LEMBAR
HASIL PENILAIAN SEJAWAT SEBIDANG ATAU *PEER REVIEW*
KARYA ILMIAH : PROSIDING

Judul Karya Ilmiah (Prosiding)	:	Gold (Au) selective adsorption using polyeugenol based ionic imprinted polymer with ethylene glycol dimethacrylate crosslink		
Nama/ Jumlah Penulis	:	Didik Setiyo Widodo/5 orang		
Status Pengusul	:	Penulis ke-3		
Identitas Prosiding	:	a. Judul Prosiding	:	AIP Conference Proceedings
		b. ISBN/ISSN	:	0094-243X
		c. Thn Terbit, Tempat Pelaks.	:	June 2020, Surakarta
		d. Penerbit/Organiser	:	American Institute of Physics Inc.
		e. Alamat Repository/Web	:	https://aip.scitation.org/journal/apc
		Alamat Artikel	:	https://aip.scitation.org/doi/10.1063/5.0005546
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Kategori Publikasi Makalah (beri ✓pada kategori yang tepat) : [√] *Prosiding* Forum Ilmiah Internasional
[ ] *Prosiding* Forum Ilmiah Nasional

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Komponen Yang Dinilai	Nilai Maksimal Prosiding		Nilai Akhir Yang Diperoleh
	Internasional [30]	Nasional [ ]	
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b. Ruang lingkup dan kedalaman pembahasan (30%)	9		9
c. Kecukupan dan kemutahiran data/informasi dan metodologi (30%)	9		9
d. Kelengkapan unsur dan kualitas terbitan /prosiding (30%)	9		8
Total = (100%)	**30**		**29**
Nilai Pengusul =			

Catatan Penilaian artikel oleh Reviewer:

1. **Kesesuaian dan kelengkapan unsur isi jurnal:**
   Artikel ini sesuai dengan kepakaran penulis dan kelengkapan unsur isi jurnal sesuai dari persyaratan prosiding internasional terindeks scopus (AIP). Unsur isi jurnal lengkap dangan similarity 13%.
2. **Ruang lingkup dan kedalaman pembahasan:**
   Ruang lingkup penelitian ini tentang Adsorpsi selektif emas menggunakan polimer imprinted ion berbasis polieugenol dengan ikatan silang etilen glikol dimetrakrilat. Pembahasan dikaji secara mendalam dengan referensi yang mendukung pembahasan tersebut. Hasil penelitian menunjukkan membran yg dibuat dg cara tersebut mampu mengambil emas dengan baik.
3. **Kecukupan dan kemutakhiran data/informasi dan metodologi:**
   Data yang disajikan cukup dan informasi yang disajikan mutakhir dengan didukung literatur yang terbaru yaitu 58% referensi dengan tahun terbit di bawah 5 th dari artikel ini terbit. Metodologi disampaikan Dengan runtut dan detil sehingga memudahkan bila ada yang akan mengulang penelitian ini.
4. **Kelengkapan unsur dan kualitas terbitan:**
   Unsur terbitan lengkap dan kualitas terbitan baik. Jurnal ini termasuk prosiding internasional terindeks scopus (AIP).

Semarang, Juli 2022
Reviewer I

Drs. Gunawan, M.Si., Ph.D
NIP. 196408251991031001

Unit Kerja :FSM Universitas Diponegoro
Bidang Ilmu: Kimia Analitik

LEMBAR
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Kategori Publikasi Makalah (beri ✓pada kategori yang tepat) : [√] *Prosiding* Forum Ilmiah Internasional
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Hasil Penilaian *Peer Review* :

Komponen Yang Dinilai	Nilai Maksimal Prosiding		Nilai Akhir Yang Diperoleh
	Internasional [30]	Nasional [ ]	
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b. Ruang lingkup dan kedalaman pembahasan (30%)	9		8
c. Kecukupan dan kemutahiran data/informasi dan metodologi (30%)	9		8
d. Kelengkapan unsur dan kualitas terbitan /prosiding (30%)	9		9
Total = (100%)	**9**		**28**
Nilai Pengusul =			

Catatan Penilaian Paper oleh Reviewer :

1. **Kesesuaian dan kelengkapan unsur isi prosiding:**
   Proseding ini telah sesuai dan lengkap sesuai dengan standar penerbit AIP Proceeding, yang meliputi abstrak, penadhuluan, metodologi, hasil dan diskusi, kesimpulan dan Pustaka.
2. **Ruang lingkup dan kedalaman pembahasan:**
   Penelitian ini dilakukan untuk menghasilkan suatu adsorbent selektif emas dengan menggunkan bahan dasar etilen glikol dimetil akrilat. Hasil sistesis kemudian dikarakterisasi dengan beberapa alat seperti FTIR, SEM-EDX, dan TGA-DTA. Sehingga membuat pembahasan hasil penelitin pada makalah ini cukup mendalam dan lengkap.
3. **Kecukupan dan kemutakhiran data/informasi dan metodologi:**
   Data yang dihasilkan sudah cukup lengkap sehingga bisa dihasilkan informasi hasil penelitian yang baik. Selain itu dengan menggunkana acuan Pustaka yang cukup baru dengan prosentase Pustaka yang kurang dari 10 tahun adalah 92%, dan similarity indeks dari Turnitin 13%
4. **Kelengkapan unsur dan kualitas terbitan/ prosiding:**
   Prosiding ini telah melalui proses seminar dan di telah oleh tim untuk dimua diproceeding terindeks Scopus. Kualitas terbitan prosiding ini bagus karena memiliki standar penerbitan internasional.

Semarang, Juli 2022
Reviewer II

Dr. Rahmad Nuryanto, S.Si., M.Si.
NIP. 197105211998021001
Unit Kerja :FSM Universitas Diponegoro
Bidang Ilmu: Kimia Fisik

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Gold (Au) selective adsorption using polyeugenol based ionic imprinted polymer with ethylene glycol dimethacrylate crosslink

Djunaidi, M. Cholid ; Prasetya, Nor Basid Adiwibawa; Widodo, Didik Setiyo; Lusiana, Retno Ariadi; Pardoyo

Save all to author list

[a] Analytical Chemistry Laboratory, Department of Chemistry, Faculty of Science and Mathematics, Diponegoro University, Jl. Prof. Soedharto SH., Tembalang, Semarang, 50275, Indonesia

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Abstract

The Ionic imprinted polymer (IIP) Au (III) adsorbent has been synthesized using polyeugenol as a base polymer with ethylene glycol dimethacrylate (EGDMA) as a crosslinking agent to adsorb Au (III) metal ions from water media. The synthesis procedure includes polymerization, binding of mold ions, crosslinking and mold ions release. As a comparison, the non-imprinted polymer (NIP) material was

also synthesized. The polymer yielded was characterized using FTIR, SEM-EDX, and TGA-DTA and then continued with adsorption. Selective adsorption was tested for a mixture of Au (III) binary metal ions with Cd (II), Pb (II) and Fe (III). The adsorption mechanism of Au (III) in all adsorbents is dominant because of the coordination bond between the -OH group and the Au (III) hydrate. Adsorption capacity is expressed as a percentage of IIP-Au (III) of 99.88% over the capacity of other adsorbents; IIP-Au (III) is more selective than NIP with successive selectivity coefficients of Fe (III) 263.03, Cd (II) 53.18, and Pb (II) 6.06. © 2020 Author(s).

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THE 14TH JOINT CONFERENCE ON CHEMIS

STRENGTHENING THE FOUNDATION OF SUSTAINABLE DEVELOPMENT RESEARCH, PRACTICE AND EDUCATION

10th - 11th September 2019 - Solo Paragon Hotel, Surakarta

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About The Conference

The Joint Conference on Chemistry is an annual conference organized by the consortium of Chemistry Department of five universities in Central Java: Universitas Sebelas Maret (UNS), Universitas Diponegoro (UNDIP), Universitas Negeri Semarang (UNNES), Universitas Jenderal Soedirman (UNSOED) and Universitas Kristen Satya Wacana (UKSW). This joint conference has been held since 2006 which initially started with a local seminar to accommodate the dissemination of research results from chemistry lecturers and researchers from the five universities. Starting 2014, we enhanced the scope of conference to be an International Conference by inviting overseas participant from all over the world.

WHERE

Solo Paragon Hotel & Residences
Jl Dr. Soetomo Surakarta-Central Java, Indonesia

WHEN

Tuesday to Wednesday
10th – 11th September 2019

View Speakers

The Scope of Conference and Participants

The 14th Joint Conference on Chemistry 2019 has evolved to a major global chemistry related disciplinary event, attracting participants from all over the world. Special attention has been given to the research areas on advanced material chemistry which address the fundamental and related questions of sustainable development. The conference will also discuss all the major areas of chemistry, including: inorganic, physical, organic, analytical and biochemistry.
Topic of interest to be covered in the conference includes, but not limited to:

- Materials Chemistry
- Polymer Chemistry
- Nanomaterials
- Surface Chemistry and Interfaces
- Electrochemistry
- Pharmaceutical Chemistry
- Medicinal Chemistry
- Computational Chemistry
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Details Of Conference

The Conference will be held for 2 days (September 10-11th, 2019), details as following

Day 1

07:00 - 08:00
Registration

08:00 - 09:00
Opening Ceremony

08:50 - 09:20
Keynote Speech
By **Prof. Dr. Harno Dwi Pranowo** Chief of Indonesian Chemical Society

Day 2

08:00 - 08:25
Registration Day 2

08:25 - 08:30
Opening Day 2

08:30 - 09:10
Plenary Lectures V
By **Prof. Dr. Santiago Gómez-Ruiz** Department of Biology and Geology, Physics and Inorganic Chemistry, Rey Juan Carlos University, Spain

09:20 - 09:30
Coffee Break

09:30 - 10:10
Plenary Lectures I
By **Prof. Dr. Evamarie Hey-Hawkins** Institute of Inorganic Chemistry, Leipzig University, Germany

10:10 - 10:50
Plenary Lectures II
By **Prof. Dr. Hirofumi Tanaka** Graduate School of Life Science and Systems Engineering, Department of Human Intelligence Systems, Kyushu Institute of Technology, Japan

10:50 - 11:00
Questions and Discussion

11:00 - 11:40
Plenary Lectures III
By **Assoc. Prof. Pranoto** Chemistry Department, Universitas Sebelas Maret, Indonesia

11:40 - 12:20
Plenary Lectures IV
By **Prof. Dr. How Siew Eng** Combinatorial Chemistry & Natural Products Chemistry, Fakulti Sains dan Sumber Alam, Universiti Malaysia Sabah

12:20 - 12:30
Questions and Discussion

12:30 - 13:15
Lunch Time-Poster Session

13:15 - 15:15
Parallel Lectures I

15:15 - 15:30
Coffee Break-Poster Session

09:10 - 09:50
Plenary Lectures VI
By **Prof. Zaher Judeh, Ph. D.** School of Chemical and Biomedical Engineering, Nanyang Technological University, Singapore

09:50 - 10:10
Questions and Discussion

10:10 - 10:20
Coffee Break

10:20 - 11:00
Plenary Lectures VII
By **Assoc. Prof. Dr. Younki Lee** School of Material Science and Engineering, Gyeongsang National University, Korea

11:00 - 11:40
Plenary Lectures VIII
By **Assoc. Prof. Dr. Javier Cepeda-Ruiz** Department of Applied Chemistry, Chemistry Faculty, University of the Basque Country (UPV/EHU), Spain

11:40 - 12:00
Questions and Discussion

12:00 - 13:00
Lunch Time-Poster Session

13:00 - 15:00
Parallel Lectures III

15:00 - 15:30
Coffee Break-Poster Session

15:30 - 17:00
Parallel Lectures IV

17:00 - 17:30
Closing Ceremony

15:30 - 17:00
Parallel Lectures II

Countdown to Conference

Conference will start in, so don't miss it.

00	00	00	00	00
weeks	days	hours	minutes	seconds

Important Dates (Extended) :

- 10th June 2019 : Abstract Submission ends
- 15th July 2019 : Abstract Submission ends (extended)
- 17th June 2019 : 1st Abstract acceptance
- 22th July 2019 : 2nd Abstract acceptance (extended submission)
- 7th July 2019 : Early bird registration ends
- 7th August 2019 : Late payment ends
- 25th August 2019 : Late payment ends (extended)
- 14th August 2019 : Full paper submission ends
- 31st August 2019 : Full paper submission ends (extended)
- 10th – 11th September 2019 : JCC-14 takes place

Some important remarks:

- Student rate is applicable to Students from any universities. Proof of student will be required at the time of registration
- Listener is applicable to participants who just attend the conference without submitting a paper nor giving a presentation. The listener will receive a participant certificate.

Our Speakers

The speakers of plenary lectures are

Prof. Dr. Evamarie Hey-Hawkins
Institute of Inorganic Chemistry, Leipzig University, Germany

Prof. Dr. Santiago Gómez-Ruiz
Department of Biology and Geology, Physics and Inorganic Chemistry, Rey Juan Carlos University, Spain

Assoc. Prof. Dr. Javier Cepeda-Ruiz
Department of Applied Chemistry, Chemistry Faculty, University of the Basque Country (UPV/EHU), Spain

Prof. Dr. Hirofumi Tanaka
Graduate School of Life Science and Systems Engineering, Department of Human Intelligence Systems, Kyushu Institute of Technology, Japan

Prof. Zaher Judeh, Ph. D.
School of Chemical and Biomedical Engineering, Nanyang Technological University, Singapore

Assoc. Prof. Dr. Younki Lee
School of Material Science and Engineering, Gyeongsang National University, Korea

Prof. Dr. How Siew Eng
Combinatorial Chemistry & Natural Products Chemistry, Fakulti Sains dan Sumber Alam, Universiti Malaysia Sabah

Assoc. Prof. Pranoto
Chemistry Department, Universitas Sebelas Maret, Indonesia

The invited speakers of parallel lectures are

Dr. Mohd Sani Sarjadi
Faculty of Science and Natural Resources, Universiti Malaysia Sabah

Nor Basid Adiwibawa P., S.Si, M.Sc., Ph.D
Chemistry Department, Universitas Diponegoro

Dr. Santi Nur Handayani M.Si
Chemistry Department, Universitas Jenderal Soedirman

Dra. Hartati Soetjipto, M.Sc
Chemistry Department, Universitas Kristen Satya Wacana

M. Alauhdin, Ph. D
Chemistry Department, Universitas Negeri Semarang

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Conference date: 10-11 September 2019
Location: Surakarta, Indonesia
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Gold (Au) selective adsorption using polyeugenol based ionic imprinted polymer with ethylene glycol dimethacrylate crosslink

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Optimization of Suweg starch (*Amorphophallus paeoniifolius* (Dennst.) Nicolson) and lactose as *co-processed excipient* of

Dian Eka Ermawati, Bimar Putri Andini, Fea Prihapsara, Yeni Farida, Sholichah Rohmani, Wisnu Kundarto and Estu Retnaningtyas Nugraheni

AIP Conference Proceedings **2237**, 020061 (2020); https://doi.org/10.1063/5.0005632

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Developing formula of SNEDDS (*self nano emulsifying drug delivery system*) antihypertensive herbals “Hortus Medicus”

Dian Eka Ermawati, Roro Karina Pambudi, Vinda Aviwiandari, Yeni Farida, Sholichah Rohmani, Wisnu Kundarto and Estu Retnaningtyas Nugraheni

AIP Conference Proceedings **2237**, 020062 (2020); https://doi.org/10.1063/5.0005630

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Optimization of hydroxymethylcellulose and sodium CMC of transdermal patch of antihypertension “Hortus Medicus” and transport through membrane using franz diffusion cell method

Dian Eka Ermawati, Dyah Ayu Ambarwati, Niken Rosyana Dewi, Anif Nur Artanti, Sholichah Rohmani and Wisnu Kundarto

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Liposomes from jack beans phospholipid extract for delivering vitamin C

Dwi Hudiyanti, Ratna Indria Sari, Aditya Putri Arya and Parsaoran Siahaan

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The effect of methyltriethoxysilane (MTES) concentration on hydrophobic properties of silica thin layer

Lucky Diana Mustika, Choiril Azmiyawati and Adi Darmawan

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Synthesis zeolite y from kaolin: Activation of metakaolin with various concentration of sulfuric acid and its application for esterification

Leli Endah Safitri, Ulul Khairi Zuryati, Hannis Nur Rohma, Yatim Lailun Ni'mah and Didik Prasetyoko

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Synthesis of phenylcalix[4]resorcinarena sulfonate and it's aplication as an antioxidant

Santi Nur Handayani, Heny Ekowati, Irmanto, Della Nadya Ayu Aprilia and Silva Utami

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The electronic properties study of betanin and their derivatives compound: An explanation to betanin limitation in DSSC application

Zulfa H. Damayanti, Garcelina R. Anindika, Eko Santoso, Syafsir Akhlus and Yuly Kusumawati

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Anthocyanin from butterfly pea flowers *(Clitoria ternatea)* by ultrasonic-assisted extraction

Achmad Qodim Syafa'atullah, Arie Amira, Sonya Hidayati and Mahfud Mahfud

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Synthesis and characterization of carbonaceous-based nanomaterials produced in chemical vapor deposition (CVD) using copper catalyst

Teguh Endah Saraswati, Ayu Dwi Priyanti, and Oktaviana Dewi Indah Prasiwi

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Preparation of $NaFeO_2$ from iron sand as a raw material for cathode of sodium-ion battery

Fitria Rahmawati, Arum A. Kusumaningtyas, Teguh E. Saraswati, Iwan Yahya and Younki Lee

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Chemical interaction analysis of L-Theanine compounds from *Camellia sinensis* L. with kainate glutamate receptors and their toxicity effect as anti autism candidates based on in silico

Mohamad Amin, Nanda Hilda Khikmawati, Suryadi, Ihya Fakhrurizal Amin, Kodama Yayoi, Atmanto Heru Wibowo, Dina Maulina and Indriyani Rachman

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Synthesis, anticancer activity, and apoptosis mechanism of some chalcone derivatives

Hery Suwito, Helda Dwi Hardiyanti, Kautsar ul Haq, Alfinda Novi Kristanti, Umrotul Furghoniyyah, Aprillia Noni Rahmawati and Diwyareta Ristya Ayuningtyas

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Synthesis of 5-benzylidene-hydantoin and 5-benzylidene-creatinine derivatives under mixed catalyst systems of urea-*p*-toluenesulfonic acid (Urea-PTSA) and guanidine hydrochloride-triethylamine (GnHCl-TEA)

Kautsar Ul Haq, Septi Rosiana Dewi, Sherly Dwi Cicilianingrum, Amalia Muti Anggraini, Zella

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The compounds of styrene-butadiene rubber in the incorporation of palmitamide: Abrasion resistance, cure rate index and torque properties

Indra Surya and Edwin

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The compounds of montmorillonite-filled natural rubber: Cure rate index, swelling and hardness properties

I. Surya and H. Khosman

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Effect of low molecular weight organic acid (LMWOA) on the Zn^{2+} desorption from the soil of illegal land fill in Yogyakarta-Indonesia

Suherman, Ayu Maulidya Rachmanda, Roto and Kinichi Morita

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Microbial life on the surface of the soft coral for solve the self-healing concrete

Prima Endang Susilowati, Ahmad Zaeni, Sapril Kartini and I. Nyoman Sudiana

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Toxicity of benzyl benzoate from *Kaempferia rotunda* L. rhizome

Hartiwi Diastuti, Ari Asnani, Undri Rastuti and Mela Anggraeni

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Physico-chemical characteristics of gelatin as green template for nanomaterial production

Maria Ulfa and Windi Apriliani

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Intermolecular hydrogen bond interactions in *N*-carboxymethyl chitosan and $n$$H_2O$: DFT and NBO studies

Beti Safitri, Dwi Hudiyanti, Marlyn Dian Laksitorini, Nurwarrohman Andre Sasongko and Parsaoran Siahaan

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Synthesis and anticancer study of complex nickel (II) 5,7-dibromoisatin-derived hydrazine carbothiamide

Fahimah Martak, Nofri Eka Safitri, Endah Mutiara Marhaeni Putri, Agung Bagus Pambudi and Arif Fadlan

AIP Conference Proceedings **2237**, 020082 (2020); https://doi.org/10.1063/5.0005731

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Synthesis and spectra study of Cu (II), Fe (II), Zn (II)-5,15-diphenyl porphyrin

AIP Conference Proceedings **2237**, 020038 (2020); https://doi.org/10.1063/5.0005553

Atmanto Heru Wibowo[1,a)], Metin Yuliati[1], Abu Masykur[1], Suyitno[2], Desi Suci Handayani[1], Dian Maruto Widjonarko[1], Maulidan Firdaus[1], Ari Yustisia[3], *and* Takuji Ogawa[3,b)]

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ABSTRACT

Compound 5,15-diphenyl porphyrin (DPP) has been synthesized and inserted with different kind of metal (Fe, Cu and Zn). Synthesis of DPP has been carried out through three stages reaction using pyrrole and benzaldehyde as starting materials. Identification of synthesized compounds of 5-phenyl dipyrromethane (DPM) and 5, 15-diphenyl porphyrin (DPP) was confirmed with H-NMR. Three different metals were then inserted into the cavity of DPP. Optical spectra of Cu, Fe, Zn-DPP was then investigated and compared with free-base DPP using UV/Vis spectrophotometer. The result showed that the yield reaction of DPM reached about 41.77% and DPP reached about 21.80%. Based on the spectra investigation of metal-DPP, it showed that DPP had different Soret and Q band when each Cu (II), Fe (II), Zn (II) was inserted into DPP. Moreover, Zn-

has the more potential to be utilized for application such as DSSC.

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Crystalline carbon nitride for photocatalytic phenol degradation: Effect of precursor and salt melt amounts

AIP Conference Proceedings **2237**, 020049 (2020); https://doi.org/10.1063/5.0005795

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ABSTRACT

Development of visible-light-active photocatalyst is an important approach to utilize solar energy in the future. The attempts to improve the crystallinity of photocatalyst have been the focus of the research. Recently, the use of potassium chloride-lithium chloride (KCl-LiCl) salt melt has been reported to increase the crystallinity of carbon nitride. In this work, precursor and salt melt amounts were varied to study the properties and the photocatalytic activity of the crystalline carbon nitride for phenol degradation. When the precursor amount was too low (1 g), no product was obtained due to the decomposition of precursor. When it was too high (4 g), the product showed the characters of amorphous CN. Optical properties also showed that when the precursor amount was 3–4 g, the incomplete condensation process occurred and defects were formed due to the excessive washing. The specific surface area also decreased with the increase of the precursor amount from 2 to 4. When the amount of salt melt was too low (2.5 g), the crystalline CN could not be obtained. However, when the amount of salt melt was increased to 7.5 g, impurities could not be avoided. Longer time and multiple washing processes were required in order to remove the impurities, which certainly affected the crystallinity. Photocatalytic activity test showed that the high activity was obtained on the sample prepared using the optimum amount of precursor (2 g) and salt melt (5 g), which would be due to the high crystallinity and large specific surface area.

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