

# Hadi Nur

Professor of Chemistry

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Director of Institute  
Ibnu Sina Institute for Scientific and Industrial Research  
Universiti Teknologi Malaysia  
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## Personal Information

Name: Hadi Nur  
Place and date of birth: Bukittinggi, 6 May 1969  
Sex: Male  
Nationality: Indonesian  
Marital status: Married  
Wife: Terry Terikoh (52 years old)  
Children: Farid Rahman Hadi (24 years old), Firda Hariri (20 years old) and Fahima Zikra (13 years old)

## Professional Career

**2018–** Director of Institute, Ibnu Sina Institute for Scientific and Industrial Research, Universiti Teknologi Malaysia  
**2017–** Adjunct Professor, Universitas Negeri Malang, Indonesia  
**2016–** Director, CSNano Technologies Sdn. Bhd. (MyCoID Number: 1177551-X)  
**2010–** Professor, Centre for Sustainable Nanomaterials, Ibnu Sina Institute for Scientific and Industrial Research, Universiti Teknologi Malaysia  
**2015** Visiting Scientist, the Institute for Heterogeneous Materials Systems, Helmholtz-Zentrum Berlin for Materials and Energy, Germany  
**2015–2019** Director, Centre for Sustainable Nanomaterials, Universiti Teknologi Malaysia  
**2009–2014** Head of Catalytic Science and Technology (CST) Research Group, Universiti Teknologi Malaysia  
**2008–2014** Global Alliance Manager (Region 1 - South East Asia), Universiti Teknologi Malaysia  
**2008–2010** Associate Professor, Ibnu Sina Institute for Fundamental Science Studies, Universiti Teknologi Malaysia  
**2007–2008** Senior Lecturer, Ibnu Sina Institute for Fundamental Science Studies, Universiti Teknologi Malaysia  
**2003–2007** Lecturer, Ibnu Sina Institute for Fundamental Science Studies, Universiti Teknologi Malaysia  
**2002–2003** Research Officer, Ibnu Sina Institute for Fundamental Science Studies, Universiti Teknologi Malaysia  
**2001–2002** COE (Center of Excellent) Visiting Researcher, Laboratory of Catalytic Reaction Chemistry, Catalysis Research Center, Hokkaido University, Japan.  
**1999–2001** JSPS (Japan Society for the Promotion of Science) Postdoctoral Fellow, Laboratory of Catalytic Reaction Chemistry, Catalysis Research Center, Hokkaido University, Japan.  
**1998–1999** Postdoctoral Fellow, Department of Chemistry, Universiti Teknologi Malaysia

## Education

**1995–1998** PhD Chemistry, Universiti Teknologi Malaysia  
Thesis: Tailoring of novel metal-substituted AlPO<sub>4-5</sub> molecular sieves as potential catalysts for conversion of alcohols  
**1993–1995** Magister Teknik (MT), equivalent to MEng, in Materials Science and Engineering (*Cum Laude*),

Institut Teknologi Bandung, Indonesia

Thesis: Synthesis of hydroxylapatite bioceramics by means of precipitation and its characterization

**1987–1992**

Sarjana Sains (SSi), equivalent to BSc, in Chemistry, Institut Teknologi Bandung, Indonesia

Thesis: Comparative study on the determination of selenium in human blood by neutron activation analysis and atomic absorption spectrometry

### **Awards and Recognitions**

- World Class Professor (WCP), Ministry of Research, Technology and Higher Education, Republic of Indonesia, 15 November 2019.
- Keynote Speaker at Soedirman's International Conference on Mathematics and Applied Sciences (SICoMAS) 2019 on 24 October 2019.
- Keynote speaker of The 1st International Scientific, Educational, and Technological Conference 2019, 5-6 October 2019, Universitas Islam Negeri (UIN) Walisongo, Semarang, Indonesia.
- Keynote speaker at International Seminar on Chemistry 2018 (ISoC 2018) in Surabaya, Indonesia on 18-19 July 2018.
- Keynote speaker at International Conference on Science Technology and Interdisciplinary Research IC-STAR) on 24 September 2019, Universitas Lampung (UNILA), Bandar Lampung, Indonesia.
- Keynote speaker at International Conference on Nuclear Energy Technologies and Sciences 2019 (ICoNETS 2019) on 19 September 2019, Universitas Andalas, Padang, Indonesia.
- Keynote speaker at International Conference on Green Energy and Environment 2019, 3-4 September 2019, organized by Universitas Bangka Belitung (UBB), Bangka Belitung, Indonesia.
- Keynote speaker at UNNES Physics International Symposium 2018 on 3 May 2018 in Semarang, Indonesia.
- Keynote speaker at the ASIA International Multidisciplinary Conference (AIMC 2017) at UTM, Johor Bahru on 1 May 2017.
- Keynote speaker at the 3<sup>rd</sup> International Seminar on Science and Technology (ISST) 2017 held in Grha Sepuluh Nopember, ITS Campus Sukolilo, Surabaya, Indonesia on 3 August 2017.
- Invited speaker at the International Conference in Organic Synthesis 2016 (ICOS 2016) held in Kuching, Sarawak on 22 August 2016.
- Keynote speaker at the 4th International Conference on Advanced Materials Science and Engineering (ICAMST) 2016 held in Malang on 27 September 2016.
- Keynote speaker at International Seminar on New Paradigm and Innovation of Natural Sciences and its Application (ISNPINSA) held in Semarang 05 October 2016.
- Keynote speaker at the Conference organized by Faculty of Mathematics and Natural Sciences of Universitas Mulawarman held in Balikpapan on 19 October 2016.
- Invited speaker at International Seminar on Improve Human Resources in Industry Skill for ASEAN Economic Community, Universitas Riau, 9 April 2016.
- Invited speaker at Universitas Negeri Malang (UM) on 18 December 2016. My talk is on how the strategy and best practice to improve the quantity and quality of the research at the UM. The rector, vice rectors, deans and also professors attended my lecture.
- Invited speaker of Leadership Camp 2015, organized by Persatuan Pelajar Indonesia, Malaysia, 30 October 2015], at UTM.
- Keynote speakers at The International Conference on Mathematics, Science, Education and Technology which is held in Padang, Indonesia on 22 October 2015.
- Keynote speaker at The 2015 International Conference on Advanced Materials Science and Technology which is held in Semarang, Indonesia from 6 to 7 October 2015.
- Keynote speakers at International Conference on Conservation for Better Life which is held in Semarang, Indonesia from 11 to 13 September 2015.
- Keynote speaker at The 1st International Conference on Science, Technology, and Interdisciplinary Research (IC-STAR) 2015 which is held in Bandar Lampung, Indonesia from 21 to 23 September 2015.
- Invited speaker to deliver lecture on Management and governance of university at Universitas Muhammadiyah Sumatera Barat (UMSB), 29 May 2015. Invited speaker to deliver lecture on scientific research and publication at Department of Chemistry, Universitas Negeri Padang (UNP), 29 May 2015.
- Keynote speaker at Seminar Nasional Kimia dan Pendidikan Kimia at Universitas Negeri Sebelas Maret (UNS) which was held in Surakarta, 18 April 2015.

- Keynote speaker at The 2<sup>nd</sup> International Renewable and Sustainable Energy Conference (IRSEC' 14), 17-19 October 2014, Ouarzazate, Morocco.
- Invited speaker at publication workshop, Water Research Alliance, Universiti Teknologi Malaysia 18 November 2014.
- Keynote speaker at 2<sup>nd</sup> ICONES (International Conference on Natural and Environmental Science), Darussalam, Indonesia 9-11 September 2014. This seminar was organized by Faculty of Mathematics and Natural Sciences, Syiah Kuala University.
- Invited speaker in science talk and laboratory demonstration, Ibnu Sina Institute for Fundamental Science Studies, Universiti Teknologi Malaysia, 18 August 2014.
- Keynote speaker at the 1<sup>st</sup> Academic Symposium on Integrating Knowledge (ASIK) held at Universitas Islam Negeri Alauddin, Makassar from 19 to 20 June 2014.
- Guest lecture at the Department of Chemical Engineering, Universitas Riau on 21-22 February 2014.
- Invited speaker at Global Research Training Directorate Research and Community Engagement University of Indonesia on 14-15 December 2013 at Mercure Hotel, Kuta, Bali, Indonesia.
- Keynote Speaker at Technology, Education and Science International Conference 2013 at Universiti Teknologi Malaysia on 20 – 21 November 2013. This seminar was organized by *Persatuan Pelajar Indonesia*, Universiti Teknologi Malaysia (PPI UTM)
- Keynote Speaker at *Seminar Nasional Hasil Riset dan Standarisasi Industri III* in Banda Aceh, Indonesia on 23 – 25 October 2013. This seminar was organized by Balai Riset dan Standarisasi Industri Banda Aceh, Indonesia.
- Keynote Speaker at 7<sup>th</sup> South East Asian Technical Universities Consortium (SEATUC) Symposium on 5 – 6 March 2013 which is held at Institut Teknologi Bandung, Indonesia.
- Invited speaker at 11<sup>th</sup> Symposium of Research Center for Solar Energy Chemistry, Osaka University on 20 February 2013 which is held at Graduate School of Engineering, Osaka University, Japan.
- Keynote speaker at Seminar Nasional SDM Teknologi Nuklir VIII 2012 at Sekolah Tinggi Teknologi Nuklir, the National Nuclear Energy Agency (BATAN), Yogyakarta on 31 October 2012 which is held at *Pusat Teknologi Akselerator dan Proses Bahan* (PTAPB), BATAN.
- Keynote speaker at the National Seminar on Chemistry organized by Universitas Jenderal Soedirman (UNSOED) held on 6 October 2012, at Roediro Building UNSOED, Purwokerto, Indonesia.
- Keynote speaker at International Conference on Chemical and Material Engineering (ICCME) organized by Department of Chemical Engineering, Diponegoro University (UNDIP), 12 – 13 September 2012, Grand Candi Hotel, Semarang, Indonesia.
- Invited speaker at Congress of Indonesian Diaspora at Los Angeles Convention Center, US on 6 – 8 July 2012.
- Keynote speaker at National Seminar on Chemistry at Swiss-Belhotel Borneo Hotel, Samarinda, East Kalimantan on 3 December 2011. This seminar is organized by Office of Education and Culture, East Kalimantan Province and the Indonesian Chemical Society.
- Keynote speaker at International Seminar on Environment Sciences (ISES 2011) organized by Department of Chemistry, Universitas Andalas, Padang, Indonesia. The symposium is held in Padang on 8 October 2011.
- Keynote speaker at the ITB Catalysis Symposium, organized by the Inorganic and Physical Chemistry Research Division at Institut Teknologi Bandung (ITB). The symposium is held in Bandung on 12 July 2011.
- Invited speaker at The 12<sup>th</sup> International Conference on Quality in Research (QiR 2011) which is held in Bali, Indonesia on 4 – 7 July 2011.
- Invited speaker at Nanotechnology Seminar on 29 June 2011 at Universiti Tun Hussein Onn Malaysia (UTHM). This seminar was organized by Dr. Mohd Arif Agam and his research group of Faculty of Science, Technology and Human Development (FTSTPi), UTHM.
- Invited speaker at Learning orientation program on 23 June 2011 for doctoral program students who received scholarships from the Government of South Sulawesi Province.
- Keynote Speakers at The 3<sup>rd</sup> Junior Chemists Colloquium (3JCC), organized by The Department of Chemistry, Faculty of Science, Universiti Teknologi Malaysia (UTM) Johor Bahru and Department of Chemistry, Faculty of Resource Science and Technology, Universiti Malaysia Sarawak (UNIMAS) held on 18 January 2011 in Ibnu Sina Institute for Fundamental Science Studies, UTM.
- Keynote Speakers at the National Seminar on Engineering and Technology (ReSaTek), organized by the Universitas Bung Hatta held on 2 August 2010 in Pangeran Beach Hotel, Padang, Indonesia

- Visiting Associate Professor at Department of Chemistry, Institut Teknologi Bandung from 15 to 20 November 2009.
- Keynote speaker at the national seminar on chemistry and chemistry education organized by Universitas Negeri Semarang held on 10 October 2009, in Puri Garden Hotel, Semarang, Indonesia.
- Invited speaker at Workshop on Catalysis, Department of Chemistry, Institut Teknologi Sepuluh Nopember (ITS), Surabaya, 25 August 2008.
- Universiti Teknologi Malaysia (UTM) Publication Award (International publication category), 2007.
- Universiti Teknologi Malaysia (UTM) Publication Award (International publication category), 2006.
- Keynote lecture at Seminar Nasional Kimia IX (National Seminar on Chemistry IX) at Institut Teknologi Sepuluh Nopember (ITS), Surabaya, Indonesia, 24 July 2007.
- Invited to give lecture at Graduate School of Engineering Science, Osaka University, 11 June 2007.
- Universiti Teknologi Malaysia (UTM) Excellent Service Award, 2005 (*Anugerah Perkhidmatan Cemerlang UTM Tahun 2005*).
- Invited to give lecture on "Scientific Writing" on 2 June 2005 to staff of Department of Science and Mathematics, Kolej Universiti Teknikal Kebangsaan Malaysia at Le Paris Hotel, Port Dickson, Malaysia.
- Invited to give lecture on "Synthesis and Characterization of Zeolites" to researchers of Mineral Research Center, Department of Minerals and Geoscience Malaysia, Ipoh, 3 – 6 May 2005.
- Guest Lecturer at COMBICAT research group, Universiti Kebangsaan Malaysia, 26 – 27 March 2004.

#### **Contribution to bilateral cooperation between Indonesia and Malaysia in higher education**

I am one of the founders of the Indonesia-Malaysia Research Consortium (I'MRC) which is a platform of cooperation between universities in Indonesia and Malaysia in higher education. This initiative was initiated on 8 May 2016 where Indonesia-Malaysia Research Consortium (I'MRC) forum was held successfully by Universiti Teknologi Malaysia (UTM) at UTM Kuala Lumpur Campus. On 2 October 2017, HE Minister Dato' Seri Idris Jusoh, the Malaysian Minister of Higher Education (MHE) and HE Minister Mohamad Nasir, the Indonesian Minister of Research, Technology and Higher Education Indonesia chaired a bilateral meeting of the high level groups consists of policy makers from both Ministries, rectors and vice rectors from the Indonesian and Malaysian famous universities to discuss I'MRC. On November 22, 2018, the I'MRC Forum held at Institut Teknologi Sepuluh Nopember (ITS) in Surabaya has agreed to establish 5 research clusters, namely Renewable Energy (Coordinators: Prof. Arshad Ahmad and Prof. Adi Soeprijanto), Humanities and Culture (Coordinators: Prof. Syed Ahmad Iskandar Syed Ariffin and Prof. Suyono), Biomedicine and Health (Coordinators: Assoc. Prof. Teguh Haryo Sasongko and Prof. Agus Rubiyanto), STEM kits (Coordinators: Prof. Datuk Dr. Halimaton Hamdan and Dr. Markus Diantoro), and Disaster risk reduction and disaster risk management (Coordinators: Prof. Zulkifli Yusop and Dr. Amien Widodo).

#### **Mentoring**

I have supervised 5 postdoctoral researchers, 34 PhD students (31 graduated), 18 MSc students (16 graduated) and 37 BSc students (37 graduated).

##### **Current postdoc (2)**

- Dr. Leaw Wai Loon
- Dr. Abdul Hakim Md Yusop

##### **Current Ph.D. students (4)**

- Jamilah Amer Nordin
- Nor Arbani Sean
- Haryani Mohd Yatim
- Nur Syuhada Ibrahim

##### **Current M.Sc. students (1)**

- Syahira Omar

##### **Former Postdocs (3)**

- Dr. Sheela Chandren (2013 – 2015)
- Dr. Lai Sin Yuan (2014 – 2015)
- Dr. Shokoh Parham (2016 – 2017)

**Ph.D. students alumni (31)**

- Prof. Dr. Didik Prasetyoko (2006)
- Dr. Fitri Hayati (2009)
- Dr. Eriawan Rismana (2010)
- Dr. Amin Eisazadeh Otaghsaraei (2010)
- Dr. Surya Lubis (2013)
- Dr. Nursyafreena Attan (2013)
- Dr. Umar Kalmar Nizar (2014)
- Dr. Lai Sin Yuan (2014)
- Dr. Norfatimah Yahaya (2014)
- Dr. Khitam Abdulhussein Saeed (2014)
- Dr. Nur Hidayah Mohd Ran (2014)
- Dr. Syamsi Aini (2014)
- Dr. Mukhamad Nurhadi (2014)
- Dr. Mita Rilyanti (2015)
- Dr. Mohammed Salisu Musa (2015)
- Dr. Pratama Jujur Wibawa (2015)
- Dr. Yelmida Aziz (2015)
- Dr. Fatemeh Yaghoubi Doust (2016)
- Dr. Mohd Dzul Hakim Wirzal (2016)
- Dr. Afrouz Baharvand (2016)
- Dr. Parisa Pourdayhimi (2016)
- Dr. Shokoh Parham (2016)
- Dr. Shafiyah Pondi (2017)
- Dr. Mohamad Haqzim Ayob (2018)
- Dr. Abdul Hakim Md Yusop (2018)
- Dr. Nur Izzati Abu Bakar (2018)
- Dr. Farah Syuhada Abdul Halim (2018)
- Dr. Nurul Najidah Mohamed (2018)
- Dr. Nor Syahiran Zahidin (2019)
- Rasidah Razali (2019)
- Siti Hajar Alias (2019)

**M.Sc. students alumni (16)**

- Dr. Norizah Abdul Rahman (2005)
- Helda Hamid (2005)
- Assoc. Prof. Dr. Ng Yun Hau (2005)
- Gui Lee Kee (2008)
- Dr. Izan Izwan Misnon (2008)
- Yong Khun Fong (2008)
- Dr. Sheela Chandren (2008)
- Sasha Md Nasir (2010)
- Amelia Boon Hoo (2011)
- Farizan Mohamad (2012)
- Nor Rashidah Md Juremi (2012)
- Syaiful Akhmal Saadon (2013)
- Dr. Nur Izzati Abu Bakar (2014)
- Nur Nadira Sulaiman (2014)
- Shamsuddin Chik Zi (2015)
- Nor Arbani Sean (2017)
- Nur Adilah Hussien (2019)

**Teaching**

Molecular Symmetry and Spectroscopy, Surface and Colloid Chemistry, Advanced Physical Chemistry, Advanced Spectroscopy, Solid State Chemistry, Quantum Chemistry and Spectroscopy, Chemical Reaction Processes, Physical Chemistry and Materials Chemistry

## Research Grants

I was a principal investigator of 22 research projects. My research has been or is currently being funded by the Ministry of Science, Technology & Innovation, Malaysia (MOSTI), the Ministry of Higher Education, Malaysia (MOHE), the Academy of Sciences for the Developing World (TWAS) and Nippon Sheet Glass Foundation for Materials Science and Engineering.

- "Solid-Oxide Fuel Cells based on semiconductor nanostructure for Power Industry", Long Term Research Grant scheme (LRGS), R.K130000.7340.4L825 (RM 1,500,000) 1 February 2015 – 31 January 2020 (Project leader).
- "Remediation of Palm Oil Mill Effluent Towards Environmental Sustainability", University Grant Program (GUP) - Flagship: Q.J130000.2409.03G09 (RM 300,000). 1 March 2015 – 28 February 2016 (Program leader)
- "Bioinspired Approach in the Synthesis of Hierarchically Porous Catalyst Derived from Averrhoa Bilimbi for the Conversion of High Molecular Weight Cellulose", Fundamental Research Grant Scheme. 4F626 (Sub Project: R.J130000.7809.4F626 (RM113,000). 1 December 2014 - 30 November 2016 (Project leader)
- "Development of Chiral-Selective Photocatalytic Organic Synthesis System Using Hollow Core-Shell Particles of Titania Core and Silica Shell with Chiral-Modified Pores", University Grant Program (GUP) - Tier 2: Vot. 10J41 (Sub Project: Q.J130000.2601.10J41) (RM28,500). 1 May 2015 - 30 April 2015 (Project leader)
- "The nanoparticles metal-carbon with core/shell structure as selective and active catalyst in the oxidation of alkenes", University Grant Program (GUP) - Tier 1: Vot. 06H22 (Sub Project: Q.J130000.2501.06H22) (RM60,000). 1 April 2014 - 31 March 2016 (Project leader)
- "Temperature-controlled selectivity in oxidation of alkenes by using aqueous hydrogen peroxide by layer textile catalyst and its mechanism", Fundamental Research Grant Scheme. 4F169 (Sub Project: R.J130000.7826.4F169) (RM92,000). 1 April 2013 - 31 March 2015 (Project leader)
- "Well-Aligned Titania Synthesized Under Magnetic Field by Using Liquid Crystal as Alignment Agent for Solar Cells Application", University Grant Program (GUP) - PDRU: Vot. 02E05 (Sub Project: Q.J130000.21A2.02E05) (RM77,000). 1 November 2014 - 31 October 2015 (Project leader)
- "Preparation of Titanium(IV), Zinc(II) and Nickel(II) Complexes Silica-Based Catalysis for Limonene and 1-Octene Oxidation Reactions", University Grant Program (GUP) - PDRU: Vot. 01E47 (Sub Project: Q.J130000.21A2.01E47) (RM77,000). 1 April 2014 - 31 March 2015 (Project leader)
- Well-Aligned Titania Synthesized Under Magnetic Field by Using Liquid Crystal as Alignment Agent for Solar Cells Application", University Grant Program (GUP) - PDRU: Vot. 00E99 (Sub Project: Q.J130000.21A2.00E99) (RM77,000). 1 November 2013 - 31 October 2014 (Project leader)
- "Well-aligned titania with high length to diameter ratio synthesized under magnetic field using liquid crystal", University Grant Program (GUP) - Tier 1: Vot. 03H88 (Sub Project: Q.J130000.2526.03H88) (RM120,000). 1 December 2012 - 30 November 2014 (Project leader)
- "Transition metal complex functionalized silica covered nano magnetite catalyst", University Grant (GUP) Program - Tier 2: Q.J130000.2626.08J36 (RM36,634). 1 December 2012 - 31 December 2013 (Project leader)
- "Synthesis of preferred oriented titanium dioxide materials under strong magnetic field and their photocatalytic activity", Nippon Sheet Glass Foundation for Materials Science and Engineering. 4B054 (Sub Project: J13000073264B054) (USD 6,000). 2012-2013 (Project leader)
- "Synthesis, characterization and application of amine surface bonded nanoporous carbon spheres in removal of new emerging pollutants", University Grant Program (GUP) - Flagship: Q.J130000.2426.00G05 (RM 300,600) 2011-2013 (31/07/2013) (Project leader)
- "A new approach in control of the catalytic activity and selectivity in oxidation reactions by magnetic field", University Grant (GUP) Program - Tier1: Q.J130000.7126.01H06 (RM 169,000) 2011-2013 (31/03/2013) (Project leader)
- "Electric field-induced catalysis over electrically conducting surface", Fundamental Research Grant Scheme. 78472 (RM 32,000) 2009-2011 (14/11/2011) (Project leader)
- "A novel design of heterogeneous catalyst for liquid-gas reaction system using hollow polymer nanospheres", Sciencefund research grant: Vot: 79384 (RM 218,000) 2009-2011 (30/09/2011) (Project leader)
- "Structure-catalytic activity relationship of hydrolyzed alkylsilane functionalized with amino acid as heterogeneous micellar catalysis", Fundamental Research Grant Scheme: Vot: 78399 (RM 46,000) 2009-2011 (13/08/2011) (Project leader)
- "Gold nanoparticles embedded on polymeric layer as novel label for biological diagnostics", Sciencefund

research grant: Vot: 79126 (RM 184,000) 2007-2009 (Project leader)

- "Mechanocatalysis with electrically induced contractile electro-active polymer", Fundamental Research Grant Scheme: Vot. 78070 (RM 61,000) 2007-2009 (Project Leader).
- "Electrically Induced Contractile Electro-Active Polymer as Catalyst for Immiscible Liquid-Liquid Reaction", TWAS Grants in Basic Sciences - Trieste, Italy (USD 5,000) 2005-2007: Vot 73323 (Project Leader).
- "Design of Chiral Solid Catalysts by Molecular Imprinting Method with Polyaminoacid as Chiral Promoter", IRPA EAR RM 8 research grant (RM 88,000), 2005-2007: Vot 74284 (Project Leader).

I was involved with many other projects (> 10 projects) as a researcher. In the following projects, my contribution was significant, I was involved in writing proposals, conducting experiments and writing scientific publications.

- "Microheterogeneous catalytic system for oxidation reaction with aqueous hydrogen peroxide", 2002-2007, IRPA Top-down RM 8 research grant (RM 650,000) (Researcher).
- "Development of a novel catalytic system for synthesis of useful organic materials", Grant-in-Aid for Encouragement of Young Scientists (No. 99302) from Ministry of Education, Science, Sports and Culture, Japan (Researcher).
- "Metal-substituted AlPO<sub>4-5</sub> molecular sieves as potential catalysts for conversion of alcohols", IRPA EAR RM 7 research grant, 1995-1998 (Researcher).
- "Direct Synthesis of NaA Zeolite from Rice Husk and Carbonaceous Rice Husk Ash", IRPA EAR RM 7 research grant, 1995-2000 (Researcher).

#### Editorial Activities

- Associate Editor of *Frontiers in Chemistry* (2016 – present)
- Editor-in-chief of *Malaysian Journal of Fundamental and Applied Sciences (MJFAS)* (2015 – present). MJFAS is the recipient of Current Research in Malaysia (CREAM 2018) Awards by the Ministry of Education Malaysia.
- Editor of *Jurnal Teknologi* (2010 – present)
- Regional Editor (Main Handling Editor) for Asia-Pacific of *Bulletin of Chemical Reaction Engineering and Catalysis (BCREC)* (2006 – present)
- Reviewers<sup>(\*)</sup>: (23) *Catalysis Communications*, (10) *Chemical Engineering Journal*, (8) *Journal of Composite Materials*, (6) *Bulletin of Chemical Reaction Engineering and Catalysis* (6) *Materials Research Bulletin*, (5) *Materials Chemistry and Physics*, (4) *Journal of Coatings Technology and Research* (4) *Journal of Materials Science*, (3) *Ceramics International*, (3) *Industrial & Engineering Chemistry Research*, (3) *Journal of Molecular Catalysis A: Chemical*, (2) *ACS Catalysis*, (2) *Carbohydrate Polymers*, (2) *Catalysis Letters*, (2) *International Journal of Energy Research*, (2) *Journal of Photochemistry and Photobiology B: Biology*, (2) *New Journal of Chemistry*, (2) *RSC Advances*, (1) *ACS Applied Materials & Interfaces*, (1) *Applied Surface Science*, (1) *BioMed Central*, (1) *Catalysis Today*, (1) *Chemical Engineering Research and Design*, (1) *Construction and Building Materials*, (1) *Environmental Science & Technology*, (1) *Frontiers in Chemistry*, (1) *Inorganic and Nano-Metal Chemistry*, (1) *Journal of Alloys and Compounds*, (1) *Journal of Analytical Methods in Chemistry*, (1) *Journal of Colloid and Interface Science*, (1) *Journal of Environmental Management*, (1) *Journal of Hazardous Materials*, (1) *Journal of Liquid Chromatography & Related Technologies*, (1) *Journal of Materials Research and Technology*, (1) *Journal of Photochemistry and Photobiology A: Chemistry*, (1) *Journal of Thermoplastic Composite Materials*, (1) *Materials & Design*, (1) *Materials Science and Engineering B*, (1) *Mineral Processing and Extractive Metallurgy Review*, (1) *Pharmacognosy Research*, (1) *Progress in Organic Coatings*, (1) *Reaction Kinetics and Catalysis Letters*, (1) *Royal Society Open Science*, (1) *Solar Energy Materials and Solar Cells*, (1) *The Journal of Physical Chemistry, Applied Clay Science* (1).

(\*) The number in parentheses is the number of papers reviewed

**Publications** (SCOPUS h-index = 23, ISI h-index = 22 and Google Scholar H-index = 30)

#### Autobiography

- [1] H. Nur, "Refleksi Perjalanan Kehidupan", in *Life Stories 2: Resep Sukses dan Etos Hidup Diaspora Indonesia di Berbagai Negara*, pp. 50-67. Editor: Dino Patti Djalal. Red & White Publishing. Jakarta, 2013.

**Books and Book Chapters**

- [2] M. Diantoro\*, T. Suprayogi, U. Sa'adah, N. Mufti, A. Fuad, A. Hidayat, Modification of Electrical Properties of Silver Nanoparticle Silver Nanoparticles-Fabrication, Characterization and Applications, (2018) DOI: 10.5772/intechopen.75682
- [3] H. Nur, "Heterogenous Chemocatalysis: Catalysis by Chemical Design", 2006. ISBN: 983-43098-2-1.
- [4] H. Nur, L. K. Wei, "Amino Acids Functionalized Chiral Catalyst", Lambert Academic Publishing, Saarbrücken, Germany, 2011. ISBN: 978-3-8454-0758-6.
- [5] H. Nur, "Better (and happy) life through heterogeneous catalysis research", Penerbit UTM, 2011. ISBN: 978-983-52-0810-2.
- [6] M. I. A. Aziz, A. L. M. Ibrahim, B. Sumintono, C. Richards, D. Idrus, Durrishah, F. A. Phang, H. Nur, H. C. Siong, L. C. Tin, M. Puteh, M. Hamzah, D. Abdullah, Z. Razali, M. I. Izyan, "Internationalisation policy for higher education Malaysia 2011", Ministry of Higher Education Malaysia, Malaysia. ISBN: 978-967-0334.
- [7] Mohd. Ismail Abdul Aziz, Ho Chin Siong, Abdul Latiff Mohd Ibrahim, Lee Chew Tin, H. Nur, Masputeriah Hamzah, Nora Mislan, Doria Abdullah (Core research team), "Operational framework for international student management. Final Report: Safeguarding international students in the Malaysian higher Education System", Ministry of Higher Education Malaysia, 2013.
- [8] S. Lubis, S. Chandren, H. Nur, "Modification of TiO<sub>2</sub> with carbon layer", in Photocatalysis by TiO<sub>2</sub>: How to enhance photocatalytic activity?, L. Yuliati (Editor), Penerbit UTM Press, 2014, pp. 45-57. ISBN: 978-983-52-0969-7.
- [9] S. Chandren, N. Attan, H. Nur, "Aligned titanium dioxide catalyst synthesized under magnetic field", in Particuology of some metal oxides catalyst, H. Nur (Editor), Penerbit UTM Press, 2014, pp. 1-14. ISBN: 978-983-52-0967-3.
- [10] N.H.M. Ran, S. Chandren, H. Nur, "Phase-boundary catalysts for oxidation reactions", in Recent development of nanostructured heterogeneous catalyst for oxidation reaction, S.L. Lee (Editor), Penerbit UTM Press, 2014, pp. 1-15 ISBN: 978-983-52-0982-6.
- [11] S. Chandren, Z. Ramli, H. Nur, "Functional mesoporous alumina materials" in Functional mesoporous materials, H.O. Lintang (Editor). Penerbit UTM Press, 2014. pp. 19-33. ISBN: 978-983-52-0970-3.

**Refereed Journals**

\*Corresponding author

- [12] N. Yahaya\*, S Kamaruzaman, MM Sanagi, WA Wan Ibrahim, T Mitome, N. Nishiyama, H. Nur, Z.A. Ghaffar, M.Y. Aziz, H.M. Fauzi, "Vinyl-functionalized mesoporous carbon for dispersive micro-solid phase extraction ofazole antifungal agents from aqueous matrices", *Separation Science and Technology*, in press.
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