

PREFACE

Indonesian Polymer Journal (Majalah Polimer Indonesia, MPI, ISSN 1410-7864) is a national journal published and imprinted by the Indonesian Polymer Association (Perhimpunan Polimer Indonesia, HPI). MPI is a peer-reviewed journal in Polymer research. It publishes original research in all areas of polymer science and technology, including synthesis and polymer reaction, polymer process and composite, polymer characterization, functional polymer and development, and polymer for energy and environment. Since 1998, MPI published in Bahasa Indonesia. Starting from 2016, MPI provides publishing both articles in English and Bahasa Indonesia. We publish two editions every year. Thank you for the exceptional contribution to all respectful authors, peer-reviewers, and editors.

This issue (Ind. Poly. Jour., Volume 22, Issue 2, Year 2019) has published 5 articles — 4 articles from IPST 2019 event and 1 article from SNP XII 2018 event (4 articles in English and 1 article in Bahasa Indonesia). This issue was authored and co-authored by 17 authors from Indonesia. This issue has available online since November 2019 for the regular issue of December 2019.

In this issue, there are two articles focuses on modification of cellulose acetate composite i.e. the effect of solvents in the performance of cellulose acetate/poly(1,4-butylene succinate) membrane prepared by using phase inversion method and modified of cellulose acetate/polyethylene glycol membrane by the addition of graphene oxide both studied by *Nurkhamidah et al.* On the cellulose acetate/poly(1,4-butylene succinate) membrane article, *Nurkhamidah et al.* reported the morphology of membranes shows finger-like and sponge-like structures. For all variables of solvents used, salt rejection of membranes increased with the addition of PBS, of which the highest order was obtained from acetone, acetone/NMP, acetone/DMF, and acetone/THF. The best performance of membrane was prepared in acetone CA/PBS 90/10 with the salt rejection of 75% and permeate flux of 1956.52 L/m² h. On their second article, they reported that the analysis in the area of –OH functional group from FTIR results and water content shows that hydrophilicity of membrane increases with the addition of GO. The morphology of membranes shows a finger-like, and sponge-like structure with the smallest pore size is 0.02 micron, which was achieved from the addition of GO of 0.0050 wt.%. Salt rejection of membrane increases with the addition of GO up to 0.0050 wt.% and further decreased with the increase of GO. The optimal membrane performance was achieved by the addition of GO 0.0050 % with the salt rejection of 82%, permeate flux 626.743 L/m² h, and membrane also exhibits the mechanical property of 180.2 kPa.

Another article focused on the effect of different types of carbon black on thermal characteristics of shape memory natural rubber vulcanizate studied by *Setyadewi et al.* They reported that the initial degradation temperature of the blank vulcanizate (357.37–386.13°C) was higher than SMNR vulcanizate swollen stearic acid (327.65–359.95°C) meaning decreased thermal stability of SMNR vulcanizate. The weight loss of the blank vulcanizate at any carbon black is lower than SMNR vulcanizate.

There is also an article focused on the role of partially hydrolyzed polyvinyl alcohol to the enhancement of the electrical conductivity of conductive polymer studied by *Hafizah et al.* On their study, they divided the degree of polymerization into three categories of respectively low, medium, and high. They also reported that pH value of all solutions was found almost similar, which approximately in the range 5.0–6.5. While the viscosity exhibited values in the range 1.20–1985 mPa s depends on the concentration and the degree of polymerization. The lower solid content evaluation indicated a faster dissolution rate of PVA when compared with those of medium and high. The PVA dissolves completely in less than 10, 180, and 220 minutes for 1, 5, and 10% of the solution, respectively. The solid content, which is the indicator of the solubility property of solution has resulted in a deviation of less than 0.1% between that of experimental and theoretical for each concentration. This report also discusses thin film properties, including the electrical conductivity value of each PVA solution against time during the dissolving process.

The last article on this issue focused on degradation of lignin and cellulose from rice straw using ozonation process studied by *Savitri et al.* They reported that the amount of lignin and cellulose decreased in line with prolonged time. The decrease in ozonation temperature was also reducing the amount of lignin and cellulose in rice straw because of the better degradation process. The decrease in lignin and cellulose content was achieved at 20 °C for both pH 4 and pH 9 of the system. The degradation products that can be obtained and analyzed in the process of rice straw ozonation were including glucose, fructose, and sucrose.

Currently, Indonesian Polymer Journal is an open-access national journal. Readers can read and download any full-text articles free of charge. Official website address of Indonesian Polymer Journal is: <http://hpi-polimer.org/mpi>. The Editor would like to appreciate and to call for papers all researchers, academicians, industrial practitioners focused on all areas of polymer science and technology to contribute to this journal.

Editor-in-Chief

Veinardi Suendo

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