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MEDICAL INSTRUMENTATION SYSTEMS, BIOSENSORS,  
BIOMECHATRONICS, AND BIOMATERIALS  
Environmental Technology  
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## Employment

**MEDICAL INSTRUMENTATION SYSTEMS, BIOSENSORS, BIOMECHATRONICS, AND BIOMATERIALS**

Airlangga University

1 Jan 2025 → present

### Environmental Technology

Airlangga University

1 Jan 2019 → present

### Chemistry

Airlangga University

1 Mar 1993 → present

### Department of Chemistry

Airlangga University

1 Mar 1993 → present

### Faculty of Science and Technology

Airlangga University

1 Mar 1993 → present

## Research outputs

### **Occurrence, detection and ecotoxicity of microplastics in selected environments-a systematic appraisal**

Omotola, E. O. & Supriyanto, G., 30 Jul 2024, In: Heliyon. 10, 14, e32095.

### **Modification of chitosan-citric acid-tripolyphosphate for removal Sutra Bugis textile waste heavy metal ions**

Yusaerah, N., Supriyanto, G. & Hasri, H., 4 Apr 2024, In: AIP Conference Proceedings. 3048, 1, 020014.

### **Highly Sensitive Aspartame Electrochemical Sensor in Beverages Sample Using Glassy Carbon Electrode Modified with Boron Doped Nanodiamond/ZnO Nanoparticles Composite**

Putri, I. Z. D., Jiwanti, P. K., Supriyanto, G., Savitri, I. N. I., Kurnia, K. A., Setyaningsih, W., Yulianto, B. & Darmawan, N., 2024, In: International Journal of Technology. 15, 5, p. 1271-1281 11 p.

### **Removal of Cd(II) from aqueous solution using biosorbent based on agricultural waste sorgum bagasse (Sorghum bicolor (L.) Moench) activated NaOH**

Putri, D. I. M., Darmokoesoemo, H., Supriyanto, G., Widyaningrum, B. A. & Kusuma, H. S., 2024, In: Chemistry and Ecology. 40, 9, p. 1028-1054 27 p.

### **Identification and In Silico Characterization of a Conserved Peptide on Influenza Hemagglutinin Protein: A New Potential Antigen for Universal Influenza Vaccine Development**

Khalaj-Hedayati, A., Moosavi, S., Manta, O., Helal, M. H., Ibrahim, M. M., El-Bahy, Z. M. & Supriyanto, G., Oct 2023, In: Nanomaterials. 13, 20, 2796.

**Applying Fluorescence Dissolved Organic Matter Spectra and Phytoplankton Biology Index for Assessing Urban River Quality**

Cahyonugroho, O. H., Hariyanto, S. & Supriyanto, G., 7 May 2023, In: Journal of Mathematical and Fundamental Sciences. 54, 3, p. 311-329 19 p.

Heat transfer analysis in a heat exchanger with two coaxial tubes for sustainable aseptic processing of foods

Supriyanto, G., Rahardjo, B., Suparyanto, T., Hidayat, A. A. & Pardamean, B., 2023, In: IOP Conference Series: Earth and Environmental Science. 1241, 1, 012074.

Modifying the particle density of cocoa powder using puffing method for sustainable consumption and production

Supriyanto, G., Achadiyah, S., Rahardjo, B., Suparyanto, T., Trinugroho, J. P. & Pardamean, B., 2023, In: IOP Conference Series: Earth and Environmental Science. 1241, 1, 012081.

**Rapid Colorimetric Sensor Based on Gold Nanoparticles Functionalized 4-Amino-3-hydrazino-5-mercapto-1,2,4-triazole for Cortisol Detection in Saliva Sample**

Badi'ah, H. I., Puspaningsih, N. N. T., Supriyanto, G. & Nasronudin, N., 2023, In: Indonesian Journal of Chemistry. 23, 4, p. 1009-1020 12 p.

**The Dependence of Boron Concentration in Diamond Electrode for Ciprofloxacin Electrochemical Sensor Application**

Savitri, I. N. I., Jiwanti, P. K., Putri, I. Z. D., Irkham, I., Einaga, Y., Supriyanto, G., Wong, Y. H., Srivastava, S. K. & Abdullah, C. A. C., 2023, In: Indonesian Journal of Chemistry. 23, 3, p. 809-822 14 p.

**Dissolved organic matter and its correlation with phytoplankton abundance for monitoring surface water quality**

Cahyonugroho, O. H., Hariyanto, S. & Supriyanto, G., Sept 2022, In: Global Journal of Environmental Science and Management. 8, 1, p. 59-74 16 p.

**Optimization of silver nanoparticles synthesis for colorimetric sensing**

Badi'Ah, H. L., Supriyanto, G., Puspaningsih, N. N. T. & Ummah, D. K., 24 Mar 2022, *International Conference on Science and Applied Science, ICSAS 2021*. Purnama, B., Nugraha, D. A. & Suparmi, A. (eds.). American Institute of Physics Inc., 050005. (AIP Conference Proceedings; vol. 2391).

**Strategies in Improving Sensitivity of Colorimetry Sensor Based on Silver Nanoparticles in Chemical and Biological Samples**

Badi'ah, H. I., Ummah, D. K., Puspaningsih, N. N. T. & Supriyanto, G., 2022, In: Indonesian Journal of Chemistry. 22, 6, p. 1705-1721 17 p.

**Study of phytoplankton biology index and water quality parameters of kali Surabaya River**

Cahyonugroho, O. H., Hariyanto, S. & Supriyanto, G., 2022, In: IOP Conference Series: Earth and Environmental Science. 1041, 1, 012087.

**A novel molecular imprinting polymer for the selective adsorption of D-arabinitol from spiked urine**

Retnaningtyas, Y., Supriyanto, G., Nyoman Tri Puspaningsih, N., Irawan, R. & Siswodihardjo, S., 2021, In: Turkish Journal of Chemistry. 44, 6

**Noncovalently D-arabinitol Molecularly Imprinted Polymers (MIPs) to Identify Different Sugar Alcohols**

Retnaningtyas, Y., Supriyanto, G., Irawan, R. & Siswodihardjo, S., 2021, In: Baghdad Science Journal. 18, 4, p. 1536-1544 9 p.

**A Cr(VI)-imprinted-poly(4-VP-co-EGDMA) sorbent prepared using precipitation polymerization and its application for selective adsorptive removal and solid phase extraction of Cr(VI) ions from electroplating industrial wastewater**

Neolaka, Y. A. B., Lawa, Y., Naat, J. N., Pau Riwu, A. A., Darmokoesoemo, H., Supriyanto, G., Holdsworth, C. I., Amenaghawon, A. N. & Kusuma, H. S., Feb 2020, In: Reactive and Functional Polymers. 147, 104451.

**Models, kinetics, and thermodynamics for the adsorption of Ni<sup>2+</sup> metal ions by solid tofu waste immobilized on silica's surface**

Darmokoesoemo, H., Kuncoro, E. P., Supriyanto, G. & Manuhara, Y. S. W., 2020, In: Moroccan Journal of Chemistry. 8, S1, p. 78-87 10 p.

**Models, kinetics, and thermodynamics for the adsorption of Pb<sup>2+</sup> and Cd<sup>2+</sup> metal ions by solid tofu waste immobilized on silica's surface**

Darmokoesoemo, H., Kuncoro, E. P., Supriyanto, G. & Manuhara, Y. S. W., 2020, In: Moroccan Journal of Chemistry. 8, S1, p. 12-23 12 p.

**Synthesis and characterization of molecularly imprinted polymer as adsorbent for D-arabinitol**

Retnaningtyas, Y., Supriyanto, G., Tri Puspaningsih, N. N. & Irawan, R., 2020, In: Moroccan Journal of Chemistry. 8, 3, p. 588-593 6 p.

**Adsorption of Zinc(II) onto Zn(II)-Ionic Imprinted Polymer**

Wirawan, T., Supriyanto, G. & Soegiarto, A., 1 Jul 2019, In: IOP Conference Series: Materials Science and Engineering. 546, 2, 022036.

**Development of solid waste of tofu industry immobilized on silica surface as adsorbent for the adsorption of Cd (II) using method of continuous flow column**

Darmokoesoemo, H., Kuncoro, E. P., Supriyanto, G., Manuhara, W. & Wijaya, A. L., 13 May 2019, In: IOP Conference Series: Earth and Environmental Science. 259, 1, 012014.

**The utilization of solid waste of tofu industry immobilized by silica as adsorbent in Ni (II) adsorption in continuous flow column**

Darmokoesoemo, H., Kuncoro, E. P., Supriyanto, G., Mahuhara, W. & Nasution, P. D. A., Mar 2019, In: Pollution Research. 38, p. S83-S87

**Adsorption of Isopropyl Alcohol (IPA) in Water Using Activated Bentonite**

Abdulloh, A., Supriyanto, G. & Ningsih, O. W., 9 Jan 2019, In: IOP Conference Series: Earth and Environmental Science. 217, 1, 012013.

**Dehalogenase enzyme activity of Bacillus sp. D1 isolated from pharmaceutical waste**

Primasari, K., Sawitri, D. W., Fikri, R., Trikurniadewi, N., Ni'Matuzahroh & Supriyanto, G., 9 Jan 2019, In: IOP Conference Series: Earth and Environmental Science. 217, 1, 012034.

**GO-Fe<sub>3</sub>O<sub>4</sub> Nanocomposite from coconut shell: Synthesis and characterization**

Rukman, N. K., Jannatin, M., Supriyanto, G., Fahmi, M. Z. & Ibrahim, W. A. W., 9 Jan 2019, In: IOP Conference Series: Earth and Environmental Science. 217, 1, 012008.

**Graphene Oxide from Bagasse/Magnetite Composite: Preparation and Characterization**

Jannatin, M., Supriyanto, G., Abdulloh, Ibrahim, W. A. W. & Rukman, N. K., 9 Jan 2019, In: IOP Conference Series: Earth and Environmental Science. 217, 1, 012007.

**Synthesis of Silver Nanoparticles and the Development in Analysis Method**

Badiah, H. I., Seede, F., Supriyanto, G. & Zaidan, A. H., 9 Jan 2019, In: IOP Conference Series: Earth and Environmental Science. 217, 1, 012005.

**Mechanism of mass transport and calculation of free energy for the adsorption of Pb(II) Ion by adsorbent made from solid tofu waste immobilized on silica surface**

Darmokoesoemo, H., Kuncoro, E. P., Supriyanto, G. & Wulan Mahuhara, Y. S., 2019, In: Pollution Research. 38, p. S33-S37

**Preparation of a new Cd(II)-imprinted polymer and its application to preconcentration and determination of Cd(II) ion from aqueous solution by SPE-FAAS**

Wirawan, T., Supriyanto, G. & Soegiarto, A., 2019, In: Indonesian Journal of Chemistry. 19, 1, p. 97-105 9 p.

**Rapid spectrophotometric method for histamine determination in fish using alizarin red S and metal**

Jannatin, M., Latjuba, A. N. I., Wahyuni, S., Supriyanto, G. & Ibrahim, W. A. W., 2019, In: Malaysian Journal of Analytical Sciences. 23, 3, p. 505-515 11 p.

**Synthesis and characterization of natural zeolite with ordered ion imprinted polymer structures (IIP@AFINZ) for selective Cr(VI) adsorption from aqueous solution**

Neolaka, Y. A. B., Supriyanto, G. & Kusuma, H. S., 2019, In: Moroccan Journal of Chemistry. 7, 1, p. 194-210 17 p.

**The characterization of potential adsorbents made of solid tofu waste immobilized on silica surface for removal of heavy metal ions**

Darmokoesoemo, H., Kuncoro, E. P., Supriyanto, G. & Manuhara, Y. S. W., 2019, In: Ecology, Environment and Conservation. 25, September Suppl. Issue, p. S1-S8

**The utilization of potential adsorbents made of solid waste of tofu industry immobilized by silica for the adsorption of pb (II) using method of continuous flow column**

Darmokoesoemo, H., Kuncoro, E. P., Supriyanto, G., Mahuhara, Y. S. W. & Kuswanto, P. A., 2019, In: Ecology, Environment and Conservation. 25, July, p. S7-S12

**Synthesis, characterization, and application of novel Zn(II)-ionic imprinted polymer for preconcentration of Zn(II) ions from aqueous solution**

Wirawan, T., Supriyanto, G. & Soegianto, A., 2 May 2018, In: IOP Conference Series: Materials Science and Engineering. 349, 1, 012064.

**Adsorption of methylene blue using acid activated green color natural zeolite from ende-flores, Indonesia**

Neolaka, Y. A. B., Kalla, E. B. S., Malelak, G. A., Rukman, N. K., Supriyanto, G. & Puspaningsih, N. N. T., 1 Apr 2018, In: Rasayan Journal of Chemistry. 11, 2, p. 494-504 11 p.

**Adsorption performance of Cr(VI)-imprinted poly(4-VP-co-MMA) supported on activated Indonesia (Ende-Flores) natural zeolite structure for Cr(VI) removal from aqueous solution**

Neolaka, Y. A. B., Supriyanto, G. & Kusuma, H. S., Apr 2018, In: Journal of Environmental Chemical Engineering. 6, 2, p. 3436-3443 8 p.

**Characterization, isotherm, and thermodynamic data for selective adsorption of Cr(VI) from aqueous solution by Indonesia (Ende-Flores) natural zeolite Cr(VI)-imprinted-poly(4-VP-co-EGDMA)-ANZ (IIP-ANZ)**

Neolaka, Y. A. B., Supriyanto, G., Darmokoesoemo, H. & Kusuma, H. S., Apr 2018, In: Data in Brief. 17, p. 1020-1029 10 p.

**Characterization, kinetic, and isotherm data for Cr(VI) removal from aqueous solution by Cr(VI)-imprinted poly(4-VP-co-MMA) supported on activated Indonesia (Ende-Flores) natural zeolite structure**

Neolaka, Y. A. B., Supriyanto, G., Darmokoesoemo, H. & Kusuma, H. S., Apr 2018, In: Data in Brief. 17, p. 969-979 11 p.

**Graphene oxide from Indonesian biomass: Synthesis and characterization**

Supriyanto, G., Rukman, N. K., Nisa, A. K., Jannatin, M., Piere, B., Abdullah, Fahmi, M. Z. & Kusuma, H. S., 2018, In: BioResources. 13, 3, p. 4832-4840 9 p.

**Adsorption of hexavalent chromium from aqueous solutions using acid activated of natural zeolite collected from ende-flores, Indonesia**

Neolaka, Y. A. B., Kalla, E. B. S., Supriyanto, G., Suyanto & Puspaningsih, N. N. T., 1 Apr 2017, In: Rasayan Journal of Chemistry. 10, 2, p. 606-612 7 p.

**A novel spectrophotometric method for determination of histamine based on its complex reaction with Cu(II) and alizarin red S**

Jannatin, M., Ayu Nabila, I. L., Supriyanto, G. & Pudjiastuti, P., 2017, In: Journal of Chemical Technology and Metallurgy. 52, 6, p. 1045-1050 6 p.

**A novel spectrophotometric method for the determination of histamine based on its complex reaction with Ni(II) and alizarin red S**

Jannatin, M., Supriyanto, G. & Pudjiastuti, P., 2017, In: Indonesian Journal of Chemistry. 17, 1, p. 139-143 5 p.

**A novel spectrophotometric method for determination of chloramphenicol based on diazotization reaction at room temperature**

Wafi, A., Supriyanto, G. & Tjahjandarie, T. S., 2016, In: Indonesian Journal of Chemistry. 16, 1, p. 32-35 4 p.

**Development of spectrophotometric method for allopurinol in urine based on the diazotization reaction**

Yazid, E. A., Supriyanto, G. & Tjahjandarie, T. S., 2014, In: Malaysian Journal of Analytical Sciences. 18, 1, p. 212-220 9 p.

**Preparation optimization and utilization of PVDF membranes for separation of indigo textile dyes**

Kusumawati, N. & Supriyanto, G., 2013, In: International Journal of Applied Chemistry. 9, 3, p. 277-290 14 p.

The chromatomembrane method used for sample preparations in the spectrophotometric determination of zinc and copper in pharmaceuticals

Supriyanto, G. & Simon, J., 15 Dec 2005, In: Talanta. 68, 2, p. 318-322 5 p.