

## LIST of PUBLICATIONS

Professor Dorin LUCA, PhD

### Articles in ISI Thomson Reuters journals:

1. ŞCHIOPU, V., **LUCA, D.\***, A new net-shape plating technology for axisymmetric metallic parts using rotary swaging. *International Journal of Advanced Manufacturing Technology*, Accepted for publication: Nov 6, 2015. DOI: 10.1007/s00170-015-8089-8 (IF=1.458)

2. BARCA, E.S., PLAIASU, A.G., ABRUDEANU, M., ISTRATE, B., **LUCA, D.\***, MUNTEANU, C., Study of the plasma deposition of Al<sub>2</sub>O<sub>3</sub> powder on an internal combustion engine piston. *Journal of Optoelectronics and Advanced Materials*, Vol. 17, No. 9-10, September-October 2015, pp. 1522-1527. ISSN: 1454-4164 (Print), 1841-7132 (Online) (IF=0.429)

3. PINTILEI, G.L., CRISMARU, V.I., ABRUDEANU, M., MUNTEANU, C., **LUCA, D.**, ISTRATE, B., The influence of ZrO<sub>2</sub>/20%Y<sub>2</sub>O<sub>3</sub> and Al<sub>2</sub>O<sub>3</sub> deposited coatings to the behavior of an aluminum alloy subjected to mechanical shock. *Applied Surface Science*, Vol. 352, 15 October 2015, pp. 169-177. DOI: <http://dx.doi.org/10.1016/j.apsusc.2015.05.111> (IF=2.711)

4. **LUCA, D.**, Neural networks for parameters prediction of an electromagnetic forming process of FeP04 steel sheets. *International Journal of Advanced Manufacturing Technology*, Vol. 80, No. 1, 2015, pp. 689-697. DOI: 10.1007/s00170-015-7006-5, 2015 (IF=1.458)

5. **LUCA, D.**, ŞCHIOPU, V., Modeling of the electromagnetic forming of metal cans for optoelectronic components. *Journal of Optoelectronics and Advanced Materials*, Vol. 17, No. 7-8, July-August 2015, pp. 997-1003. ISSN: 1454-4164 (Print) 1841-7132 (Online) (IF=0.429)

6. ISTRATE, B., MARECI, D., MUNTEANU, C., STANCIU, S., **LUCA, D.**, CRIMU, C.I., KAMEL, E., In vitro electrochemical properties of biodegradable ZrO<sub>2</sub>-CaO coated MgCa alloy using atmospheric plasma spraying. *Journal of Optoelectronics and Advanced Materials*, Vol. 17, No. 7-8, July-August 2015, pp. 1186-1192. ISSN: 1454-4164 (Print) 1841-7132 (Online) (IF=0.429)

7. **LUCA, D.**, Finite element modeling and experiment for behavior estimation of AlMn0.5Mg0.5 sheet during electromagnetic forming. *Transactions of Nonferrous Metals Society of China*, Vol. 25, No. 7, July 2015, pp. 2331-2341. DOI: 10.1016/S1003-6326(15)63848-1 (IF=1.178)

8. **LUCA, D.**, Environmentally friendly processings by electromagnetic forming in automotive industry. *Environmental Engineering and Management Journal*, Accepted for publication: May 2014. ISSN: 1582-9596 (IF=1.065)

9. CRAUS, M.-L.; ISLAMOV, A.K.; ANITAS, E.M.; CORNEI, N.; **LUCA, D.**, Microstructural, magnetic and transport properties of La<sub>0.5</sub>Pr<sub>0.2</sub>Pb<sub>0.3-x</sub>Sr<sub>x</sub>MnO<sub>3</sub> manganites. *Journal of Alloys and Compounds*, Vol. 592, 15 April 2014, pp. 121-126. DOI: <http://dx.doi.org/10.1016/j.jallcom.2014.01.002> (IF=2.999)

10. ZAHARIA, L; COMANECI, R.; CHELARIU, R.; **LUCA, D.**, A new severe plastic deformation method by repetitive extrusion and upsetting. *Materials Science and Engineering A – Structural Materials, Properties, Microstructure and Processing*, Vol. 595, 10 February 2014, pp. 135-142. DOI: <http://dx.doi.org/10.1016/j.msea.2013.12.006> (IF=2.567)

11. **LUCA, D.**, A Numerical Modelling: Opened Perspectives to Increase the Performance of the Electromagnetic Forming Processes. *International Journal of Numerical Modelling: Electronic Networks, Devices and Fields*, Vol. 25, Issue 1, January-February 2012, pp. 15-23. DOI: 10.1002/jnm.805 (IF=0.537)

12. PĂDURARU, G.D.; AELENEI, N.; **LUCA, D.**; CIMPOEȘU, N., New Brushite Cements Analysis. *Optoelectronics and Advanced Materials – Rapid Communications*, Vol. 5, No. 3-4, 2011, pp. 465-468. ISSN: 1842-6573 (IF=0.304)

#### Articles indexed in ISI proceedings volumes:

1. BĂRBÎNȚĂ, A.C.; **LUCA, D.**; STRUGARU, I.S.; BINIUC, C.; BÂRCĂ, A.; BÂRCĂ, E.; ANTONIAC, I.; MUNTEANU, C., New titanium alloys potentially used for metal-ceramic applications in medicine. *Key Engineering Materials*, Vol. 587, 2014, pp. 287-292. ISSN: 1662-9795. DOI: 10.4028/www.scientific.net/KEM.587.287 (**WEB of SCIENCE**)

2. **LUCA, D.**; DIACONESCU, R., On the Possibility of Agile Manufacturing of Religious Objects by Electromagnetic Forming Method. *European Journal of Science and Theology*, Vol. 9, No. 3, June 2013, pp. 197-205. ISSN: 1841-0464 (**WEB of SCIENCE**)

3. **LUCA, D.**; CRAUS, M.-L.; CORNEI, N.; FOSALAU, C.; MITA, C.; LOZOVAN, M., The  $\text{La}_{0.54}\text{Sm}_{0.11}\text{Ca}_{0.35}\text{MnO}_3$  Perovskites Doped with Cu for the Magnetoresistive Sensor. *Proceedings of SPIE-The International Society for Optical Engineering*, Vol. 7297, 2009, pp. 72972J-1...72972J-4. ISSN: 0277-786X. DOI: 10.1117/12.823703 (**WEB of SCIENCE**)

4. **LUCA, D.**; CRAUS, M.-L.; MITA, C.; CORNEI, N.; LOZOVAN, M.; PAICU, G., Magnetic/Temperature Sensors and their Electrical Transport Properties. *Proceedings of SPIE-The International Society for Optical Engineering*, Vol. 7297, 2009, pp. 72972I-1...72972I-4. ISSN: 0277-786X. DOI: 10.1117/12.823702 (**WEB of SCIENCE**)

5. **LUCA, D.**, Simulation by FEM of Sheet Metal Electromagnetic Forming Processes. *Proceedings of SPIE-The International Society for Optical Engineering*, Vol. 7297, 2009, pp. 72972K-1...72972K-4. ISSN: 0277-786X. DOI: 10.1117/12.823704 (**WEB of SCIENCE**)

6. **LUCA, D.**; CRĂCIUN, I.A.; MUNTEANU, C., Application of Electromagnetic Force to Deep-Drawing of Metal Sheets. *Proceedings of the 5<sup>th</sup> European Conference on Advanced Materials and Processes and Applications. EUROMAT '97*, Maastricht, Vol. 1, 1997, pp. 471-474. ISBN: 90-803513-1-8 (**WEB of SCIENCE**)

7. MUNTEANU, C.; RUSU, I.; **LUCA, D.**; CIOFU, A.M., Studies Concerning the Mobility of the Magnetic Domains Structures from the Metallic Amorphous Ribbons from  $\text{Fe}_{37.5}\text{Ni}_{32.5-x}\text{Cr}_5\text{Co}_x\text{B}_{15}\text{Si}_{10}$  System. *Proceedings of the 5<sup>th</sup> European Conference on Advanced Materials and Processes and Applications. EUROMAT '97*, Maastricht, Vol. 3, 1997, pp. 521-524. ISBN: 90-803513-3-4 (**WEB of SCIENCE**)

#### Articles in journals and volumes indexed in other international databases:

1. ISTRATE, B.; MUNTEANU, C.; **LUCA, D.**; KAMEL, E.; BARCA, E.S.; ANTONIAC, I., Tribological tests and SEM analysis for titanium oxide layers. *Key Engineering Materials*, Vol. 614, 2014, pp. 74-79. ISSN: 1662-9795. DOI: 10.4028/www.scientific.net/KEM.614.74 (**SCOPUS**)

2. CONDURARU, I.; DOROFTEI, I.; **LUCA, D.**; CONDURARU, A., Odometry Aspects of an Omnidirectional Mobile Robot with Modified Mecanum Wheels. *Applied Mechanics and Materials*, Vol. 658, 2014, pp. 587-592. ISSN: 1662-7482. DOI: 10.4028/www.scientific.net/AMM.658.581 (**SCOPUS**)

3. CONDURARU (SLATINEANU), A.; DOROFTEI, I.; CONDURARU, I.; **LUCA, D.**, Hexapod Locomotion of a Leg-Wheel Hybrid Mobile Robot. *Applied Mechanics and Materials*,

Vol. 658, 2014, pp. 581-586. **ISSN: 1662-7482**. DOI: 10.4028/www.scientific.net/AMM.658.581  
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4. **LUCA, D.**, Manufacturing Metallic Parts from Coated Sheet by Electromagnetic Forming. *Annals of DAAAM for 2010*, Vol. 21, No. 1, 2010, pp. 1435-1436. **ISSN: 1726-9679**  
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5. **LUCA, D.**, Statistical Mathematical Modelling of the Manufacturing Process of Parts Obtained by Electromagnetic Forming. *Annals of DAAAM for 2010*, Vol. 21, No. 1, 2010, pp. 1437-1438. **ISSN: 1726-9679** (**SCOPUS**)

6. BINIUC, C.; ISTRATE, B.; MUNTEANU, C.; **LUCA, D.**, Increased Resistance to Mechanical Shock of Metallic Materials by Metal-Ceramic Surface Coatings. *Key Engineering Materials*, Vol. 638, 2015, pp. 316-321. **ISSN: 1662-9795**. DOI: 10.4028/www.scientific.net/KEM.638.316 (**GOOGLE SCHOLAR**)

7. SANDU, I.; QUARANTA, M.; BEJINARIU, C.; SANDU, I.G.; **LUCA, D.**; SANDU, A.V., Study on the Specific Effects of Corrosion Processes on Ancient Bronze Artefacts. *The Annals of "Dunarea de Jos" University of Galati*, Fascicle IX. Metallurgy and Materials Science, Nr. 1, 2007, pp. 64-73. **ISSN: 1453-083X** (**GOOGLE SCHOLAR**)

#### **Patents:**

1. **LUCA, D.**; CHELBA, T.; MIHORDEA, T.; CIURARU, I.; FLORESCU, A., *Magneto-forming tool for hollow metal parts fabrication*. Patent Number(s): RO112341-B1, 1996 (**WEB of SCIENCE**)

2. **LUCA, D.**, *Deformability tester for metal sheets*. Patent Number(s): RO114877-B1, 1997 (**WEB of SCIENCE**)

3. **LUCA, D.**, *Plant for testing capacity for deformation of sheet metal*. Patent Number(s): RO114878-B1, 1997 (**WEB of SCIENCE**)

4. CRAUS, M.-L.; LOZOVAN, M.; DOBREA, V.; **LUCA, D.**; GHEORGHIU D.; FOSALAU, C.; MITA, C.; CORNEI, N., *Magneto-resistive sensor*. Patent Number(s): 125633-B1, 2008 (**WEB of SCIENCE**)

5. ŞCHIOPU, V.; **LUCA, D.**; VRABIE, I., *Plating procedure of axisymmetric metallic parts by rotary swaging*. Patent Number(s): 127501-A2, 2010 (**WEB of SCIENCE**)

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