



## CURRICULUM VITAE

## PERSONAL DATA

Name	Noorfatimah Yahaya
Nationality	Malaysian
Date of Birth	31 <sup>st</sup> of May 1988
Current Position	Senior Lecturer
Qualification	PhD
Affiliation	Integrative Medicine Cluster, Advanced Medical and Dental Institute, Universiti Sains Malaysia, 13200 Bertam, Kepala Batas, Pulau Pinang, Malaysia
Home address	No. 6 Lebuhraya Nibong, Bandar Bayan Baru, 11950 Bayan Baru, Pulau Pinang, Malaysia
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Email	noorfatimah@usm.my; noorfatimah.usm@gmail.com
Field of specialization	Analytical Chemistry – Separation Science
<i>h</i> -index	13 (Scopus) (18 <sup>th</sup> of October 2021)



## EDUCATION AND QUALIFICATION

Ph.D. (Analytical Chemistry)	Universiti Teknologi Malaysia	2010 – 2014
M.Sc (Chemical Instrumentation)	Universiti Sains Malaysia CGPA: 3.60/4.00	2009 – 2010
B.Sc (Analytical and Environmental Chemistry)	Universiti Malaysia Terengganu CGPA: 3.83/4.00	2006 – 2009

## EMPLOYMENT RECORDS

University lecturer	Advanced Medical and Dental Institute, Universiti Sains Malaysia, 13200 Bertam, Kepala Batas, Pulau Pinang, Malaysia	23 <sup>rd</sup> July 2014 – Present
Postdoctoral Research Fellow	Department of Chemistry, University of British Columbia, Vancouver, Canada	31 <sup>st</sup> Dec 2018 – 30 <sup>th</sup> Dec 2019

## RESEARCH GRANTS

1. Short-term USM grant (01<sup>st</sup> June 2015–31<sup>st</sup> May 2017) – Evaluation of the Microextraction Method Combined with High Performance Liquid Chromatography for the Analysis of Sulfonamides in Selected Milk Samples – **RM40,044.20 (Completed)**
2. Fundamental Research Grant Scheme (02<sup>nd</sup> Nov 2015–01<sup>st</sup> Nov 2017) – A Study on Molecular Interactions of Magnetic Hollow Porous Molecularly Imprinted Polymer Toward Sulfonamide Antibiotics – **RM97,000 (Completed)**
3. Bridging Grant USM grant (25<sup>th</sup> Jan 2018–24<sup>th</sup> Jan 2019) – A Facile Carboxymethyl Functionalized Nanocellulose Magnetic Dispersive Micro-Solid Phase Extraction Prior To GC-ECD for the Determination of Organophosphorus Pesticides – **RM10,000 (Completed)**
4. Short-term USM grant (15<sup>th</sup> Feb 2018–14<sup>th</sup> Feb 2020) – Determination of 5-Flurouracil and Its Metabolites Using an Online Preconcentration Capillary Electrophoresis Method– **RM34,999.20**

5. Research University Grant (Universiti Sains Malaysia) (01<sup>st</sup> of April 2018–31<sup>st</sup> of March 2020) Development and Application Of Smart Magnetic Hollow Porous Multi-Templates Molecularly Imprinted Polymer Adsorbent For Extraction Of Multiclass Veterinary Antibiotics– **RM97,000 (Completed)**
6. Fundamental Research Grant Scheme (FRGS) (01<sup>st</sup> January 2019–31<sup>st</sup> November 2020) – The Study on Molecular Interactions of Ionic Liquid Functionalized Rattle-type Hollow Magnetic Mesoporous Spheres Towards β-lactam Antibiotics– **RM96,200 (Active)**
7. Prototype Research Grant Scheme (PRGS) (01<sup>ST</sup> of September 2020–31<sup>st</sup> of August 2022) Development of Smart Rotating Membrane Microextraction for Monitoring Antibiotic Residues in Food Products: Proof of Concept – **RM121,143.00 (Active)**
8. Fundamental Research Grant Scheme (FRGS) (07<sup>th</sup> of September 2021–06<sup>th</sup> of September 2023) – Mechanism of the molecular interactions of new deep eutectic solvent modified magnetic β-cyclodextrin beads towards macrolide antibiotics– **RM105,173.00 (Active)**

#### **GRADUATED POSTGRADUATE STUDENTS**

1. M.Sc by research (7)
2. M.Sc by mixed mode (4)
3. PhD (1)

#### **ACTIVE POSTGRADUATES UNDER SUPERVISION**

1. Ainiyatul Nadiah Muhamad Nasir (MSc)
2. Wan Ibrahim Thani Abd Halim (MSc)
3. Nadhiratul Farihin Semail (PhD)
4. Salwani Binti Md Saad (PhD)
5. Ahmad Husaini Mohamed (PhD)
6. Dyia Syaleyana Binti Md Shukri (PhD)
7. Nur Farahin Binti Mohd Ali (PhD)

#### **UNDERGRADUATE/POSTGRADUATE TEACHING**

1. TMT505 – Clinical Toxicology
2. KAA502 – Atomic Spectroscopy
3. JIK327 – Chemical Spectroscopy
4. TMT506 – Concepts in the Management of Hazmat
5. KAA505 – Separation methods
6. TMT501 – Environmental and Occupational Toxicology
7. TMT502 – Proteomic and Medicine
8. JIK502 – Special topics in Physical and Analytical Chemistry
9. JIK101 – General Chemistry

#### **PROFESSIONAL MEMBERSHIPS**

1. Royal Society of Chemistry
2. Institut Kimia Malaysia
3. Persatuan Sains Analisis Malaysia

#### **ACHIEVEMENTS/AWARDS/RECOGNITION**

1. Best Student Award (2009)
2. Best Student Award (2014)
3. National Three Minute Thesis Competition (2014) – Second Prize
4. Postgraduate Prize by Institut Kimia Malaysia Cawangan Selatan (2014)
5. Certificate of Excellent in Publication – AMDI, USM (2017)
6. Anugerah Sanjungan – USM (2018)
7. Gold medal – Green VSI-MSPE Microextraction System for Polycyclic Aromatic Hydrocarbons Analysis, Universiti Teknologi Mara, Penang International Invention, Innovation and Design 2017, 2017 (International)

8. Gold medal – Rapid U-MIP- $\mu$ -SPE Microextraction System for Bisphenol A Analysis, Universiti Teknologi Mara, Penang International Invention, Innovation and Design 2017, 2017 (International)
9. Silver medal – Rapid Bio-DLLME MSPE kit for organophosphorus pesticides analysis, Universiti Teknologi Mara, Penang International Invention, Innovation and Design 2019, 2019 (International)
10. Silver medal – Green TMCNTs-M- $\mu$ -SPE kit for sulfonamide antibiotics analysis, Universiti Teknologi Mara, Penang International Invention, Innovation and Design 2019, 2019 (International)
11. The Best Lecturer with the Highest Impact Factor Journals Published (2019)
12. Outstanding Contribution in Reviewing by Elsevier (2019)
13. Fellowship from MOHE to pursue my post-doctoral study in the top 50 rank university in Chemistry, University of British Columbia (UBC), Canada, under the supervision of Professor Dr David Chen

## **RESEARCH INTERESTS**

Extraction Technology; Chromatography; Micro-solid phase extraction; Food Chemistry; Trace Chemical Analysis

## **REVIEWER FOR SCHOLARY JOURNALS**

Microchemical Journal, Food Chemistry, Journal of Chromatography A, Talanta, Analytical Methods, Journal of Separation Science, Current Analytical Chemistry, Analyst, Journal of Pharmaceutical and Biomedical Analysis, Separation Science & Technology, Analytical Sciences, BMC Chemistry.

## **SCIENTIFIC PUBLICATIONS AS CORRESPONDING AUTHOR**

- [1] S.F.A. Shater, **N. Yahaya**, N.N.M. Zain, S. Mohamad, F.W.M. Hassan, S. Kamaruzaman, N.S.M. Hanapi, M. Miskam, Kaedah pengekstrakan mikro ultrabunyi dengan bantuan surfaktan meningkatkan pengemulsian bergabung dengan kromatografi gas-spektrometri jisim bagi penentuan polisiklik aromatik hidrokarbon terpilih di dalam sampel akueus, Malaysian Journal of Analytical Sciences. 21 (2017) 810–819. <https://doi.org/10.17576/mjas-2017-2104-07>. (UKM Publisher, Scopus, IF: 0)
- [2] M.N.H. Rozaini, **N. Yahaya**, B. Saad, S. Kamaruzaman, N.S.M. Hanapi, Rapid ultrasound assisted emulsification micro-solid phase extraction based on molecularly imprinted polymer for HPLC-DAD determination of bisphenol A in aqueous matrices, Talanta. 171 (2017) 242–249. <https://doi.org/10.1016/j.talanta.2017.05.006>. (Elsevier, ISI, IF: 4.162)
- [3] N. Othman, V. Lim, M.R. Ramachandran, M.M. Sanagi, S. Kamaruzaman, Y. Hirota, N. Nishiyama, **N. Yahaya**, Rapid Ultrasound-Assisted Emulsification Microextraction Combined with COU-2 Dispersive Micro-solid Phase Extraction for the Determination of Azole Antifungals in Milk Samples by HPLC-DAD, Chromatographia. 80 (2017) 1553–1562. <https://doi.org/10.1007/s10337-017-3386-z>. (Springer, ISI, IF: 1.402)
- [4] **N. Yahaya**, M.M. Sanagi, N. Abd Aziz, W.A. Wan Ibrahim, H. Nur, S.H. Loh, S. Kamaruzaman, A rapid MCM-41 dispersive micro-solid phase extraction coupled with LC/MS/MS for quantification of ketoconazole and voriconazole in biological fluids, Biomedical Chromatography. 31 (2017). <https://doi.org/10.1002/bmc.3803>. (Wiley and Sons, ISI, IF: 1.613)
- [5] F.W. Mohd Hassan, R. Muggundha, S. Kamaruzaman, M.M. Sanagi, N. Yoshida, Y. Hirota, N. Nishiyama, **N. Yahaya**, Dispersive liquid–liquid microextraction combined with dispersive solid-phase extraction for gas chromatography with mass spectrometry determination of polycyclic aromatic hydrocarbons in aqueous matrices, Journal of Separation Science. 41 (2018) 3751–3763. <https://doi.org/10.1002/jssc.201800326>. (Wiley Publishing, ISI, IF: 2.415)
- [6] M.N.H. Rozaini, N. farihin Semail, B. Saad, S. Kamaruzaman, W.N. Abdullah, N.A. Rahim, M. Miskam, S.H. Loh, **N. Yahaya**, Molecularly imprinted silica gel incorporated with agarose polymer matrix as mixed matrix membrane for separation and preconcentration of sulfonamide antibiotics in water samples, Talanta. 199 (2019) 522–531. <https://doi.org/10.1016/j.talanta.2019.02.096>. (Elsevier, ISI, IF: 4.244)
- [7] A.N.M. Nasir, **N. Yahaya**, N.N.M. Zain, V. Lim, S. Kamaruzaman, B. Saad, N. Nishiyama, N. Yoshida, Y. Hirota, Thiol-functionalized magnetic carbon nanotubes for magnetic micro-solid phase extraction of sulfonamide antibiotics from milks and commercial chicken meat products, Food Chemistry. 276 (2019) 458–466. <https://doi.org/10.1016/j.foodchem.2018.10.044>. (Elsevier, ISI, IF: 4.946)
- [8] R. Soeung, N.F. Semail, W.A.W. Omar, N.N.M. Zain, M. Miskam, Y.F. Wong, A.S.A. Keyon, M.R. Ramachandran, S. Kamaruzaman, **N. Yahaya**, Simple and sensitive electrokinetic supercharging in capillary electrophoresis for online preconcentration and separation of secbumeton in water samples, Sains Malaysiana. 49 (2020) 979–988. <https://doi.org/10.17576/jsm-2020-4905-02>. (UKM Publisher, ISI,

- IF: 0.54)
- [9] N.R.B. Azhari, B.Y. Hui, N.N.M. Zain, F.B.M. Suah, S. Mohamad, **N. Yahaya**, M. Raoov, Enantiomeric separation of azole antifungal compounds using chromatographic and electrophoretic techniques: A mini review, *Sains Malaysiana*. 49 (2020) 2699–2714. <https://doi.org/10.17576/jsm-2020-4911-09>. (UKM Publisher, ISI, IF: 0.0643)
- [10] **N. Yahaya**, S. Kamaruzaman, M.M. Sanagi, W.A. Wan Ibrahim, T. Mitome, N. Nishiyama, H. Nur, Z. Abdul Ghaffar, M.Y. Aziz, H. Mohamed Fauzi, Vinyl-functionalized mesoporous carbon for dispersive micro-solid phase extraction of azole antifungal agents from aqueous matrices, *Separation Science and Technology (Philadelphia)*. 55 (2020) 3102–3112. <https://doi.org/10.1080/01496395.2019.1675699>. (Taylor and Francis, ISI, IF: 1.354)
- [11] N.F. Semail, A.S. Abdul Keyon, B. Saad, S.S. Noordin, N.N.S. Nik Mohamed Kamal, N.N. Mohamad Zain, J. Azizi, S. Kamaruzaman, **N. Yahaya**, Analytical method development and validation of anticancer agent, 5-fluorouracil, and its metabolites in biological matrices: An updated review, *Journal of Liquid Chromatography and Related Technologies*. 43 (2020) 562–579. <https://doi.org/10.1080/10826076.2020.1781654>. (Taylor and Francis, ISI, IF: 0.987)
- [12] S.M. Saad, N.A. Aling, M. Miskam, M. Saaid, N.N.M. Zain, S. Kamaruzaman, M. Raoov, N.S.M. Hanapi, W.N.W. Ibrahim, **N. Yahaya**, Magnetic nanoparticles assisted dispersive liquid- liquid microextraction of chloramphenicol in water samples, *Royal Society Open Science*. 7 (2020). <https://doi.org/10.1098/rsos.200143>. (Royal Society of Chemistry, ISI, IF: 2.515)
- [13] N.E.A.M. Subuhi, S.M. Saad, N.N.M. Zain, V. Lim, M. Miskam, S. Kamaruzaman, M. Raoov, **N. Yahaya**, An efficient biosorption-based dispersive liquid-liquid microextraction with extractant removal by magnetic nanoparticles for quantification of bisphenol A in water samples by gas chromatography-mass spectrometry detection, *Journal of Separation Science*. 43 (2020) 3294–3303. <https://doi.org/10.1002/jssc.201901194>. (Wiley Publishing, ISI, IF: 2.516)
- [14] M.N.H. Rozaini, B. Saad, **N. Yahaya**, J.W. Lim, M.N. Mohd Aris, M.R. Ramachandran, Determination of Three Endocrine Disruptors in Water Samples by Ultrasound-Assisted Salt-Induced Liquid-Liquid Microextraction (UA-SI-LLME) and High-Performance Liquid Chromatography–Diode Array Detection (HPLC-DAD), *Analytical Letters*. (2021). <https://doi.org/10.1080/00032719.2021.1919691>. (Tylor and Francis, ISI, IF: 1.467)
- [15] N.F. Semail, S.S. Noordin, A.S.A. Keyon, M.N. Waras, B. Saad, S. Kamaruzaman, N.N. Mohamad Zain, J. Azizi, M.Y. Aziz, **N. Yahaya**, A simple and efficient sequential electrokinetic and hydrodynamic injections in micellar electrokinetic chromatography method for quantification of anticancer drug 5-fluorouracil and its metabolite in human plasma, *Biomedical Chromatography*. 35 (2021). <https://doi.org/10.1002/bmc.5050>. (Wiley Publishing, ISI, IF: 1.728)
- [16] N.A. Noorhisham, D. Amri, A.H. Mohamed, **N. Yahaya**, N.M. Ahmad, S. Mohamad, S. Kamaruzaman, H. Osman, Characterisation techniques for analysis of imidazolium-based ionic liquids and application in polymer preparation: A review, *Journal of Molecular Liquids*. 326 (2021). <https://doi.org/10.1016/j.molliq.2021.115340>. (Elsevier, ISI, IF: 5.065)
- [17] Wan, I. Thani, A. Halim, S.M. Ishak, S.M. Saad, N.-F. Semail, A.H. Mohamed, M. Yusmaidie Aziz, A. Taufik, M. Din, N. Nadhirah, M. Zain, N. Nur, S. Nik, M. Kamal, S. Kamaruzaman, **N. Yahaya**, Advanced Adsorbents For The Extraction And Preconcentration Of Penicillin Antibiotics: An Updated Review, 2021. (UKM Publisher, Scopus, IF:0)
- [18] S.H. Loh, **N. Yahaya**, S.M. Ishak, W.M.A. Wan Mohd Khalik, N.S. Che Abdullah, H.Y. Aboul-Enein, M.C. Ong, Recent Trends in Adsorbent-Based Microextraction of Micropollutants in Environmental Waters, *Current Pollution Reports*. 7 (2021) 89–103. <https://doi.org/10.1007/s40726-021-00177-5>. (Springer, ISI, IF: 3.286)
- [19] F.W.M. Hassan, M. Raoov, S. Kamaruzaman, A.H. Mohamed, W.N.W. Ibrahim, N.S.M. Hanapi, N.N.M. Zain, **N. Yahaya**, D.D.Y. Chen, A rapid and efficient dispersive trehalose biosurfactant enhanced magnetic solid phase extraction for the sensitive determination of organophosphorus pesticides in cabbage (*Brassica olearaceae var. capitata*) samples by GC-FID, *Journal of Food Composition and Analysis*. 102 (2021). <https://doi.org/10.1016/j.jfca.2021.104057>. (Elsevier, ISI, IF: 3.721)
- [20] N.F. Semail, A.S. Abdul Keyon, B. Saad, S. Kamaruzaman, N.N. Mohamad Zain, V. Lim, M. Miskam, W.N. Wan Abdullah, **N. Yahaya**, D.D.Y. Chen, Simultaneous preconcentration and determination of sulfonamide antibiotics in milk and yoghurt by dynamic pH junction focusing coupled with capillary electrophoresis, *Talanta*. 236 (2022). <https://doi.org/10.1016/j.talanta.2021.122833>. (Elsevier, ISI, IF: 6.057)
- [21] **N. Yahaya**, Z. Huang, B. Yan, D.D.Y. Chen, Capillary electrophoresis–mass spectrometry analysis of bisphenol A and its analogues in bottled tea beverages with dynamic pH focusing, *Food Chemistry*. 372 (2022) 131220. <https://doi.org/10.1016/j.foodchem.2021.131220>. (Elsevier, ISI, IF: 7.514)

## SCIENTIFIC PUBLICATIONS AS CO-AUTHOR

- [1] Y. Foo Wong, A. Makahleh, K.M. al Azzam, **N. Yahaya**, B. Saad, S. Amrah Sulaiman, Micellar electrokinetic chromatography method for the simultaneous determination of furanic compounds in honey and vegetable oils, *Talanta*. 97 (2012) 23–31. <https://doi.org/10.1016/j.talanta.2012.03.056>.
- [2] S. Kamaruzaman, M.M. Sanagi, S. Endud, W.A. Wan Ibrahim, **N. Yahaya**, MCM-41 solid phase membrane tip extraction combined with liquid chromatography for the determination of non-steroidal anti-inflammatory drugs in human urine, *Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences*. 940 (2013) 59–65. <https://doi.org/10.1016/j.jchromb.2013.09.017>.
- [3] **N. Yahaya**, T. Mitome, N. Nishiyama, M.M. Sanagi, W.A. Wan Ibrahim, H. Nur, Rapid dispersive micro-solid phase extraction using mesoporous carbon COU-2 in the analysis of cloxacillin in water, *Journal of Pharmaceutical Innovation*. 8 (2013) 240–246. <https://doi.org/10.1007/s12247-013-9164-z>.
- [4] **N. Yahaya**, M.M. Sanagi, H. Nur, W.A. Wan Ibrahim, S. Kamaruzaman, H.Y. Aboul-Enein, Solid-phase membrane tip extraction combined with liquid chromatography for the determination of azole antifungal drugs in human plasma, *Analytical Methods*. 6 (2014) 3375–3381. <https://doi.org/10.1039/c3ay42010h>.
- [5] M.M. Sanagi, N.S. Mohamad Hanapi, A.K. Ismail, W.A. Wan Ibrahim, N. Saim, **N. Yahaya**, Two-phase electrodriven membrane extraction combined with liquid chromatography for the determination of tricyclic antidepressants in aqueous matrices, *Analytical Methods*. 6 (2014) 8802–8809. <https://doi.org/10.1039/c4ay01700e>.
- [6] **N. Yahaya**, M.M. Sanagi, T. Mitome, N. Nishiyama, W.A.W. Ibrahim, H. Nur, Dispersive Micro-Solid Phase Extraction Combined with High-Performance Liquid Chromatography for the Determination of Three Penicillins in Milk Samples, *Food Analytical Methods*. 8 (2015) 1079–1087. <https://doi.org/10.1007/s12161-014-9991-7>.
- [7] M.M., H.I., W.I.W.A., **Y.N.**, K.S., Z.A.N.N., A.I. Sanagi, Micro-extraction of Xenobiotics and Biomolecules from Different Matrices on Nanostructures, *Separation & Purification Reviews*. 45 (2016) 28–49.
- [8] Y.P. Koo, **N. Yahaya**, W.A.W. Omar, Analysis of dibutyl phthalate and oleamide in stingless bee honey harvested from plastic cups, *Sains Malaysiana*. 46 (2017) 449–455. <https://doi.org/10.17576/jsm-2017-4603-12>.
- [9] S. Kamaruzaman, M.M. Sanagi, **N. Yahaya**, W.A. Wan Ibrahim, S. Endud, W.N. Wan Ibrahim, Magnetic micro-solid-phase extraction based on magnetite-MCM-41 with gas chromatography–mass spectrometry for the determination of antidepressant drugs in biological fluids, *Journal of Separation Science*. 40 (2017) 4222–4233. <https://doi.org/10.1002/jssc.201700549>.
- [10] M. Md Yusoff, M. Raoov, **N. Yahaya**, N. Md Salleh, An ionic liquid loaded magnetically confined polymeric mesoporous adsorbent for extraction of parabens from environmental and cosmetic samples, *RSC Advances*. 7 (2017) 35832–35844. <https://doi.org/10.1039/c7ra06682a>.
- [11] S. Kamaruzaman, N.I. Fikrah Aris, **N. Yahaya**, L.S. Hong, M. Raznisyafiq Razak, Removal of Cu (II) and Cd (II) Ions from Environmental Water Samples by Using Cellulose Acetate Membrane, *Journal of Environmental Analytical Chemistry*. 04 (2017). <https://doi.org/10.4172/2380-2391.1000220>.
- [12] W.A. Wan Omar, **N. Yahaya**, Z.A. Ghaffar, N.H. Fadzilah, Gc-ms analysis of chemical constituents in ethanolic bee pollen extracts from three species of malaysian stingless bee, *Journal of Apicultural Science*. 62 (2018) 275–284. <https://doi.org/10.2478/JAS-2018-0022>.
- [13] M.H. Ja'Far, N.N.S.N.M. Kamal, B.Y. Hui, M.F. Kamaruzzaman, N.N.M. Zain, **N. Yahaya**, M. Raoov, Inclusion of curcumin in  $\beta$ -cyclodextrins as potential drug delivery system: Preparation, characterization and its preliminary cytotoxicity approaches, *Sains Malaysiana*. 47 (2018) 977–989. <https://doi.org/10.17576/jsm-2018-4705-13>.
- [14] W.N. Wan Ibrahim, M.M. Sanagi, N.S. Mohamad Hanapi, S. Kamaruzaman, **N. Yahaya**, W.A. Wan Ibrahim, Solid-phase microextraction based on an agarose-chitosan-multiwalled carbon nanotube composite film combined with HPLC–UV for the determination of nonsteroidal anti-inflammatory drugs in aqueous samples, *Journal of Separation Science*. 41 (2018) 2942–2951. <https://doi.org/10.1002/jssc.201800064>.
- [15] N.A. Hanan, H.I. Chiu, M.R. Ramachandran, W.H. Tung, N.N. Mohamad Zain, **N. Yahaya**, V. Lim, Cytotoxicity of plant-mediated synthesis of metallic nanoparticles: A systematic review, *International Journal of Molecular Sciences*. 19 (2018). <https://doi.org/10.3390/ijms19061725>.
- [16] M. Marsin Sanagi, U. Baig, **N. Yahaya**, L. Hui Mei, N. Amirah Md Ali, W. Aini Wan Ibrahim, C.J. Mai Sci, Determination of Phenanthrene and Fluorene by MCM-41-Dispersive Micro-solid Phase Extraction Combined with Gas Chromatography-Mass Spectrometry, 2018. <http://epg.science.cmu.ac.th/ejournal/>.
- [17] U. Amirul Arif Ungku Abdullah, N. Suhaila Mohamad Hanapi, W. Nazihah Wan Ibrahim, ashikin Saim, **N. Yahaya**, S. Alam, Micro-Solid Phase Extraction ( $\mu$   $\mu$   $\mu$   $\mu$ -SPE) Based on Alginate/Multi-walled Carbon Nanotubes Sorbent for the Determination of Bisphenol A in Canned Fruits, 2018. <http://epg.science.cmu.ac.th/ejournal/>.

- [18] M. Md Yusoff, **N. Yahaya**, N. Md Saleh, M. Raoov, A study on the removal of propyl, butyl, and benzyl parabens: Via newly synthesised ionic liquid loaded magnetically confined polymeric mesoporous adsorbent, RSC Advances. 8 (2018) 25617–25635. <https://doi.org/10.1039/c8ra03408g>.
- [19] N.A. Samad, N. Nur, S. Nik, M. Kamal, **N. Yahaya**, M. Yusmaidie, B. Aziz, N. Nadhirah, M. Zain, N. Adlin, M. Yusoff, V. Lim, Ethnobotanical, Phytochemical, and Pharmacological Aspects of Melastoma sp, 2018.
- [20] P.W. Ooi, M.R. Ramachandran, **N. Yahaya**, N.N.S.M. Kamal, K. Gopal, N.A. Husin, N.N.M. Zain, Removal of phthalates in aqueous samples using non-ionic silicone surfactant mediated cloud point extraction via spectrophotometry, Malaysian Journal of Analytical Sciences. 23 (2019) 839–848. <https://doi.org/10.17576/mjas-2019-2305-09>.
- [21] N.I. Mohd, K. Gopal, M. Raoov, S. Mohamad, **N. Yahaya**, V. Lim, N.N.M. Zain, Evaluation of a magnetic activated charcoal modified with non-ionic silicone surfactant as a new magnetic solid phase extraction sorbent with triazine herbicides as model compounds in selected milk and rice samples, Talanta. 196 (2019) 217–225. <https://doi.org/10.1016/j.talanta.2018.12.043>.
- [22] A.J. Abdul Rahman, H.N.F. Fiona, M.H. Mohd Nasir, S. Mohamad, **N. Yahaya**, M.N. Jajuli, M. Miskam, S-quinolin-2-yl-methylthiocarbazate-based magnetic adsorbent for magnetic solid-phase extraction of heavy metals from water samples, International Journal of Environmental Analytical Chemistry. (2019). <https://doi.org/10.1080/03067319.2019.1692827>.
- [23] K. Gopal, N.I. Mohd, M. Raoov, F.B.M. Suah, **N. Yahaya**, N.N.M. Zain, Development of a new efficient and economical magnetic sorbent silicone surfactant-based activated carbon for the removal of chloro-and nitro-group phenolic compounds from contaminated water samples, RSC Advances. 9 (2019) 36915–36930. <https://doi.org/10.1039/c9ra07151b>.
- [24] B. Yih Hui, N.N. Mohamad Zain, S. Mohamad, H. Mohamed Fauzi, Y. Alias, K. Chandrasekaram, N.Y. Rahim, **N. Yahaya**, M. Raoov, Determination of Aromatic Amines in Urine using Extraction and Chromatographic Analysis: A Minireview, Analytical Letters. 52 (2019) 2974–2992. <https://doi.org/10.1080/00032719.2019.1636057>.
- [25] W.C. Khoo, S. Kamaruzaman, H.N. Lim, S.N.A.M. Jamil, **N. Yahaya**, Synthesis and characterization of graphene oxide-molecularly imprinted polymer for Neopterin adsorption study, Journal of Polymer Research. 26 (2019). <https://doi.org/10.1007/s10965-019-1847-9>.
- [26] M. Chem, N. Hakimah, M. Salim, **N. Yahaya**, W. Adnan, W. Omar, Glycerol and Myo-Inositol as Marker Compounds for Determination of Freshness in Malaysian Stingless Bee Honey, Available Online [www.jocpr.com](http://www.jocpr.com) Journal of Chemical and Pharmaceutical Research. 11 (2019) 66–72. [www.jocpr.com](http://www.jocpr.com).
- [27] N.I. Zulkifli, M. Muhamad, N.N.M. Zain, W.N. Tan, **N. Yahaya**, Y. Bustami, A.A. Aziz, N.N.S.N.M. Kamal, A bottom-up synthesis approach to silver nanoparticles induces anti-proliferative and apoptotic activities against MCF-7, MCF-7/TAMR-1 and MCF-10A human breast cell lines, Molecules. 25 (2020). <https://doi.org/10.3390/molecules25184332>.
- [28] H.I. Chiu, A.D. Ayub, S.N.A. Mat Yusuf, **N. Yahaya**, E.A. Kadir, V. Lim, Docetaxel-loaded disulfide cross-linked nanoparticles derived from thiolated sodium alginate for colon cancer drug delivery, Pharmaceutics. 12 (2020). <https://doi.org/10.3390/pharmaceutics12010038>.
- [29] K., A. deeb, I., R.M., S.F.B.M., Samad., N.A., Y.N., L. v. Gopal, Supramolecular solvent combined with dispersive solid phase extraction based magnetic silicone surfactant activated charcoal adsorbent for extraction of phenolic compounds from industrial wastewater, Microchemical Journal. 157 (2020) 125110.
- [30] W.N. Wan Abdullah, S.N. Naushad Ali, N.M. Shukri, W.N.A. Wan Mokhtar, **N. Yahaya**, S.J. Mat Rosid, Catalytic chelation technique for the removal of heavy metal from Clarius batrachus (C. batrachus), Journal of Environmental Chemical Engineering. 8 (2020). <https://doi.org/10.1016/j.jece.2020.104165>.
- [31] R. Harikrishnan, K. Sundraraj, B.Y. Hui, N. Nadhirah, M. Zain, **N. Yahaya**, K.P. Sambasivam, S. Mohamad, Y. Alias, M. Raoov, Vortex-Assisted Supramolecular-Based Dispersive Liquid Phase Microextraction For Spectrophotometric Determination Of Rhodamine B In Chili Powder (Supramolekul Berasaskan Serakan Cecair Fasa Pengekstrakan Mikro Berbantu-Vorteks untuk Penentuan Spektrofotometrik Rhodamin B dalam Serbuk Cili), 2020.
- [32] N.I.F. Aris, N.A. Rahman, M.H. Wahid, **N. Yahaya**, A.S.A. Keyon, S. Kamaruzaman, Superhydrophilic graphene oxide/electrospun cellulose nanofibre for efficient adsorption of organophosphorus pesticides from environmental samples, Royal Society Open Science. 7 (2020). <https://doi.org/10.1098/rsos.192050>.
- [33] B. Yan, Z.A. Huang, **N. Yahaya**, D.D.Y. Chen, Enantioselective analysis in complex matrices using capillary electrophoresis-mass spectrometry: A case study of the botanical drug Corydalis Rhizoma, Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences. 1152 (2020). <https://doi.org/10.1016/j.jchromb.2020.122216>.
- [34] W. Nazihah, W. Ibrahim, M. Sanagi, N. Suhaila, M. Hanapi, N.M. Hadzir, **N. Yahaya**, S. Kamaruzaman, Agarose-Chitosan-Intergreated Multiwalled Carbon Nanotubes Film Solid Phase Microextraction Combined With

High Performance Liquid Chromatography For The Determination Of Tricyclic Antidepressant Drugs In Aqueous Samples, 2020.

- [35] N. Nadjwa Nahrowi, B. Yih Hui, M. Shariff Shahriman, **N. Yahaya**, N. Nadhirah Mohd Zain, S. Asman, M. Firoz Khan, K. Pandian Sambasevam, V. Lim, M. Raoov, Determination Of Phenanthrene And Fluoranthene In Rice Samples By Activated Carbon-Based Dispersive Solid Phase Micro-Extraction Coupled With Gas Chromatography-Flame Ionization Detector Analysis, 2020.
- [36] N. Shahz Ereena Zulkifli, K. Juhanni Abd Karim, **N. Yahaya**, W. Aini Wan Ibrahim, S. Kamaruzaman, N. Idayu Mat Ghani, A. Syazwani Abdul Keyon, Field-Amplified Sample Injection-Capillary Zone Electrophoresis Method For The Analysis Of 5-Fluorouracil Anticancer Drug, 2020.
- [37] N. Shahz Ereena Zulkifli, K. Juhanni Abd Karim, **N. Yahaya**, W. Aini Wan Ibrahim, S. Kamaruzaman, N. Idayu Mat Ghani, A. Syazwani Abdul Keyon, Field-Amplified Sample Injection-Capillary Zone Electrophoresis Method For The Analysis Of 5-Fluorouracil Anticancer Drug, 2020.
- [38] M.S., M.H.N.S., W.I.W.N., S.N., **Y.N.** Tabish, Alginate-Graphene Oxide Biocomposite Sorbent for Rapid and Selective Extraction of Non-Steroidal Anti-Inflammatory Drugs Using Micro-Solid Phase Extraction, Indonesian Journal of Chemistry. (2020).
- [39] S.J.O. Luhaibi, **N. Yahaya**, A. Alshishani, M.N. Jajuli, M. Miskam, Vortex assisted liquid-liquid microextraction with back extraction of repaglinide, glibenclamide and glimepiride in water samples, Sains Malaysiana. 50 (2021) 1297–1307. <https://doi.org/10.17576/jsm-2021-5005-10>.
- [40] S.N.U. Mohd Sabari, S.H. Loh, S. Kamaruzaman, **N. Yahaya**, W.M.A. Wan Mohd Khalik, Micro-solid phase extraction of polycyclic aromatic hydrocarbons in water using either C18 or molecularly imprinted polymer membranes: Analytical merits and limitations, Sains Malaysiana. 50 (2021) 123–133. <https://doi.org/10.17576/jsm-2021-5001-13>.
- [41] R.E.A. Mohammad, A.A. Elbashir, J. Karim, **N. Yahaya**, N.Y. Rahim, M. Miskam, Adsorptive performances of magnetic graphene oxide adsorbent for the removal of fluoroquinolones in the Langat River Basin, Malaysia, International Journal of Environmental Analytical Chemistry. (2021). <https://doi.org/10.1080/03067319.2021.1957464>.
- [42] H.I. Chiu, C.N.A. Che Mood, N.N. Mohamad Zain, M.R. Ramachandran, **N. Yahaya**, N.N.S. Nik Mohamed Kamal, W.H. Tung, Y.K. Yong, C.K. Lee, V. Lim, Biogenic Silver Nanoparticles of Clinacanthus nutans as Antioxidant with Antimicrobial and Cytotoxic Effects, Bioinorganic Chemistry and Applications. 2021 (2021). <https://doi.org/10.1155/2021/9920890>.
- [43] M.Y. Aziz, S.H. Hussain, A.R. Ishak, M.A. Abdullah, R. Mohamed, I.I. Ruzi, **N. Yahaya**, N.A. Samad, H.A. Edinur, Heavy Metal Concentrations in Malaysian Adults' Hair and Associated Variables in Bukit Mertajam, Penang, Malaysia, Biological Trace Element Research. (2021). <https://doi.org/10.1007/s12011-021-02942-5>.
- [44] N.M. Badu Latip, K. Gopal, M. Suwaibatu, N.M. Hashim, N.Y. Rahim, M. Raoov, **N. Yahaya**, N.N. Mohamad Zain, Removal of 2,4-dichlorophenol from wastewater by an efficient adsorbent of magnetic activated carbon, Separation Science and Technology (Philadelphia). 56 (2021) 252–265. <https://doi.org/10.1080/01496395.2020.1719156>.
- [45] N.R. Azhari, **N. Yahaya**, F.B.M. Mohd Suah, S. Prabu, B. Yih Hui, M.S. Shahriman, N.N. Mohamad Zain, M. Raoov, Enantioseparation of ketoconazole and miconazole by capillary electrophoresis and a study on their inclusion interactions with  $\beta$ -cyclodextrin and derivatives, Chirality. 33 (2021) 37–50. <https://doi.org/10.1002/chir.23285>.
- [46] N.A.N. Mohamad Yusoff, N.Y. Rahim, R.E.A. Mohammad, **N. Yahaya**, M. Miskam, Deep eutectic solvent-based emulsification liquid-liquid microextraction for the analysis of phenoxy acid herbicides in paddy field water samples, Royal Society Open Science. 8 (2021). <https://doi.org/10.1098/rsos.202061>.
- [47] N.A.S.M. Nazmi, F.I.A. Razak, W.N.A.W. Mokhtar, M.N.M. Ibrahim, F. Adam, N.F. **Yahaya**, S.J.M. Rosid, N.M. Shukri, W.N.W. Abdullah, Catalytic oxidative desulfurisation over Co/Fe- $\gamma$ Al2O3 catalyst: performance, characterisation and computational study, Environmental Science and Pollution Research. (2021). <https://doi.org/10.1007/s11356-021-15733-1>.
- [48] N.H.M. Jumali, S. Ganeshan, **N. Yahaya**, M. Miskam, 3-Monochloropropane-1,2-diol Monoesters Food Contaminant Analysis in Palm Oil-Based Food Samples Using C18-Dispersive Solid-Phase Extraction Coupled with GC-FID, Food Analytical Methods. 14 (2021) 2101–2110. <https://doi.org/10.1007/s12161-021-02040-1>.
- [49] M.N.H. Rozaini, W. Kiatkittipong, B. Saad, **N. Yahaya**, M.S. Shaharun, S.S. Sangu, M.S. Mohamed Saheed, Y.F. Wong, M. Mohamad, N.S. Sambudi, J.W. Lim, Green adsorption–desorption of mixed triclosan, triclocarban, 2-phenylphenol, bisphenol A and 4-tert-octylphenol using MXene encapsulated polypropylene membrane protected micro-solid-phase extraction device in amplifying the HPLC analysis, Microchemical Journal. 170 (2021). <https://doi.org/10.1016/j.microc.2021.106695>.

[50] N. Husna, Z. Abidin, W. Nazihah, W. Ibrahim, N. Suhaila, M. Hanapi, N.M. Hadzir, S. Kartina, A. Karim, **N. Yahaya**, S. Kamaruzaman, Trace Level Quantification of Organophosphorus Pesticides from Fleshy Fruit Samples by Magnetic Solid-phase Extraction Using Fabricated SBA-15/Fe 3 O 4 Coupled with HPLC/UV, 2022.

#### PUBLICATIONS IN BOOK CHAPTER

- [1] **N. Yahaya.**, D. S. M. Shukri. , A. F. Kamaruddin. , M. M. S. (2016). Advances in Solid Phase Extraction “Dispersive Solid Phase Extraction” (pp. 47–62). UTM Publisher.
- [2] **N. Yahaya.**, D. S. M. Syukri. , M. M. S. (2020). Advances in Liquid Phase Microextraction “Dispersive Liquid-liquid Microextraction” (pp. 43–60). USM Publisher.
- [3] **N. Yahaya.**, N. N. M. Zain. , M. Miskam. , S. K. (2021). Molecularly Imprinted Polymer Composites Synthesis, Characterisation and Applications “Molecularly Imprinted Polymer Composites in Wastewater Treatment” (pp. 381–405). Elsevier Ltd.

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