p. 13-19, (2004)
11. Zavoianu, R., Birjega, R., Pavel, O.D., Cruceanu, A., Alifanti, M., Hydrotalcite like compounds with low Mo-loading active catalysts for selective oxidation of cyclohexene with hydrogen peroxide, Applied Catalysis A: General 286, p.211-220 (2005)
12. Zavoianu, R., Soares Dias, A. P. V., Pavel, O.D., Angelescu, E., Portela, M.F., 2005, 1-Octene metathesis on silica supported Zr-doped NiMoO₄ catalysts, Catalysis Communications 6/5, p. 321-327
13. Zavoianu, R., Nenu, C., Angelescu, E., Ni(2,2'-bipyridine)₂Cl₂ encapsulated in Y zeolite new catalyst for ethylene dimerization – Catalysis Communications 6/6, p. 415-420 (2005)
14. Zavoianu, R., Dias, C.R., Soares, A.P.V., Portela, M.F., Oxidative dehydrogenation of isobutane over nanostructured silica-supported NiMoO₄ catalysts with low content of active phase – Applied Catalysis A :General, 298, p.40-49 (2006)
15. Angelescu, E.; Pavel, O. D.; Birjega, R.; Zavoianu, R.; Costentin, G.; Che, M., Solid base catalysts obtained from hydrotalcite precursors, for Knoevenagel synthesis of cinnamic acid and coumarin derivatives, Applied Catalysis, A: General, 308, p. 13-18 (2006)
16. Angelescu, E., Pavel, O.D., Birjega, R., Florea, M., Zăvoianu, R., The impact of the "memory effect" on the catalytic activity of Mg/Al; Mg,Zn/Al; Mg/Al,Ga hydrotalcite-like compounds used as catalysts for cyclohexene epoxidation Applied Catalysis A: General 341 (1-2), pp. 50-57 (2008)
17. R. Zavoianu, O.D.Pavel, A. Cruceanu, M. Florea, R. Birjega, A. Rotaru, C. Bradu, P. Rotaru, Influence of the preparation method on the ampicillin incorporation in

hydrotalcite-like compounds, Nanoporous Materials, Eds. Abdelhamid Sayari, Mietek Jaroniec, Ed. World Scientific Co. Pte. Ltd., p. 717-729 (2008)

18. Angelescu, E., Ionescu, R., Pavel, O. D., Zăvoianu, R., Bîrjega, R., Luculescu, C. R., Florea, M., Olar, R., "Epoxidation of cyclohexene with O₂ and isobutyraldehyde catalysed by Cobalt modified hydrotalcites", doi:[10.1016/j.molcata.2009.09.009](https://doi.org/10.1016/j.molcata.2009.09.009) Journal of Molecular Catalysis A: Chemical 315 pp. 178–186 (2010);

19. Ionescu Rodica, Pavel Octavian Dumitru , Birjega Ruxandra, Zavoianu Rodica, Angelescu Emilian, Epoxidation of Cyclohexene With H₂O₂ and Acetonitrile Catalyzed by Mg–Al Hydrotalcite and Cobalt Modified Hydrotalcites, Catal Lett DOI [10.1007/s10562-009-0238-y](https://doi.org/10.1007/s10562-009-0238-y)

IV. Brevete

1. Procedeu pentru anhidrizarea anilinei

Romanian Patent 106131/26.02.1993

Autori : Sarbu, L., Stoica, T., Sotca, D., Voin, I., Stanescu, R., Bota, T.D., Iacoban, N., Nicoara, D., Giurcaneanu, V., Bacalum, F.