

Curriculum Vitae



Dr. Abdolali Fayyaz
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Faculty of Material Engineering
Islamic Azad University
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Research interests:

- Material Processing
- Powder Metallurgy and Particulate Materials Processing
- Powder Injection Molding / Micro-Powder Injection Molding
- Advance Manufacturing Process
- Micro-manufacturing
- Phase Transformations
- Heat Treatment
- Composite Materials

Education Background:

Ph.D. Material Science and Engineering (July 2014)

National University of Malaysia (Universiti Kebangsaan Malaysia - UKM), Malaysia.

Thesis title: Micro Powder Injection Moulding of Cemented Tungsten Carbide

Supervisors: Prof. Dr. Norhamidi Muhamad and Associate Prof. Dr. Abu Bakar Sulong

M.Sc. Material Science Engineering (February 1997) - The second rank M.Sc. students

Sharif University of Technology, Iran.

Thesis title: Surface Austempering of Ductile Irons

Supervisors: Associate Prof. Dr. Naser Varahram and Prof. Dr. Parvis Davami

B.Sc. Material Science Engineering (September 1994) - The first rank B.Sc. students

Tehran University, Iran.

Thesis title: Thermo-mechanical processes of Aluminum Alloy (AA8079).

Supervisors: Prof. Dr. Reza Mahmudi

Publication:

a. Journal paper:

2015:

- **Abdolali Fayyaz**, Norhamidi Muhamad, Abu Bakar Sulong, Shye Yunna Heng, Sri Yulis M. Amin and Javad Rajabi, Micro-powder injection molding of cemented tungsten carbide: feedstock preparation and properties, *Ceramics International Journal* (Indexed by ISI), *41(3, Part A): 3605-3612, 2015*.

- Wong Yee Ning, Norhamidi Muhamad, Abu Bakar Sulong, **Abdolali Fayyaz** and Muhammad Rafi Raza, Effects of Vanadium Carbide on Sintered WC-10%Co Produced by Micro-powder Injection Molding, *Sains Malaysiana* (Indexed by ISI) *44 (4), 1175-1181, 2015*.

2014:

- **Abdolali Fayyaz**, Norhamidi Muhamad, Abu Bakar Sulong, Javad Rajabi and Yee Ning Wong, Fabrication of cemented tungsten carbide components by micro-powder injection moulding, *Journal of Materials Processing Technology* (Indexed by ISI), *214 (7), 1436-1444, 2014*.

- S.Y. Heng, M.R. Raza, N. Muhamad, A.B. Sulong, **A. Fayyaz**, Micro-powder injection molding (μ PIM) of tungsten carbide, *International Journal of Refractory Metals and Hard Materials* (Indexed by ISI), *45, 189-195, 2014*.

- **A. Fayyaz**, N. Muhamad, A.B. Sulong, S. Y. Heng, S.Y.M. Yulis, J. Rajabi, Rheological properties of cemented tungsten carbide feedstock for micro powder injection molding, *Materials Science Forum* (Indexed by SCOUPS), *773-774, 835-840, 2014*.

- Javad Rajabi, Norhamidi Muhamad, Abu Bakar Sulong, **Abdolali Fayyaz**, Muhammad Rafi Raza, The effect of nano-sized stainless steel powder addition on mechanical and physical properties of micro powder injection molded part, *Materials and Design* (Indexed by ISI), *63, 223-232, 2014*.

- Javad Rajabi, Hafizawati Zakaria, Norhamidi Muhamad, Abu Bakar Sulong, **Abdolali Fayyaz**, Fabrication of miniature parts using nano-sized powders and an environmentally friendly binder through micro powder injection molding, *Microsystem Technologies* (Indexed by ISI)) *In press (DOI 10.1007/s00542-014-2272-y), 2014*.

- Sri Yulis M. Amin, Norhamidi Muhamad, Khairur Rijal Jamaludin, **Abdolali Fayyaz**, Heng Shye Yunn, Characterization of the Feedstock Properties of Metal Injection-molded WC-Co with Palm Stearin Binder System, *Sains Malaysiana* (Indexed by ISI) *43(1), 123-128, 2014*.

- Norhamidi Muhamad, Javad Rajabi, Abu Bakar Sulong, **Abdolali Fayyaz**, Muhammad Rafi Raza, Micro powder injection moulding using nano sized powders, *Advanced Materials Research* (Indexed by SCOUPS), *1024, 116-119, 2014*.

2013:

- Heng Shye Yunn, Norhamidi Muhamad, Abu Bakar Sulong, **Abdolali Fayyaz**, Sri Yulis M. Amin, Effect of sintering temperature on the mechanical and physical properties of WC-10%Co through micro Powder Injection Molding (μ PIM), *Ceramics International* (Indexed by ISI), 39, 4457-4464, 2013.

- Javad Rajabi, Norhamidi Muhamad, Abu Bakar Sulong, Hasyimah Aziz, **Abdolali Fayyaz**, Hafizawati Zakaria , Characterization of Fabricated Feedstock Using Nano powders and a Water-soluble Binder in Micro Metal Injection Molding, *Journal of Nano Research* (Indexed by ISI), 23 ,36-42, , 2013.

2012:

- **Abdolali Fayyaz**, Norhamidi Muhamad, Abu Bakar Sulong, Heng Shye Yunn, Sri Yulis M. Amin and Javad Rajabi, Effect of Dry and Wet Ball Milling Process on Critical Powder Loading and Mixture Properties of Fine WC-10Co-0.8VC Powder, *Jurnal teknologi* (Indexed by SCOUPS), 59 , 141-144, 2012.

- Sri Yulis M. Amin, Norhamidi Muhamad, Khairur Rijal Jamaludin, **Abdolali Fayyaz**, Heng Shye Yunn , Ball Milling OF WC-Co Powder as Injection Molding Feedstock , *Journal of Applied Mechanics and Materials* (Indexed by SCOUPS), 52-54,1425-1430, 2012.

- Javad Rajabi, , Norhamidi Muhamad, Abu Bakar Sulong, **Abdolali Fayyaz** and Azizah Wahi, Advantages and Limitations Using Nano sized Powders on the Powder Injection Moulding Process: A Review, *Jurnal teknologi* (Indexed by SCOUPS), 59 ,137-140, 2012.

2011:

- Heng Shye Yunn, Norhamidi Muhamad, Abu Bakar Sulong, **Abdolali Fayyaz**, Haw Pei Li , Critical Solid Loading and Rheological Study of WC-10%Co, *Journal of Applied Mechanics and Materials*.(Indexed by SCOUPS) , 52-54, 97-102, 2011.

b. Conference paper:

2014:

- **Abdolali Fayyaz**, Norhamidi Muhamad, Abu Bakar Sulong, Javad Rajabi, Yee Ning Wong, Application of Micro Powder Injection Molding for Manufacturing Hardmetal Component, *Malaysian Powder Metallurgy Association Seminar*, Malaysia, Jan. 2014.

- Norhamidi Muhamad, Abu Bakar Sulong, **Abdolali Fayyaz**, Javad Rajabi, Powder Injection Molding of Cemented Carbide, *International Conference on Industrial, Systems, and Manufacturing Engineering (ISME'14)*, Jordan, 2014.

2013:

- **Abdolali Fayyaz**, Norhamidi Muhamad, Abu Bakar Sulong, Heng Shye Yunna, Sri Yulis M. Amin, Javad Rajabi, Micro Powder Injection Molding of Cemented Tungsten Carbide, *Malaysian Powder Metallurgy Association Seminar*, Malaysia, Jan. 2013.

- **Abdolali Fayyaz**, Norhamidi Muhamad, Abu Bakar sulong, Javad Rajabi, Yee Ning Wong, Micro Powder Injection Molding of Cemented Carbide, *2nd International Conference on Powder Metallurgy in Asia, China, Nov. 3-6, 2013.*

2012:

- **A. Fayyaz**, Norhamidi Muhamad, A.B. Sulong, S. Y. Heng, S.Y.M. Amin, J. Rajabi, Rheological properties of cemented tungsten carbide feedstock for micro powder injection molding, *15th International Conference On Advances In Materials & Processing Technologies (AMPT 2012)*, Australia, Sep. 23-26, 2012.

- **Abdolali Fayyaz**, Norhamidi Muhamad, Abu Bakar Sulong, Heng Shye Yunna, Sri Yulis M. Amin, Javad Rajabi, Study On Solvent Debinding Process Of Micro Cemented Carbide Injection Molded Component, *International Conference on Engineering and Built Environment (ICEBE 2012)*, Malaysia. 6-7 Nov. 2012 (Proceeding will be index By Scopus).

- Javad Rajabi, Norhamidi Muhamad, A. B. Sulong, **A. Fayyaz**, Azizah Wahi, Low viscosity feedstock for micro metal injection molding process, *7th International Conference on Materials Science and Technology (MSAT-7)*, Thailand, 2012.

- Javad Rajabi, Norhamidi Muhamad, Abu Bakar Sulong, Hasyimah Aziz, **Abdolali Fayyaz**, Hafizawati Zakaria, Characterization of fabricated feedstock using nano powders and a Water-soluble binder in micro metal injection molding (μ MIM), *15th International Conference On Advances In Materials & Processing Technologies (AMPT2012)*- Australia, Sep. 23-26, 2012.

- Javad Rajabi , Norhamidi Muhamad, Abu Bakar Sulong, **Abdolali Fayyaz**, Exploring the usage of nano and micro sized-powders on the μ PIM Process-A review, *International Conference on Engineering and Built Environment (ICEBE 2012)*, Malaysia. 6-7 Nov. 2012 (Proceeding will be index By Scopus).

2011:

- **A. Fayyaz**, N.Muhamad, A. B. Sulong, H. Shye Yunn, J. Rajabi, Critical solid loading of ultra-fine WC-Co powder in micro powder injection molding process, *2nd Workshop & Conference On Nanotechnology*, Selangor, Malaysia, 2011.

- **Abdolali Fayyaz**, Norhamidi Muhamad, Abu Bakar Sulong, Heng Shye Yunna, Sri Yulis M. Amin, Javad Rajabi , Effect of Dry and Wet Ball Milling Process on Powder Characteristics of WC-Co Powder, *5th Powder Metallurgy Symposium & Exhibition*, Malaysia, 2011.

- Sri Yulis M. Amin, , Norhamidi Muhamad, Khairur Rijal Jamaludin, **Abdolali Fayyaz** and Heng Shye Yunna , Characterization of Feedstock properties of PIM WC-Co with Palm Stearin Binder System, *5th Powder Metallurgy Symposium & Exhibition*, Malaysia, 2011.

- Javad Rajabi, , Norhamidi Muhamad, Abu Bakar Sulong, **Abdolali Fayyaz**, Azizah Wahi, Advantages and Limitations Using Nano sized Powders on the Powder Injection Moulding Process: a Review, *5th Powder Metallurgy Symposium & Exhibition*, Malaysia, 2011.

- Sri Yulis M. Amin, Norhamidi Muhamad, Khairur Rijal Jamaludin, **Abdolali Fayyaz**, Heng Shye Yunn, Ball milling of WC-Co powder as injection molding feedstock, *International Conference of Mechanical and Erospace Engineering*, Thailand, 2011.

- Javad Rajabi, Norhamidi.Muhamad, **Abdolali Fayyaz**, Powder Injection Molding Process Through Nano Powders, 2nd Workshop & Conference On Nanotechnology, Selangor, Malaysia, 2011.

- J. Rajabi, Norhamidi.M., A. B. Sulong, **A. Fayyaz**, Exploring the usage of nano and micro sized powders on the μ PIM Process – A review, 1st International Conference on Mechanical Engineering Research, Pahang, Malaysia, 2011.

2010:

- **Abdolali Fayyaz**, Norhamidi Muhamad, Abu Bakar Sulong, Micro Powder Injection Molding of Cemented Carbide – A review, Malaysian Metallurgical Conference (MMC) & 4th Malaysian Powder Metallurgy Symposium, Penang, Malaysia, 2010.

- **Abdolali Fayyaz**, Norhamidi Muhamad, Abu Bakar Sulong, Micro Metal Injection Molding - Process, Applications and Challenges, 11th Asia Pacific Industrial Engineering and Management Systems Conference, Melaka, Malaysia, 2010.

Work experience:

- Apprenticeship, Sadid Industrial Group (3 months).
- Apprenticeship, Razi Metallurgical Research Center (3 months).
- Senior Material Engineering, Telmafan Co., Ltd. (Manufacture of auto Clutch Cover and Disk), June 1999 - June 2001.
- Senior Engineering, Mehr Charkh Co., Ltd. (Importer and distributor of industrial machinery), June 2001 - July 2009.
- Material Science Engineering Adviser, Sanat Pajouhan Matrah Consulting Eng. Co. (Hydraulic Equipment), July 2008 - July 2009.
- Research Assistant in Department of Mechanical and Material Science Engineering, Faculty of Engineering, National University of Malaysia (Universiti Kebangsaan Malaysia - UKM), December 2009 – July 2014.
- Material Science Engineering Adviser, Arain Polyurethane Co. (Polyurethane systems manufacturer), November 2014 - Present.
- Material Science Engineering Adviser, Noor Mehr Hoda Co. (Industrial & Trading Group), September 2014 - Present.

Awards & Achievements:

- The first rank B.Sc. students
- The second rank M.Sc. students
- PhD Student selected for Malaysian Government Fellowship

Professional membership:

- Reviewer of Journal of Mechanics Engineering and Automation (JMEA)
- Peer-Review of Indian Journal of Engineering & Materials Sciences (IJEMS).
- Peer-Review Materials Research Innovations Journal (MRI).
- Organizing Committee member of 2nd Workshop & Conference on Nanotechnology, 12-13 March 2011, Selangor, Malaysia.

- Organizing Committee member of International Conference on Engineering and Built Environment (ICEBE) of National University of Malaysia (Universiti Kebangsaan Malaysia - UKM), 4-5 October 2011, Selangor, Bangi, Malaysia.
- Member of the Engineering Postgraduate Committee - Faculty of Engineering and Built Environment - National University of Malaysia (Universiti Kebangsaan Malaysia - UKM), Sep. 2011 - Sep. 2012.
- Member of the Advance Manufacturing Research Group (AMREG), Malaysia, 2009- Present.
- Member of the Nano Technology Scientific Core, Malaysia, 2009- Present.
- Member of the Iranian Society of Metallurgical Engineers, 2014 - Present.

Referees:

1- Prof. Dr. Norhamidi Muhamad (Ph.D. Supervisor)

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3- Prof. Dr. Reza Mahmudi (B.Sc. Supervisor)

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