

Autorul tezei de abilitare: Conf. Dr. Alexandru PASCU

Titlul tezei de abilitare: DEPUNEREA CU LASER: DE LA EXPERIMENTAL LA APLICAȚII INDUSTRIALE

Domeniul: Inginerie Industrială

LISTA DE LUCRĂRI

LUCRĂRI RELEVANTE

1. **Pascu A.**, Stanciu E.M., Croitoru C., Roată I. C., Tierean M.H., Mirza Rosca J., Cimpoesu N., Bogatu C., *Pulsed laser cladding of NiCrBSiFeC hardcoatings using single-walled carbon nanotubes additives*, **Journal of Nanomaterials** 2019, 1-12, 2019. **FI 2.23**
WOS:000487080800001
http://apps.webofknowledge.com/full_record.do?product=WOS&search_mode=GeneralSearch&qid=117&SID=F1H5L9A1iaTPvQwXmWf&page=1&doc=1
2. **Pascu A.**, Stanciu E.M., Roată I. C., Hulka I., Uțu D., Maior I., *Influence of the laser cladding parameters and solar heat treatment on the properties of biocompatible Inconel 718 coatings*, *Revista Română de Materiale / Romanian Journal of Materials* 2017, 47 (2), 157 – 165, 2017. **FI 0.66**
WOS:000404823800006
http://apps.webofknowledge.com/full_record.do?product=WOS&search_mode=GeneralSearch&qid=9&SID=F1H5L9A1iaTPvQwXmWf&page=1&doc=1
3. Stanciu E.M., **Pascu A.**, Roată I.C., Croitoru C., Tierean M., Rosca J. Mirza, Hulka I., *Solar radiation synthesis of functional carbonaceous materials using Al₂O₃/TiO₂-Cu-HA doped catalyst*, **Applied Surface Science** 438, 33–40, 2018. **FI 5.15 (Q1)**
WOS:000425731200005
http://apps.webofknowledge.com/full_record.do?product=WOS&search_mode=GeneralSearch&qid=17&SID=F1H5L9A1iaTPvQwXmWf&page=1&doc=1
4. Stanciu E.M, **Pascu A**, Tierean M.H., Voiculescu I, Roata I.C., Croitoru C., Hulka I., *Dual coating laser cladding of NiCrBSi and Inconel 718*, **Materials and Manufacturing Processes** 31 (12), 1556–1564, 2016. **FI 2.27**
WOS:000381388400003
http://apps.webofknowledge.com/full_record.do?product=WOS&search_mode=GeneralSearch&qid=48&SID=F1H5L9A1iaTPvQwXmWf&page=1&doc=1
5. **Pascu A.**, Stanciu E.M., Savastru D., Geanta V., Croitoru C., *Optical and microstructure characterisation of ceramic – hydroxyapatite coating fabricated by laser cladding*, **Journal of Optoelectronics and Advanced Materials** 19, (1-2), 66–72, 2017. **FI 0.39**
WOS:000400880700010

- http://apps.webofknowledge.com/full_record.do?product=WOS&search_mode=GeneralSearch&qid=60&SID=F1H5L9A1iaTPvQwXmWf&page=1&doc=1
6. **Pascu A.**, Stanciu E.M., Roata I., Croitoru C., Baltas L., Tierean M., *Parameters and behaviour of NiCrFeSiB Laser cladding in overlapped geometry*, **Bulletin of the Transilvania University of Brasov** 9 (58) (2), 9-16, 2016.
http://webbut.unitbv.ro/bulletin/Series%20I/Contents_I_2.html
 7. **Pascu A.**, Hulka I., Tierean M. H., Croitoru C., Stanciu E. M., Roată I.C., *A comparison of flame coating and laser cladding using Ni based powders*, **Solid State Phenomena** 254, 77-82, 2016.
<http://www.ttp.net/978-3-03835-711-7/2.html>
 8. **Pascu A.**, Mirza Rosca J., Stanciu E. M, *Laser cladding: from experimental research to industrial applications*, **Materials Today: Proceedings** 19 (3),1059-1065, 2019.
<https://doi.org/10.1016/j.matpr.2019.08.021>
 9. Hulka I., Serban V.A., Utu D., Duteanu N.M, **Pascu A.**, Roată I.C., Maior I., *Wear resistance of laser cladding NiCrBSi composite coatings*, **Romanian Journal of Materials**, 46 (1), 49 – 54, 2016. **FI 0.563**
WOS:000372938400007
http://apps.webofknowledge.com/full_record.do?product=WOS&search_mode=GeneralSearch&qid=56&SID=F1H5L9A1iaTPvQwXmWf&page=1&doc=1
 10. **Pascu A.**, Stanciu E. M., Croitoru C., Roată I. C., Tierean M. H., *Pulsed laser cladding of ni based powder*, **IOP Conf. Ser.: Mater. Sci. Eng.** 209, 012058, 2018.
WOS:000423732100058
http://apps.webofknowledge.com/full_record.do?product=WOS&search_mode=GeneralSearch&qid=94&SID=F1H5L9A1iaTPvQwXmWf&page=1&doc=1

TEZA DE DOCTORAT

Titlu: Îmbunătățirea proprietăților mecanice prin depuneri laser ale pieselor utilizate în industria auto

Domeniul fundamental: Științe Inginerești

Domeniul: Inginerie Industrială

Conducător științific: Prof. Dr. Ing. Iovanaș Radu

Susținere publică 07.09.2011, Universitatea Transilvania din Brașov, Facultatea de Știința și Ingineria Materialelor.

BREVETE

Propunere de brevet nr. **A/00762/28.09.2017** cu titlul **Material metalic microaliat cu Zr, Y, Hf si Ti pentru centrale nucleare generatia 4R si procedee de obtinere si de prelucrare cu laser.**

Autori: Geanta Victor, Ionelia Voiculescu, Stefanoiu Radu, Fugaru Viorel, Stanciu Elena, **Pascu Alexandru**, Postolache Cristian si Ioan Mihai

CĂRȚI / CAPITOLE DE CĂRȚI

1. **PASCU Alexandru**, *Procesul de depunere cu laser si pulberi*, Editura LuxLibris, ISBN 978-973-131-232-3, **2013**
2. STANCIU Elena Manuela, **PASCU Alexandru**, *Sudarea cu laser*, Editura LuxLibris Braşov, ISBN 978-973-131-304-4, **2014**
3. **PASCU Alexandru**, *Parameters of the laser cladding process*, Editura LuxLibris Braşov , ISBN 978-973-131-344-3, **2015**,
4. **PASCU Alexandru**, *Recondiționarea cu laser: baze teoretice și aplicații industriale*, Editura Printech București , ISBN 978-606-23-0689-2, **2016**
5. **PASCU Alexandru**, *Programarea și manipularea roboților pentru sudare*, Editura LuxLibris Braşov, ISBN 978-973-131-372-6, **2017**
6. **PASCU Alexandru**, Croitoru Cătălin, *Managementul proiectelor de cercetare : manual de seminar*, Editura LuxLibris, ISBN 978-973-131-429-7, **2019**
7. VOICULESCU Ionelia, VASILE Ion Mihai, **PASCU Alexandru**, STANCIU Elena Manuela, *Materiale și tratamente termice pentru structuri sudate*, Editura Printech București, ISBN 978-606-23-0690-8, **2016**
8. VOICULESCU Ionelia, VASILE Ion Mihai, STANCIU Elena Manuela, **PASCU Alexandru**, *Știința și Ingineria Materialelor*, Editura LuxLibris Braşov, ISBN 978-973-131-316-0, **2015**

ARTICOLE ÎN REVISTE

ISI THOMSON REUTERS

1. **Pascu A.**, Stanciu E.M., Croitoru C., Roată I. C., Tierean M.H., Mirza Rosca J., Cimpoesu N., Bogatu C., *Pulsed laser cladding of NiCrBSiFeC hardcoatings using single-walled carbon nanotubes additives*, **Journal of Nanomaterials** 2019, 1-12, 2019. **FI 2.23**

WOS:000487080800001

http://apps.webofknowledge.com/full_record.do?product=WOS&search_mode=GeneralSearch&qid=117&SID=F1H5L9A1iaTPvQwXmWf&page=1&doc=1

2. **Pascu A.**, Stanciu E.M., Croitoru C., Roată I. C., Tierean M.H., *Carbon nanoparticle-supported Pd obtained by solar physical vapor deposition*, **Advances in Materials Science and Engineering** 2018, 1-7, 2018. **FI 1.29**
WOS:000426193300001
http://apps.webofknowledge.com/Search.do?product=WOS&SID=F1H5L9A1iaTPvQwXmWf&search_mode=GeneralSearch&prID=1ebd08cc-912a-4393-80af-8b1c449831f2
3. **Pascu A.**, Stanciu E.M., Roată I. C., Hulka I., Uțu D., Maior I., *Influence of the laser cladding parameters and solar heat treatment on the properties of biocompatible Inconel 718 coatings*, *Revista Română de Materiale / Romanian Journal of Materials* 2017, 47 (2), 157 – 165, 2017. **FI 0.66**
WOS:000404823800006
http://apps.webofknowledge.com/full_record.do?product=WOS&search_mode=GeneralSearch&qid=9&SID=F1H5L9A1iaTPvQwXmWf&page=1&doc=1
4. Roată I. C., Croitoru C., **Pascu A.**, Stanciu E.M., *Photocatalytic coatings via thermal spraying: a mini-review*, **AIMS Materials Science** 6 (3), 335–353, 2019.
WOS:000471016400003
http://apps.webofknowledge.com/full_record.do?product=WOS&search_mode=GeneralSearch&qid=13&SID=F1H5L9A1iaTPvQwXmWf&page=1&doc=1
5. Stanciu E.M., **Pascu A.**, Roată I.C., Croitoru C., Tierean M., Rosca J. Mirza, Hulka I., *Solar radiation synthesis of functional carbonaceous materials using Al₂O₃/TiO₂-Cu-HA doped catalyst*, **Applied Surface Science** 438, 33–40, 2018. **FI 5.15 (Q1)**
WOS:000425731200005
http://apps.webofknowledge.com/full_record.do?product=WOS&search_mode=GeneralSearch&qid=17&SID=F1H5L9A1iaTPvQwXmWf&page=1&doc=1
6. Stanciu E.M., **Pascu A.**, Tierean M.H., Roata I.C., Voiculescu I., Hulka I., Croitoru C., *Dissimilar laser welding of AISI 321 and AISI 1010*, **Technical Gazette** 25 (2), 344-349, 2018. **FI 0.72**
WOS:000430936800006
http://apps.webofknowledge.com/full_record.do?product=WOS&search_mode=GeneralSearch&qid=20&SID=F1H5L9A1iaTPvQwXmWf&page=1&doc=1
7. Roată I.C., Croitoru C., **Pascu A.**, Stanciu E.M, Hulka I., Petre I., Gabor C., Patroi D., Sbarcea BG., *Surface engineering of Ni-Al coatings through concentrated solar heat treatment*, **Applied Surface Science** 506, 144 -185, 2020. **FI 5.15 (Q1)**
WOS:000512983600137

- https://apps-webofknowledge-com.am.e-information.ro/InboundService.do?product=WOS&Func=Frame&DestFail=http%3A%2F%2Fwww.webofknowledge.com&SrcApp=RRC&locale=en_US&SrcAuth=RRC&SID=E2YKXC1bfEyallqb81&customersID=RRC&mode=FullRecord&IsProductCode=Yes&Init=Yes&action=retrieve&UT=WOS%3A000512983600137
8. Croitoru C., Roată I.C., **Pascu A.**, Stanciu E.M, Hulka I., Stoian G., Lupu N., Photocatalytic surfaces obtained through one-step thermal spraying of titanium, *Applied Surface Science* 504, 144 -173, 2020 **(Q1)**
WOS:000502040600179
https://apps-webofknowledge-com.am.e-information.ro/InboundService.do?product=WOS&Func=Frame&DestFail=http%3A%2F%2Fwww.webofknowledge.com&SrcApp=RRC&locale=en_US&SrcAuth=RRC&SID=E2YKXC1bfEyallqb81&customersID=RRC&mode=FullRecord&IsProductCode=Yes&Init=Yes&action=retrieve&UT=WOS%3A000502040600179
9. Croitoru C., Spirchez C., Lunguleasa A., Cristea D., Roata I.C., Pop M. A., Bedo T., Stanciu E.M., **Pascu A.**, *Surface properties of thermally treated composite wood panels*, *Applied Surface Science* 438, 114–126, 2018. IF 5.15 **(Q1)**
WOS:000425731200013
http://apps.webofknowledge.com/full_record.do?product=WOS&search_mode=GeneralSearch&qid=24&SID=F1H5L9A1iaTPvQwXmWf&page=1&doc=1
10. Roată I. C., Croitoru C., **Pascu A.**, Stanciu E.M., *Characterization of physically crosslinked ionic liquid-lignocellulose hydrogels*, *BioResources* 13(3), 6110-6121, 2018. FI 1.39 **(Q2)**
WOS:000440506300095
http://apps.webofknowledge.com/full_record.do?product=WOS&search_mode=GeneralSearch&qid=28&SID=F1H5L9A1iaTPvQwXmWf&page=1&doc=1
11. Roată I. C., Croitoru C., **Pascu A.**, Stanciu E.M., *Photocatalytic performance of copper-based coatings deposited by thermal spraying*, *Journal of Materials Science: Materials in Electronics*, 29, (13), 11345–11357, 2018. FI 2.19 **(Q2)**
WOS:000435588600069
http://apps.webofknowledge.com/full_record.do?product=WOS&search_mode=GeneralSearch&qid=31&SID=F1H5L9A1iaTPvQwXmWf&page=1&doc=1
12. Croitoru, A.M. Varodi, M.C. Timar, I.C. Roata, E.M. Stanciu, **A. Pascu**, *Wood-plastic composites based on HDPE and ionic liquid additives*, *Journal of Materials Science* 53 (6), 4132–4143, 2018, FI 3.4 **(Q2)**
WOS:000418294200017

- http://apps.webofknowledge.com/full_record.do?product=WOS&search_mode=GeneralSearch&qid=35&SID=F1H5L9A1iaTPvQwXmWf&page=1&doc=1
13. Genta V., Voiculescu I., Stefanoiu R., Jianu A., Milosan I., Stanciu E.M., **Pascu A.**, Vasile I.M., *Titanium influence on the microstructure of FeCrAl alloys used for 4R generation nuclear power plants*, **REV.CHIM.** 70 (2), 549 – 554, 2019. **FI 1.60**
WOS:000461982200038
http://apps.webofknowledge.com/full_record.do?product=WOS&search_mode=GeneralSearch&qid=41&SID=F1H5L9A1iaTPvQwXmWf&page=1&doc=1
14. **Pascu A.**, Stanciu E.M, Voiculescu I., Tiorean M.H., Roata I.C., Ocana J.L., *Chemical and mechanical characterization of AISI 304 and AISI 1010 laser welding*, **Materials and Manufacturing Processes** 31 (3), 311–318, 2016. **FI 2.27**
WOS:000365670400008
http://apps.webofknowledge.com/full_record.do?product=WOS&search_mode=GeneralSearch&qid=44&SID=F1H5L9A1iaTPvQwXmWf&page=1&doc=1
15. Stanciu E.M, **Pascu A.**, Tiorean M.H., Voiculescu I, Roata I.C., Croitoru C., Hulka I., *Dual coating laser cladding of NiCrBSi and Inconel 718*, **Materials and Manufacturing Processes** 31 (12), 1556-1564, 2016. **FI 2.27**
WOS:000381388400003
http://apps.webofknowledge.com/full_record.do?product=WOS&search_mode=GeneralSearch&qid=48&SID=F1H5L9A1iaTPvQwXmWf&page=1&doc=1
16. Hulka I., Serban V.A., Utu D., Duteanu N.M, **Pascu A.**, Roată I.C., *Corrosion resistance of laser clad NiCrBSi composite coatings*, **Studia UBB Chemia LX**, (4), 173-184, 2015. **FI 0.191**
WOS:000369162600016
http://apps.webofknowledge.com/full_record.do?product=WOS&search_mode=GeneralSearch&qid=52&SID=F1H5L9A1iaTPvQwXmWf&page=1&doc=2
17. Hulka I., Serban V.A., Utu D., Duteanu N.M, **Pascu A.**, Roată I.C., Maior I., *Wear resistance of laser cladding NiCrBSi composite coatings*, **Romanian Journal of Materials**, 46 (1), 49 – 54, 2016. **FI 0.563**
WOS:000372938400007
http://apps.webofknowledge.com/full_record.do?product=WOS&search_mode=GeneralSearch&qid=56&SID=F1H5L9A1iaTPvQwXmWf&page=1&doc=1
18. **Pascu A.**, Stanciu E.M., Savastru D., Geanta V., Croitoru C., *Optical and microstructure characterisation of ceramic – hydroxyapatite coating fabricated by laser cladding*, **Journal of Optoelectronics and Advanced Materials** 19, (1-2), 66-72, 2017. **FI 0.39**
WOS:000400880700010

- http://apps.webofknowledge.com/full_record.do?product=WOS&search_mode=GeneralSearch&qid=60&SID=F1H5L9A1iaTPvQwXmWf&page=1&doc=1
19. **Pascu A.**, Iovanas R., Iordachescu D., Cuesta A., *Effects of the laser beam intensity on the clad layer geometry and microstructure*, Conferința Internațională Bramat 2011, **Revista Metalurgia International**, 16 (5), 125-128, 2011. **FI 0.08**
WOS:000289606200028
http://apps.webofknowledge.com/full_record.do?product=WOS&search_mode=GeneralSearch&qid=64&SID=F1H5L9A1iaTPvQwXmWf&page=1&doc=1
20. Roată I. C., Iovănaș R., **Pascu A.**, *Influence of the metallizing distance variation and of the electric field voltage on the ohmic resistance of the layers deposited by thermal spraying*, **Revista Metalurgia International** 6, 73-76, 2013. **FI 0.08**
WOS:000315835600016
http://apps.webofknowledge.com/full_record.do?product=WOS&search_mode=GeneralSearch&qid=68&SID=F1H5L9A1iaTPvQwXmWf&page=1&doc=1
21. Staicu A.R., Iovanas R., Iovanas D.M., **Pascu A.**, Pop A., *Laser cladding of Ni based CW composite powder*, **Revista Metalurgia International** 6, 147-150, 2013. **FI 0.134**
WOS:000315835600032
http://apps.webofknowledge.com/full_record.do?product=WOS&search_mode=GeneralSearch&qid=72&SID=F1H5L9A1iaTPvQwXmWf&page=1&doc=1
22. Ceorapin C., Iovănaș D., Iovănaș R., Dozescu S., **Pascu A.**, *Research works regarding the hardness increase of the active parts of the contact electrodes used for pressure welding*, **Metalurgia International XIV 2009, (2)**, 2009. **FI 0.173**
WOS:000265001400048
http://apps.webofknowledge.com/full_record.do?product=WOS&search_mode=GeneralSearch&qid=75&SID=F1H5L9A1iaTPvQwXmWf&page=1&doc=1

BAZE DE DATE INTERNATIONALE

23. Croitoru C., Giubega A., Patachia S., Baltas L., **Pascu A.**, Roata I., Tierean M., *State of the art in calcite and polyolefins recycling*, **Bulletin of the Transilvania University of Brasov** 9 (58) (1), 35-40, 2016.
http://webbut.unitbv.ro/Bulletin/Series%20I/Contents_I_1_2016.html
24. Pascu A., Stanciu E. M., Roată I., Croitoru C., Tierean M., Hulka I., Mirza Rosca J., *Reconditioning of compression moulds by laser cladding*, *Annals of Faculty of Engineering Hunedoara – International Journal of Engineering* XVII (4), p. 41-44, 2019.
<http://annals.fih.upt.ro/pdf-full/2019/ANNALS-2019-4-05.pdf>

25. Croitoru C., Patachia S., **Pascu A.**, Roata I.C., *Obtaining and Characterization of novel wood-polypropylene Composites*, **PRO LIGNO Journal** 12, (3), 28-33, 2016.
<http://www.proligno.ro/en/articles/2016/3/croitoru.pdf>
26. **Pascu A.**, Stanciu E.M., Roata I., Croitoru C., Baltas L., Tierean M., *Parameters and behaviour of NiCrFeSiB Laser cladding in overlapped geometry*, **Bulletin of the Transilvania University of Brasov** 9 (58) (2), 9-16, 2016.
http://webbut.unitbv.ro/bulletin/Series%20I/Contents_1_2.html
27. **Pascu A.**, Iovănaș R., Iordăchescu D., Petre D., Stanciu E.M., Roată I.C., *Effects of the cladding speed on the cladged layer geometry*, Proceedings of 21th **DAAAM** International Symposium, ISSN 1726-9679, 767-768, 2010.
<http://web.ebscohost.com/ehost/detail?vid=13&sid=1a4ee9b9-f81e-428c-9d90-e5f72271da55%40sessionmgr110&hid=124&bdata=JnNpdGU9ZWhvc3QtbGl2ZQ%3d%3d#db=a9h&AN=55674841>
28. Stanciu E.M., Dumitru G.M, Pavalache A.C., **Pascu A.**, Apostol G., Petre D. *Keyhole formation during laser welding*, Proceedings of 21th DAAAM International Symposium, ISSN 1726-9679, 1087-1088, 2010.
<http://web.ebscohost.com/ehost/detail?vid=11&sid=1a4ee9b9-f81e-428c-9d90-e5f72271da55%40sessionmgr110&hid=124&bdata=JnNpdGU9ZWhvc3QtbGl2ZQ%3d%3d#db=a9h&AN=55675001>
29. Petre D., Iovănaș R., Petre I.M., Roată I.C., **Pascu A.**, *Experimental researches regarding the fusion of the depozit layer by metallization with flame and powder using wig method*, Annals of **DAAAM** for 2010 & Proceedings of 21th DAAAM International Symposium, ISSN 1726-9679, 1123-1124, 2010.
<http://web.ebscohost.com/ehost/detail?vid=13&sid=1a4ee9b9-f81e-428c-9d90-e5f72271da55%40sessionmgr110&hid=124&bdata=JnNpdGU9ZWhvc3QtbGl2ZQ%3d%3d#db=a9h&AN=55675019>
30. **Pascu A.**, Iovănaș R., Petre D., Roată I., *Industrial aplicacion of high power diode pumped solid state laser for welding technology*, **Bulletin of the Transilvania University of Brasov**, 175 – 179, 2010.
<https://pdfs.semanticscholar.org/4d3a/1e1e16c55027c968bad7577b0b0ba5f4ed0f.pdf>
31. Petre D., Iovănaș R., **Pascu A.**, *Studies on the aplicability of the high velocity thermal spray used in the automotive industry*, **Bulletin of the Transilvania University of Brasov**, 186-190, 2010.
http://webbut.unitbv.ro/bu2009/BULETIN2009/Series%20I/BULETIN%20I%20PDF/Materials%20Science%20and%20Engineering/Petre%20D_09.pdf
32. Petre I. M., Deaconescu T., Petre D., Deaconescu A., **Pascu A.**, *Theoretical researches regarding finite element analysis of MAS-20-750N-AA-MC-O-ER-BG pneumatic muscle*

Annals of **DAAAM** for 2010 & Proceedings of 21th DAAAM International Symposium, ISSN 1726-9679, 1175-1176, 2010.

<https://daaam.info/21st-proceedings-2010/>

33. Roată I.C., **Pascu A.**, Iovănaș D.M., *Mathematical determinations concerning the extension of the voltage influence range on the ohmic resistance of the layers deposited by metallization with flame and powder*, **Revista Metalurgia** 2, 5-9, 2009.

<http://eds.b.ebscohost.com/abstract?site=eds&scope=site&jrnl=04619579&AN=91513142&h=yjiSZ%2ftV2o7l0Ko8QGYBtXtlgBPInlscZLhEQISQJL9KVLV9yRtpUbGvBiSUyEBX6wPJROmB8hUOJmlOQoU3A%3d%3d&cr=c&resultLocal=ErrCrlNoResults&resultNs=Ehost&crhashurl=login.aspx%3fdirect%3dtrue%26profile%3dehost%26scope%3dsite%26authtype%3dcrawler%26jrnl%3d04619579%26AN%3d91513142>

34. Roată I.C., Stanciu E.M., **Pascu A.**, *Microstructure evaluation of stainless steel welds*, **Revista RECENT** 16, (2) (45), 126-129, 2015.

http://jml2012.indexcopernicus.com/issue.php?id=4064&id_issue=880006

35. Stanciu E.M., **Pascu A.**, Roată I.C., *Laser welding of austenitic stainless steel thin sheets*, **Revista RECENT** 16, (2) (45), 137-141, 2015.

http://jml2012.indexcopernicus.com/issue.php?id=4064&id_issue=880006

36. **Pascu A.**, Stanciu E.M., Roată I.C., *Laser cladding of Metco 68F-NS-1 cobalt based powder*, **Revista RECENT** 16, (2) (45), 115-118, 2015.

http://jml2012.indexcopernicus.com/issue.php?id=4064&id_issue=880006

ARTICOLE PUBLICATE IN VOLUME ALE CONFERINTELOR INTERNAȚIONALE

ISI THOMSON REUTERS

37. Croitoru C., **Pascu A.**, Roata I. C., Stanciu E. M., *Obtaining and characterization of polyolefin-filled calcium carbonate composites modified with stearic acid*, **IOP Conf. Ser.: Mater. Sci. Eng.** 209, 012041, 2018.

WOS:000423732100041

http://apps.webofknowledge.com/full_record.do?product=WOS&search_mode=GeneralSearch&qid=79&SID=F1H5L9A1iaTPvQwXmWf&page=1&doc=1

38. Roata I. C., **Pascu A.**, Croitoru C., Stanciu E. M., Pop M. A., *Thermal spraying of CuAlFe powder on Cu5Sn alloy*, **IOP Conf. Ser.: Mater. Sci. Eng.** 209, 012042, 2018.

WOS:000423732100042

http://apps.webofknowledge.com/full_record.do?product=WOS&search_mode=GeneralSearch&qid=83&SID=F1H5L9A1iaTPvQwXmWf&page=1&doc=1

39. Stanciu E. M., **Pascu A.**, Gheorghiu I., *CMT welding of low carbon steel thin sheets*, **IOP Conf. Ser.: Mater. Sci. Eng.** 209, 012051, 2018.

WOS:000423732100051

http://apps.webofknowledge.com/full_record.do?product=WOS&search_mode=GeneralSearch&qid=87&SID=F1H5L9A1iaTPvQwXmWf&page=1&doc=1

40. Croitoru C., Roata I. C., **Pascu A.**, Stanciu E. M., *Ionic liquid surface treatment of calcite for improved compatibility with polyolefin matrix*, **IOP Conf. Ser.: Mater. Sci. Eng.** 209, 012052, 2018.

WOS:000423732100052

http://apps.webofknowledge.com/full_record.do?product=WOS&search_mode=GeneralSearch&qid=91&SID=F1H5L9A1iaTPvQwXmWf&page=1&doc=1

41. **Pascu A.**, Stanciu E. M., Croitoru C., Roată I. C., Tiorean M. H., *Pulsed laser cladding of ni based powder*, **IOP Conf. Ser.: Mater. Sci. Eng.** 209, 012058, 2018.

WOS:000423732100058

http://apps.webofknowledge.com/full_record.do?product=WOS&search_mode=GeneralSearch&qid=94&SID=F1H5L9A1iaTPvQwXmWf&page=1&doc=1

42. Roată I.C., **Pascu A.**, Stanciu E.M., *Influence of the electric field voltage on the microhardness of the layers coated by thermal spraying*, **Solid State Phenomena** 216, 316-321, 2014.

WOS:000347924100055

http://apps.webofknowledge.com/full_record.do?product=WOS&search_mode=GeneralSearch&qid=98&SID=F1H5L9A1iaTPvQwXmWf&page=1&doc=1

43. Stanciu E.M., **Pascu A.**, Roată I.C., *Edge fillet laser welding of aisi 304 stainless steel*, **Solid State Phenomena** 216, 304-309, 2014.

WOS:000347924100053

http://apps.webofknowledge.com/full_record.do?product=WOS&search_mode=GeneralSearch&qid=102&SID=F1H5L9A1iaTPvQwXmWf&page=1&doc=1

44. Hanea M.E., Iovănaș R., **Pascu A.**, Roată I.C., *Smart mobile workstation used to transmit data for non-destructive testing of pipelines welded joints*, **Solid State Phenomena** 216, 279-282, 2014.

WOS:000347924100048

http://apps.webofknowledge.com/full_record.do?product=WOS&search_mode=GeneralSearch&qid=105&SID=F1H5L9A1iaTPvQwXmWf&page=1&doc=1

45. Ceorapin C.G., Iovănaș R., Voiculescu I., Iovănaș D.M., **Pascu A.**, *Spot welding electrodes with the active area achieved by cladding with MMA welding*, Proceedings of 20th DAAAM International Symposium, ISBN 978-3-901509-70-4, 2009.

WOS:000282335600681

http://apps.webofknowledge.com/full_record.do?product=WOS&search_mode=GeneralSearch&qid=110&SID=F1H5L9A1iaTPvQwXmWf&page=1&doc=1

46. Hanea M.E., Iovănaș R., Roată I.C., **Pascu A.**, *Experimental research on modern methods of welding pipelines using base materials X60 and X70*, **Solid State Phenomena** 216, 298-303, 2014.

WOS:000347924100052

http://apps.webofknowledge.com/full_record.do?product=WOS&search_mode=GeneralSearch&qid=114&SID=F1H5L9A1iaTPvQwXmWf&page=1&doc=1

BAZE DE DATE INTERNATIONALE

47. Roată I.C., Croitoru C., Stanciu E. M, **Pascu A.**, *Cladding under the spotlight: between performance materials and occupational health hazards*, **Materials Today: Proceedings** 19 (3), 1051-1058, 2019.

<https://doi.org/10.1016/j.matpr.2019.08.020>

48. **Pascu A.**, Mirza Rosca J., Stanciu E. M, *Laser cladding: from experimental research to industrial applications*, **Materials Today: Proceedings** 19 (3),1059-1065, 2019.

<https://doi.org/10.1016/j.matpr.2019.08.021>

49. Stanciu E.M, **Pascu A.**, Roată I.C., Croitoru C., Tierean M. H., *Laser welding of dissimilar materials*, **Materials Today: Proceedings** 19 (3), 1066-1072, 2019.

<https://doi.org/10.1016/j.matpr.2019.08.022>

50. Croitoru C., **Pascu A.**, Stanciu E.M, Roată I.C., *Solar synthesis of carbon microparticles from polymer waste*, **Materials Today: Proceedings** 19 (3), 996-1002, 2019.

<https://doi.org/10.1016/j.matpr.2019.08.012>

51. **Pascu A.**, Hulka I., Tierean M. H., Croitoru C., Stanciu E. M., Roată I.C., *A comparison of flame coating and laser cladding using Ni based powders*, **Solid State Phenomena** 254, 77-82, 2016.

<http://www.ttp.net/978-3-03835-711-7/2.html>

52. Hulka I., U u D., Șerban V.A., **Pascu A.**, Roată I.C., *Wear resistance of laser clad NiCrFeSiB self-fluxing composite coatings*, **Solid State Phenomena** 254, 290-295, 2016.

<http://www.ttp.net/978-3-03835-711-7/6.html>

ALTE LUCRĂRI / REALIZĂRI RELEVANTE

PROIECTE DE CERCETARE

DIRECTOR DE PROIECT

1. Proiect: EU-DG RTD Solar Facilities for the European Research Area (SFERA 2) / FRANȚA, Synthesis of carbon nanotubes using solar radiation and Al₂O₃-Mn/Cu₂O catalyst, 2016.
2. Proiect: EU-DG RTD Solar Facilities for the European Research Area (SFERA 2) / FRANȚA, Al₂O₃/TiO₂ cladding in pre-placed powder geometry using concentrated solar radiation, 2017.
3. Proiect: EU-DG RTD Solar Facilities for the European Research Area (SFERA 2) / ITALIA, Corrosion improvement of FeCrAl alloys designed for molten salt reactors, 2017.
4. Proiect: EU-DG RTD Solar Facilities for the European Research Area (SFERA 2) / FRANȚA, Residual stress relieve of Ni based coatings fabricated by laser cladding, 2015.

MEMBRU IN ECHIPA DE CERCETARE

1. Proiect: PN-III-P2-2.1-BG-2016-0349, Creșterea competitivității SC ELDON SRL prin optimizarea tehnologiei de fabricație a dulapurilor industriale de podea, 2016 – 2018.
2. Proiect: PN-II-RU-TE Nr. 349/2015, Polyolefins and calcite wastes recycling by obtaining new composite materials, 2016 – 2017.
3. Contract cu terți – Delft Enterprises B.V, Nr. 8407/21.07.2015, Studies concerning the real time monitoring of laser welding/cutting process – SMOL, 2015 – 2018.
4. Contract cu terți – Delft Enterprises B.V, Nr. 4452/17.04.2015, New methods for cutting metallic waste, 2015 – 2016.
5. Proiect: EU-DG RTD Solar Facilities for the European Research Area (SFERA 3) / FRANTA , Solar synthesis of functional carbonaceous under constant electric charge, 2019
6. Proiect: EU-DG RTD Solar Facilities for the European Research Area (SFERA 2) / Italia , Corrosion and wear behavior of NiCrBSi coatings fabricated by laser cladding, 2016.
7. Proiect: EU-DG RTD Solar Facilities for the European Research Area (SFERA 2) / Spania , Mechanical properties improvement of Cu₁₀Al laser cladded on aluminum, 2014.
8. Proiect: EU-DG RTD Solar Facilities for the European Research Area (SFERA 2) / Italia , Improvement of electric contacts corrosion resistance, 2014.
9. Proiect: EU-DG RTD Solar Facilities for the European Research Area (SFERA 1) / Spania , Improvement of corrosion and thermal resistance by thermal cladding of Ni-based coating on copper, 2013.
10. Proiect: PNCD 2/PARTENERIATE, nr. 72-216/2008, Tehnologie de depunere prin sudare hibrida Laser-MIG cu pulberi, 2008-2012.
11. Proiect: PNII – PARTENERIATE, Nr. 188/02.07.2012, Materiale și tehnologii performante destinate realizării cuțitelor de freza pentru asfalt- MATFREZ, 2012-2016.

Data: 25.03.2020

Conf. Dr. Ing. Pascu Alexandru