**ASSOC. PROF. DR. MEGAT AHMAD KAMAL MEGAT HANAFIAH**

(MyRA IMPACT ACTIVITIES)

*(Please use this template as primary impact activities, other information please include as attachment)*

*Only 1 copy to be submitted to PJI. Maximum 5 pages*

|  |  |
| --- | --- |
| Name : | **Megat Ahmad Kamal Megat Hanafiah** |
| Faculty : | **Faculty of Applied Sciences, UiTM Pahang** |
| Staff No : | **172145** |
| Grade of Position (VK7/DM54/DM52 etc) | **DM 54** |
| Pasport/MyKad No. : | **730921 – 08 – 5331** |
| Telephone No. (Office) | **09 – 4602680** |
| Cell-phone : | **013 – 9705848** |
| Email | **makmh@pahang.uitm.edu.my** |

**BASIC PROFILE**

Lecturer DM45/DM46/DM51/DM52/DM53/DM54

|  |  |
| --- | --- |
| **Appointments** | **Date/Year of Appointment** |
| Lecturer DM45/DM46 | 15-10-2002 |
| Lecturer DM52/DM51 | 15-12-2007 |
| Lecturer DM53/DM54/DT1 | 18-10-2011 |
| Professor (VK7) |  |
| Professor (VK6) |  |
| Year of Birth : | 1973 |
| **Ph.D Qualification (Year Obtained)** | **2010** |
| **Professional Qualification (Year Obtained)** |  |

**POSTGRADUATE SUPERVISION**

*(Only those within last five years, Please indicate if it is at other institutions)*

**MASTER (RESEARCH) SUPERVISION COMPLETED (Includes Co-supervision)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Students Name** | **Institutions** | **Year Enrolled** | **Year End** |
| 1 | Mardhiah Ismail (Co-supervisor) | UM | 2009 | 2010 |
| 2 | Siti Raihan Zakaria (Co-supervisor) | UM | 2009 | 2010 |

**ON-GOING POSTGRADUATE (RESEARCH) SUPERVISION (Includes Co-supervision)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Students Name** | **Institutions** | **Year Enrolled** | **Year End** |
| 1 | Wan Khaima Azira Wan Mat Khalir | UiTM | 2010 | 2012 |
| 2 | Ahmad Faisal Daud | UiTM | 2011 | 2013 |
| 3 | Munirah Alias | UiTM | 2011 | 2013 |
| 4 | Zubir Othman | UM | 2011 | 2012 |

**On-Going PhD SUPERVISION (Includes Co-supervision)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Students Name** | **Institutions** | **Year Enrolled** | **Year End** |
| 1 | Mardhiah Ismail | UiTM | 2011 | 2014 |
| 2 | Noorul Farhana Md Ariff | UiTM | 2011 | 2014 |
| 3 | Khadijah Khalid | UiTM | 2011 | 2014 |

**RESEARCH FUNDINGS** *(State whether Principal/Co-Researcher)*

**NATIONAL LEVEL ACTIVE RESEARCH FUNDING (MOSTI/FRGS & Others) (Last Five Years)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Research Project** | **Source** | **Total Funds** | **Begin Year** | **End Year** |
| 1 | **Co-Researcher**, Modeling and mechanism of toxic rare earth metal ions adsorption on surface modified chitosan microbeads | **FRGS** | RM 129,000 | 2012 | 2015 |
| 2 | **Co-Researcher,** Role of rare earth and transition metals substituted in determining the superconducting properties of cuprate-based superconductor | **ERGS** | RM 80,000 | 2011 | 2013 |
| 3 | **Co-Researcher**, Ethylenediamine tetraacetic dianhydride (EDTAD) modified neem leaf powder as a new biosorbent for toxic heavy metals removal | **FRGS** | RM 64,000 | 2010 | 2013 |
| 4 | **Principal Researcher**,Comparative study of Pb(II) adsorption on citric cid and monosodium glutamate functionalized rubber leaf powder | **FRGS** | RM 48,400 | 2010 | 2012 |
| 5 | **Co-Researcher**, Biosorption of Pb(II) on oxidized *Acacia leucocephala* leaf powder – Kinetic, isotherm and thermodynamic study | **FRGS** | RM 39,000 | 2010 | 2012 |
| 6 | **Co-Researcher**, Adsorption of Cu(II) and Ni(II) ions onto chemically modified Lalang (*Imperata* *cylindrica*) leaf powder | **FRGS** | RM 30,000 | 2007 | 2010 |
| 7 | **Co-Researcher**, Removal of trace metals using a low-cost adsorbent material (rubber leaves) | **USM Grant** | RM 16,000 | 2007 | 2009 |

**Dana Kecemerlangan UiTM (Last Five Years)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Research Project** | **Total Funds** | **Begin Year** | **End Year** |
| 1 | Kinetics, isotherm and fixed bed column study of Pb(II) adsorption onto phosphorylated rubber (*Hevea* *brasiliensis*) leaf powder  - **Principal researcher** | RM 6,000 | Jul 2010 | Sep 2011 |
| 2 | Adsorption of Pb(II) ion chemically modified kenaf fibre  - **Co-researcher** | RM 8,000 | Jun 2011 | Jun 2012 |

**PUBLICATIONS (*Only those indexed in IEEE/ISI/SCOPUS/ERA*)**

***(Please ensure that you indicate whether papers are indexed in IEEE/ISI/Scopus/ERA, also indicate the impact factor if available)***

**Publications For 2006**

[1] **M.A.K.M. Hanafiah**, W.S. Wan Ngah, S.C. Ibrahim, H. Zakaria, W.A.H.W. Ilias, “Kinetics and thermodynamic study of lead adsorption onto rubber (Hevea brasiliensis) leaf powder”, *Journal of Applied Sciences*, 6, 2762 – 2767. **{SCOPUS/ISI}**

[2] M.Z.A. Yahya, M.K. Harun, A.M.M. Ali, M.F. Mohammat, **M.A.K.M. Hanafiah**, S.C. Ibrahim, M. Mustaffa, Z.M. Darus, F. Latif, “XRD and surface morphology studies of chitosan-based film electrolytes”, *Journal of Applied Sciences*, 6, 3150 – 3154. **{SCOPUS/ISI}**

[3] M.Z.A. Yahya, A.M.M. Ali, M.F. Mohammat, **M.A.K.M. Hanafiah**, S.C. Ibrahim, M. Mustaffa, Z.M. Darus, M.K. Harun, “Ionic conduction model in salted chitosan membranes plasticized with fatty acid”, *Journal of Applied Sciences*, 6, 1287 – 1291. **{SCOPUS/ISI}**

[4] **M.A.K.M. Hanafiah**, S. Shafei, M.Z.A. Yahya, M.K. Harun, “Kinetics and thermodynamic study of Cd2+ adsorption onto rubber (Hevea brasiliensis) leaf powder”, *Materials Science Forum*, 517, 217 – 221. **{Impact Factor = 0.39}**

**Publications For 2007**

[5] **M.A.K.M. Hanafiah**, H. Zakaria, W.S. Wan Ngah, S.C. Ibrahim, “Batch study of liquid-phase adsorption of lead ions using Lalang (*Imperata cylindrica*) leaf powder”, *Journal of Biological Sciences*, 7, 222 – 230. **{SCOPUS/ISI}**

[6] **M.A.K.M. Hanafiah**, M.Z.A. Yahya, S.C. Ibrahim, H. Zakaria, “Adsorption of Cd(II) ions from aqueous solution by *Imperata* *cylindrica* leaf powder: Effect of physicochemical environment”, *Journal of Applied Sciences*, 7, 489 – 493. **{SCOPUS/ISI}**

**Publications For 2008**

[7] W.S. Wan Ngah, **M.A.K.M. Hanafiah**, “Removal of heavy metal ions from wastewater by chemically modified plant wastes as adsorbents: A review”, *Bioresource Technology*, 99, 3935 – 3948. **{Impact Factor = 4.45}**

[8] W.S. Wan Ngah, **M.A.K.M. Hanafiah**, “Biosorption of copper ions from dilute aqueous solutions on base treated rubber (*Hevea brasiliensis*) leaves: Kinetics, isotherm and biosorption mechanisms”, *Journal of Environmental Sciences*, 20, 1168 – 1176. **{Impact Factor = 0.72}**

[9] W.S. Wan Ngah, **M.A.K.M. Hanafiah**, “Adsorption of copper on rubber (*Hevea brasiliensis*) leaf powder: Kinetic, equilibrium and thermodynamic studies”, *Biochemical Engineering Journal*, 39, 521 – 530. **{Impact Factor = 1.89}**

[10] W.S. Wan Ngah, **M.A.K.M. Hanafiah**,S.S. Yong, “Adsorption of humic acid on crosslinked chitosan-epichlorohydrin beads: Kinetics and isotherm studies”, *Colloids and Surfaces B*: *Biointerfaces*, 65, 18 – 24. **{Impact Factor = 2.59}**

**Publications For 2009**

[11] **M.A.K.M. Hanafiah**, W.S. Wan Ngah, “Preparation, characterization and adsorption mechanism of Cu(II) onto protonated rubber leaf powder”, *Clean*, 37, 696 – 703. **{Impact Factor = 1.41}**

[12] **M.A.K.M. Hanafiah**, H. Zakaria, W.S. Wan Ngah, “Preparation, characterization and adsorption behaviour of Cu(II) ions onto alkali treated weed (*Imperata* *cylindrica*) leaf powder”, *Water Air and Soil Pollution*, 201, 43 – 53. **{Impact Factor = 1.68}**

[13] W.S. Wan Ngah, **M.A.K.M. Hanafiah**, “Surface modification of rubber (*Hevea brasiliensis*) leaves for biosorption of copper ions: Kinetics, isotherm and binding mechanisms”, *Journal of Chemical Technology and Biotechnology*, 84, 192 – 201. **{Impact Factor = 2.08}**

**Publications For 2010**

[14] W.S. Wan Ngah, N.F.M. Ariff, **M.A.K.M. Hanafiah**, “Preparation, characterization and environmental application of crosslinked chitosan coated bentonite for tartrazine adsorption from aqueous solutions”, *Water Air and Soil Pollution*, 206, 225 – 236. **{Impact Factor = 1.68}**

[15] **M.A.K.M. Hanafiah**, W.M.K.W.K. Azira, K. Mohamed, H. Zakaria, W.S. Wan Ngah, “Sequestration of toxic Pb(II) ions by chemically treated rubber (*Hevea brasiliensis*) leaf powder”, *Journal of Environmental Sciences*, 22, 248 – 258. **{Impact Factor = 1.41}**

[16] **M.A.K.M. Hanafiah**, H. Zakaria, W.S. Wan Ngah, “Base treated Cogon grass (*Imperata cylindrica*) as an adsorbent in the removal of Ni(II): Kinetic, isothermal and fixed-bed column study”, *Clean*, 38(3), 248 – 256. **{Impact Factor = 1.41}**

[17] W.S. Wan Ngah, N.F.M. Ariff, **M.A.K.M. Hanafiah**, “Malachite green adsorption onto chitosan coated bentonite beads: Isotherm, kinetic and mechanism”, *Clean*, 38(4), 394 – 400. **{Impact Factor = 1.41}**

**Publications For 2011**

[18] W.S. Wan Ngah, L.C. Teong, **M.A.K.M. Hanafiah**, “Adsorption of dyes and heavy metal ion by chitosan composites: A review”, *Carbohydrate Polymers*, 83, 1446 - 1456. **{Impact Factor = 3.1}**

[19] W.K.A.W.M. Khalir, **M.A.K.M. Hanafiah**, S.Z. Mat So’ad, W.S. Wan Ngah, “Adsorption behaviour of Pb(II) on xanthated rubber leaf powder”, *Polish Journal* *of Chemical Technology*, 13(4), 82 – 88. **{Impact Factor = 0.33}**

**Publications For 2012**

[20] **M.A.K.M. Hanafiah**, W.S. Wan Ngah, S.H. Zolkafly, L.C. Teong, Z.A. Abdul Majid, “Acid Blue 25 adsorption on base treated *Shorea dasyphylla* sawdust: Kinetic, isotherm, thermodynamic and spectroscopic analysis”, *Journal of Environmental Sciences*, 24(2), 1 – 8. **{Impact Factor = 1.51}**

[21] W.S. Wan Ngah, L.C. Teong, C.S. Wong, **M.A.K.M. Hanafiah**, “Preparation and characterization of chitosan-zeolite composites”, *Journal of Applied Polymer Science*, In Press **{Impact Factor = 1.61}**

[22] A.A. Halim, A.F. Abu Bakar, **M.A.K.M. Hanafiah**, H. Zakaria, “Boron Removal from Aqueous Solutions Using Curcumin-Aided Electrocoagulation”, *Middle East Journal of Scientific Research*, 11(5), 583 – 588. **{SCOPUS/ISI}**

[23] W.K.A.W.M. Khalir, **M.A.K.M. Hanafiah**, S.Z.M. So’ad, W.S.W. Ngah, Z.A.A. Majid, “Batch, column and thermodynamic study of Pb(II) adsorption on xanthated rubber (Hevea brasiliensis) leaf powder”, *Journal of Applied Sciences*, In Press. **{SCOPUS/ISI}**