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ISSN= 1453-1399

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ISSN= 1224-9513

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ISSN= 1223-2076

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## **E. Proprietate industrială**

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- E1.3. UMF Timișoara (**Borcan F**, Șoica CM, Florița S, Gălușcan A, Jumanca D). *Vehicul polieter-uretanice pentru transportul transdermic al unor compuși farmaceutici utilizați în stomatologie*. Brevet de invenție, nr. 128801, eliberat de OSIM în 29.XI.2017.
- E1.4. UMF Timișoara (Borcan L-C, Popescu FG, **Borcan F**, Păuncu E-A, Tomescu MC, Dehelean CA). *Produs absorbant pentru hidrogen sulfurat și procedeu de obținere a acestuia*. Brevet de invenție nr. 133956, eliberat de OSIM în 30.III.2021.
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- E1.8. UMF Timișoara (Nagib R, **Borcan F**, Szuhaneck CA). *Dispozitiv ortodontic personalizat proiectat CAD pentru dinți incluși și procedeu de obținere*. Cerere de brevet de invenție nr. A / 00582 înregistrată la OSIM în 19.X.2023.

### **E2. Mărci înregistrate**

- E2.1. **Borcan F**, Borcan L-C, Tomescu MC, Florea S-D, Morariu V-I. *BoToFl.m*. Certificat de înregistrare a mărcii nr. 161222 (OSIM 04.01.2019).
- E2.2. **Borcan F**, Borcan L-C, Dehelean CA, Soica C-M. *pharm na-mi S*. Certificat de înregistrare a mărcii nr. 167149 (OSIM 04.06.2020).

## **F. Granturi de cercetare**

### **F1. Director**

- F1.1. „Nanotehnologii de poliuretani acoperiți cu strat antimicrobian”, valoare 32.000 lei, 2007-2008, finanțator: CNCSIS, grant TD137 / 2007.
- F1.2. „Nanocapsule polieter-uretanice utilizate ca vehicule de transport transdermic pentru substanțe biologice active”, valoare 300.000 lei, 2010-2012, finanțator: CNCSIS, grant RU-PD586 / 2010.
- F1.3. „Implementarea unor noi direcții de biosinteză cu dublă funcționalizare pentru triterpene pentaciclice cu potențial antitumoral”, valoare 5.000 euro, 2013, finanțator: UMF Timișoara, grant competiție internă 15250 / 19.XII.2012.
- F1.4. „Study on Molecular Docking, Synthesis and Characterization of a Polyurethane Biomaterial used as a DNA Carrier”, valoare 100.000 euro, 2020-2023, finanțator: UMF Timișoara, grant competiție internă – Cercetători experimentați 5EXP/1244/ 30.01.2020.

### **F2. Membru în echipă**

- F2.1. „Unificarea cuantică a legăturii chimice prin funcționala densitate a electronegativității și funcția de localizare electronică cu aplicații la reactivitatea nano-sistemelor naturale complexe”, valoare 8.930 lei, 2006-2007, finanțator: CNCSIS, grant AT54 / 2006 (director Putz VM).
- F2.2. „Evaluarea unor formulări farmaceutice moderne obținute prin complexarea unor triterpene pentaciclice cu derivați polizaharidici funcționalizați”, valoare 24.350 lei, 2013-2014, finanțator: UEFISCDI, grant PN II – Capacități, CT-163/22.04.2013, Modul III - proiecte bilaterale România-Ungaria (contract 674/22.IV.2013) (director Șoica CM).
- F2.3. „Recuperarea avansată a produselor utile din deșeurile de catalizatori uzați”, valoare 1.250.000 lei, finanțator: UEFISCDI, parteneri: ProAirCleanEcologic SA, INCD Ecolnd, coordonator Institutul de Chimie Timișoara, grant PN-II-PT-PCCA-2013-4-0612 (director Costișor O).
- F2.4. „Obtaining pentacyclic triterpene micro-crystals and pharmaceutical toxicology study of their changes in experimental models”, finanțator: UEFISCDI, grant RO-FR 2014, 791/30.VI.2014 (director Nicolov M).
- F2.5. „Formulări de avangardă pe bază de eugenol nanocapsulat cu adresabilitate în medicina dentară”, valoare 440.001 lei, finanțator: UEFISCDI, PN-III-P2-2.1-BG-2016-0455 (contract 122/2016) (director Rusu L).

### **F3. Obținut fără competiție**

- F3.1. „Studiu privind realizarea de îmbunătățiri ale procesului de obținere a branșurilor încălțăminte din dotarea trupelor NATO”, valoare 3.000 lei, 2005-2006, finanțator: SC Uretan SA Chevereșu Mare, membru echipă (director Bolcu C).

## **I. Manifestări științifice**

### **I1. Lucrări în extenso**

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11.2. Pitulice L, Chiriac A, Isac D, **Borcan F**. The investigation of Romania's air quality state and the Environmental Performance Index. *1<sup>st</sup> International Conference "Research People and Actual Tasks on Multidisciplinary Sciences"*, Lozenec (Bulgaria) 06-08.VI.2007, p. 107-111, ISBN 978-954-91147-3-7.

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## 12. Rezumate

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12.7. Bolcu C, **Borcan F**. Efficient methods for photostabilization of the polyurethanes. *The 8th Polymers for Advanced Technologies International Symposium, Budapesta (Ungaria)*, 13-16.IX.2005, p. 97.

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- I2.30. **Borcan F**, Andrica F, Tita B. Degradation of polyurethane dendrimers used as drug delivery system. *Natural Products as a Source of Compounds with Chemopreventive and Anti-Inflammatory Activity (International Workshop of the Romanian-French Bilateral Project PN II-CT-789/30.06.2014, Timisoara, 10.VII.2015*, p. 50, ISBN 978-606-8456-67-6.
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- I2.35. Antal DS, Pinzaru I, **Borcan F**, Ledeti I, Dehelean CA, Soica C, Ollivier E. Inclusion complexes of the aurone sulfuretin in two cyclodextrin types: preparation and analytical data. *Phytocompounds and extracts from biodiversity: scaffolds for new products with anti-inflammatory and chemopreventive activity, workshop Timișoara 2016*, p. 11, ISBN 978-606-786-024-5.
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