

Universitatea Națională de Știință și Tehnologie POLITEHNICA BUCUREȘTI

Facultatea: Facultatea de Inginerie Chimică și Biotehnologii

Departamentul: Inginerie Chimică și Biochimică

Nume și Prenume: Brezoiu Ana-Maria-Claudia

Gradul didactic: Șef de lucrări

L I S T A

lucrărilor științifice în domeniul disciplinelor din postul didactic

A. Teza de doctorat

A1: „Dezvoltarea de sisteme cu eliberare controlată pentru valorificarea unor compuși naturali”, domeniul fundamental: științe ingineresti, domeniul Inginerie chimică, conducător prof. dr. ing. Daniela-Cristina BERGER, Universitatea Politehnica din București, Facultatea de Inginerie Chimică și Biotehnologii, **2021**.

B. Cărți și capitole în cărți publicate în ultimii 10 ani

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C. Lucrări indexate ISI/BDI publicate în ultimii 10 ani

C1. A. Abduraman, **A.-M. Brezoiu**, R. Tatia, A. – I. Iorgu, M. Deaconu, R.-A. Mitran, C. Matei, D. Berger, *Mesoporous Titania Nanoparticles for a High-End Valorization of Vitis vinifera Grape Marc Extracts*, *Inorganics*, **2024**, 12, 10, 263 [WOS:001342640800001, FI=3,1, e-ISSN:2304-6740]

C2. M. Deaconu, A. Abduraman, **A.-M. Brezoiu**, N. K. Sedky, S. Ionita, C. Matei, L. Ziko, D. Berger, *Anti-Inflammatory, Antidiabetic, and Antioxidant Properties of Extracts Prepared from Pinot Noir Grape Marc, Free and Incorporated in Porous Silica-Based Supports*, *Molecules*, **2024**, 29, 13, 3122 [WOS:001268054200001, FI=4,2, e-ISSN: 1420 - 3049]

C3. **A.M. Brezoiu**, M. Deaconu, R.-A. Mitran, N. K. Sedky, F. Schiets, P. Marote, I.-S. Voicu, C. Matei, L. Ziko, D. Berger, *The Antioxidant and Anti-Inflammatory Properties of Wild Bilberry Fruit Extracts Embedded in Mesoporous Silica-Type Supports: A Stability Study*, *Antioxidants*, **2024**, 13, 2, 250 [WOS:001169894000001, FI=6, e-ISSN: 2076-3921]

C4. M. Deaconu, A.-M. Prelipcean, **A.- M. Brezoiu**, R.-A Mitran, A.- M. Seciu-Grama, C. Matei, D. Berger, *Design of Scaffolds Based on Zinc-Modified Marine Collagen and Bilberry Leaves Extract-Loaded Silica Nanoparticles as Wound Dressings*, *Int J. Nanomed.*, **2024**, 19, 7673—7689 [WOS: 001279557800001, FI=6,7, ISSN: 1178-2013]

C5. **A.M. Brezoiu**, M. Deaconu, R.A. Mitran, A.M. Prelipcean, C. Matei, D. Berger, *Optimisation of Polyphenols Extraction from Wild Bilberry Leaves-Antimicrobial Properties and Stability Studies*, *Molecules*, **2023**, 28, 15, 5795 [WOS:001046268200001, FI=4,2, eISSN: 1420-3049]

C6. A. M. Draghici-Popa, A.C. Boscornea, **A.-M. Brezoiu**, S.T. Tomas, O.C. Pârvulescu, R. Stan, *Effects of Extraction Process Factors on the Composition and Antioxidant Activity of Blackthorn (Prunus spinosa L.) Fruit Extracts*, *Antioxidants*, **2023**, 12, 10, 1897 [WOS:000568157000001, FI=6, eISSN: 2076-3921]

C7. P. L. Matei, I. Deleanu, **A.-M. Brezoiu**, N.A. Chira, C. Busuioc, G. Isopencu, M. Ciltea-Udrescu, E. Alexandrescu, A. Stoica-Guzun, *Ultrasound-Assisted Extraction of Blackberry Seed Oil: Optimization and Oil Characterization*, *Molecules* **2023**, 28, 6, 2486 [WOS:000957665900001, FI=4,927 , eISSN: 1420-3049].

C8. M. Deaconu, A.M. Prelipcean, **A.-M. Brezoiu**, R.-A. Mitran, G. Isopencu, C. Matei, D. Berger, *Novel Collagen-Polyphenols-Loaded Silica Composites for Topical Application*, *Pharmaceutics* **2023**, 15, 2, 312 [WOS:000940774300001, FI=6,525, eISSN: 1999-4923].

C9. **A.-M. Brezoiu**, A.-M. Prelipcean, D. Lincu, M. Deaconu, E. Vasile, R. Tatia, A.-M. Seciu-Grama, C. Matei; D. Berger, *Nanoplatfoms for Irinotecan Delivery Based on Mesoporous Silica Modified with a Natural Polysaccharide*, *Materials MDPI* **2022**, 15, 19, 7003, [WOS:000866999000001, FI=3,748, eISSN: 1996-1944].

C10. L. C. Miclea; M. Mihailescu; N., Tarba; **A.-M. Brezoiu**; A.-M. F. Sandu; R.-A. Mitran, D. Berger; C. Matei; M. G. Moiescu, T. Savopol, *Evaluation of intracellular distribution of folate functionalized silica nanoparticles using fluorescence and hyperspectral enhanced dark field microscopy*, *Nanoscale* **2022**, 14, 35, 12744-12756 [WOS:000843636500001, FI=8,307, ISSN 2040-3364].

C11. S. Ioniță, D. Lincu, R.-A. Mitran, L. Ziko, N. L. Sedky, M. Deaconu, **A. M. Brezoiu**, C. Matei, D. Berger, *Resveratrol encapsulation and release from pristine and functionalized mesoporous silica carriers*, *Pharmaceutics* **2022**, 14, 1, 203 [WOS:000747087400001, FI=6,525, eISSN: 1999-4923].

C12. M. Prundeanu, **A. M. Brezoiu**, M. Deaconu, G. Grădișteanu Pircalabioru, D. Lincu, C. Matei, D. Berger, *Mesoporous silica and titania-based materials for stability enhancement of polyphenols*, *Materials* **2021**, 14, 21, 6457 [WOS:000719484000001, FI=3,748, eISSN: 1996-1944].

C13. M. Prundeanu, **A. M. Brezoiu**, M. Deaconu, D. Berger, *Chemical profiling of polyphenols from salvia officinalis and thymus serpyllum extracts during a three-stage extraction process*, *U.P.B. Sci. Bull., Series B*, **2021**, 83(1), 3-16 [WOS:000627764100001, FI=0, ISSN: 1454-2331].

C14. M. Deaconu, **A. M. Brezoiu**, R.-A. Mitran, I. Nicu, B. Manolescu, C. Matei, D. Berger, *Exploiting the zwitterionic properties of lomefloxacin to tailor its delivery from functionalized MCM-41 silica*, *Microporous and Mesoporous Materials* **2020**, 305, 110323 [WOS:000551659900022, FI=5,876, ISSN: 1387-1811].

C15. V. Buda, **A. M. Brezoiu**, D. Berger, I. Pavel, D. Muntean, D. Minda, C. Dehelean, C. Soica, Z. Diaconeasa R. Folescu, C. Danciu, *Biological Evaluation of Black Chokeberry Extract Free and Embedded in Two Mesoporous Silica-Type Matrices*, *Pharmaceutics* **2020**, 12, 9, 838 [WOS:000579952300001, FI=6,525, eISSN: 1999-4923].

C16. **A. M. Brezoiu**, L. Bajenaru, D. Berger, R.-A. Mitran, M. Deaconu, D. Lincu, A. Stoica Guzun, C. Matei, M. Moiescu, T. Negreanu-Pirjol, *Effect of Nanoconfinement of Polyphenolic Extract from Grape Pomace into Functionalized Mesoporous Silica on Its Biocompatibility and Radical Scavenging Activity*, *Antioxidants* **2020**, 9, 8, 696 [WOS:000568157000001, FI=7,675, eISSN: 2076-3921].

C17. **A. M. Brezoiu**, M. Prundeanu, D. Berger, M. Deaconu, C. Matei, O. Oprea, E. Vasile, T. Negreanu-Pirjol, D. Muntean, C. Danciu, *Properties of Salvia officinalis L. and Thymus serpyllum L. Extracts Free and Embedded into Mesopores of Silica and Titania Nanomaterials*, *Nanomaterials* **2020**, 10, 5, 820 [WOS:000540781800003, FI=5,719, eISSN: 2079-4991].

C18. **A. M. Brezoiu**, D. Lincu, M. Deaconu, R.-A. Mitran, D. Berger, C. Matei, *Enhanced stability of polyphenolic extracts from grape pomace achieved by embedding into mesoporous silica-type matrices*, *U.P.B. Sci. Bull., Series B* **2020**, 82, 3, 2020 [WOS:000610098500001, FI=0, ISSN: 1454-2331].

C19. **A. M. Brezoiu**, C. Matei, M. Deaconu, A. M. Stanciuc, A. Trifan, A. Gaspar-Pintilieșcu, D. Berger, *Polyphenols extract from grape pomace. Characterization and valorisation through encapsulation into mesoporous silica-type matrices*, *Food and Chemical Toxicology* **2019**, 133, 110787 [WOS:000491684000050, FI=5,572, ISSN: 0278-6915].

C20. **A. M. Brezoiu**, M. Deaconu, I. Nicu, E. Vasile, R.-A. Mitran, C. Matei, D. Berger, *Heteroatom modified MCM-41-silica carriers for Lomefloxacin delivery systems*, *Microporous and Mesoporous Materials* **2019**, 275, 214-222 [WOS:000452942500025, FI=5,876, ISSN: 1387-1811].

C21. M. Deaconu, I. Nicu, R. Tincu, **A. M. Brezoiu**, R.-A. Mitran, E. Vasile, C. Matei, D. Berger, *Tailored doxycycline delivery from MCM-41-type silica carriers*, *Chemical Papers* **2018**, 72 (8), 1869-1880 [WOS:000439366400004, FI=2,146, ISSN: 0366-6352].

C22. Georgescu, **A. M. Brezoiu**, R.-A. Mitran, D. Berger, B. Negreanu- Pirjol, C. Matei, *Mesostructured silica-titania composites for improved oxytetracycline delivery systems*, Comptes Rendus Chimie **2017**, 20, 1017-1025 [WOS:000418629300005, FI=2,55, ISSN: 1631-0748].

C23. M. D. Raicopol, C. Andronescu, R. Atasiei, A. Hanganu, E. Vasile, **A. M. Brezoiu**, L. Pilan, *Organic layers via aryl diazonium electrochemistry: towards modifying platinum electrodes for interference free glucose biosensors*, Electrochimica Acta **2016**, 206, 226-237 [WOS:000376535100026, FI=7,336, ISSN: 0013-4686].

C24. M. D. Raicopol, I. Vlăsceanu, I. Lupulescu, **A. M. Brezoiu**, L. Pilan, *Amperometric Glucose Biosensors based on functionalized electrochemically reduced graphene oxide*, U.P.B. Sci. Bull., Series B **2016**, 78, 2, 2016. [FI=0, ISSN: 1454-2331].

D. Lucrări publicate în ultimii 10 anii în reviste și volume de conferințe cu referenți

- Reviste:

- Manolache, **A.-M. Brezoiu**, I. Banu, *Glycerol conversion to lactic acid: process analysis*, Bulletin of Romanian Chemical Engineering Society, No. 2, **2024**.

- Selecție cu maximum 20 lucrări în volume de conferințe

- **A.-M. Brezoiu**, M. Deaconu, R.-A. Mitran, C. Matei, D. Berger, *Polyphenolic extracts from various raw-materials. Beneficial properties preservation through incorporation in mesoporous silica-type supports*, XXXth International Symposium of Chemical Engineering and Material (SICHEM), București, România, Nov. **2024** (keynote);
- **A.-M. Brezoiu**, M. Deaconu, R.-A. Mitran, C. Matei, D. Berger, *Investigating bilberry polyphenolic extracts composition depending on the extraction parameters and extract purification*, International Conference on Chemistry and Chemical Engineering (RICCCE), Constanța, România, 4-7 Septembrie **2024** (prezentare orală);
- **M. Deaconu**, M. Ghiuta, L. Ziko, A.-M. Prelipcean, A. M. Seciu-Grama, **A.-M. Brezoiu**, C. Matei, D. Berger *Vaccinium sp. extracts encapsulated in hollow silica spheres – adjuvants in bacterial infections*, International Conference CHIMIA, Ed. a X-a Constanța, România, 30.05-01.06 **2024**, România;
- **I.-S. Voicu**, **A.-M. Brezoiu**, M. Deaconu, N. K. Sedky, C. Matei, L. Ziko, D. Berger *Encapsulation of polyphenolic extracts from Vaccinium myrtillus in functionalized mesoporous silica with antiinflammatory activity*, The 19th International Symposium Priorities of Chemistry for a Sustainable Development (PRIOCHEM), București, România, Nov. **2023**;
- **A. Abduraman**, **A.-M. Brezoiu**, M. Deaconu, S. Ionita, N. K. Sedky, C. Matei, L. Ziko, D. Berger *Studies on polyphenols extraction and their embedding in porous supports*, Conferința Internațională de Chimie Fizică – ROMPHYSICHEM, București, România, Sept. **2023**;
- **A.-M. Brezoiu**, M. Deaconu, R.-A. Mitran, C. Danciu, C. Matei, D. Berger, *Embedding polyphenols extracts from berries with beneficial properties in mesoporous silica-type supports*, International Chemical Engineering and Material Symposium (SICHEM 2022), București, România, 17-18 Noiembrie **2022** (prezentare orală);
- **A.-M. Brezoiu**, M. Deaconu, A. Costache, C. Matei, D. Berger, *Factorial Design of Polyphenols Extraction from Berries with Antioxidant Properties*, International Conference on Chemistry and Chemical Engineering (RICCCE), Sinaia, România, 7-9 Septembrie **2022** (prezentare orală);
- **A.-M. Brezoiu**, L. Miclea, M.G. Moiescu, M. Deaconu, C. Matei, D. Berger, *Design of Nanoplatforms for Targeted Delivery of Irinotecan*, The 17th International Symposium Priorities of Chemistry for a Sustainable Development (PRIOCHEM), București, România, Nov. **2021** (prezentare orală);

- **A. M. Brezoiu**, V. Buda, M. Deaconu, D. Lincu, A. Mocanu, C. Danciu, C. Matei, D. Berger, *Chemical profile and biological activities of polyphenols extracts from black chokeberry free and embedded on silica-type supports*, 1st Advances in Food Chemistry Conference, Online, România, 15-17 Aprilie **2021** (prezentare orală);
- **M. Prundeanu**, **A. M. Brezoiu**, D. Lincu, M. Deaconu, E. Anton, C. Matei, D. Berger, *Influence of extraction conditions on properties of Salvia officinalis L. polyphenolic extracts, free and encapsulated into mesoporous titania matrices*, 5th International Conference on Chemical Engineering Romania, Iași, October 28 – 30, **2020**;
- **A. Abduraman**, **A. M. Brezoiu**, R. Tatia, M. Deaconu, D. Lincu, S. Minea, V. Artem, C. Matei, L. Moldovan, T. Negreanu Pirjol, D. Berger, *Properties of Free and Embedded Extracts from Different Grape Pomace into Mesoporous Inorganic Matrices*, Priorities of Chemistry for a Sustainable Development (PRIOCHEM), București, România, 28-30 Octombrie **2020**;
- **A. M. Brezoiu**, V. Buda, D. Lincu, C. Danciu, C. Matei, D. Berger, *Investigation of Embedding Black Chokeberry Extract in Mesoporous Silica Supports on Its Beneficial Effects*- Priorities of Chemistry for a Sustainable Development (PRIOCHEM), București, România, 28-30 Octombrie **2020** (prezentare orală);
- **A. M. Brezoiu**, L. Băjenaru, M. Deaconu, D. Lincu, A. Stoica-Guzun, R.-A. Mitran, C. Matei, D. Berger, *Antioxidant activity of polyphenolic extract from rose wine grape marc loaded on functionalized mesoporous silica*- International Symposium of Chemical Engineering and Material (SICHEM 2020), București, România, 17-18 Septembrie **2020**;
- **A. M. Brezoiu**, M. Deaconu, D. Lincu, L. Bajenaru, C. Matei, D. Berger, *Embedding Polyphenols Extract from Grape Marc into Inorganic Supports with Enhanced Stability*- Priorities of Chemistry for a Sustainable Development (PRIOCHEM)- București, România, 30 Octombrie-1 Noiembrie **2019**.
- **D. Lincu**, S. Ionita, R.-A. Mitran, M. Deaconu, **A.-M. Brezoiu**, C. Matei, D. Berger, *Influence of mesoporous silica functionalization and pore size on resveratrol release profiles*”- Priorities of Chemistry for a Sustainable Development (PRIOCHEM)- București, România, 30 Octombrie-1 Noiembrie **2019**.
- **D. Lincu**, S. Ionita, R.-A. Mitran, M. Deaconu, **A.-M. Brezoiu**, C. Matei, D. Berger, *Tailoring the resveratrol release profile from mesoporous silica through carrier surface modification*, Romanian International Conference on Chemistry and Chemical Engineering (RICCCE), Constanța, România, 4-7 Septembrie **2019**;
- **S. Ionita**, D. Lincu, R.-A. Mitran, **A.-M. Brezoiu**, M. Deaconu, C. Matei, D. Berger, *Properties of resveratrol encapsulated into mesoporous silica*, Romanian International Conference on Chemistry and Chemical Engineering (RICCCE), Constanța, România, 4-7 Septembrie **2019**;
- **M. Prundeanu**, **A. M. Brezoiu**, M. Deaconu, C. Matei, O. Oprea, T. Negreanu-Pirjol, D. Berger, *Comparison between Salvia officinalis and Thymus serpyllum leaves*, Romanian International Conference on Chemistry and Chemical Engineering (RICCCE), Constanța, România, 4-7 Septembrie **2019**;
- **A. M. Brezoiu**, C. Matei, M. Deaconu, R.A. Mitran, A. Trifan, A. M. Stanciuc, D. Berger, *Enhanced radical scavenger properties of polyphenolic extracts from grape marc through encapsulation into mesoporous silica-type matrices*, Romanian International Conference on Chemistry and Chemical Engineering (RICCCE), Constanța, România, 4-7 Septembrie **2019**;
- **C. Boscornea**, I. Maior, A. Cojocar, **A.M. Brezoiu**, A. Ivanciu, A. Lascu, *Epoxy anticorrosive systems based on metal phthalocyanines*, International Chemical Engineering and Material Symposium (SICHEM 2020), București, România, 6-7 Septembrie **2019**;

○ **Brevete obținute în întreaga activitate -**