

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

Judul Jurnal Ilmiah (Artikel) : Removal of emission gas CO_x, NO_x and SO_x from automobile using non-thermal plasma
 Nama/ Jumlah Penulis : 3 Orang
 Status Pengusul : ~~Penulis pertama/ Penulis ke-2/ Penulis Korespondensi **~~
 Identitas Prosiding : a. Nama Prosiding : IOP Conf. Series: Materials Science and Engineering (13th JCC)
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 c. Vol, No., Bln Thn : Vol. 509, No.012085, 2019
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 f. Alamat web prosiding : <https://iopscience.iop.org/journal/1757-899X>
 Alamat Artikel : <https://iopscience.iop.org/article/10.1088/1757-899X/509/1/012085>
 g. Terindex : Scopus, SJR, Google Scholar, H-index : 48, Impact score : 0.48 (2021-2020)

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c. Kecukupan dan kemutakhiran data/informasi dan metodologi (30%)	8,00	8,5	8,25
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Nilai untuk Pengusul : 40% x 1/2 x 27,75 = 5,55			

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Semarang, 10 Februari 2023

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 Bidang Ilmu: Fisika Material

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b. Ruang lingkup dan kedalaman pembahasan (30%)	9		8,00
c. Kecukupan dan kemutakhiran data/informasi dan metodologi (30%)	9		8,00
d. Kelengkapan unsur dan kualitas terbitan/prosiding (30%)	9		8,50
Total = (100%)	30		27,50
Nilai Pengusul = 40% x 1/2 x 27,50 = 5,50			

Catatan Penilaian artikel oleh Reviewer :

1. Kelengkapan unsur isi prosiding:

Penulisan artikel sudah baik dan mengikuti standard penulisan artikel di prosiding, yaitu Abstrak, Introduction, Method, Result and Discussion, Conclusions, Acknowledgement, and References. Substansi artikel sesuai bidang ilmu pengusul

2. Ruang lingkup dan kedalaman pembahasan:

Lingkup bahasan dari artikel ini adalah bidang fisika. Pembahasan cukup baik yaitu Penempatan reaktor pada muffler berfungsi untuk mengubah fungsi ruang resonator dan membuatnya knalpot masih memenuhi standarisasi knalpot dengan performa lebih dalam mereduksi gas buang (CO_x, NO_x, HC). Kedalaman pembahasan baik.

3. Kecukupan dan kemutakhiran data/informasi dan metodologi:

Informasi yang disajikan cukup baru dan hasil yang diperoleh memuat substansi orisinil dengan aspek aplikasi yang penting. Sumber gagasan penulis untuk artikel ini kurang komprehensif. Dari 11 referensi yang dipakai terdapat 8 paper yang lebih dari 10 tahun terakhir (out of date). Metodologinya dan penulisannya cukup terstruktur.

4. Kelengkapan unsur dan kualitas terbitan:

Artikel dimuat di prosiding IOP Conf. Series: Materials Science and Engineering (13th JCC). Diterbitkan pada Vol. 509, No.012085, 2019, diterbitkan IOP Publishing Ltd. dan terindeks di Scopus.

Semarang, 10 Februari 2023
 Reviewer 1


 Prof. Dr. Kusworo Adi, S.Si., M.T.
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b. Ruang lingkup dan kedalaman pembahasan (30%)	9		8,5
c. Kecukupan dan kemutakhiran data/informasi dan metodologi (30%)	9		8,5
d. Kelengkapan unsur dan kualitas terbitan/prosiding (30%)	9		8
Total = (100%)	30		28
Nilai Pengusul = 40% x 1/2 x 28 = 5,6 (Max 30)			

Catatan Penilaian artikel oleh Reviewer :

- Kesesuaian dan kelengkapan unsur isi jurnal:**
Tulisan sudah lengkap yang terdiri dari title, abstract, introduction, method, result and discussion, conclusion, references. Artikel telah sesuai dengan bidang ilmu pengusul/anggota penulis.
- Ruang lingkup dan kedalaman pembahasan:**
Pembahasan artikel terkait penggunaan plasma non-thermal untuk menghilangkan gas emisi CO_x, NO_x dan Sox dari automobile telah dijelaskan dengan baik. Artikel ini juga dilengkapi dengan referensi pada bagian pembahasan untuk menguatkan diskusi.
- Kecukupan dan kemutakhiran data/informasi dan metodologi:**
Metode standar serta referensi yang digunakan cukup baik terkait skema reactor dan setting eksperimen. Makalah didukung oleh 11 daftar pustaka.
- Kelengkapan unsur dan kualitas terbitan:**
Prosiding untuk artikel yang diterbitkan telah terindex dan memiliki kualitas internasional. Kelengkapan dan kualitas cukup baik terdapat gambar disertai dengan reaksi yang terjadi dalam proses eliminasi gas emisi sehingga memudahkan penjelasan

Semarang, 10 Februari 2023
 Reviewer 2



Prof. Dr. Agus Subagio, S.Si., M.Si.
 NIP. 19710813 1995121001
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Removal of emission gas CO_x, NO_x and SO_x from automobile using non-thermal plasma

Nur, Muhammad^{a, b} ; Sumariyah, Sumariyah^{a, b}; Suseno, Ahmad^c

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^a Center for Plasma Research, Faculty of Science and Mathematics, Diponegoro University, Semarang, Indonesia^b Physics Department, Faculty of Science and Mathematics, Diponegoro University, Semarang, Indonesia^c Chemistry Department, Faculty of Science and Mathematics, Diponegoro University, Semarang, Indonesia

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Abstract[Author keywords](#)[Reaxys Chemistry database information](#)[Indexed keywords](#)[SciVal Topics](#)[Metrics](#)[Funding details](#)**Abstract**

Non-polluted plasma muffler prototype has done in fuel engine vehicle. Pilot scale improvement has done by integrating reduction system into vehicle muffler from previous position outside the muffler. High voltage that used to develop plasma condition comes from 12V34Ah accumulator which connected with electronic equipment and it can be able to develop voltage up to 20kV. Exhaust gases reduction ability has done by varying engine rotation. Plasma muffler appearance in vehicle doesn't change outside dimension of its original muffler and it reactor placement in muffler has a function to change resonator chamber function and make this muffler still fulfil muffler standardization with more performance in reducing exhaust gases (CO_x, NO_x, HC). Optimal reduction level made at 2200 rpm for

Cited by 2 documents

Effects of Reactive Species Produced by Electrolysis of Water Mist and Air through Non-Thermal Plasma on the Performance and Exhaust Gas of Gasoline Engines

Hsieh, C.-H. , Hsueh, M.-H. , Chang, C.-W.
(2022) *Molecules*

Low-dimensional HfS₂as SO₂adsorbent and gas sensor: Effect of water and sulfur vacancies

Bouheddadj, A. , Ouahrani, T. , Kanhounnon, W.G.
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Factors influencing the oxidation of NO and SO₂ by pulsed discharge plasma

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Effect of electrode configuration and corona polarity on NO removal by pulse corona plasma

Shang, K. , Wu, Y.
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Studies of gap space effects on no removal in a double dielectric barrier discharge system

Yeboah, Y.D. , Wang, Z. , Bota, K.B.
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CO_x is 86.52%, for CO is 88.93%, for HC is 97.34% and for NO_x at 4600 rpm is 76,19%. The residue formed in the muffler has been tested with FTIR. Of all possible feeds, the compound constituent of the NO_x reduction product is ammonium carbonate ((NH₄)₂CO₃), ammonium sulphite ((NH₄)₂SO₃), and also ammonium sulphate ((NH₄)₂SO₄). © 2019 Published under licence by IOP Publishing Ltd.

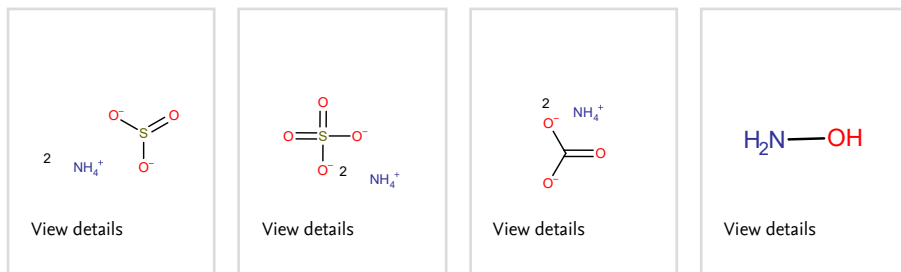
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Table of contents

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◀ Previous issue Next issue ▶

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Muhammad Nur, Sumariyah Sumariyah and Ahmad Suseno

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Muhammad Nur, Eko Yuliyanto, Andi Wibowo Kinandana, Maryam Resti Wijaya and Fajar Arianto

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In silico study: the antiglycation potency of aloin on the protein surface of human serum albumin

Muhammad Asyraf, Nur Rizka Nur, Melia Praditya and Chokrisia Polyniawati and Agustina LN Aminin



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Nutritive assessment of sorghum-*ogi* plantain flour weaning food

Ajanaku Kolawole Oluseyi¹, Ademosun Olabisi Theresa¹, Mustapha Abisola¹,
Ajanaku Christiana Oluwatoyin¹, Olasehinde Grace Iyabo², Adekoya Olaoluwa Funmi¹ and
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Abstract

The high rate of malnutrition in children is exclusively attributed to non-affordability of nursing mothers from low-income population to meet the high prices of commercial weaning foods. This has largely affected the dietary status of infant when they reach weaning stage. In this study, utilisation of plantain flour (*Musa spp.*) for enhancing the nutritive value of Sorghum-*Ogi* as common weaning food in southwest Africa was investigated. Same quantity of 100 g/g of Sorghum-*Ogi* was prepared for each of the batches with increasing quantity of plantain flour at 20, 40, 60, 80 and 100% levels of addition to prepare the study samples. Proximate analysis, functional properties, pasting and organoleptic properties, microbial load of the samples were determined using the AOAC official methods for nutritional labelling. Results of proximate analysis showed decreased protein

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Synthesis and characterization of Cu(II) and Co(II) encapsulated metal complexes in zeolite-Y for the oxidation of phenol and benzene

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Abstract

Copper (II) and Cobalt (II) metal complexes of phlantocyanine was effectively encapsulated into the super cages of Zeolite-Y using the flexible ligand method and H₂O₂ as the oxidant. The characterization of the synthesized encapsulated catalysts was carried out using the various physico-chemical and spectroscopic methods such as the Brunauer-Emmett-Teller (BET), Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP-AES), Fourier Transform Infrared Spectroscopy (FT-IR), Thermogravimetric / Differential Analysis (TGA/DTG), Scanning Electron