



CURRICULUM VITAE

1. Name : PROF. TS. DR. MOHD. YUNUS B. ABD. SHUKOR
2. Date and Place of Birth :3rd of July, 1970, Perak, Malaysia
3. Nationality: Malaysian
4. Name of Current Employer: University Putra Malaysia
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8. Date of post conformation: 20th of May 2004
9. Title of Position Held: Prof. (1st June 2019)
10. BSc: Imperial College (1993)
11. Diploma in Translation : Institute of Language and Literature (DBP), Malaysia, 1995.
12. **PhD**: Universiti Putra Malaysia (2001).
13. Scopus H index: 36
14. ResearchGate profile: <https://www.researchgate.net/profile/Yunus-Shukor>
15. ResearchGate H-Index: 48
16. Google Scholar ID: Yunus Shukor (<https://scholar.google.com/my/citations?hl=en&user=lgKwJMkAAAAJ>)
17. WOS ID: AAB-7087-2020
18. Publons ID: 3339024
19. Google Scholar H index : 55
20. Orcid ID 00000002-6150-2114
17. Scopus ID: 23098320000
18. Top Research Scientists Malaysia (2017).

PROFESSIONAL MEMBERSHIP

1. National Geographic Society -Ordinary member No 428,941,959
2. Malaysian Antarctic Research Program-Expedition member
3. Malaysian Society for Biochemistry and Molecular Biology-Ordinary member
4. Malaysian Society for Microbiology-Life member
5. Malaysian Nature Society-Ordinary member
6. Environmental Protection Society of Malaysia-Life Member, ON 25868 B
7. The Science Advisory Board, international Registered Member (No: 83256)
8. Marquis Who's Who in the world. 2009.
9. international Biographical Association top 100 Environmental Scientists 2009.
10. American Chemical Society. Member No 31517886.

TEACHING

NO	CLA SS	CODE	CR	CRHR	LVL	SEM	YEAR	S.A MARKS OF 5
1.	Biological Chemistry (60 students)	BCH3005	4(3+1)	4	B	SEM 1	2024/2025	4.37
2.	Enzymology (51 students)	BCH3108	4(3+1)	4	B	SEM 2	2023/2024	4.45
3.	Statistics and Biometrics in Biotechnology (50 students)	BTC3005	3(2+1)	3	B	SEM 2	2023/2024	4.39
4.	Biological Chemistry (52 students)	BCH3005	4(3+1)	4	B	SEM 1	2023/2024	4.48
5.	Enzymology (94 students)	BCH3108	4(3+1)	4	B	SEM 2	2022/2023	4.62
6.	Biological Chemistry (43 students)	BCH3003	3(2+1)	3	B	SEM 1	2022/2023	4.56
7.	Basic Techniques and Calculations in Biochemistry (50 students)	BCH3106	2(1+1)	2	P	SEM 2	2021/2022	4.73
8.	Enzyme Technology (6 students)	BCM5703	4(4+0)	4	P	SEM 2	2021/2022	4.73
9.	Basic Techniques and Calculations in Biochemistry	BCH3106	2(1+1)	2	P	SEM 1	2021/2022	4.44
10.	Scientific Writing (48 students)	BBS5905	3(3+0)	3	P	SEM 1	2020/2021	4.26
11.	Enzymology (94 students)	BCH3108	4(3+1)	4	B	SEM 2	2019/2020	4.38
12.	Metabolisme Karbohidrat (33 students)	BCH3103	3(3+0)	3	B	SEM 1	2019/2020	4.36
13.	Biological Chemistry (47 students)	BCH3003	3(2+1)	3	B	SEM 1	2019/2020	4.42
14.	Enzymology (80 students)	BCH3108	4(3+1)	4	B	SEM 2	2018/2019	4.52
15.	Topik Terkini Biokimia	BCH4992	2(0+2)	2	B	SEM 1	2018/2019	4.5
16.	Biological Chemistry (40 students)	BCH3003	3(3+1)	3	B	SEM 1	2018/2019	4.5
17.	Scientific Writing In Biotechnology (53	BBS5905	3(3+0)	3	P	SEM 1	2018/2019	4.3

	students)							
18.	Biological Chemistry (43 students)	BCH3003	3(3+1)	3	B	SEM 2	2017/2018	4.87
19.	Carbohydrate Metabolism (44 students)	BCH3109	3(3+1)	1.5	B	SEM 2	2017/2018	4.3
20.	Scientific Writing (44 students)	BBS5905	3(3+0)	3	P	SEM 2	2016/2017	4.3
21.	Scientific Writing (35 students)	BBS5905	3(3+0)	3	P	SEM 1	2016/2017	4.2
22.	Biological Chemistry (44 students)	BCH3003	3(3+1)	3	B	SEM 1	2016/2017	4.4
23.	Carbohydrate Metabolism (33 students)	BCH3103	3(3+0)	1.5	B	SEM 1	2016/2017	4
24.	Scientific Writing in Biotechnology (~40 Students)	BBS5905	3(3+0)	3	P	SEM 1	2016/2017	N.A.
25.	Basic Calculations in Biochemistry (~60 Students)	BCH3100	2(1+1)	1.5	B	SEM 1	2013/2014	4.1
26.	Enzymology (~80 students)	BCH3101	3(3+0)	3	B	SEM 2	2012/2013	4.56
27.	Practical Metabolism II (~40 students)	BCH3202	2(1+1)	1.5	B	SEM 2	2012/2013	4.85
28.	Basic Calculations in Biochemistry	BCH3100	2(1+1)	1.5	B	SEM 1	2012/2013	4.19
29.	Basic Calculations in Biochemistry	BCH3100	2(1+1)	1.5	B	SEM 1	2012/2013	4.34
30.	Enzymology (~40 students)	BCH3102	4(3+1)	2	B	SEM 1	2012/2013	4.54
31.	Scientific Writing in Biotechnology (~30 Students)	BCM5902	3(1+2)	1	P	SEM 1	2012/2013	N.A.
32.	Practical Biochemistry II (~40 Students)	BCH3202	2(1+1)	1.5	B	SEM 2	2012/2013	4.89
33.	Scientific Writing in Biotechnology (~40 Students)	BCM5902	3(1+2)	1	P	SEM 1	2012/2013	N.A.
34.	Techniques in Purification and Characterization of Proteins (~40 Students)	BCM5704	4(4+0)	2	P	SEM 1	2012/2013	N.A.
35.	Enzymology (50 students)	BCH3102	3(3+0)	3	B	SEM 2	2012/2013	4.56

36.	Practical Metabolism (44 students)	BCH3202			B	SEM 2	2012/2013	4.85
37.	Principles of Biochemistry (>80 students)	BCM3000	4(4+0)	4	B	SEM 1	2010/2011	4.52
38.	Enzymology (~40 students)	BCM3101	3(3+0)	3	B	SEM 2	2010/2011	4.47
39.	Nutritional Biochemistry (~40 Students)	BCH4305	3(3+0)	1	B	SEM 2	2010/2011	4.26
40.	Practical Biochemistry III (~40 Students)	BCM3203	3(0+3)	4.5	B	SEM 2	2010/2011	4.59
41.	Principles of Biochemistry (~40 Students)	BCM3000	4(4+0)	4	B	SEM 2	2010/2011	4
42.	Techniques in Purification and Characterization of Proteins (~40 Students)	BCM5704	4(4+0)	2	P	SEM 2	2010/2011	N.A.
43.	Enzymology (~80 students)	BCM3101	3(3+0)	3	B	SEM 2	2009/2010	4.4
44.	Enzymology (~40 students)	BCM3101	3(3+0)	3	B	SEM 3	2009/2010	4.2
45.	Practical Biochemistry III (~40 Students)	BCM3203	3(0+3)	4.5	B	SEM 2	2009/2010	4.12
46.	Principles of Biochemistry (~40 Students)	BCM3000	4(4+0)	4	B	SEM 1	2009/2010	4.13
47.	Enzymology (~40 students)	BCM3101	3(3+0)	3	B	SEM 3	2008/2009	4
48.	Enzymology (~40 students)	BCM3101	3(3+0)	3	B	SEM 2	2008/2009	4.26
49.	Practical Biochemistry III (~40 Students)	BCM3203	3(0+3)	4.5	B	SEM 2	2008/2009	4.12
50.	Practical Biochemistry III (~40 Students)	BCM3203	3(0+3)	4.5	B	SEM 2	2008/2009	4.2
51.	Principles of Biochemistry (~40 Students)	BCM3000	4(4+0)	4	B	SEM 1	2007/2008	4.22
52.	Enzymology (~80 students)	BCM3101	3(3+0)	3	B	SEM 2	2006/2007	4.11
53.	Principles of Biochemistry (>80 students)	BCM3000	4(4+0)	4	B	SEM 1	2006/2007	4.32
54.	Principles of Biochemistry (>80 students)	BCM3000	4(4+0)	4	B	SEM 1	2006/2007	4.27
55.	Principles of Biochemistry (>80 students)	BCM3000	4(4+0)	4	B	SEM 2	2006/2007	4.44
56.	Principles of Biochemistry (~40 Students)	BCM3000	4(4+0)	4	B	SEM 1	2006/2007	4.32
57.	Principles of Biochemistry (~40 Students)	BCM3000	4(4+0)	4	B	SEM 2	2006/2007	4.4
58.	Enzymology (~40 students)	BCM3101	3(3+0)	3	B	SEM 1	2005/2006	4.2
59.	Enzymology (~40 students)	BCM3101	3(3+0)	3	B	SEM 2	2005/2006	4.31
60.	Enzymology (~40 students)	BCM3101	3(3+0)	3	B	SEM 1	2004/2005	4.06
61.	Enzymology (~80 students)	BCM3101	3(3+0)	3	B	SEM 2	2004/2005	4.05
62.	Principles of Biochemistry (>80 students)	BCM3000	4(4+0)	4	B	SEM 2	2004/2005	4
63.	Principles of Biochemistry (>80 students)	BCM3000	4(4+0)	4	B	SEM 1	2004/2005	4
64.	Research Methodology (~40 Students)	BCM5901	3(1+2)	1	P	SEM 1	2004/2005	N.A.
65.	Enzymology (~40 students)	BCM3101	3(3+0)	3	B	SEM 2	2003/2004	4.17
66.	Principles of Biochemistry (>80 students)	BCM3000	4(4+0)	4	B	SEM 2	2003/2004	3.8
67.	Enzymology (~40 students)	BCM3101	3(3+0)	3	B	SEM 2	2003/2004	4.18
68.	Principles of Biochemistry (~40 Students)	BCM3000	4(4+0)	4	B	SEM 2	2003/2004	4
69.	Research Methodology (~40 Students)	BCM5901	3(1+2)	1	P	SEM 2	2003/2004	N.A.
70.	Principles of Biochemistry (>80 students)	BCM3000	4(4+0)	4	B	SEM 2	2002/2003	4
71.	Principles of Biochemistry (~40 Students)	BCM3000	4(4+0)	4	B	SEM 2	2002/2003	3.85
72.	Principles of Biochemistry (~40 Students)	BCM3000	4(4+0)	4	B	SEM 1	2002/2003	4
73.	Principles of Biochemistry (~40 Students)	BCM3000	4(4+0)	4	B	SEM 1	2002/2003	3.85
	total No of unique students (3500)							

Note
 CRHR: Credit Hour Taught
 LVL: Level
 S.A.: Student's Assessment
 STDT: Student
 B: B's Course
 P: Postgraduate Course

RESEARCH:

NO	TYPE	PROJECT NO	Project Title	DURATIO N	AMOUNT (MYR)	STATUS
1.	JICA Okayama- UPM University Travel Grant	-	Elucidating the Mechanism of molybdenum reduction by <i>Enterobacter cloacae</i> strain 48	1994-1995	50,000 (estimated)	Completed
2.	Short Term (Fundamenta l) /Graduate	05-11-02-0058F	Screening of Bacteria With Pesticide Degrading Activity	2001-2002	43,000	Completed

3.	Argentinean institute of Antarctica (Travel Grant)	-	Bacterial Biodegradation and Bioremediation of Hydrocarbon in Antarctica	2002-2003	70,000 (estimated)	Completed
4.	Malaysian Academy of Science Grant	-	Bacterial Biodegradation and Bioremediation of Hydrocarbon in Antarctica	2003-2010	410,000	Completed
5.	Fundamental (Frgs)	01-01-07-008FR	The Search for The Elusive Phosphomolybdate Reductase	2007-2008	92,000	Completed
6.	IRPA EAR	09-02-04-0758-EA001	Screening of Microbes With The Ability to Degrade Acrylamide	2003-2006	181,000	Completed
7.	IRPA EAR	09-02-04-0854-EA001	Enzymatic Methods for The Determination of Heavy Metals in The Environment	2003-2005	160,000	Completed
8.	Nbd top Down	07-05-16-MGI-GMB05	<i>Rhodococcus</i> Biotechnology	2007-2010	500,000	Completed
9.	Science Fund	02-01-04-SF0445	Biomonitoring of Heavy Metals in The Environment Using A Novel inhibitive Enzyme Assay System	2007-2008	239,000	Completed
10.	CRDF (MTDC)		toxicity Bioassay of Heavy Metals Using The Xenoassay Kit	2007-2009	921,900	Completed
11.	Sime Darby Research Grant		Improving Tissue Culture Process in Oil Palm Through Molecular Approach	2008-2010	903,000	Completed
12.	RUGS	05-01-09-0750RU	Purification and Characterization of Phosphomolybdate Reductase from <i>K. Oxytoca</i>	2009-2011	98,000	Completed
13.	Technofund (Moa)	TF01301C118	Upscaling of Affinity-Purified Fish Ache for Biomonitoring of insecticides in Agriproduce	2011-2012	800,000	Completed
14.	FRGS	01-04-10-773FR	Purification and Characterization of Acetylcholinesterase from <i>Clarias Batrachus</i>	2010-2011	39,200	Completed
15.	Science Fund	02-01-04-SF1473	Biomonitoring Works for The Detection of Xenobiotics in The Juru Area Using A Composite Xenoassay® System	2012-2014	300,000	Completed
16.	FRGS	FRGS/2/2013/SG05/UPM/02/15	Near-Real-Time inhibitive Assay of Heavy Metals Using Ficin: A Novel Ambient Temperature-Range Activity-Stable Protease	2013-2015	109,000	Completed
17.	GP-IPS	GP-1PS/2013/9399800	Anti Hypercholesterolemia Properties of <i>Adatodha Vasica</i> : in Vitro and in Vivo	JAN-DEC 2014	15,000	Completed
18.	IRPA		Isolation and Characterization of Pesticide Degrading Microbes from Malaysian Soils Project Leader: Prof Dr. Mohd. Arif Syed	2006-2008	111,560	Completed
19.	FRGS	01-03-06-001FR	Purification and Characterization of Azoreductase from an Azo-Dye Bacterium	2008-2010	230,800	Completed

20.	Science Fund	02-01-04-SF0035	Studies On industrial Dye Effluent Degradation by Locally Isolated White Rot Fungi and Bacteria Project Leader: Prof Dr. Mohd. Arif Syed	2008-2010	78,000	Completed
21.	RUGS	05-01-09-0846RU	Phenol Hydrolase Activity in Bacteria for Possible Application in Bioremediation Project Leader: Prof Dr. Mohd. Arif Syed	2009-2011	156,000	Completed
22.	FRGS	01-04-10-767FR	Purification and Characterization of Amidase from A Locally Isolated Acrylamide Degrading Bacterium Project Leader: Prof Dr. Mohd. Arif Syed	2010-2012	49,600	Completed
23.	FRGS	FRGS/2/2013/SG05/UPM/02/16	Physiological and Biological Changes of Freshwater Fish, <i>Puntius Javanicus</i> , in Heavy Metals Polluted Environment Project Leader: Dr. Aqlima Ahmad	2013-2015	112,500	Completed
24.	FRGS	FRGS/2/2013/UPM/02/1/2	Establishment of <i>Javanese Medaka</i> As Model Organism to Evaluate Neuroprotective Properties of Malaysian Traditional Plants in Vivo Project Leader: Dr. Aqlima Ahmad	2013-2015	80,000	Completed
25.	FRGS	FRGS/1/2013/STWN01/UPM/02/2	Characterization of Emerging Disinfection byproducts (Dbps) in Water formed by Halogenation of an Endocrine Disruptor Chemical (Edc) Project Leader: Dr. Wan Lutfi Wan Johari	2013-2015	93,000	Completed
26.	ERGS		Potential Use of Sabah Young Coconut (<i>Cocos nucifera</i>) Water As Antitoxic Agent in Unanticipated Chemical Poisoning Events: an Exploratory Study Using in Vitro and in Vivo Laboratory Models. Project Leader: Dr. Mohd. Rosni Sulaiman.	2012-2015		Completed
27.	Geran Universiti Putra Malaysia (Gp-Ipm)	GP-IPM/2013/9422700	Isolation and Characterization of Petroleum-Degrading Microorganisms from Antarctic Contaminated Soils Project Leader: Dr. Wan Lutfi Wan Johari	2014-2015	39,000	Completed
28.	Geran Berimpak Tinggi (UPM)	UPM/700-1/2/GPP1/2017/9531900	Development of a rapid sensitive Molecularly Imprinted Polymer Nanoparticle for The Detection of Malachite Green Using Surface Plasmon Resonance	2017-2019	100,000	Completed
29.	Geran KPT (FRGS)	FRGS/1/2017/TK05/UPM/02/11	Tajuk: Development of a molecularly imprinted polymer (MIP) solid-phase extraction (SPE) method for the preconcentration of 4-bromodiphenyl ether in environmental samples. Project leader	2017-2019	77,000	Completed
30.	Geran KPT (FRGS)	FRGS/1/2019/STG05/UPM/02/7	Biomonitoring of flame retardants and chlorinated hydrocarbons in Langat river using <i>Tetrahymena pyriformis</i> as a whole cell bioassay	2019-2022	177,625	Completed
31.	Geran KPT (FRGS)	FRGS/1/2020/STG01/UPM/02/14	Ultrasensitive Detection of Streptococcosis Agalactiae by DNA Aptasensor-Magnetic Nano Particles using Whole-Cell Based 'Systemic Evolution of Ligands by	2019-2022	104,800	Completed

		Exponential Enrichment (SELEX) Procedure in Potential Test Kit Development for Malaysian Aquaculture Industry. Project Leader. Dr Helmi Wasoh			
32.	Geran KPT (FRGS)	FRGS/1/2024/WAS04/UPM/02/25	Mechanistic insights into feather protein hydrolysate adsorption onto bentonite and digestion analyses of bentonite-protein complex in chicken digestive system	2024-2026	149,000 Ongoing
33.	UPM-YPASM Matching grant	UPM/800/3/3/1/Matching grant UPM-YPASM-BAS/2021/930 0478	Multi-omics Analysis of the Impacts of Environmental Factors on Nitrogen-fixing Microbial Communities in Antarctica- Project leader Dr Wan Lutfi Wan Johari	2022-2024	349,380 Ongoing
34.	Geran IPS-UPM	UPM.RMC.800 - 3/3/1/2024/G P-IPS/9785100	Synthesis Of Aflatoxin Binder For Animal Feed Application In Agriculture. Project leader.	2024-2025	20,000 Ongoing

PATENT GRANTED/PENDING

1. **Shukor, M.Y.**, Muhajir Hamid, Mohd. Puad Abdullah, Nor Azlan Baharom and Mohd Arif Syed. 2003. Assay of heavy metals. Filing No. PI 20,033,505. Patent status- clear preliminary examinations. (Filing date 24/9/03). Granted 29/01/2010. **MY 140,881-A**
2. **Shukor, M.Y.**, Shahizal Rizwan Ahmat Raslan, Nor Aripin Shamaan and Mohd Arif Syed. 2004. Determination of Iron. Filing No. PI 20,042,170. Patent status- clear preliminary examinations. (Filing date 4/6/04). Granted 31/12/2009. **MY-140352-A**
3. **Shukor, M.Y.**, Shahizal Rizwan Ahmat Raslan and Mohd Arif Syed. 2004. Bioassay for Heavy Metals. Filing No. PI 20,042,640. Patent status- clear preliminary examinations. (Filing date 2/7/04).
4. **Shukor, M.Y.**, Shahizal Rizwan Ahmat Raslan, Nor Aripin Shamaan and Mohd Arif Syed. 2009. Enzyme assay for metal-reducing enzyme. (PI 2004 2641). Granted. 31/03/2009. **MY 137797**.
5. **Shukor, M.Y.**, Hafizah, A., Syed, M.A., FakhruRazi, A., Shamaan, N.A. 2008. Bacteria for the degradation and Modification of Fats, Oils and Grease. Filed 21/11/2008. PI 2014703204. PCT **Filing No PCT/MY2008/000150. WO2010059028 A1. Granted 27/5/2010.**
6. **Shukor, M.Y.**, Ariff, N., Ahmad, S.A., Shamaan, N.A. and Syed, M.A. 2011. Bioremediation of phenol pollution. **PI 2011003336**. Filed 15/07/2011.
7. **Shukor, M.Y.**, Hanizam, B. and Syed, M.A. 2011. Acrylamide degrader and method of utilising the same. **PI 2011003337, filed 15/07/2011**. Granted 15/03/2016. **MY-156725-A**
8. **Syed, M.A.**, Khayat, M.E. and Shukor, M.Y. 2011. A method of biodegrading keratinaceous material. Filing No **PI 2010005912**. Granted 29/04/2016. **MY-157075-A**
9. Mohd Yunus Abd Shukor and Arif Zaidi Jusoh. General herbal formulations or preparation containing the chelant EDTA. Filed 1/10/2002. **PI 20023672**.
10. Mohd Yunus Abd Shukor and Arif Zaidi Jusoh. general herbal formulations of preparations containing the chelant dimercaptosuccinic acid (DMSA). Filed 1/10/2002. **PI 20023671**

11. Ismail bin Jaapar and Mohd. Yunus bin abd. Shukor. A Rodent Trap. Filed 15/5/2009. **PI 20091987**
12. Mohd. Yunus Abd. Shukor. (2021) Bioassay for the detection of xenobiotics. MY-184135-A.
13. Mohd. Yunus Abd. Shukor. (2014) Novel compound for use as medicament for treatment of hypercholesterolemia and atherosclerosis. **PI 2014704025. Filed 28/12/2014. Clear preliminary examinatin.**
14. N Abdullah, MAH Roslan, A Shukor, M Yunus, FH Shakirin. 2014. an apparatus for removing contaminants from palm kernel cake and a method thereof. PI 2014703428. Filed 17/11/2014
15. Shukor, M.Y and Shukor. M.S. 2014. Structure of Preventing Sticking. PI 2014001190. Filed. 25/4/2014
16. Shukor, M.Y. 1998. Aquatic lifesaving or support apparatus. Malaysian filing no **PI98001975**. Filed 04/05/1998

INTELLECTUAL PROPERTIES-TRADEMARK REGISTERED

The following trademarks applications have been registered at MIPO by SIRIM as the IP agent;

1. Xenoclean®. Bioremediation system for remediating xenobiotics; for sale in kit form; all included in class 09. 2005. Registration No 05003864. (Filed at MIPO: 16/3/05-16/3/2015)-class 9
2. Xenoassay®. Bioassay system for assaying xenobiotics; for sale in kit form; all included in class 09. 2005. Registration No 05003866. (Filed at MIPO: 16/3/05)16/3/2015-class 9
3. Eduzyme®, Educational kit for teaching enzyme works; all included in class 09. 2005. Registration No 05003865. (Filed at MIPO: 16/3/05)16/3/2015-class 9

MAJOR PUBLICATIONS

REFEREED JOURNALS

CITED JOURNALS

1. Al-Osaimi, M.O., Halmi, M.I.E., Gani, S.S.A., Mahmud, K. and Shukor, M.Y.A. 2025. A comparative study using response surface methodology and artificial neural network for modeling the bio-reduction of hexavalent chromium (Cr⁶⁺) by immobilized cells of *Paenibacillus taichungensis* strain MAHA in an alginate-gellan gum matrix. *Biodegradation* 36.
2. Harun, F.A., Yakasai, H.M., Jagaba, A.H., Usman, S., Umar, H.A. and Shukor, M.Y. 2024. Bioremediation potential of *Bacillus* sp. and *Paenibacillus* sp. novel lead-resistant isolates: Identification, characterization, and optimization studies. *Microbe (Netherlands)* 3.
3. Padrilah, S.N., Samsudin, N.I.P., Shukor, M.Y.A. and Masdor, N.A. 2024. Nanoemulsion strategies in controlling fungal contamination and toxin production on grain corn using essential oils. *Green Chemistry Letters and Reviews* 17.
4. Puari, A.T., Rusnam, R., Yanti, N.R. and Shukor, M.Y. 2024a. Adsorption performance of biochar from exhausted coffee husk (ECH) under various carbonization parameters on copper (II) ion in aqueous solution. *IOP Conference Series: Earth and Environmental Science* 1426.
5. Puari, A.T., Azora, A., Rusnam, R., Yanti, N.R., Arlius, F. and Shukor, M.Y. 2024b. Carbonization parameters optimization for the biosorption capacity of Cu²⁺ by a novel biosorbent from agroindustrial solid waste using response surface methodology. *Case Studies in Chemical and Environmental Engineering* 9.
6. Rahman, M.E., Shamsuzzaman, S.M., Mahmud, K., Uddin, M.K., Ghani, S.S.A., Shukor, M.Y.A. and Halmi, M.I.E. 2024a. *Phytoremediation of Arsenic in Constructed Wetland Using Pennisetum Purpureum and Plant Growth-Promoting Rhizobacteria Is an Eco-Friendly and Sustainable Technology*.
7. Rahman, M.E., Shamsuzzaman, S.M., Mahmud, K., Uddin, M.K., Ghani, S.S.A., Shukor, M.Y.A., Chompa, S.S., Akter, A., Nabayi, A., Sadeq, B.M. and Halmi, M.I.E.B. 2024b. Isolation, screening, identification, and characterization of arsenic resistant plant growth promoting rhizobacteria isolated from *Pennisetum purpureum*. *Biocatalysis and Agricultural Biotechnology* 59.
8. Rahman, M.E., Uddin, M.K., Shamsuzzaman, S.M., Mahmud, K., Shukor, M.Y.A., Ghani, S.S.A., Nabayi, A., Sadeq, B.M., Chompa, S.S., Akter, A. and Halmi, M.I.E.B. 2024c. Potential use of *Pennisetum purpureum* for phytoremediation of arsenic in treatment sand: A phytotoxicity study. *Biocatalysis and Agricultural Biotechnology* 60.
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18. Ariff Khalid, Sim Han Koh, Mohd. Noor Wahab, Mohd. Arif Syed & **Shukor, M.Y.**. 2003. Isolation and screening of lignolytic fungi for biodegradation of azo dyes. The 28th Annual Conference of The Malaysian Society for Biochemistry & Molecular Biology: 50 years of the DNA double helix, 12th of August, 2003, Putrajaya Marriot Hotel.
19. Lim Lay Sean, Radzali Muse, Johari Ramli, Mohd. Aspollah Sukari & **Shukor, M.Y.**. 2003. Antioxidant activities of various solvent extracts of *Clausena Excavata* leaf. The 28th Annual Conference of The Malaysian Society for Biochemistry & Molecular Biology: 50 years of the DNA double helix, 12th of August, 2003, Putrajaya Marriot Hotel.
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24. Nor Ayshah Alia, Farrah Aini, Radzali Muse, Mohd. Arif Syed, Walter P. Mac Cormack and **Shukor, M.Y.** 2004. Diesel Bioremediation by Antarctic Microbes. 2nd Malaysian international Seminar on Antarctica: Global Laboratory for Scientific and international Cooperation, on the 3rd to 5th of May 2004, USM, Penang. Poster
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27. Shahizal Rizawan Ahmat Raslan, Nor Azlan Baharom and **Shukor, M.Y.** 2004. Determination of Iron content in soils of Antarctica using Xenoassay-1TM, a novel iron determination method. 2nd Malaysian international Seminar on Antarctica: Global Laboratory for Scientific and international Cooperation, on the 3rd to 5th of May 2004, USM, Penang. Poster
28. **Shukor, M.Y.** 2004. Some animal species observed on King George Island, Antarctica. 2nd Malaysian international Seminar on Antarctica: Global Laboratory for Scientific and international Cooperation, on the 3rd to 5th of May 2004, USM, Penang. Poster
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30. **Shukor, M.Y.**, Shahizal Rizwan Ahmat Raslan and Mohd. Arif Syed. 2004. Isolation and Characterization of an Antarctic Mo⁶⁺ - Reducing Bacterium. 2nd Malaysian international Seminar on Antarctica: Global Laboratory for Scientific and international Cooperation, on the 3rd to 5th of May 2004, USM, Penang. Oral
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36. **Shukor, M.Y.**, Shahizal Rizwan Ahmat Raslan and Mohd. Arif Syed. 2004. Isolation and Characterization of an Antarctic Mo⁶⁺ - Reducing Bacterium. Poster presented at the "Creativity in Science & Mathematics Education Expo 2004: Gateway to the Future". Organised by the Academy of Sciences Malaysia and the Education Ministry, on the 18th to the 20th of June, Putra World Trade Centre
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39. Lailatul Jumaiyah Saleh Huddin, Mohd. Arif Syed, Ismail Omar, **Shukor, M.Y.** and Nor Aripin Shamaan. 2004. Purification by affinity chromatography and characterization of glutathione S-reductase in the livers of Kedah-Kelantan Cattle (*Bos indicus*) and the water buffalo (*Bos bubalus bubalis*). 29th Annual Conference of The Malaysian Society for Biochemistry & Molecular Biology: 28-29th September 2004, Nikko Hotel, Kuala Lumpur
40. Vanitha Mariappan, Ismail Omar, Mohd. Arif Syed, **Shukor, M.Y.** and Nor Aripin Shamaan. 2004. Alkaline phosphatase from hepatopancrea and intestine of red tilapia (*Tilapia mossambica*): Characterization and effects of heavy metals and metal ions on enzyme activity. 29th Annual Conference of The Malaysian Society for Biochemistry & Molecular Biology: 28-29th September 2004, Nikko Hotel, Kuala Lumpur
41. Mohd. Arif Syed, Yeap Swee Leong, Sim Kuang Luck and **Shukor, M.Y.** 2004. Isolation and screening of azo dye - degrading microorganisms from Malaysian soils. 26th Symposium of the Malaysian Society for Microbiology, 25-28th November 2004, Langkawi Lagoon Resort, Langkawi
42. Natarajan Perumal, Tham Lik Gin, Mohd. Arif Syed, Azmudin Abdullah & **Shukor, M.Y.** 2005. Carbamate Detection Using Xenoassay[®] Carbamate. Poster, 30th Annual conference of the Malaysian society for biochemistry and molecular biology: Fundamental Science: The Engine of Growth for Biotechnology. Crown plaza mutiara hotel. Kuala Lumpur. 6th - 7th September 2005
43. Mohd Fadhil Abdul Rahman, Siti Aqlima Ahmad, Nor Aripin Shamaan, Mohd. Arif Syed & **Shukor, M.Y.** 2005. Bioremediation of Heavy Metals Using Xenoclean[®] Molybdenum. Poster, 30th Annual conference of the Malaysian society for biochemistry and molecular biology: Fundamental Science: The Engine of Growth for Biotechnology. Crown plaza mutiara hotel. Kuala Lumpur. 6th - 7th September 2005
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45. **Shukor, M.Y.**, Neni Gusmanizar, Mohd. Fadhil Abd. Rahman, Nor Aripin Shamaa, Mohd. Arif Syed. 2006. Assessment of a Mo-reducing bacterium's phylogeny using distance and character-based molecular phylogenetic. The Symposium on Trends in Biotechnology 3 and Workshop on Bioinformatics. 4-6 September 2006. Marriott Putrajaya, Malaysia.
46. **Shukor, M.Y.**, Nor Azalan Baharom, Natarajan Perumal, Mohd. Puad Abdullah, Sim Han Koh, Nor Aripin Shamaan and Mohd. Arif Syed. 2006. Monitoring of Heavy Metals Pollution in Malaysian Rivers Using an inhibitive Enzyme Assay System. Conference & Exhibition 6 - 8 December 2006. Kuala Lumpur Convention Centre.
47. **Shukor, M.Y.**, Fadhil Rahman, Siti Aqlima Ahmad, Sim Han Koh, Nor Aripin Shamaan, Walter Mac Cormack, and Mohd. Arif Syed. 2007. Isolation and characterization of an SDS-degrading Antarctic bacterium. 3rd Malaysian international Seminar On Antarctica (MISA3) "from the Tropics to the Poles" in conjunction with the international Polar Year 2007-2008. Mac 21-23, 2007. Universiti Malaysia Sabah. Oral Presentation.
48. **Shukor, M.Y.**, Mohd. Fadhil Abd. Rahman, Tham Lik Gin, Ahmad Razi Othman, Nurlizah Abu Bakar, Nor Aripin Shamaan and Mohd. Arif Syed. Enzyme-based Xenoassay-metal[®] Kit for Monitoring Heavy Metals Pollution. The 9th Regional Seminar On The Role of Chemistry in industry and Environment; Development of Recent Chemistry and Its Sustainability in Life" 27-28 November 2007. Hotel Bumi Minang, Padang, West Sumatera, indonesia. Plenary Speaker.
49. Mohd. Arif Syed, Wendy Yeo Wai Yeng, Sim Han Koh, **Shukor, M.Y.** 2007. Decolourization of textile dyes using locally isolated fungi. 29th Symposium of The Malaysian Society for Microbiology, Kuala Terengganu, 24-26th November.
50. Ram Chandra Basnyat, Mohd Rosni Sulaiman., Hasliza Hassan., Muhajir Hamid., Mohd Yunus Abdul Shukur., Johari Ramli, Radzali Muse, Nor Aripin Shamaan. 2007. Effect of N-Nitrosodiethylamine on chick embryo. 32nd Annual Conference of The Malaysian Society for Biochemistry & Molecular Biology. 5-6th September, Eastin Hotel, Petaling Jaya
51. Mohd Rosni Sulaiman, Ram Chandra Basnyat, Hasliza Hassan, Mohd Yunus Abd Shukur, Muhajir Hamid, Zainina Seman, Radzali Muse, Yasmin Anum Mohd Yusof & Nor Aripin Shamaan. 2007. Gross morphology and hematology of n-nitrosodimethylamine treated chick embryo (*Gallus gallus domesticus*) during mid-embryogenesis. 32nd Annual Conference of The Malaysian Society for Biochemistry & Molecular Biology. 5-6th September, Eastin Hotel, Petaling Jaya
52. Siti Aqlima Ahmad, Mohd Yunus Abdul Shukur, Mohd Arif Syed & Nor Aripin Shamaan. 2007. Isolation, partial purification and characterization of molybdenum-reducing enzymes from an antarctica bacterium (GAamma-proteobacterium strain Dr.Y1). 32nd Annual Conference of The Malaysian Society for Biochemistry & Molecular Biology. 5-6th September, Eastin Hotel, Petaling Jaya
53. **Shukor, M.Y.**, Fadhil Rahman, Siti Aqlima Ahmad, Sim Han Koh, Nor Aripin Shamaan, Walter Mac Cormack, and Mohd. Arif Syed. 2007. Isolation and characterization of an SDS-degrading Antarctic bacterium. 3rd

Malaysian international Seminar On Antarctica (MISA3) "from the Tropics to the Poles" in conjunction with the international Polar Year 2007-2008. Mac 21-23, 2007. Universiti Malaysia Sabah.

54. Lubna kamil Abdulhusein Abo-Shakeer, **Shukor, M.Y.**, Nor Aripin Shamaan and Mohd. Arif Syed. 2008. Development of an inhibitive Enzyme Assay for Heavy Metals Using The Molybdenum-Reducing Enzyme System. 1st Regional Conference On Biosensor and Biodiagnostics 2008. 21-22 May, Nikko Hotel, Kuala Lumpur.
55. Ahmad Razi Othman, **Shukor, M.Y.**, Nor Aripin Shamaan and Mohd. Arif Syed. 2008. Development of an inhibitive Enzyme Assay for Copper. 1st Regional Conference On Biosensor and Biodiagnostics 2008. 21-22 May, Nikko Hotel, Kuala Lumpur.
56. Nurlizah Abu Bakar, **Shukor, M.Y.**, Nor Aripin Shamaan, and Mohd. Arif Syed. 2008. Development of an inhibitive Enzyme Assay for Lead. 1st Regional Conference On Biosensor and Biodiagnostics 2008. 21-22 May, Nikko Hotel, Kuala Lumpur.
57. Siti Aqlima Ahmad, **Shukor, M.Y.**, Nor Aripin Shamaan and Mohd. Arif Syed. 2008. Development of an inhibitive Bacterial-Based MTT Assay for Heavy Metals. 1st Regional Conference On Biosensor and Biodiagnostics 2008. 21-22 May, Nikko Hotel, Kuala Lumpur.
58. Muhammad Nor Farhan Saat, Noor Azlina Masdor, **Shukor, M.Y.**, Nor Aripin Shamaan and Mohd. Arif Syed. 2008. The development of an inhibitive determination method for zinc using a serine protease. 1st Regional Conference On Biosensor and Biodiagnostics 2008. 21-22 May, Nikko Hotel, Kuala Lumpur.
59. **Shukor, M.Y.**, Baskaran Gunasekaran, Mohd. Syahmi Ramzi, Mohd. Badrin Hanizam, Nor Aripin Shamaan and Mohd. Arif Syed. 2008. A Composite Enzyme-based Xeno-assay[®] Kit for Monitoring Xenobiotics Pollution. 1st Regional Conference On Biosensor and Biodiagnostics 2008. 21-22 May, Nikko Hotel, Kuala Lumpur.
60. Tham Lik Gin, Natarajan Perumal, Mohd. Arif Syed, Nor Aripin Shamaan and **Shukor, M.Y.**. 2008. Assessment of *Clarias batrachus* as a source of Acetylcholinesterase (AChE) for the detection of insecticides. 1st Regional Conference On Biosensor and Biodiagnostics 2008. 21-22 May, Nikko Hotel, Kuala Lumpur.
61. Tham Lik Gin, Natarajan Perumal, **Shukor, M.Y.**, Nor Aripin Shamaan and Mohd. Arif Syed. 2008. Development of an inhibitive Acetylcholinesterase (AChE)-Based Assay for Xenobiotics Using *Pangasius pangasius*. 1st Regional Conference On Biosensor and Biodiagnostics 2008. 21-22 May, Nikko Hotel, Kuala Lumpur.
62. Mohd. Ezuan Khayat, Mohd. Ezzar Zamri, Mohd. Khalizan Sabullah, Nor Aripin Shamaan, **Shukor, M.Y.** and Mohd. Arif Syed. 2008. Assessment of *Lutjanus argentimaculatus* as a source of Acetylcholinesterase (AChE) for the detection of insecticides. 1st Regional Conference On Biosensor and Biodiagnostics 2008. 21-22 May, Nikko Hotel, Kuala Lumpur.
63. Mohd. Ezzar Zamri, Mohd. Ezuan Khayat, Mohd. Khalizan Sabullah, Nor Aripin Shamaan, **Shukor, M.Y.** and Mohd. Arif Syed. 2008. Assessment of *Lates calcarifer* as a source of Acetylcholinesterase (AChE) for the detection of carbamates. 1st Regional Conference On Biosensor and Biodiagnostics 2008. 21-22 May, Nikko Hotel, Kuala Lumpur.
64. **Shukor, M.Y.**, S.A. Ahmad, N.A. Shamaan, W.P. Mac Cormack, M.A. Syed. 2008. Molybdate Reduction to Molybdenum Blue by an Antarctic Bacterium. SCAR/IASC IPY Open Science Conference 2008, St. Petersburg, Russia, 7-11th of July, Park inn Hotel, Russia.
65. **Shukor, M.Y.** and Mohd. Arif Syed. Bioremediation and Bioassay of Xenobiotics. international Seminar on Sciences and Technology (ISST) 2009" 24-25 October 2009. Hotel Bukit Tinggi, Padang, West Sumatera, indonesia. Keynote speaker.
66. Norazah M.N., Zaini M.T, Suhaiza A. J., Abdul Latif I, Yunus S. AND Amir A.. Preliminary Screening of Antagonistic and Antibacterial Activities of Rhodococcus SPP. Isolated from Peninsular Malaysia. in Proceeding of National Biotechnology Seminar, 25-27 MEI 2010 AT PWTC, Kuala Lumpur.
67. Nor Suhaila, Y., Ariff, A., Rosfarizan, M. and Abdul Latif, I., Ahmad, S.A., Norazah, M.N., and and Shukor, M.Y.A. Optimization of Parameters for Phenol Degradation by Rhodococcus IN UKM-P in Shake Flask Culture. in Proceeding of World Congress On Engineering 2010: Conference of Systems Biology and Bioengineering. 30 JUNE-2 JULY 2010 At Imperial Collage London, United Kingdom. PP601-604.
68. Yunus Shukor and Mohd. Arif Syed. 2010. Biomonitoring of heavy metals in the environment using a novel inhibitive enzyme assay system. National Biotechnology Seminar. 24-26 May 2010. PWTC Kuala Lumpur
69. **Shukor, M.Y.**, Sabullah, M.K., Gunasekaran, B. and Syed. M.A. 2011. Bioassay of Xenobiotics Using The Multiple Xenoassay[®] System. Environmental Technology and Management Conference (ETMC). 3-4 November. Aula Barat, Aula Timur, ALSI, CC - ITB; Jalan Ganesha 10 Bandung, Faculty of Civil and Environmental Engineering, institute technology Bandung, West Java, indonesia.
70. Shukor M.Y., Masdor, N.A., Halmi, M.I.E., Kamaruddin, K. and Syed, M.A. 2013. Near-Real-Time Biomonitoring of Heavy Metals using the Xenoassay[®] system. The 3rd annual international Conference Syiah Kuala University (AIC - UNSYIAH) 2013 in conjunction with the 2nd international Conference on multidisciplinary research (ICMR) 2013. Kopelma Darussalam - Banda Aceh 23111, indonesia. October 2- 4,

- 2013.
71. Leelatulasi Salwoom, Wan Lutfi Wan Johari, Peter Convey, David A. Pearce and Mohd Yunus Shukor. 2013. Isolation and characterization of diesel degrading psychrophilic bacteria isolated from anthropogenically influenced sites around the Antarctic region. 6th Malaysian international Seminar on Antarctica 2013 (MISA6). 8th -9th October 2013. Parkroyal Hotel Resort, Batu Feringgi, Penang, Malaysia. Organized by Universiti Sains Malaysia, Sultan Mizan Antarctic Research Foundation, National Antarctic Research Center, Science Academy of Malaysia.
 72. Mohd Izuan Effendi Halimi, Wan Lutfi Wan Johari, Noorliza Mat Arif, Mohamad Yunus Abd Shukor, Mohd Arif Syed and Walter Patricio Mac Cormack. 2013. Phenol-degrading Antarctic Bacterium. 6th Malaysian international Seminar on Antarctica 2013 (MISA6). 8th -9th October 2013. Parkroyal Hotel Resort, Batu Feringgi, Penang, Malaysia. Organized by Universiti Sains Malaysia, Sultan Mizan Antarctic Research Foundation, National Antarctic Research Center, Science Academy of Malaysia.
 73. Siti Aqlima Ahmad, Mohd Yunus Abdul Shukor, Mohd Arif Syed, Patricio Walter Mac Cormack and Nor Aripin Shamaan. 2013. Isolation, Partial Purification and Characterization of Molybdenum-Reducing Enzymes from an Antarctica Bacterium (gamma-Proteobacterium STRAIN DR.Y1). 6th Malaysian international Seminar on Antarctica 2013 (MISA6). 8th -9th October 2013. Parkroyal Hotel Resort, Batu Feringgi, Penang, Malaysia. Organized by Universiti Sains Malaysia, Sultan Mizan Antarctic Research Foundation, National Antarctic Research Center, Science Academy of Malaysia.
 74. 4th International Conference On Sustainable Agriculture For Rural Development 2024 (Icsard 2024) Antarabangsa Faculty Of Agriculture, Jenderal Soedirman University , Indonesia. 31-07-2024 - 31-07-2024
 75. 10th Polish-Kazakh Meeting Antarabangsa Faculty Of Chemistry, Adam Mickiewicz University In Poznań 26-06-2024 - 26-06-2024
 76. Biotech Horizon 2024 , An International Seminar Antarabangsa Faculty Of Biotechnology And Biomolecular Sciences Upm 24-09-2024 - 26-12-2024
 77. International Conference On Bioprocessing And Biomanufacturing 2023 (Icbb 2023) Antarabangsa Faculty Of Biotechnology And Biomolecular Sciences, University Putra Malaysia 25-07-2023 - 26-07-2023
 78. Advances In Materials Science And Chemistry (Amsc-2023) Antarabangsa Department Of Chemistry, Kls Gogte Institute Of Technology, Belagavi, Karnataka, India 02-03-2023 - 04-03-2023
 79. African Asian Rural Development Organization (Aardo) Antarabangsa Mardi Dan African Asian Rural Development Organization (Aardo) 21-02-2022 - 03-03-2022
 80. International Conference On Emerging Technologies In Water, Waste Water Treatment And Solid Waste Management (Etwm-2021) Antarabangsa Department Of Chemistry Kls, Gogte Institute Of Technology, In Association With Visvesvaraya Technological University, Belagavi 18-03-2021 - 21-03-2021
 81. International Seminar on "Understanding Water Crisis: The Way Forward" Antarabangsa Synod College, Shillong in collaboration with P.A. Sangma Foundation and Meghalaya Basin Development 06-06-2019 - 07-06-2019
 82. 8th Malaysian International Seminar on Antarctica Antarabangsa UPM, Sultan Mizan Antarctic Research Foundation and National Antarctic Research Centre (NARC) 18-06-2019 - 19-06-2019
 83. The 3rd International Conference on Molecular Biology & Biotechnology Antarabangsa UCSI and MSMBB 24-04-2019 - 25-04-2019

HONOURS AND AWARDS:

international Travel Awards

1. JICA Okayama-UPM University Travel Grant. Elucidating the Mechanism of molybdenum reduction by *Enterobacter cloacae* strain 48. Year 1994-1995. MYR 50,000 (estimated).
2. Argentinean institute of Antarctica (Travel Grant). Bacterial Biodegradation and Bioremediation of Hydrocarbon in Antarctica. Year 2002-2003. MYR 70,000 (estimated).

Research and innovation Competition

As lead researcher

Platinum

Multiple Xenoassay© Kit for detecting Environmental toxicants". British invention Show (BIS). Alexandria Palace, 13-16th October, London.

Gold

1. **Shukor, M.Y.**, Baskaran A/L Gunasekaran, Mohd., Khalizan Sabullah, Syed, M.A. 2010. Multiple Xenoassay® Kit for detecting Environmental toxicants. British invention Show (BIS). Alexandria Palace, 13-16th October, London.
2. **Shukor, M.Y.**, Rahman, M.F.A., Tham, L.G., Othman, A.R., Bakar, N.L., Shamaan, Syed, M.A. 2007. Multiple Xenoassay® Kit for detecting Environmental toxicants. PECIPTA 07 (international Exposition of Research and inventions of institutions of Higher Learning 2007). 10 -12 August 2007. Kuala Lumpur Convention Centre, Kuala Lumpur, Malaysia
3. **Shukor, M.Y.**, Mohd. Fadhil Abd. Rahman, Tham Lik Gin, Ahmad Razi Othman, Nurlizah Abu Bakar, Nor Aripin Shamaan and Mohd. Arif Syed. 2007. A Composite Enzyme-Based Xeno-Assay® Kit for Monitoring Xenobiotics Pollution. 17th international Exhibition for inventions, innovations, Technology and industrial Design, Malaysian invention and Design Society. 18-20TH of May, Kuala Lumpur Convention Centre, Kuala Lumpur, Malaysia.
4. **Shukor, M.Y.**, Mohd. Fadhil Abd. Rahman, Siti Aqlima Ahmad, Wan Surini Wan Husin, Sim Han Koh, Ariff Khalid, Nor Aripin Shamaan and Mohd. Arif Syed Monitoring of Heavy Metals Pollution in Malaysian Rivers Using an inhibitive Enzyme Assay System. ITEX 2006, 17th international Exhibition for inventions, innovations, Technology and industrial Design, Malaysian invention and Design Society (MINDS). 19-21st of May, Kuala Lumpur Convention Centre, Kuala Lumpur, Malaysia
5. **Shukor, M.Y.**, Shahizal Raslan, Aqlima Ahmad, Evayanti Zamudin, Fadhil A. Rahman, Nor Aripin Shamaan and Mohd. Arif Syed. Enzyme assay for phosphomolybdate reductase, a novel enzyme responsible for the bioremediation of heavy metals. Expo Science Technology and innovation, 26-28th of August, 2004, Tun Razak Hall 1, Putra World Trade Centre, Kuala Lumpur.
6. **Shukor, M.Y.**, Azlan Baharom, Mohd. Arif Syed. toxicity Evaluation With The Xenoassay-Metal™ Test to Assess The Presence of Heavy Metals in The Environment. 2005. Exhibition of invention & Research, UPM, 16-18th of March, 2005. Faculty of Biotechnology and Biomolecular Sciences, UPM.
7. Mohd. Yunus Abd. Shukor, Siti Aqlima Ahmad, Mohd Khalizan Sabullah, Nor Adeela Yasid, Wan Lutfi Wan Johari, Mohd. Izuan Effendi Halmi, Mohd. Fadhil Abd. Rahman, Hafeez Muhammad Yakasai 2016. Bioremoval of Molybdenum from Wastewater Using A Molybdenum-reducing Bacterium. invention, Research and innovation Exhibition (PRPI) UPM 2016. 15-16 November 2016, Sultan Salahudin Abdul Aziz Shah Art and Cultural Center, UPM.
8. Mohd. Yunus Abd. Shukor, Siti Aqlima Ahmad, Siti Aqlima Ahmad, Farrah Aini Dahalan, Mohd. Izuan Effendi Halmi, Mohd. Fadhil Abd. Rahman, Hafeez Muhammad Yakasai and Allamin Ibrahim Alkali. 2016. A Rapid Near Real-time Assay for Heavy Metals Biomonitoring Using The Molybdenum-reducing Enzyme. invention, Research and innovation Exhibition (PRPI) UPM 2016. 15-16 November 2016, Sultan Salahudin Abdul Aziz Shah Art and Cultural Center, UPM.

Silver medal

1. **Shukor, M.Y.**, Zailatul Hani Mohamad Yazir, Mohd. Fadhil Abd. Rahman, Mohd Azmuddin Abdullah, Nor Aripin Shamaan, Mohd. Arif Syed. Biodegradation of Phenol Using the Xenoclean-Phenol® System. Expo Science Technology and innovation, 29-31st of March 2007. Tun Razak Hall 1, Putra World Trade Centre, Kuala Lumpur.
2. **Shukor, M.Y.**, Mohd. Fadhil Abd. Rahman, Siti Aqlima Ahmad, Wan Surini Wan Husin, Sim Han Koh, Ariff Khalid, Nor Aripin Shamaan and Mohd. Arif Syed Bioremediation of A Heavy Metal Using Xenoclean Molybdenum™. ITEX 2006, 17th international Exhibition for inventions, innovations,
3. **Shukor, M.Y.**, Technology and industrial Design, Malaysian invention and Design Society (MINDS). 19-21st of May, Kuala Lumpur Convention Centre, Kuala Lumpur, Malaysia
4. **Shukor, M.Y.**, Mohd. Fadhil Rahman, Nor Aripin Shamaan and Mohd. Arif Syed. 2006. Eduenzyme-Purify™, The Future of Bioeducation in Malaysia. Malaysian Technology Expo. 23-26th February, Putra World Trade Centre.
5. **Shukor, M.Y.**, Mohd. Fadhil Rahman, Nor Aripin Shamaan and Mohd. Arif Syed. 2006. Xenoassay- Iron™, A Novel Iron Determination Method. Malaysian Technology Expo. 23-26th February, Putra World Trade Centre
6. **Shukor, M.Y.** and Azmudin Abdullah. 2005. an Improved Bradford Dye-Binding Protein Assay. Exhibition of invention & Research, UPM, 16-18th of March 2005. Faculty of Biotechnology and Biomolecular Sciences, UPM.
7. **Shukor, M.Y.**, Azlan Baharom, Shahizal Raslan, and Mohd. Arif Syed. Detection of Copper from the Environment at the Sub Part per Million Levels Using an inhibitive Enzyme Assay Method. Expo Science, Technology and innovation, 26-28th of August, 2004, Tun Razak Hall 1, Putra World Trade Centre, Kuala Lumpur.
8. **Shukor, M.Y.**, Azlan Baharom, Shahizal Raslan, Mohd. Arif Syed. Xenoassay-Metal™, a novel enzymatic

- assay of heavy metals. ITEX 2004, international Exhibition for inventions, innovations, Technology and industrial Design, Malaysian invention and Design Society (MINDS) (with support of Malaysian Ministry of Science, Technology & Environment), 22-25th of May, Mid valley Megamall, Kuala Lumpur.
9. **Shukor, M.Y.**, Fazuriana Ahmad, Tan Ea Leng, Shahizal Raslan, Azlan Baharom, Nor Aripin Shamaan, Mohd. Arif Syed. Microbial bioindicator of heavy metals. Exhibition of invention & Research, UPM, 8-10th of July 2003, Sultan Salahudin Abdul Aziz Shah Art and Cultural Center, UPM.
 10. **Shukor, M.Y.**, Shahizal Raslan, Azlan Baharom, Fazuriana Ahmad, Nor Aripin Shamaan, Arif Syed. Bioindicator for heavy metals using the molybdenum-reducing activity system. Exhibition of invention & Research, UPM, 8-10th of July 2003, Sultan Salahudin Abdul Aziz Shah Art and Cultural Center, UPM.
 11. **Shukor, M.Y.**, Azlan Baharom Shahizal Raslan, Mohd. Arif Syed, Nor Aripin Shamaan. A novel iron determination method. Exhibition of invention & Research, UPM, 8-10th of July 2003, Sultan Salahudin Abdul Aziz Shah Art and Cultural Center, UPM.
 12. **Shukor, M.Y.**, Azlan Baharom, Shahizal Raslan, Azlina Masdor, Mohd. Arif Syed. A novel liner alkane sulfate determination method. Exhibition of invention & Research, UPM, 8-10th of July 2003, Sultan Salahudin Abdul Aziz Shah Art and Cultural Center, UPM.
 13. **Shukor, M.Y.**, Mohd. Fadhil Abd. Rahman, Mohd Azmuddin Abdullah, Zailatul Hani Mohamad Yadzir, Nor Aripin Shamaan, Mohd. Arif Syed. Biodegradation of Phenol by Free and Immobilized Cells. Exhibition of invention, Research & innovation /Design, Research & innovation Exhibition UPM (PRPI 2006). 22-24th of August 2006, Sultan Salahudin Abdul Aziz Shah Art and Cultural Center, UPM.
 14. **Shukor, M.Y.**, Zailatul Hani Mohamad Yadzir, Mohd. Fadhil Abd. Rahman, Mohd Azmuddin Abdullah, Nor Aripin Shamaan, Mohd. Arif Syed. 2007. Biodegradation of Phenol Using the Xenoclean-Phenol® System. Malaysian Technology Expo. 29-31st March, Putra World Trade Centre.

Bronze medals

1. **Shukor, M.Y.**, Shahizal Raslan, Mohd Ariff Syed, Johari Ramli, Nor Aripin Shamaan. Partial purification of the molybdenum-reducing activity /enzymes from *Escherichia coli* STRAIN UPM-BE. Exhibition of invention & Research, UPM, 8-10th of July 2003, Sultan Salahudin Abdul Aziz Shah Art and Cultural Center, UPM.
2. **Shukor, M.Y.**, Azlan Baharom, Shahizal Raslan, Mohd. Arif Syed1, Nor Aripin Shamaan, Mohd. Puad Abdulah, Muhajir Hamid. A Novel Enzyme Assay for Heavy Metals. Exhibition of invention & Research, UPM, 8-10th of July 2003, Sultan Salahudin Abdul Aziz Shah Art and Cultural Center, UPM.
3. **Shukor, M.Y.**, Mohd. Fadhil Rahman, Nor Aripin Shamaan and Mohd. Arif Syed. 2006. Xenoassay-Copper™, A Novel Copper Bioassay System. Malaysian Technology Expo. 23-26th February, Putra World Trade Centre.
4. **Shukor, M.Y.**, Neni Gusmanizar, Mohd. Fadhil Abd. Rahman, Nor Aripin Shamaa1, Mohd. Arif Syed. Bioremediation of Acrylamide in Soil. Exhibition of invention, Research & innovation /Design, Research & innovation Exhibition UPM (PRPI 2006). 22-24th of August 2006, Sultan Salahudin Abdul Aziz Shah Art and Cultural Center, UPM
5. **Shukor, M.Y.**, Assessment of a Mo-reducing bacterium's phylogeny using distance and character-based molecular phylogenetic. Exhibition of invention, Research & innovation /Design, Research & innovation Exhibition UPM (PRPI 2006). 22-24th of August 2006, Sultan Salahudin Abdul Aziz Shah Art and Cultural Center, UPM
6. **Shukor, M.Y.**, Mohd. Fadhil Abd. Rahman, Wan Surini Wan Hassan, Mohd Azmuddin Abdullah, Nur Syahidah Bt Shaharuddin, Nor Aripin Shamaan, Mohd. Arif Syed. Biodegradation of Sodium Dodecyl Sulphate (SDS) by Immobilized Cells. Exhibition of invention, Research & innovation /Design, Research & innovation Exhibition UPM (PRPI 2006). 22-24th of August 2006, Sultan Salahudin Abdul Aziz Shah Art and Cultural Center, UPM

As co-researcher

Gold medal.

1. Mohd. Arif Syed, **Shukor, M.Y.**, Shamaan, N.A., Koh, S.H., Aziz, A.A., Yeng, Y.W. 2007. Bioremediation of textile Dyes using Xenoclean-Azo®. PECEIPTA 07 (international Exposition of Research and inventions of institutions of Higher Learning 2007). 10 -12 August 2007. Kuala Lumpur Convention Centre, Kuala Lumpur, Malaysia
2. Mohd Izuan Effendi Bin Halmi, Mohd. Yunus Bin Abd. Shukor, Wan Lutfi Bin Wan Johari. 2016. Xenoassay Light™; A Rapid and Sensitive Bioluminescent Assay for Xenobiotics. invention, Research and innovation Exhibition (PRPI) UPM 2016. 15-16 November 2016, Sultan Salahudin Abdul Aziz Shah Art and Cultural Center, UPM.
3. Noor Azmi Shaharuddin, Gunasekaran Baskaran, Shamala Salvamani, Siti Aqlima Ahmad, Parveen Devi Pattiram, Azrina Azlan and Mohd Yunus Shukor 2016. Basella alba, A Superfood for Alleviating Hypcholesterolemia and Arttherosclerosis. invention, Research and innovation Exhibition (PRPI) UPM

2016. 15-16 November 2016, Sultan Salahudin Abdul Aziz Shah Art and Cultural Center, UPM.

Silver medal

1. Janna Ong A., Khairul A.K., Rohidin R., Maziah M., Rahmani P., Muhajir H., Mohd Yunus S., 2005. Natural food colorants from petals of *Melastoma malabathricum* and *Tibouchina semidecandra*. Biotechnology Asia 2005. 16-18 th August. Putra World Trade Centre, Kuala Lumpur.
2. Mohd. Arif Syed, **Shukor, M.Y.**, Foong, Y.P., Cheng, W.N., Aziz, A.A. A simple method for screening azo-dye degrading bacteria. Exhibition of invention, Research & innovation /Design, Research & innovation Exhibition UPM (PRPI 2009). 28th of July 2009, Sultan Salahudin Abdul Aziz Shah Art and Cultural Center, UP

Bronze medal

1. Radzali Muse, Lim Lay Sean, Johari Ramli, Mohd. Aspollah Sukari & **Shukor, M.Y.** Activities of different solvent extracts of *Clausena excavata* leaves. Exhibition of invention & Research, UPM, 8-10th of July 2003, Sultan Salahudin Abdul Aziz Shah Art and Cultural Center, UPM.
2. Mohd. Arif Syed, Ariff Khalid, Sim Han Koh, and Yunus Abdul Shukor. Biodegradation of Azo dyes. Exhibition of invention, Research & innovation /Design, Research & innovation Exhibition UPM (PRPI 2006). 22-24th of August 2006, Sultan Salahudin Abdul Aziz Shah Art and Cultural Center, UPM.
3. Zakaria, M.P., **Shukor, M.Y.** and Halimoon, N. Microbial determination of different type of sewage and Effluent as a tool for source identification using PCR-DGGE. Exhibition of invention, Research & innovation /Design, Research & innovation Exhibition UPM (PRPI 2009). 28th of July 2009, Sultan Salahudin Abdul Aziz Shah Art and Cultural Center, UPM.
4. Nur Adeela Yasid, Mohd. Yunus Abd. Shukor, Siti Aqlima Ahmad, Azham Zulkarnain. Xenoclean®, A Cyanide-Degrading Microorganism for Remediating Cyanide.Contaminated Soil. invention, Research and innovation Exhibition (PRPI) UPM 2016. 15-16 November 2016, Sultan Salahudin Abdul Aziz Shah Art and Cultural Center, UPM.

Other Awards

1. **TOP RESEARCH SCIENTISTS MALAYSIA** awarded by the Malaysian Academy of Sciences in 2017.
2. **Excellent Service Certificate for Year 2002**, Universiti Putra Malaysia.
3. **EXCELLENT SERVICE AWARD FOR YEAR 2003**, Universiti Putra Malaysia.
4. **EXCELLENT SERVICE AWARD FOR YEAR 2006**, Universiti Putra Malaysia.
5. **Excellent Service Certificate for Year 2007**, Universiti Putra Malaysia.
6. **Excellent Service Certificate for Year 2008**, Universiti Putra Malaysia.
7. **EXCELLENT SERVICE AWARD FOR YEAR 2011**, Universiti Putra Malaysia.
8. **Excellent Service Certificate for Year 2016**, Universiti Putra Malaysia.
9. **Excellent Service Certificate for Year 2018**, Universiti Putra Malaysia.
10. **Excellent Service Certificate for Year 2023**, Universiti Putra Malaysia.
11. **Precious Scientist AWARD**. 2004. Awarded by the Faculty of Science and Environmental Studies, UPM.
12. State recognition for giving talk on Antarctic Scientific Expedition and Exploration for Higher Schools in Johor at Sagil High School, Tangkak, Johor on the 17th of July, 2003.
13. Faculty of Science and Environmental Studies Excellent Researcher Award, 2002.
14. Dean Special Award 2012. Awarded by the Faculty of Biotechnology and Biomolecular Sciences. UPM.
15. Dean Special Award 2013. Awarded by the Faculty of Biotechnology and Biomolecular Sciences. UPM.
16. **MALAYSIAN INNOVATIVE PRODUCT AWARD** for the invention "A Composite Enzyme-Based Xeno-Assay® Kit for Monitoring Xenobiotics Pollution" at the 17th international Exhibition for inventions, innovations, Technology and industrial Design, Malaysian invention and Design Society. 2007. 18-20th of May, Kuala Lumpur Convention Centre, Kuala Lumpur, Malaysia.
17. Travel grants to Okayama University as a research attachmnt from November 15, 1995 to March 31 1996 sponsored by UPM and JICA, Japan.
18. Travel grants to Antarctica from December 2002 to March 2003, sponsored by the Argentinean institute of Antarctica and the Malaysian Academy of Sciences.
19. Travel grants to Korea on a collaborative project between Academy Science of Malaysia and Korean Polar Research institute-KOPRI. Polar BioCenter Korea Polar Research institute, KOPRI Ansan PO Box 29 425-600 Seoul, Korea from 26-29 October 2005.
20. Travel grant as a Visiting professor for Universitas Diponegoro, Semarang, Indonesia, 20-25 October 2024.

COMMERCIALIZATION OF PRODUCTS

1. XENOLAB Sdn. Bhd. 844434-K. Universiti Putra Malaysia Spin off company. Equity (20% Shares). Commercialization of Trademark Eduzyme® and Patents PI 20,042,640 and PI 20,042,641. Agreement signed and First payment of MYR 30,000.00. total gross sale is MYR 40,000.00
2. Snoc international Sdn. Bhd. 2010. Collaboration and commercialization of the scale up production of the acetylcholinesterase for biomonitoring works. Received MOA Techno Fund MYR 800,000.
3. Halways Sdn. Bhd. 1062702-A. Universiti Putra Malaysia innohub company. Equity (40% Shares). Commercialization of Halal detection kit for detecting porcine contamination in food and other samples. Received a stratup innohub Grant of MYR 100,000. Estimated total revenue MYR 120,000.
4. Ozherb Sdn. Bhd. 1062958-P. Universiti Putra Malaysia innohub company. Equity (40% Shares). Commercialization of bone scaffold-bone reconstructive materials and antiatherosclerotic herbal formulation. Received a stratup innohub Grant of MYR 100,000. Ongoing
5. Danioassay Laboratories Sdn Bhd. 1075617-T. Universiti Putra Malaysia innohub company. Equity (40% Shares). Commercialization of toxicity Assay Lab services. Received a stratup innohub Grant of MYR 100,000. Estimated total revenue MYR 10,000.

CONSULTATION WORKS

1. Consultant for Khiazh Sdn Bhd for the period 2006-2009 for setting up a laboratory and pesticides analytical works. Consultation is worth MYR 70,000.
2. Consultation works for Guthrie-Sime Darby research for the period 2008-2010. Consultation is worth MYR 96,000.
3. Consultation works for NUMAC System Technologies Sdn Bhd for the period January to June 2009. Consultation is worth MYR 9,000.

PROFESSIONAL WORK/SERVICES

a) Appointments

1. Editor-in-Chief. 2013-. Journal of Biochemistry, Microbiology and Biotechnology (JOBIMB). (E-ISSN 2289- 5779).
2. Book Chapter Reviewer : Advance Water and Wastewater Treatment Series III. UTM Publisher.
3. Consulting Editor for the Journal of Environmental Biology starting 2009-.
4. Guest Editor for the Journal of toxicology-2012
5. Editorial Board member of the journal "The Open Access Journal of Science and Technology, Online ISSN: 2314-5234"
6. Represented Malaysia, Malaysian Academy of Science and Universiti Putra Malaysia in the Summer Antarctic Expedition to Jubany, an Argentinean base, from 29th of January to 16th of March 2003. The 5- year targeted expeditions are jointly organized by The Malaysian Academy of Science and The Argentinean institute of Antarctica.
7. As a committee member to the 2nd Malaysian international Seminar on Antarctica: Global Laboratory for Scientific and international Cooperation, on the 3rd to 5th of May 2004, USM, Penang.
8. Panel member for evaluating Newton Advanced Fellowships and Mobility Grants. 2017. Combatting Antimicrobial resistance through engineering and education.
9. Panel member for Evaluation of Fundamental Research Grant Scheme (FRGS), University Putra Malaysia, 2006.
10. Referee for Dr. Wayan Supatra UKM for the post of Associate Professor.
11. Referee for Dr. Palsan Sannasi Abdullah, USIM for the post of Associate Professor.
12. Deputy Dean of Research and Postgraduate Studies. Faculty of Biotechnology and Biomolecular Sciences, Universiti Putra Malaysia. (Dec 2012-Jan 2014).
13. Mentor to Dr Farrah Aini Dahalan (UniMAP) Research Acculturation Collaborative Effort (RACE). Ecotoxicological evaluation of biochemical biomarkers in *Anabas testudineus* exposed to molluscicide metaldehyde used in paddy field of Malaysia. 2014.
14. Mentor to Dr Naimah Ibrahim (UniMAP) Research Acculturation Collaborative Effort (RACE). Ecotoxicological study of endosulfan, buprofezin and fenobucarb in aquatic biota. 2014
15. Mentor to Kolej Tunku Kursiah. Scientific Advisor to Students intel Science Project (fishy detector). Project Won Gold Medal in US. 2012.
16. Speaker for the program 'Empowering Young Scientist'. The program was organized by the Faculty of Biotechnology and Biomolecular Sciences (FBSB), in collaboration with the Faculty of Food Science and Technology (FSTM). Title of the talk was "from research to commercialization" (30 August 2016).
17. Presenters at a meeting on the proposed cooperation between the delegations of Argentina and Malaysia researchers on Antarctica. 23 Ogos 2016. Kuala Lumpur Convention Centre, side meeting of SCAR (Scientific Committee on Antarctic Research) 2016 Open Science Conference in Kuala Lumpur.
18. Rapporteur for SCAR (Scientific Committee on Antarctic Research) 2016 Side Meetings 27th August 2016. Kuala Lumpur Convention Centre, side meeting of SCAR (Scientific Committee on Antarctic Research) 2016 Open Science Conference in Kuala Lumpur.

19. Assessor/evaluator for the Evaluation of the Fundamental Research Grant Scheme (FRGS) and Product Development Research Grant Scheme (PRGS), University Putra Malaysia, 2017-2025.
20. Assessor/evaluator for the Evaluation of the High Impact Grant, University Putra Malaysia, 2017, 2024.
21. Chairman of the international seminar: 8th Malaysian international Seminar on Antarctica: "8TH Malaysian International Seminar on Antarctica (MISA8)" between 18 and 20 JUN 2019. Sultan Salahuddin Abdul Aziz Shah Arts & Cultural Centre (Dewan Besar, UPM), UPM.
22. Guest Editor to the special issue of Advances in Polar Science (APS), Volume 31, Issue 2, June 2020, themed "Polar Regions in the Global Climate System." based on the 8th Malaysian International Seminar on Antarctica, held on 18-19 June 2019 at Universiti Putra Malaysia.
23. Guest Editor to special issue of the Asia Pacific Journal of Molecular Biology and Biotechnology (APJMBB) journal ISSN 0128-7451; eISSN 2672-7277 Volume 32 (4) Special Issue DECEMBER 2024 for the Biotech Horizon 2024 International Conference, 24-26 September 2024.
24. UPM's Intellectual Property Panel member from 2022 to 2024.
25. Program Advisor for Biotechnology (Academic/Industry/ Alumni), Undergraduate, Faculty of Science and Natural Resources, Universiti Malaysia Sabah.
26. Academic review of Biochemistry Ph.D. program evaluation-Sultan Qaboos University
27. External Examiner for the End-of-Semester 5 Examination (cohort MBI/17), International Medical University Malaysia.
28. Assessor on the promotion file of Dr. Bandar Fahd Obaid Al-Harbi and Dr. Hussam Ali Mohammed Qansh from Assistant Professor to Associate Professor, University of Hail, Hail, Saudi Arabia, 2024
29. Assessor on the promotion of Dr Hajar Fauzan Ahmad to Associate Professor, Universiti Malaysia Pahang Al-Sultan Abdullah, Pahang, Malaysia, 2024.
30. Assessor on the promotion of Associate Professor Ts Dr Anna Ling Pick Kiong to Professor, International Medical University, Kuala Lumpur, Malaysia, 2021.
31. Assessor on the promotion of Dr. Noor Akmal Shareela Ismail to Associate Professor (Grade DU54), UKM, Malaysia, 2021.

b) Visiting Scientist

1. Academic visitor- Advanced Diagnostics and Sensors Group, Centre of Bio-Medical Engineering, Engineering Sciences Division, School of Engineering, Vincent building (52A), Cranfield University, Cranfield, Bedfordshire, MK43 0AL, England, UK. (June 2013-July 2014).
2. Visiting Professor. Faculty of Fisheries and Marine Sciences, Diponegoro University, Semarang, Indonesia

Reviewers of Journals' Manuscript

NO	JOURNAL'S NAME	TITLE OF MANUSCRIPT	YEAR
1.	Turkish Journal of Fisheries and Aquatic Sciences	Antioxidant Enzymes and Acetylcholinesterase: Potential Biomarkers of Chlorpyrifos toxicity	2007
2.	toxicology and industrial Health	toxicity and Depuration Study of Monocrotophos: Effects On Antioxidant, Acetylcholinesterase and Atpase Enzymes in The Catfish, Clarias Batrachus	2007
3.	Journal of Medicinal Plant Research	Anti-Oxidant Activity and Cytoprotective Potential of Ethanolic Extract of Adhatoda Vasica	2008
4.	Journal of Environmental Biology	Isolation, Culture and Characterization of Head Kidney Derived Macrophages of Labeo Rohita (Hamilton, 1822)	2008
5.	Journal of Environmental Biology	Diversity of Arbuscular Mycorrhizal Fungi in Bhitarkanika Mangrove Ecosystem of Orissa, india	2009
6.	Journal of Environmental Biology	A Comparison of Bioefficacy of Leaves, Leaf Derived	2009

		Callus and in Vitro Leaves of Aristolochia Tagala Cham. Against Spodoptera Litura Fab	
7.	Malaysian Journal of Microbiology	Identification and Assessment of Frequency Distribution in Fungi Isolated from Marine Ecosystem	2009
8.	Journal of Basic Microbiology	involvement of Antioxidant Defense System in Solvent tolerance of Pseudomonas Putida Bcnu 106	2009
9.	The Canadian Journal of Chemical Engineering	Enhanced Palm Oil Mill Effluent Treatment and Biomethane Production by Aerobic and Anaerobic Co-Cultivation of Chlorella sp.	2009
10.	Catalysis Communications	Effect of Quinoid Redox Mediators On The Aerobic Decolorization of Azo Dyes by Cells and Cell Extracts from Escherichia Coli	2009
11.	Engineering in Life Sciences	Biosorption of As (Iii) by Non-Living Biomass of an Arsenic Hypertolerant Bacillus Cereus Strain Sz2 Isolated from A Gold Mining Environment: Equilibrium and Kinetic Study	2010
12.	international Food Research Journal	Multiplex Polymerase Chain Reaction (Pcr) Efficiency in Detection of Pathogenic Escherichia Coli O157:H7 and Growth Kinetics of E.Coli O157:H7	2010
13.	Journal of Environmental Biology	Performance Characteristics of Bisulfite Conversion and Sybr Green Based Quantitative Pcr for Dna Methylation Analysis. Mrn 894	2010
14.	Journal of Petroleum & Environmental Biotechnology	The Nutritional Value of Quality Protein Maize for Weaner Pigs. Jpeb-12-961	2010
15.	international Journal of Medicinal Plant Research	The Nutritional Value of Quality Protein Maize for Weaner Pigs	2011
16.	Fresenius Environmental Bulletin (Feb)	Chromium(Vi) Reduction by Bacteria Isolated from Sewage Treatment Plant. F-2012-031	2011
17.	Bioresource Technology	Optimal Conditions for Preparation of Banana Peels, Sugarcane Bagasse and Watermelon Rind in Removing Copper from Water. Bite-D-12-01738	2011
18.	Asian Fishery	Ammonia - induced and Withdrawal - Dependent Neurotoxic (Ache) and Antioxidative (Cat) Responses in A Catfish. Ms12-29	2011
19.	Environmental Engineering and Management Journal	Removal and Recovery of Lead (Ii) from Simulated Solution Using Alginate Immobilized Papain (Aip). 464	2011
20.	international Journal of Medicinal Plant Research	Evaluation of The Antimicrobial and Phytochemical Properties of Oil from Castor Seeds (Ricinus Communis Linn). Ijmpr -12-097	2011
21.	Journal of Environmental Biology	Immunostimulation Effects of Sargassum Whitti On Mugil Cephalus Against Pseudomonas Fluorescence. Mrn 110	2011
22.	Journal of Environmental Biology	Studies On Morphological and Genetical Similarities of Medicago Murex and M. Doliata to M. Scutellata	2011
23.	Journal of Environmental Biology	Assessment of Genetic Variation in Lucerne (Medicago Sativa L.) Resistance to Lucerne Weevil (Hypera Postica Gyll.) infestation Based On Analyses of Protease inhibitor Activities and Rapd Markers	2011
24.	Pertanika	Gas-Chromatography-Mass Spectrometry Analysis of Phenolic Acids from Carica Papaya L. Flesh At Different Stages of Ripeness	2012
25.	Bioresource Technology	Biodegradation of The Anionic Surfactant, Sodium Dodecyl > Sulphate(SDS) and Analysis of Metabolic Biproducts	2012
26.	Journal of Hazardous Materials	Optimization of Cultural Conditions for Growth Associated Chromate Reduction by Arthrobacter sp. Suk 1201 Isolated from Chromite Mine Overburden	2012
27.	Journal of Environmental Biology	Comparative Study On The Effect of Chemicals On Alternaria Blight in indian Mustard - A Multi-Location Study in india	2012

28.	Bioresource Technology	Biodegradation of The Anionic Surfactant, Sodium Dodecyl Sulphate(SDS) and Analysis of Metabolic Biproducs	2012
29.	African Journal of Agricultural Research	Batchwise Biosorption of Sn ²⁺ Ions by Using Chemically Treated Banana Peel	2012
30.	African Journal of Biotechnology	Some Applications of Thermophiles and Their Enzymes for Protein Processing	2012
31.	international Research Journal of Plant Science(Irjps)	Anti-Fungal Evaluation of Diodia Scandens Sw Leaf Extracts Against Some Dermatophytes in Ukwuani Region of Delta State, Nigeria.	2012
32.	African Journal of Biotechnology	Some Applications of Thermophiles and Their Enzymes for Protein Processing	2012
33.	Journal of Environmental Biology	Eco-Friendly Options for Alternaria Blight Management in indian Mustard [Brassica Juncea (L.) Czern. & Coss.] - A Multi-Location Study in india	2013
34.	Journal of Environmental Biology	Assessment of Genetic Variation in Lucerne (Medicago Sativa L.) Resistance to Lucerne Weevil (Hypera Postica Gyll.) infestation Based On Analyses of Protease inhibitor Activities and RapdMarkers	2013
35.	Journal of Environmental Biology	Estimating The Changes of Membrane Components and Parameters Characterizing The Cell Membrane During Cancer Transformation	2013
36.	Journal of Environmental Biology	Reactive Oxygen Species - Associated Mechanism of Acclamatory Stress tolerance, Signaling and Redox-Regulated Gene Expression in Plants	2013
37.	Journal of Environmental Biology	Molecular Markers Revealed Closeness of Medicago Murex and M. Doliata to M. Scutellata, A Weevil (Hypera Postica Gyll.) Resistant Species	2013
38.	Journal of Environmental Biology	Molecular Evidence That C. Glaucus Is The Pollinator of Cenchrus Hybrid and Their Utility in Drought tolerance Study	2013
39.	Pertanika Jtas	Comparison of Heavy Metal Concentrations (Cd, Cu, Fe, Ni and Zn) in The Shells and Different Soft Tissues of Anadara Granosa Collected from Jeram, Kuala Juru and Kuala Kurau, Peninsular Malaysia	2013
40.	Journal of Environmental Biology	Biodegradation of Phenol by Native Microorganisms Isolated from Coke Processing Wastewater	2013
41.	Pertanika Jtas	Speciation of Ni and Zn in The Surface Sediments	2013
42.	Journal of Applied Sciences	Observation On Recombinant Bromelain Activity Before and After Purification	2013
43.	African Journal of Biotechnology	Co-Metabolism of Dsd Acid Wastewater in The Presence of Glucose During Treatment by The Coagulation-Sbr Process	2013
44.	international Journal of Biotechnology & Biochemistry (Ijbb)	Production and Characterization of Dextranucrase from Newly Isolated Strain of Leuconostoc Mesenteroides Ea-6	2013
45.	Journal of Environmental Biology	Cost-Effective Substrates for Production of Poly-?-Hydroxybutyrate by A Newly Isolated Bacillus Cereus Ps-10	2014
46.	Journal of Environmental Biology	Potential Impact of Climate Change On Potato Late Blight Outbreak in Western Uttar Pradesh and Punjab Using Jhulsacast Model	2014
47.	Clean - Soil, Air, Water	Isolation and Identification of A Fluoride Resistant Bacterium Acinetobacter sp. Rh5 and Assessment of Its Water Defluoridation Capability	2014
48.	international Food Research Journal IFRJ - 2015-073	Simultaneous Identification of Listeria monocytogenes and Salmonella Typhimurium by Multiplex PCR	2015
49.	international Food Research Journal IFRJ - 2015-098	Pre-enrichment Effect on PCR Detection of Salmonella Enteritidis in Artificially-Contaminated Raw Chicken Meat	2015
50.	Journal of Environmental Biology PRN :	Analysis of Functional Domain and Family Prediction	2015

	70	of Hsp 90 Protein	
51.	Journal of Environmental Sciences JES_2016_98	Nano-sized Fe ₂ O ₃ / Fe ₃ O ₄ facilitate anaerobic transformation of hexavalent chromium in soil-water systems	2016
52.	Biomedicine & Pharmacotherapy BIOPHA_2016_2251_R1	β-Ag ₂ MoO ₄ microcrystals: Characterization, antibacterial properties and modulation analysis of antibiotic activity	2016
53.	3-Biotech BTEC-D-16-00954	Characterization of Thiomonas delicata arsenite oxidase expressed in Escherichia coli	2016
54.	The Egyptian Journal of Botany Egypt.J.Bot.22.2016	Characterization and antimicrobial effect of Moringaoleifera and Moringa peregrina essential oils against some pathogenic bacteria	2016
55.	for international Food Research Journal. IFRJ16296.R4	Antimicrobial effect of ajwain seed ethanolic extract against food-borne pathogenic bacteria	2016
56.	Journal of Environmental Biology. MRN: 37	Experimental study on bioconverting coal to methane	2016
57.	Journal of Environmental Sciences JES_2016_98_R1	Nano-sized Fe ₂ O ₃ / Fe ₃ O ₄ facilitate anaerobic transformation of hexavalent chromium in soil-water systems	2016
58.	Future Microbiology Manuscript ID FMB-2016-0104	The potential of a lytic bacteriophage to disrupt Acinetobacter baumannii biofilms in vitro	2016
59.	Journal of Cultural Heritage CULHER_2017_422	Utilization of Eugenia caryophyllata Thumb, Piper nigrum Linn, and Thymus vulgaris L Extracts on the Fungal-invaded Limestone of some Monumental Buildings in Old Cairo	2017
60.	Environmental Pollution ENVPOL_2017_3071	Title Analysis of Glyphosate degradation in a soil microcosm	2017
61.	Botanica Marina Manuscript ID BOTMAR.2017.0049	Thermal adaptation in marine-derived tropical strain of Fusarium equiseti and polar strains of Pseudogymnoascus spp. under different nutrient sources	2017
62.	Bioresource Technology BITE-D-17-02885	Title: Effective feather degradation and keratinase production by Bacillus pumilus GRK for its application as bio-detergent additive	2017
63.	Journal of Environmental Biology MRN: 677	Abrogation of Sodium Arsenite Driven Uterine Antioxidant Exhaustion and Tissue Impairment: Role of B12 and Folate	2017
64.	Journal of Biotechnology JBIOTEC-D-17-00153	Title: Recombinant expression and biochemical characterization of a novel keratinase BsKER71 from feather degrading bacterium Bacillus subtilis S1-4	2017
65.	Journal of Environmental Management JEMA-D-17-00451	an Advanced Perspective towards the Bioremediation of Arsenic by non-enzymatically Biofabricated Silver Nanoparticles Adhered to the Mesoporous Carbonized Fungal Cell Surface of Aspergillus foetidus MTCC8876.	2017
66.	Journal of Environmental Biology MRN: 628	Process conditions optimization and kinetic parameters estimation for improved bioactive metabolite production by Saccharopolyspora halotolerans VSM-2	2017
67.	Journal of Environmental Biology MRN: 762	Screening and Molecular Identification of Gelatinase - producing Bacteria Isolated from indonesia Mangrove Ecosystem	2017
68.	Open Chemistry OPENCHEM-D-17-00106	Effect of High temperature on Chemical Constituents and Tyrosinase activation activity of Psoralea corylifolia in vitro	2017
69.	Future Microbiology Manuscript ID FMB-2017-0202	Genome-based analysis of virulence determinants of a Serratia marcescens strain from soft tissues following a snake bite	2017
70.	Chemosphere. CHEM48904	Microbial Synthesis of Metallic Molybdenum Nanoparticles	2017

INVITED SPEAKERS

1. **Shukor, M.Y.**. 2004. The Exploration and Scientific Research in Antarctica. Represented the Malaysian Academy of Science and Universiti Putra Malaysia by presenting a talk on to High School students from all over Johor at Sekolah Menengah Sagil, Tangkak, Johor Bahru 17th of July 2003. Talk was organized by National Science Centre, under the Ministry of Science and Technology as a monthly activity geared towards increasing the scientific awareness to students from rural areas.
2. **Shukor, M.Y.**. 2004. Science as a profession; The Exploration and Scientific Research in Antarctica. Represented the Malaysian Academy of Science and Universiti Putra Malaysia by presenting a talk to High School students from all over Johor at Plaza Angsana, Johor Bahru 28th of September 2003. Talk was organized by National Science Centre, under the Ministry of Science and Technology to commemorate The inauguration of National Science and Technology Month 2003.
3. **Shukor, M.Y.**. 2004. Science as a profession; The Exploration and Scientific Research in Antarctica. Represented the Malaysian Academy of Science and Universiti Putra Malaysia by presenting a talk to High School students from the district of Kuala Selangor on the 2004. The venue of the talk was at the Sekolah Menengah Sains Kuala Selangor on the 4th of March, 2004. Talk was organized by the Malaysian Academy of Science in-conjunction with Program Pusat Sains Negara Di Desa, the latter under the Ministry of Science, Technology and innovation with the objectives to create awareness and interest in science among the school children in the rural areas.
4. **Shukor, M.Y.**. 2004. Science as a profession; The Exploration and Scientific Research in Antarctica. Represented the Malaysian Academy of Science by presenting a talk to High School students from Kuching and Samarahan. The venue of the talk was at the Maktab Perguruan Tun Abdul Razak Jalan Dato Mohd. Musa, 94300 Kota Samarahan Sarawak on the 15th of April, 2004. Talk was organized by the Malaysian Academy of Science in-conjunction with Program Pusat Sains Negara Di Desa, the latter under the Ministry of Science, Technology and innovation with the objectives to create awareness and interest in science among the school children in the rural areas.
5. **Shukor, M.Y.**. 2005. Screening and Isolation of Antarctic Microbes for The Bioremediation of Xenobiotics. invited Speaker on talks on collaborative project between Academy Science of Malaysia and Korean Polar Research institute-KOPRI. Polar BioCenter Korea Polar Research institute, KOPRI Ansan PO Box 29 425-600 Seoul, Korea from 26-29 October 2005
6. **Shukor, M.Y.**. 2007. Enzyme-based Xenoassay-metal[®] Kit for Monitoring Heavy Metals Pollution. The 9th Regional Seminar On The Role of Chemistry in industry and Environment; Development of Recent Chemistry and Its Sustainability in Life” 27-28 November 2007. Hotel Bumi Minang, Padang, West Sumatera, indonesia. Plenary Speaker.
7. A Meeting of Concerned Young Scientists. Conclave on “Young Scientists of Asia Conclave” Pressing Problems of Humankind: Energy & Climate. 15-17, January 2009 Bangalore, india, Programme. TWAS Regional office for Central & South Asia, JNCASR, Bangalore, india.
8. **Shukor, M.Y.**. 2009. The Exploration and Scientific Research in Antarctica. Represented the Malaysian Academy of Science and Universiti Putra Malaysia by presenting a talk to High School students from all over Kedah state under the “Program Jelajah Sains in Kedah” organised in conjunction with the “Minggu Pembangunan & Kesedaran Sains & Teknologi Negeri Kedah”.
9. **Shukor, M.Y.** and Mohd. Arif Syed. Bioremediation and Bioassay of Xenobiotics. international Seminar on Sciences and Technology (ISST) 2009” 24-25 October 2009. Organised by Fakultas Matematika Dan Ilmu Pengetahuan Alam Universitas Andalas. Hotel Bukit Tinggi, Padang, West Sumatera, indonesia. Plenary Speaker.

SOCIAL/COMMUNITY WORKS

1. Represented the Malaysian Academy of Science and Universiti Putra Malaysia by presenting a talk on to High School students from all over Johor at Sekolah Menengah Sagil, Tangkak, Johor Bahru 17th of July 2003. The talk titled “The Exploration and Scientific Research in Antarctica” was organized by

National Science Centre, under the Ministry of Science and Technology as a monthly activity geared towards increasing the scientific awareness to students from rural areas.

2. Represented the Malaysian Academy of Science and Universiti Putra Malaysia by presenting a talk to High School students from all over Johor at Plaza Angsana, Johor Bahru 28th of September 2003. The talk titled "Science as a profession; The Exploration and Scientific Research in Antarctica" was organized by National Science Centre, under the Ministry of Science and Technology to commemorate The inauguration of National Science and Technology Month 2003.
3. Represented the Malaysian Academy of Science and Universiti Putra Malaysia by presenting a talk to High School students from the district of Kuala Selangor on the 2004. The venue of the talk was at the Sekolah Menengah Sains Kuala Selangor on the 4th of March, 2004. Talk titled "Science as a profession; The Exploration and Scientific Research in Antarctica." was organized by the Malaysian Academy of Science in-conjunction with Program Pusat Sains Negara Di Desa, the latter under the Ministry of Science, Technology and innovation with the objectives to create awareness and interest in science among the school children in the rural areas.
4. Represented the Malaysian Academy of Science by presenting a talk to High School students from Kuching and Samarahan. The venue of the talk was at the Maktab Perguruan Tun Abdul Razak Jalan Dato Mohd. Musa, 94300 Kota Samarahan Sarawak on the 15th of April, 2004. The talk titled "Science as a profession; The Exploration and Scientific Research in Antarctica." was organized by the Malaysian Academy of Science in-conjunction with Program Pusat Sains Negara Di Desa, the latter under the Ministry of Science, Technology and innovation with the objectives to create awareness and interest in science among the school children in the rural areas.
5. Committee member for the "Owners and Residents Society of Vista Seri Putra, bandar Seri Putra, Bangi Selangor", Session 2004-2005.
6. Kickboxing Trainer for Staffs and Students of the Faculty from November 2006-.
7. President and trainer for Seni Tempur Rantai Bara (Society Registration No NSID-071-11062013). <https://www.facebook.com/BspMixMartialArtsGroup?ref=stream>

RESEARCH ACTIVITIES-POSTGRADUATE/POSTDOCTORAL STUDENTS

Supervision of Post-Doc Student

1. Dr. Lim King Ting (Malaysia). 2013.
2. Dr. Ma Ma Lay (Myanmar). 2017-2018

AS MAIN SUPERVISOR-Supervision of PhD student

1. Neni Gusmanizar. (Indonesia). (PhD.) GS 12315. Purification and characterization of acrylamide-degrading enzymes from soil bacteria. **Graduated.**
2. Baskaran A/L Gunasekaran (GS31983). Anti cholesterol properties of selected Malaysian herbs: in Vitro and in Vivo. **Graduated with Distinction and Graduated on Time (GOT=<3 years).**
3. Mohd Izuan Effendi B Halmi. PhD. GS36714. Bioreduction of molybdenum to molybdenum blue using *Serratia* sp. strain mie2 and purification of molybdenum reducing enzyme. **Graduated and Graduated on Time (GOT=<3 years).**
4. Abubakar Aisami. PhD. GS39892. Biodegradation of phenol by free and immobilised cells of three strains of locally- isolated bacteria. **Graduated and Graduated on Time (GOT=<3 years).**
5. Hafeez Muhammad Yakasai. PhD GS43294. Microbial molybdate reduction to molybdenum-blue: solving a century-old microbiological phenomenon. **Graduated and Graduated on Time (GOT=<3 years). Nominated for University Gold Medal Prize**
6. Allamin Ibrahim Alkali. PhD. GS46348. Rhizodegradation of petroleum crude oil sludge using *Cajanus cajan*. **Graduated and Graduated on Time (GOT=<3 years).**
7. Umar Abubakar Muhammad. PhD. GS47879. Histopathology of glyphosate on *Oreochromis mossambicus*. **Graduated.**
8. Mohd Fadhil Bin Abdul Rahman. PhD GS47947. Molybdenum detoxification using molybdenum-reducing bacteria isolated from molybdenum-contaminated site. **Graduated.**
9. **Dan-Iya Bilal Ibrahim. GS57595.** Optimization, Isotherm, Kinetic And Thermodynamic Studies Of Congo Red Dye Adsorption Onto Chitosan-Enhanced Nano Zero-Valent Iron (Cs-Nzvi). **Graduated.**
10. **Motharasan Manogaran. GS51427.** Isolation And Characterization Of Mixed Bacterial Consortium Isolated From The Juru River, Malaysia In Decolourising Azo Dye (Reactive Red 120). **Graduated**

11. **Ain Aqilah Basirun. Graduated.**
12. **Salihu Yahuza. Graduated**
13. **Ibrahim Sabo. Graduated**
14. **Abdussamad Abubakar. Graduated**
15. **Faggo. Graduated**
16. **Shakirah. Passed viva**
17. **Siti Noraini Bunawan.** Prebiotic Potential Of Md2 Pineapple (*Ananas Comasus*) Peel On The Growth And Gut Microbiota Of Red Hybrid Tilapia (*Oreochromis spp*). **GS49588. Passed viva**
18. **Sukirah Abdul Rahman. GS54501. Graduated**
19. **Ubana Muhammed Abdullahi.** Kinetics, Isotherms, Thermodynamics And Response Surface Optimization Of The Biosorption Of Chromate By Cocoa Husks As A Low Cost Biosorbent. **GS64408. Thesis submitted**
20. **Ismail Haruna. GS66388.** Kinetics, Isotherm, Thermodynamics Studies Of Chromium Sorption To Fungal Biomass And Its Optimization Using Response Surface Methodology (**RSM**). **Ongoing.**
21. **Aftab Khan. Ongoing.**

AS MAIN SUPERVISOR-MSc

1. Ariff Khalid (MSc.) GS 11800. Isolation and screening of lignolytic fungi for the biodegradation of textile dyes. **Graduated.**
2. Nor Ayshah Alia binti Ali Hassan. (MSc.) GS 13167. Diesel bioremediation by antarctic microbes. **Graduated.**
3. Farrah Aini Dahalan. (MSc.). GS 10780. Biodegradation of diesel by using tropical microbes. **Graduated**
4. Mohd. Fadhil Abd. Rahman. (MSc.). GS 15365. Purification and characterization of phosphomolybdate reductase from *S. marcescens* sp. **Graduated**
5. Tham Lik Gin (MSc). GS17030. Development of an inhibitive acetylcholinesterase-based assay for insecticides. **Graduated**
6. Noorliza Binti mat Arif. GS19046 (MSc). Biodegradation of phenol by using *Rhodococcus* sp. **Graduated**
7. Lubna Kamil Abdulhussein Abo-Shakeer. (Iraq). (GS20078) MSc. Isolation and characterization of a molybdenum-reducing *Bacillus* sp. **Graduated**
8. Nurlizah Binti Abu Bakar (GS20350) MSc. Isolation and characterization of a molybdenum-reducing *Staphylococcus* sp. **Graduated**
9. Ahmad Razi Bin Othman (GS20353) MSc. Isolation and characterization of a molybdenum-reducing *Bacillus* sp. **Graduated**
10. Mohd Badrin Hanizam Bin Abdul Rahim (GS21902) MSc. Isolation and characterization of an acrylamide-degrading yeast. **Graduated.**
11. Mohd Khalizan Bin Sabullah (GS22256) MSc. River biomonitoring of heavy metals using inhibitive enzyme assays. **Graduated**
12. Mohd Ezuan Bin Khayat (GS22350) MSc. River biomonitoring of pesticides using inhibitive enzyme assays. **Graduated**
13. Munira Saira Abu Yamin (GS216171). MSc. Development of an ELISA-based method for the Detection of Porcine Products in Food. **Graduated.**
14. Zakuan Azizi Bin Shamsul Harumain. MSc. GS25997. Biodegradation of Sludge by *Methylobacterium* sp. Strain Zash. **Graduated.**
15. Mohd Izuan Effendi Bin Halmi. MSc. The development of a toxicity bioassay system using *Photobacterium* sp. strain mie. **Graduated.**
16. Gan Bee Koon. MSc. (GS26370). Isolation, identification and characterization of PCP-degrading bacterium. **Graduated.**
17. Maryam Binti Zahaba. MSc. (GS26362). Isolation and characterization of a luminescence bacterium with a potential application in biomonitoring of hydrocarbon biodegradation and metals. **Graduated.**
18. Ahmad Afif Abdul Aziz (GS19573) MSc. Isolation and characterization of a dye-degrading *Pycnoporos* sp. **Graduated.**
19. Baskaran A/L Gunasekaran. **PhD.** (GS24910). Purification, Characterization and inhibition Studies Using Plant Proteases for Heavy Metals Detection. **Graduated.**
20. Siti Noraini Binti Bunawan (GS21704) MSc. Purification and characterization of a fungal-inhibiting agent from a *Bacillus* sp. **Graduated.**
21. Mohd Haris Bin Sulaiman (MSc. GS25162). Partial purification and characterization of molybdenum reducing enzyme from *E. coli* strain k-12. **Graduated.**
22. Salihu Ibrahim (Nigeria). MSc. GS36594. Bioremediation of Caffeine. **Graduated.**
23. Maryam Abubakar. MSc. GS44411. Biodegradation of vegetable oily ballast wastewater under temperate conditions using the Antarctic *Rhodococcus* sp. Strain ADL36. **Graduated.**
24. Aa'ishah Abd Gafar. MSc GS50093. Optimisation of Keratinase Production from *Bacillus* sp. strain UPM-AAG1 Using Response Surface Methodology. **Graduated.**
25. **Aisha Grema**
26. **Syazwan.**

AS CO-SUPERVISOR-PhD

1. Siti Aqlima Ahmad. GS 20725. Isolation and characterization of a phenol-degrading bacterium. **Graduated**
2. Mohd Rosni Bin Sulaiman. GS 15853. **PhD**. The Effect of *Chorella Vulgaris* Hot-Water Extracts on Carcinogenesis in Chicken Embryo. **Graduated**
3. Ram Chandra Basnyat. GS18008. Effect of N-Nitrosodiethylamine and ginger extracts on protein and DNA profiles in Chick embryo. **Graduated**
4. Baba Shehu Umar Ibn Abubakar. GS23024. Bioremediation of pyrene by a microbial consortium isolated from local polluted soil samples. **Graduated**
5. Mohd Khalizan Sabullah (UMS). toxicological effects of copper on local fish. **Graduated**.
6. Norazah Binti Mohammad Nawawi (GS22884). **PhD**. Purification and characterization of phenol-degrading enzymes from *Rhodococcus* sp. **Graduated**.
7. Gillian Lee Li Yin. **PhD**. GS42376. Phenol degradation by isolated antarctic bacteria. **Thesis submitted**.
9. Shamala A/P Salvamani. **PhD**. GS37974. Anti Cholesterol Properties of *Adathoda vasica*: in Vitro and in Vivo. **Graduated and Graduate on Time (GOT=<3 years)**.
10. Karamba Kabiru Ibrahim (Nigeria) **PhD** (GS37491). Biodegradation of cyanide by bacterial organisms isolated from soil. **and Graduate on Time (GOT=<3 years)**.
11. Ibrahim Yusuf (Nigeria) **PhD**. GS38495. Isolation, characterization and optimization of feather degrading bacteria from soil in Malaysia. **Graduated and Graduate on Time (GOT=<3 years)**.
12. **Mansur. Graduated**
13. **Salihu Yahuza. Graduated**

AS CO-SUPERVISOR-MSc

1. Muhammad Nubli bin Mohd Shuhaimi. (MSc.) GS 13145. Biodegradation of polyethylene glycol. **Graduated**
2. Fazuriana binti Ahmad (MSc.) GS 11800. Microbial bioindicator of heavy metals from Malaysian soils. **Graduated**
3. Norazlan bin Baharom. (MSc.) GS 13193. Assay for heavy metals. **Graduated**
4. Siti Aqlima Ahmad. (MSc.). GS 15331. Isolation and characterization of a molybdenum-reducing bacterium from Antarctica. **Graduated**
5. Wan Surini binti Wan Husin. (MSc.) GS 13141. Isolation and Characterization of SDS-degrading bacteria. **Graduated**
6. Sim Han Koh. (MSc.) GS 13028. Isolation and screening of lignolytic fungi for biodegradation of textile dyes. **Graduated**
7. Nina Suhaity Azmi. GS 11792. (MSc.). Isolation and characterization of acrylamide-degrading bacteria from Malaysian soils. **Graduated**
8. Fazilah Ariffin. GS 11279. (MSc.). Isolation and characterization of carbofuran-degrading bacteria from Malaysian soils. **Graduated**
9. Sukirah Abdul Rahman. GS 11438. (MSc.). Isolation and characterization of carbofuran-degrading bacteria from Malaysian soils. **Graduated**
10. Vanitha Mariappan. (MSc). GS 11617. Purification and characterization of alkaline phosphatase from liver and intestine of *O. mossambica*. **Graduated**
11. Lailatul Jumaiyah Salehuddin. (MSc). GS10618. Purification and characterization of GST from liver of Kedah-Kelantaf *Bos indicus*. **Graduated**
12. Lee Yuan Chern. (MSc.) GS 10780. (MSc). Partial purification, characterization and biosynthesis of 1,8-cineole synthase from *Michelia alba*. **Graduated**
13. Lim Lay Sean. GS 10673. (MSc). Production of flavonoids and essential oils from *Clausena excavata* by using tissue and cell culture techniques. **Graduated**
14. Mohd. Zahari Tajul Hassan. GS 10602. (MSc). Metabolic effects of pesticides in Malaysian freshwater fish in relation to meat quality. **Graduated**
15. Natarajan Perumal. (MSc). (GS 13594) Purification and characterization of Acetylcholinesterase from fish. **Graduated**
16. Nur Sumirah Mohd. Dom (MSc). GS 15430. Activity and availability of Coenzyme Q in Malaysian Fresh Water Fish. **Graduated**
17. Mohd. Hamim Hamdan. GS 15363. Degree of polymerization determination of prebiotic oligosachharide from *Ganoderma lucidum*. **Graduated**
18. Zailatul Hani Mohamad Yazir (MSc). (G2030173). University Technology Petronas. Biodegradation of phenol by immobilised bacterium. **Graduated**.
19. Shafinaz bt Abdul Ghani (MSc). GS18534. Biodegradation of diesel by *Rhodococcus* sp. **Graduated**
20. Mazurin bt. Mahamood (MSc). GS18535. Biodegradation of SDS by *Rhodococcus* sp. **Graduated**

21. Nurulhuda Kaida (MSc.). GS22102. Biodegradation of Diesel by Using *Bacillus*. sp. **Graduated.**
22. Asilah Abdul Mutalib (MSc). GS18653. Effect of Hydrolytic Enzymes Production by Diazotrophs and Urea Fertilization On Root Colonization and Growth of Rice (*Oryza Sativa* L.). **Graduated**
23. Ilyiana Bt. Ismail. (MSc). GS19972. Lignocellulolytic Enzymes Activity and Exopolysaccharide Production During Morphogenesis and of Various mushrooms grown on Oil Palm Empty-Fruit- Buncehs (OPEFB) **Graduated.**
24. Norzila Binti Kusnin MSc. GS29315. Biodegradation of Acrylamide by A Newly-Isolated Bacterium: Comparison Between Immobilized and Free Cells. **Graduated.**
25. Ain Aqilah Binti Basirun. GS43678. in vivo effects of copper on fish toxicity and cholinesterase of *Oreochromis mossambicus* (black tilapia). **Graduated.**
26. Motharasan Manogaran. GS43841. Biodegradation of glyphosate by locally-isolated bacteria. **Graduated**
27. Nadia Izati Binti Fadzil. GS47421. in vivo and in vitro studies on the effect of aluminium exposure on *Clarias gariepinus*. **Graduated**
28. Nur Muhamad Syahir Bin Abdul Habib. GS44253. Isolation, characterisation and molecular analysis of diesel-degrading polar bacteria for bioremediation purposes. **Graduated.**
29. Nurul Aida Binti Muhammad Asri. GS47487. in vivo and in vitro studies on the effects of zinc exposure on *Clarias gariepinus*. **Ongoing.**
30. Shakirah Binti Abdul Wahab Sha'arani. GS43679. Copper biosorption by using locally isolated bacteria. **Graduated**
31. Siti Nadzirah Binti Padrihah. GS43677. toxic effects of copper on cholinesterase and various tissues of *Clarias gariepinus*. **Graduated**
Puad
Ezuan
Phang

THESIS EXAMINER

University of the Punjab, Lahore, Pakistan

1. Muhammad Tayyab. **PhD**. Hydrolytic Enzyme(S) from Newly Isolated Thermophilic Strain from Pakistan.

UTM (University Technology Malaysia)

1. Nur Humaira' Lau Binti Abdullah. MSc. 2006. Chromium (VI) Biosorption Studies Using Non-Living Microorganism.
2. Lee Jin Kuang. MSc 2011. Isolation and adaptation of a bacterial consortium for the degradation of phenol, 4-chlorophenol and 2,4-dichlorophenol.
3. Belinda Tiong. MSc 2012. Isolation and characterization of cyanide-degrading bacteria from mining wastewater
4. Nur Hidayah Binti Jamal Abd Nasir. 2013 Isolation and characterization of Chalcone Synthase Gene from *Melastoma decemfidum* ROXB EX. JACK. MSc (Biosciences).
5. Ezzah Atikah Binti Marsid. MSc. Microbial diversity and cyanobacteria species in disturbed and undisturbed peat swamp forest.
6. Lily Suhana Binti Ayob. MSc. Biohydrogen production from starch-containing wastewater using bacteria isolated from local sources

UNISEL (Universiti Selangor Malaysia)

1. Maegala Nallapan Maniyam (**PhD**). Biotoxification of cyanide by a Malaysian isolate *Rhodococcus* UKMP-5M

UM (University Malaya)

1. Abiramy A/P Krishnan @ Ramasamy. 2011. Msc. Psychrophilic enzyme from selected psychrophilic soil fungi from Fildes Peninsula, King George Island, Peninsula Antarctica.
2. Albaldi Fawzyah Obeedallah (SGF080042). 2011. MSc. Screening of chitonolytic activities of geomyces spp. Isolated from fields peninsula King George island Antarctica
3. Mohamad Eltayeb Mohammed Sabri (SGF070042). 2011. MSc. Bioactivity screening of psychrophilic microfungi Isolated from Greenwich island in Antarctica.
4. Wessam Mansour Filfilan. MSc. 2011. Antimicrobial activities of antarctica fungi isolated from Fildes Peninsula region of Antarctica of soil microfungi from maritime Antarctic.

- Siti Sarah Shaharuddin (SGR080156). 2012. Biodiversity of marine mangrove fungi from malaysia and phylogenetic studies on verruculina enalia from selected countries of southeast asia.

UMS (Universiti Malaysia Sabah)

- Siti Azmah Binti Jambo. (MS1421115T). Optimization of enzymatic hydrolysis and fermentatio of *Euchema* spp. from Sabah for bioethanol production using Response Surface Method.

UPM (University Putra Malaysia)

- Chiang Mai Keow. 2007. MSc. Immobilization of Diamine Oxidase by Screen Printing Technology for Use As A Biosensor in Determination of Histamine in Seafood.
- Zulkarami Berahim. MSc (GS 13752). Production of Chitinase Enzyme by Locally Isolated Fungus Using induction Techniques. 1/11/2007
- Syed Davoud Jazayeri. MSc. (GS15944). Survival of Bifidobacteria and other selected intestinal bacteria in media supplemented with curcumin. 24/10/07
- Christine Cherly Fernandez. MSc. (GS15658). Production of chitinase by *Trichoderma virens* UKM1 from colloidal chitin and shrimp waste. 27/9/07.
- Azadeh Shahbazi. **PhD**. 2009. (GS16308). Distribution and sources of petroleum hydrocarbons in green-lipped mussels (*Perna viridis*) from selected coastal waters of Peninsular Malaysia.
- Nur indang marzuki. MSc. Development of Enzyme based biosensor for detection of formaldehyde in fish.
- Nurul Kartini Abu Bakar. GS20676. MSc. Bioconversion of oil palm empty fruit bunch (OPEFB) into fermentable sugars (polyoses) for bioethanol production.
- Farzaneh Heidarnia. GS 20633. MSc. Metabolic Regulation Analysis of Recombinant *Lactococcus Lactis* Based On Gene Expression and Enzyme Activities.
- Halimatun Saadiah Hafid. MSc. Optimization of Organic Acids Production from Kitchen Waste Using Response Surface Method.
- Nur Hana Md Jelas. MSc. The significance of N-terminal residues of L2 lipase in maintaining protein integrity.
- Samaneh Lotfiman. GS20912. MSc. Bacterial cellulose production from extracted date syrup.
- Nazlina Haiza Mohd Yassin. GS20676. MSc. Microbial Identification in Food Waste Fermentation for Biohydrogen Production.
- Syazrin Syima Sharifuddin. GS20676. MSc. Bioremediation Potential Or Agro-Based Mixed Culture (Abmc) for Public Market Wastewater
- Daryush Talei. **PhD**. 2012. Physiological, phytochemical and proteomic responses of *andrographis paniculata* nees. to salt stress
- Norazrina Pakiman. MSc. 2012. High throughput process optimization of protein-a affinity chromatography for capture of humanized monoclonal antibody
- Lok Chui Mei. MSc. 2009. Development of Molecularly Imprinted Polymers for Malachite Green Detection in Seafood
- Hasliza Hassan. MSc. 2012. Proteomic profiles of the floral and leaf tissues of *Michelia alba*
- Norazlina Omar. 2013. MSc. Effectiveness of dispersive solid liquid phase extraction sorbents for sample clean-up by QuEChERS method for organochlorine pesticides determination in Pacific White Shrimp (*Litopenaeus vannameae*).
- Chai Li Fen. MSc. 2013. Microbial fuel cell: electricity generation from bacteria
- Nor Asma Ab Razak. 2013. **PhD**. Biosynthesis and improved recovery of polyhydroxyalkanoates (PHA) utilizes organic acid from *R. eutropha* and *Comamonas* sp. EB 172 in a fed-batch.
- Syazrin Syima Sharifuddin. MSc. 2013. Potential Treatment of Biodegradable Organic Matter in Wastewater from Public Market Using Agro-Based Mixed Culture (Abmc)
- Nurul Aqilah Mohd Zaini. MSc. 2013. Extraction, purification and characterization of membrane-bound polyphenoloxidase (mPPO) from snake fruit [*Salacca zalacca* (gaertn.) Voss]
- Siti Hajar Bt Azhari. 2013. MSc. Production of γ -aminobutyric acid (GABA) by *Aspergillus oryzae* NSK on different native sugars-supplemented media.
- Kuan Chee Hao. GS30316. Biosafety level of *Listeria monocytogenes* in chicken offal.
- Loo Yuet Ying. GS30967. Quantitative detection and molecular characterization of shiga-toxin-producing *Escherichia coli* o157 and non-o157 in raw vegetables.
- Lye Ying Ling. GS28549. Prevalence and antibiogram of *Escherichia coli* o157:h7 in raw milk and risk of infection linked to consumption of raw milk
- Mohd Faizal Ibrahim. **PhD**. 2013. Acetone-butanol-ethanol fermentation using oil palm empty fruit bunch as substrate.
- Nor Suhaila Yaacob. **PhD**. 2013. Nutrient requirement and kinetics of phenol degradation by *Rhodococcus* sp. UKMP-5M.
- Malihe Masomian. **PhD**. 2013. Structure Elucidation of a Thermostable organic solvent-tolerant

- recombinant HZ Lipase and understanding the enzyme thermostability.
30. Mohd Rahimi Zakaria @ Mamat. MSc. 2015. Development of Bio-Based Crotonic Acid Via Direct Pyrolysis of Bacterial Polyhydroxybutyrate inclusions.
 31. Chan Seow Neng. GS33884. **PhD** Molecular cloning, characterization and functional assessment of cysteine protease inhibitor (CYP) and Kunitz trypsin inhibitor (KTI) in turmeric, *Curcuma longa*.
 32. Suhaili Mustafa. **PhD**. Immunogenicity of soluble recombinant vpi protein in mice model of Enterovirus 71 (ev71) infections.
 33. Kuan Chee Hao. (GS37216). **PhD**. Microbial level and potential health risks of *Escherichia coli* O157:H7, *Listeria monocytogenes*, and *Salmonella* spp. in raw vegetables.
 34. Muinat Olanike Kazeem. GS38473. **PhD**. Enhance cellulase production by thermophilic *Bacillus licheniformis* 2D55 for fermentable sugar recovery from rice husk.
 35. Saja Mahdey Jaber. GS38971. **PhD**. Laccase production by locally isolated *Tichoderma muroiana* IS1037 using rubberwood dust for biobleaching agent of soda bamboo pulps.
 36. Siti Nahdatul Isnaini Binti Said Hussin. GS42895. MSc. Analysis of differential proteomes in *Ganoderma* species for potential virulence factors
 37. Thung Tze Young. GS37216. **PhD**. Surveillance profiles and biocontrol of *Salmonella* in retail food.

Chairman of Thesis Examination

1. Suhaida Ahmat. MSc. (GS10617). The detection of Protein expression from *Puntius gonionotus* using 2-Dimensional PAGE.
2. Zuraidah Zanirun. MSc (GS13014). Optimization of lignin peroxidase enzyme from *Pycnoporous* sp.
3. Sahar Abbasi Liasi. MSc. Isolation and Characterization of Bacteriocidin-producing Lactic Acid Bacteria from Budu.
4. Revandy Iskandar Muda Damanik. GS 18312. **PhD**. 2013. Developing of biochemical markers for submergence stress in rice (*Oryza sativa* L).
5. Lai Zee Wei. GS 21661. **PhD**. 2013. Improvement of hyaluronic acid biosynthesis by *Streptococcus zooepidemicus* ATCC 39920 using 2-L Stirred Tank bioreactor.
6. Adekola Khadijat Adetola. GS42950. **PhD**. total phenolic content, antioxidative and antidiabetic properties of seed coats of selected beans and testa of coconut (*Cocos nucifera* L.)
7. Nahrul Hayawin Zainal (GS42267). Development of carbonisation-activation system for the production of biochar and activated carbon from oil palm kernel shell.

Supervision of Final Year's Project

1. Athirah Binti Mohd Awi 2017 175287. Isolation and Characterization of Sodium Dodecyl Sulphate - Degrading *Enterobacter Cloacae* Strain Aama.
2. Aa'ishah bt Abd Gafar 2017 175556. Characterization of Acrylamide-degrading Bacteria and Its Degradation Pathway
3. Wan Nur Aifaa Binti Wan Azmi 174251. 2017. Bioremoval of Molybdenum from Aqueous Solution and Its Kinetics
4. Siti Nir Khadijah binti Jamuldidin 175430. 2017. Characterisation of Molybdenum and its Reducing Enzyme.
5. Siti Ruqaiyah Binti Mohd Yusoff. 159114. 2013 Optimization of Azo Dye Briebrich Scarlet Decolorization Using Response Surface Method
6. Choo Chen Hung 157737. 2013 Partial Purification and Characterization of Butyrylcholinesterase (Bche) from Tin foil Barb (*Barbonymus Schwanenfeldii*)
7. Noris Kartika Sari Binti Islahuddin. 158838. 2013 Optimization of Azo Dye Decolourization Using Response Surface Methodology (RSM)
8. Mohd Fathi Bin Shakirin 156970. 2013. Isolation and Characterization of A Chromate-Reducing Bacterium
9. Nor Akmal Liyana Binti Bahrudin. 153572. 2012 Partial Purification and Characterization of Molybdenum-Reducing Enzyme from *Serratia* Sp
10. Ting Tiu Kiong. 153101. 2012 Biodegradation of Petroleum Oil Sludge by *Rhodococcus* sp.
11. Nur Wahidah Binti Taha. 151851. 2012 Partial Purification and Characterization of Molybdenum- Reducing Enzymes from *Enterobacter cloacae*
12. Kaira Mustapha. 150746. 2012 The Effect of Partial Purification of Commercial Crude Ficin On Its Heavy Metals Sensitivity
13. Asma Binti Ahmad Zaini. 152314. 2012 toxicity Bioassay System Using Luminescence Bacterium
14. Shahirah Atiqah Bt Osman. 148958. 2011. Isolation and Characterization of A Gram Negative Mo-Reducing Bacterium
15. Shamini A/P Thanga Rajan 149975. 2011. Isolation and Characterization of A Gram Negative Mo-Reducing Bacterium
16. Khairiatul Syafiqqah Binti Kassah. 149577. 2011 Partial Purification and Characterisation of Acetylcholinesterase from *Labeo rohita* (Rohu Fish) Brain Tissue
17. Nurshafika Binti Mohd Sakeh. 146045. 2011. The Development of an inhibitive Enzyme Assay for Heavy Metals Using Plant Protease

18. Nurul 'Ain 'Atikah Binti Abd Aziz. 148324. 2011. Partial Purification and Characterization of Acetylcholinesterase from Pangasius Pangasius Brain Tissues
19. Kong Mui Fong 2011. 149441 The Development of an inhibitive Enzyme Assay for Heavy Metals Using Plant Protease
20. Mohammad Asyraf Bin Shahril. 140447. 2010. Biomonitoring of Heavy Metals Using The Papain Assay
21. Abdullah Munir Bin Roslan. 140570. 2010. Partial Purification and Characterization of Acetylcholinesterase from Fish
22. Muhammad Farid Bin Alias. 140576. 2010. Biomonitoring of Heavy Metals Using The Bromelain Assay
23. Muhammad Hakimi Bin Mohd Kassim. 140593. 2010. Biomonitoring of Heavy Metals Using The Alpha- Chymotrypsin Assay.
24. Mohd Izuan Effendi Bin Halmi 2010 140551. Biomonitoring of Heavy Metals Using The Ficin Assay
25. Mohd. Ezuan Khayat 2009 133880. Partial Purification and Characterization of Acetylcholinesterase from The Fish Brain (Lates calcarifer)
26. Mohd. Syahmi B. Ramzi Salihan 2009. 133881 Biodegradation of Diesel in Soil Using Autochthonous Bacteria
27. Mohd Nurbadri Izwan Mohd Sabri 2009 133113 Biodegradation of Acrylamide in Soil
28. Mohd Ezzar Zamri 2009 133437 Partial Purification and Characterization of Acetylcholinesterase from Lutjanus argentimaculatus
29. Syawal Maradona B. Abdul Wahab 2009 133541 Bioremediation of Detergent in Effluent by Bacteria
30. Jaclyn Tan Ai Chin 2009 129045 Bioassay of Pesticides Using Partially Purified Acetylcholinesterase from Brains of Catfish (Clarias batrachus)
31. Mohd Khalizan Sabullah 2009 133564 Partial Purification and Characterization of Acetylcholinesterase from Mudskipper "Periophthalmodon schlosseri"
32. Mohd Badrin Hanizam Abdul Rahim 2009 126227 Optimization and Characterization of Acrylamide-Degrading Yeast
33. Wan Norhasima Wan Marizam 2008 126657 Immobilization of Diesel-Degrading Microorganisms
34. Nur Ilani Binti Noh 2008 123407 Immobilization of SDS-Degrading Microorganisms
35. Siti Fatimah Binti Mohd 2008 124375 Dye Degradation Under Simulated Real World Conditions
36. Wendy Yeo Wai Yeng 2008 124817 Isolation of Dye-Degrading Fungi
37. Liew Choi Yi 2008 122835 Phytoremediation of Chromium
38. Nurul Huda Binti Mohd Had 2008 116982 Isolation and Characterization of A Molybdenum Bacteria
39. Ahmad Razi Bin Othman 2008 123176 Biomonitoring of Heavy Metals in River
40. Shaneeta A/P Visuvanathan 2008 122040 Isolation of PEG-Degrading Microorganisms
41. Lim Bee Chin 2007 111145 Bioassay of Xenobiotics Using Amidase
42. Tee Yee Chin 2007 110728 interference Studies to A Heavy Metals Bioassay System
43. Siti Faezah Situ 2007 109136 Isolation and Characterization of SDS-Degrading Bacteria
44. Nurul Ain Mohd. Said 2007 108527 Characterization of PEG-Degrading Enzyme from A Bacterium
45. Siti Nur Kamilah Shahrudin 2006 116761 Isolation and Characterization of Molybdenum- Reducing Bacteria
46. Tan Chai Seah 2006 115187 Isolation and Characterization of Crude-Oil Degrading Bacteria
47. Liza Farida 2006 117140 Isolation and Characterization of Crude Oil-Degrading Bacteria
48. Christine Lee Sue Chen 2006 116145 Partial Purification and Characterization O Acetylcholinesterase from Channa striata
49. Noorliza Binti Mat Arif 2006 117579 Partial Purification and Characterization of Acetylcholinesterase from The Brain of Pangasius pangasius
50. Yeap Swee Leong 2005 100878 Isolation and Characterization of an Azo-Dye Decolorizing Bacterium
51. Sim Kuang Luck 2005 101030 Isolation and Characterization of an Azo-Dye Decolorizing Bacterium
52. Cecilia Gillian Ling Huong Gene 2005 101059 Isolation and Characterization of an Azo-Dye Decolorizing Bacterium
53. Azzreena Binti Mohamad Azzeme 2005 102948 interference Studies to The Enzymatic Bioassay of Heavy Metals Using Urease from Bacillus pasteurii
54. Nur Azlin Binti Anuar 2005 102950 interference Studies to The Enzymatic Bioassay of Heavy Metals Using Urease from Jack Beans
55. Nurul Ain Bt Mohd Said 2005 108527 Characterization of PEG-Degrading Enzyme from A Bacterium
56. Siti Faezah Binti Situ 2005 109136 Isolation and Characterization of SDS-Degrading Bacteria
57. Tee Yee Chin 2005 110728 interference Studies to A Heavy Metals Bioassay System
58. Lim Bee Chiu 2005 111145 Bioassay of Xenobiotics Using Amidase
59. Tham Lik Gin 2005 109705 Bioassay of Carbamate Pesticides Using The Acetylcholinesterase Enzyme from Fish
60. Ahmad Afif Abdul Aziz 2005 120050 Isolation and characterizations of phenol-degrading bacteria.
61. Shafina Hanim Mohd Habib 2004 104047 Partial Purification and Characterization of Molybdenum Reducing Bacteria
62. Safinah Dinel 2004 96663 Partial Purification and Characterization of Molybdenum Reducing Bacteria
63. Koh Channy 2004 100143 Partial Purification and Characterization of Molybdenum Reducing Bacteria
64. Sarah Chee Hui Sieh 2004 101145 Partial Purification and Characterization of Molybdenum Reducing Bacteria
65. Jee Jap Meng 2004 101233 Partial Purification and Characterization of Molybdenum Reducing Bacteria
66. Nur Dalila Mohd. Idrus 2004 103405 Partial Purification and Characterization of Molybdenum Reducing Bacteria