

Dr. Nitin Pandurang Wasekar



Academics

PhD (Metallurgy), 2013, **Indian Institute of Technology Madras**, Chennai, India

M. Engg. (Metallurgy), 2001-2003, **Indian Institute of Science, Bangalore**, India

B. Engg. (Metallurgy), 1997-2001, **National Institute of Technology, Nagpur**, India

Professional Experience

Scientist, International Advanced Research Centre for Powder Metallurgy and New Materials (ARCI) Hyderabad, 2003-present

Awards/Recognitions

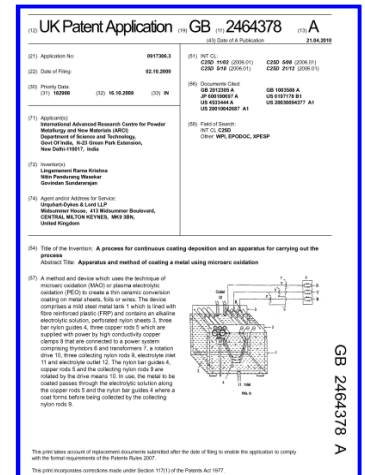
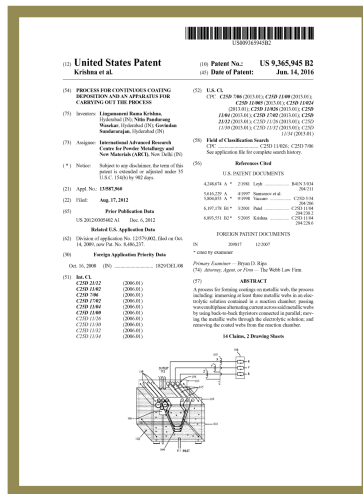
- o Indian National Science Academy (**INSA**) Fellow.
- o Indo-Australia Early and Mid-Career Research (**EMCR**) Fellowship at Queensland University of Technology, Brisbane, Australia, Sept 2017 to May 2018.
- o Felicitation by Indian Institute of Metals (**IIM**) Hyderabad Chapter for EMCR fellowship during Annual General Body Meeting 14 September 2017.
- o **Best Paper** of the Session Award for Poster Presentation titled "*Effect of Silicon Carbide on Microstructure and Mechanical Properties of Pulsed Electrodeposited Nickel Tungsten Composite Coating*" at International Conference on Emerging Trends in Materials and Manufacturing Engineering (**IMME17**) 10-12 March 2017.
- o All India Rank (**AIR**) **38** in the Graduate Aptitude Test in Engineering (GATE) in Metallurgical Engineering discipline (2001).
- o Fourth Rank in Nagpur University: Bachelor of Engineering program in Metallurgical Engineering (2001).

Reviewer

Materials Research Letters, Surface and Coatings Technology, Electrochimica Acta, Materials & Design, Journal of Alloys and Compounds, Applied Surface Science, Journal of Electrochemical Society

Patents

- (1) AN IMPROVED METHOD FOR PREPARING NICKEL ELECTRODEPOSITE HAVING PREDETERMINED HARDNESS GRADIENT
Indian Patent No: 285178 (Granted on 14/07/2017)
- (2) A PROCESS FOR CONTINUOUS COATING DEPOSITION AND AN APPARATUS FOR CARRYING OUT THE PROCESS,
US Patent No. 9365945 B2 (Granted on 14/06/2016)
- (3) A METHOD AND AN APPARATUS FOR PREPARING NICKEL TUNGSTEN BASED NANOCOMPOSITE COATING DEPOSITION
Indian Patent Filed (Application No. 201611001190, dated 13/01/2016)
- (4) IRON TUNGSTEN COATING FORMULATIONS AND PROCESSES
US Patent (Application Number 15/618850, dated 09/06/2017)



Publications

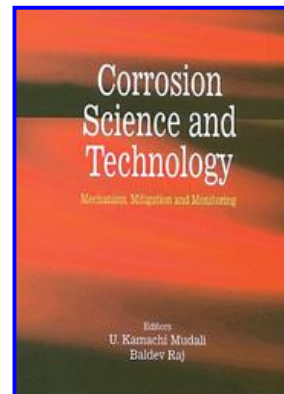
1. Book Chapter

Corrosion Science and Technology

Ed: U. Kamachi Mudali and Baldev Raj

Book Details

- Pub. Date: July 2008
- Publisher: Taylor & Francis, Inc.
- ISBN-13: 9780849333743
- ISBN: 0849333741



Chapter Details: Coating for Corrosion Resistance. Page number: 243-283

2. International Journals

1. U S Wawre, AMS Homouda, **N.P. Wasekar**, Mechanical Properties, thermal stability and corrosion behavior of electrodeposited Ni-B/AlN nanocomposite coatings, **Surface and Coatings Technology, 337 (2018) pp. 335-341.**
2. **Nitin P. Wasekar**, Prathap Haridoss, G. Sundararajan, Solid Particle erosion of nanocrystalline nickel coatings: Influence of grain size and adiabatic shear bands, **Metallurgical and Materials Transactions A, 49(2) (2018) pp. 476-489.**
3. LR Krishna, Y. Madhavi, T. Sahithi, **Nitin P. Wasekar**, NM Chavan, D S Rao, Influence of prior shot peening variables on the fatigue life of micro arc oxidation coated 6061-T6 Al alloy, **International Journal of Fatigue, 106 (2018) pp. 165-174.**
4. M.V.M. Vamsi, **Nitin P. Wasekar**, G. Sundararajan, Influence of heat treatment on microstructure and mechanical properties of pulsed electrodeposited Ni-W alloy coatings, **Surface and Coatings Technology, 319 (2017) pp. 403-414.**
5. M. Sribalaji, O.S.A Asiq Rahman, P. Arun Kumar, K. Suresh Babu, **Nitin P. Wasekar**, G. Sundararajan, A. K. Keshri, Role of Silicon Carbide in Phase-Evolution and Oxidation Behaviors of Pulse Electrodeposited Nickel-Tungsten Coatings, **Metallurgical and Materials Transactions A, 48(1) (2017) pp.501-512.**

6. **Nitin P. Wasekar**, S. Madhavi Latha, M. Ramakrishna, D.S. Rao and G. Sundararajan, Pulsed Electrodeposition and Mechanical Properties of Ni-W/SiC nanocomposite coatings, **Materials and Design**, **112 (2016) pp. 140-150**.
7. Kumar, S., Jyothirmayi, A., **Wasekar, N.**, Joshi, S.V., Influence of annealing on mechanical and electrochemical properties of cold sprayed niobium coatings, **Surface and Coatings Technology**, **296 (2016) pp. 124-135**.
8. Rahman, O.S.A., **Wasekar, N.P.**, Sundararajan, G., Keshri, A.K., Experimental investigation of grain boundaries misorientations and nano twinning induced strengthening on addition of silicon carbide in pulse electrodeposited nickel tungsten composite coating, **Materials Characterization**, **116 (2016) pp. 1-7**.
9. **Wasekar, N.P.**, Haridoss, P., Seshadri, S.K., Sundararajan, G., Influence of mode of electrodeposition, current density and saccharin on the microstructure and hardness of electrodeposited nanocrystalline nickel coatings, **Surface and Coatings Technology**, **291 (2016) pp. 130-140**.
10. S. B. Chandrasekhar, **Nitin P. Wasekar**, M. RamaKrishan, P. S. Babu, T. N. Rao, B. Kashyap, Evidence of dynamic strain ageing at room temperature in fine grained Cu-1wt%Al₂O₃ composite, **Journal of Alloys and Compounds**, **656 (2016) pp. 423-430**.
11. Singh, S., Sribalaji, M., **Wasekar, N.P.**, Joshi, S., Sundararajan, G., Singh, R. Keshri, A.K. Microstructural, phase evolution and corrosion properties of silicon carbide reinforced pulse electrodeposited nickel-tungsten composite coatings, **Applied Surface Science**, **364 (2016), pp. 264-272**.
12. **Nitin P. Wasekar**, G. Sundararajan, Sliding wear behavior of electrodeposited Ni-W alloy and hard chrome coatings, **Wear** **342 (2015) pp. 340-348**.
13. **Wasekar, N.P.**, Jyothirmayi, A., Hebalkar, N., Sundararajan, G., Influence of pulsed current on the aqueous corrosion resistance of electrodeposited zinc, **Surface and Coatings Technology** **272 (2015) pp. 373-379**.
14. Telasang, G., Dutta Majumdar, J., **Wasekar, N.**, Padmanabham, G., Manna, I., Microstructure and Mechanical Properties of Laser Clad and Post-cladding Tempered AISI H13 Tool Steel, **Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science**, **Vol 46 (5) (2015) pp. 2309-2321**.
15. **Wasekar, N.P.**, Haridoss, P., Seshadri, S.K., Sundararajan, G., Sliding wear behavior of nanocrystalline nickel coatings: Influence of grain size, **Wear**, **Vol. 296 (2012), pp. 536-546**.
16. Sanikommu, N., **Wasekar, N.P.**, Joshi, A.S., Sundararajan, G., A virtual instrument for pulsed electrodeposition: A novel technique for obtaining graded coatings, **Journal of Scientific and Industrial Research**, **Vol.70 (12) (2011), pp. 1026-1028**.

17. **Wasekar, N.P.**, Jyothirmayi, A., Sundararajan, G., Influence of prior corrosion on the high cycle fatigue behavior of microarc oxidation coated 6061-T6 Aluminum alloy, **International Journal of Fatigue, Vol.33 (9) (2011) pp. 1268-1276.**
 18. Sundararajan, G., **Wasekar, N.P.**, Ravi, N., The influence of the coating technique on the high cycle fatigue life of alumina coated Al 6061 alloy, **Transactions of the Indian Institute of Metals, Vol.63 (2010) pp. 203-208.**
 19. **Wasekar, N.P.**, Ravi, N., Suresh Babu, P., Rama Krishna, L., Sundararajan, G., High-cycle fatigue behavior of microarc oxidation coatings deposited on a 6061-T6 Al alloy, **Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, Vol.41 (1) (2010) pp. 255-265.**
 20. **Wasekar, N.P.**, Jyothirmayi, A., Krishna, L.R., Sundararajan, G., Effect of micro arc oxidation coatings on corrosion resistance of 6061-Al alloy, **Journal of Materials Engineering and Performance, Vol.17 (5) (2008) pp. 708-713.**
 21. Krishna, L.R., Sudhapurnima, A., **Wasekar, N.P.**, Sundararajan, G., Kinetics and properties of micro arc oxidation coatings deposited on commercial Al alloys, **Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, Vol. 38(2) (2007) pp. 370-378.**
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- Research paper entitled “Sliding wear behavior of electrodeposited Ni-W alloy and hard chrome coatings” ranked **1st** amongst ScienceDirect top 25 most downloaded articles for Wear journal from October-December 2015
 - Research paper entitled “Sliding wear behavior of nanocrystalline Ni coatings: Influence of grain size” ranked at **8th** amongst ScienceDirect top 25 most downloaded articles for Wear journal from October-December 2012

3. Conferences/Presentations

1. G. Sundararajan, MVN Vamsi, **Nitin P. Wasekar**, Influence of tungsten content on mechanical properties, wear and corrosion behavior of pulsed electrodeposited Ni-W alloy coatings, **MS&T 2017**, Oct 8-12, PITTSBURGH, PENNSYLVANIA, USA.
2. G. Sundararajan, **Nitin P. Wasekar**, Tribological behavior of pulsed electrodeposited Ni-W/SiC nanocomposites, 28th Advanced Aerospace Materials and Processes (**AEROMAT 2017**) Conference and Exposition, April 10-12, Charleston, South Carolina, USA.

3. **Nitin P. Wasekar**, D. S. Rao, G. Sundararajan, Dry sliding wear behavior of pulse electrodeposited Ni-W-SiC nanocomposite coatings as an alternative for hard chrome replacement, **Euromat 2015**, Sept 20-24, Warsaw, Poland
4. G. Sundararajan, **Nitin P. Wasekar**, Solid particle erosion behavior of electrodeposited nanocrystalline nickel coatings. **MS&T 2015**, Oct 4-8, Columbus, Ohio, USA.
5. S. K. Gautham, C. David, M.S. Karthiselva, B.K. Panigrahi, **Nitin P. Wasekar**, B. Srinivasa Rao. The effect of nanocrystalline grain size on mechanical property variation during irradiation of electrodeposited nickel coatings. **TMS-2014**, Feb 16-20, San Diego, CA, USA.
6. G. Sundararajan and **Nitin P. Wasekar**. Influence of tungsten additions on mechanical and tribological behavior of pulsed electrodeposited nanocrystalline nickel coatings. International Conference on Processing and Manufacturing of Advanced Materials, **THERMEC-2013**, Dec 2-6 2013, Las Vegas, USA.
7. G. Sundararajan and **Nitin P. Wasekar**. Solid particle erosion behavior of nanocrystalline nickel coatings: Influence of grain size and adiabatic shear bands. **MS&T-2013**, Montreal, Quebec, Oct 27-31, Canada.
8. **Nitin P. Wasekar**, G. Sundararajan, Prathap Haridoss and S K Seshadri. Mechanical Properties of Nanocrystalline graded and layered Ni coatings, International Symposium for Research Scholars on Metallurgy, **ISRS-2010**, 20-22 Dec, **IITM** Chennai India.
9. G. Sundararajan, **Nitin P. Wasekar**. Nanostructured and Layered Nickel coatings: Mechanical and Tribological Behavior, **TMS-2010**, 139th Annual Meeting and Exhibition, Feb 14-18, Seattle, Washington, USA.
10. **Nitin P Wasekar**, G. Sundararajan, L. RamaKrishna, N. Ravi. High Cycle Fatigue Performance of Micro Arc Oxidation Coatings deposited on 6061 Al alloy at 32nd International Conference & Exposition on Advanced Ceramics and Composites (**ICACC-2008**) Jan 27-Feb1, Daytona Beach, Florida, USA.
11. G. Sundararajan, P. S. Phani, **Nitin P. Wasekar**. Indentation Behavior of Porous Copper, **3rd International Indentation Workshop**, 15-21st July 2007, Cambridge, United Kingdom.
12. **Nitin P. Wasekar**, A. Jyothirmayi, G. Sundararajan. Corrosion Behavior of Micro Arc Oxidation coatings at National Symposium on Electrochemical Science and Technology, Indian Institute of Science Bangalore, 22-23 July 2005, conducted by The Electrochemical Society of India, Bangalore.

Membership of Professional Bodies:

TMS (# 480185),

Indian Institute of Metals (IIM) (Life Member # 42677)

Electrochemical Society (# 352176)

MRSI (# LMB2369)