LUCRĂRI ŞTIINŢIFICE RELEVANTE

Prof. dr. ing. Ilie Filip

A. *Monografii:*

1. **ILIE F**. – *Thickness determining of the thin layers formed by selective transfer,* LAP LAMBERT Academic Publishing, 2017, 62 pagini.
2. **ILIE F**. - *TRIBOLOGIA straturilor subţiri formate prin transfer selectiv*, Editura Tehnică, Bucureşti, 2002, ISBN 973-31-2136-3, nr. pagini 193.

B. *Articole/studii publicateîn reviste de specialitate de circulaţie internaţională recunoscute cotate ISI:*

1. ILIE F. – *Tribological behaviour of the steel/bronze friction pair (journal bearing type) functioning with selective mass transfer*, International Journal of Heat and Mass Transfer, Vol. 124, Issue 9, pp.655-662, DOI: 10.1016/j.ijheatmasstransfer.2018.03.107, https://www.journals.elsevier.com/international-journal-of-heat&mass-transfer. **WOS:000437077100055**, **Q1**
2. ILIE F. – *Diffusion and mass transfer mechanisms during frictional selective transfer,* International Journal of Heat and Mass Transfer, Vol. 116, 2018, pp. 1260-1265, **DOI:** 10.1016/j.ijheatmasstransfer.2017.09.083, https://www.journals.elsevier.com/international-journal-of-heat&mass-transfer. **WOS:000415391800107, Q1**
3. ILIE F. - *Studies and researches concerning the tribological behaviour of friction couple functioning with selective transfer*, Tribology International, Vol. 39, Issue 8, 2006, pp. 774-780, ISSN 0301-679X, http:// www.journals.elsevier.com/tribology-international. **WOS:000237821400008, Q1**
4. ILIE F. – *Tribochemical interaction between nanoparticles and surfaces of selective layer during chemical mechanical polishing*, Journal of Nanoparticle Research, Vol. 15, No. 11, 2013, article 1997, http://www.springer.com/materials/nanotechnology/journal.nano.res, **WOS:000325224000001, Q2**
5. ILIE F. – *Models of nanoparticles movement, collision, and friction in chemical mechanical polishing (CMP),* Journal of Nanoparticle Research, Vol. 14, No 3/ 2012, pp.752, ISSN 1388-0764, http://www.springer.com/materials/nanotechnology/journal.nano.res, **WOS:000302639600029, Q2**
6. ILIE F.– *Investigation of layers formed by selective transfer CMP mechanisms with Atomic*, http://www.springer.com/materials/nanotechnology/journal.nano.res, **WOS:000295609700106, Q2**
7. ILIE F., Tita C - *Tribological properties of solid lubricant nanocomposite coatings obtained by magnetron sputtered of MoS_2/metal (Ti, Mo) nanoparticles,* Proceedings Romanian Academy Scientific, Seria A, vol 8, No. 3/2007, pp. 207-211, ISSN1454-9069, http:// www.acad.ro/proceedings.htm, **WOS:000255027400006, Q2**
8. ILIE F. – *Tribological behavior of a friction couple functioning with selective mass transfer*, Heat and Mass Transfer, Vol. 53, Issue 2, 2017, pp. 625-633, DOI:10.1007/s00231-016-1846-x, http://www.springer.com/heat and mass transfer/machanical engineering/journal, **WOS:000392612900020**, **Q3**

9. ILIE F., Laurian T. - *Investigation into the Effect of Concentration of Benzotriazole on the Selective Layer Surface in the Chemical Mechanical Planarization Process*, Journal of Materials Engineering and Performance, Vol. 24, Issue 12, 2015, pp. 4919-4927, http://www.springer.com/materials/characterization+%26+evaluation/journal/11665, **WOS:000366107300035, Q3**

10. ILIE F., Tita C. - *Selective layer CMP process mimicked with atomic force microscope II.* Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology, Vol. 225 (5), 2011, pp. 289-297, http://www.pij.sagepub.com, **WOS:000291265400005, Q3**

11. ILIE F., Tita C. - *Selective layer CMP process mimicked with atomic force microscope I,* Optoelectronics and Advanced Materials - Rapid Communications, Vol. 3, No. 3, 2010, pp. 245-249,ISNN 1842-6573,http://www.oam-rc.inoe.ro/. **WOS:000281114100024, Q3**

12. ILIE F., Tita C. - *Interaction between nanoparticles during Chemical Mechanical Polishing (CMP).* Optoelectronics and Advanced Materials- Rapid Communications, vol. 3, No. 3, 2009, ISNN 1842-6573, pp. 245-249, http://www.oam-rc.inoe.ro, **WOS:000265405200019, Q3**

13. ILIE F., Laurian T., Tita C. - *Relating friction and processes development during Chemical Mechanical Polishing (CMP).* Advanced Tribology, Proceedings of CIST2008, Springer 2009, pp. 571-576, http://www.springer.com/us/book/9783642036538, **WOS:000281598100177, Q3**

14. ILIE F., Covaliu C., Ipate G. – *Study On Interaction Single Particle-Substrate-Slurry with Help AFM in the CMP Process of the Surfaces with Selective Transfer,* Journal of Multidisciplinary Engineering Science and Technology, Vol. 3 Issue 3, 2016, pp. 4348-4354, http://www.jmest.org/wp-content/uploads/JMESTN42351472.pdf. **Q3**

15. ILIE F. - *Thermo-mechanical aspects of mass transfer selectiv phenomenon through diffusion in the friction process of couple steel/copper alloy*, Journal of Multidisciplinary Engineering Science and Technology, Vol. 2, Issue 2, 2015, ISSN 3159-0040, pp. 70-75, http://www.jmest.org/wp-content/uploads/JMESTN42350452.pdf. **Q3**

16. Ivancu B., Voicu Gh., Paun A., Vladut V. Constantin G.-A., ILIE F., *Harmonic Analysis of an Vibrating Feeder Using "Linear Dynamics" Module* - Proceedings of the 43th Inernational Symposium "Actual Tasks on Agricultural Engineering",Opatija, Croatia, Febr.2015, ISSN 1848-4425, pp. 505-511, http://atae.agr.hr, **WOS:000373450700045, Q3**

17. ILIE F., Tita C. – *Solid lubrification with powder WS_2 through self-repairing and self-replenishing. Modeling and Experimentation,* Journal of Balkan of Tribology Association, vol. 18, No. 2 (2012), pp. 278-285, http://scibulcom.net/jbtan.php, **WOS:000306252400012, Q3**

18. ILIE F., Tita C. - *Study of copper CMP mechanisms with atomic force microscopy.* Journal of Balkan of Tribology Association, vol. 15, No. 2, 2009, pp. 163-169, ISSN 1310 – 4772, http://scibulcom.net/jbtan.php, **WOS:000310557200004, Q3**

19. ILIE F. - *Comparative Analysis of Tribological Performances of Materials that Can Achieve Thin Layers from Selective Transfer.* Journal of the Balkan Tribological Assciation, Vol. 12, no 4, (2006), pp. 404-411, http://scibulcom.net/jbtan.php. Q3

20. F ILIE, G Ipate - Chemical-Mechanical Impact of Nanoparticles and pH Effect of the Slurry on the CMP of the Selective Layer Surfaces, *Lubricants*, Vol. 5 (2), Article Number 15, 2017,DOI:10.3390/lubricants5020015,http://www.mdpi.com/2075-4442/4/2/12, **WOS:000404637200007**

21. ILIE F., Covaliu C. - Tribological Properties of the Lubricant Containing Titanium Dioxide Nanoparticles as an Additive**,** *Lubricant*s, Vol. 4(2), 12, 2016, Doi: 10.3390/lubricants4020012, http://www.mdpi.com/2075-4442/4/2/12, **WOS:000398781000006**

23. F ILIE, G Chisiu, G Ipate - A method for determining the thickness of tribological performing thin layers formed by selective transfer. *IOP Conference Series: Materials Science and Engineering*, Vol. 174, Issue 1, 2017, Article Number: UNSP 012065, WOS:000399753500065, DOI: 10.1088/1757-899X/174/1/012065/, http://www iopscience.iop.org/journal/1757-899X, **WOS:000399753500065**

24. F ILIE - Study of Superficial Layers Obtained by Selective Transfer in the Friction Couples. *European Journal of Engineering Research and Science*, Vol. 2(6), 2017, pp. 54-54, DOI: http://dx.doi.org/10.24018/ejers.2017.2.6.387, https://www.ejers.org/, **BDI**

25. ILIE F. - Effect of the Etching on Chemical Mechanical Planarization of the Selective Layer Surface. *International Journal of Materials Science and Applications*, Vol. 6(4), 2017, pp. 193- 199, DOI: 10.11648/j.ijmsa.20170604.15, www.ijmsa.org/, **BDI**

26. ILIE F. – Study of friction and wear with AFM in CMP process of selective layer, *Tribology - Materials, Surfaces & Interfaces*, Vol. 7, No. 4, 2013, p. 211-215, http://www.maneyonline.com/bibliometrics/trb, **SCOPUS**

27. ILIE F, Covaliu C., Chişiu G. - *Tribological Study of Ecological Lubricants Containing Titanium Dioxide Nanoparticles*, Applied Mechanics and Materials, Vol. 658 (2014), pp. 323-328, DOI:10.4028/www.scientific.net/AMM.658.323, http://www.scientific.net/AMM,https://www.researchgate.net/journal/1660-9336_Applied_Mechanics_and_Materials, **BDI**

28. ILIE F. - A Study on the Friction and Wear of Composite Materials Coatings Through selective Transfer with Atomic Force Microscopy, *Journal of Advanced Microscopy Research*, Vol. 7 (3), 2012, pp. 182–189, ISSN 2156-7573, http://www.aspbs.com/jamr/JAMR AFM.pdf, **WOS:000308114100218**

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