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HASIL PENILAIAN SEJAWAT SEBIDANG ATAU *PEER REVIEW*
KARYA ILMIAH : JURNAL ILMIAH

Judul Jurnal Ilmiah (Artikel)	:	Grafting of Heparin on Blend Membrane of Citric Acid Crosslinked Chitosan/Polyethylene Glycol-Poly Vinyl Alcohol (PEG-PVA)		
Nama/ Jumlah Penulis	:	6 Orang		
Status Pengusul	:	penulis ke-4		
Identitas Jurnal Ilmiah	:	a. Nama Jurnal	:	Indones. J. Chem.
		b. Nomor ISSN	:	1411-9420
		c. Vol, No., Bln Thn	:	2019, 19 (1), 151 - 159
		d. Penerbit	:	Kimia, UGM
		e. DOI artikel (jika ada)	:	10.22146/ijc.30861
		f. Alamat web jurnal	:	https://jurnal.ugm.ac.id/ijc
		Alamat Artikel	:	https://jurnal.ugm.ac.id/ijc/article/view/30861
		g. Terindex	:	Scopus

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b. Ruang lingkup dan kedalaman pembahasan (30%)	12			12
c. Kecukupan dan kemutahiran data/informasi dan metodologi (30%)	12			12
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2. **<u>Ruang lingkup dan kedalaman pembahasan:</u>**
   Ruang lingkup penelitian ini tentang grafting heparin pada campuran membran dari asam sitrat yang dihubungsilangkan dengan kitosan/politetilen glikol-polivinil alkohol. Pembahasan dikaji secara mendalam dengan referensi yang mendukung pembahasan tersebut.
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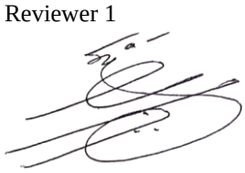

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   Artikel ini membahas tentang masalah membrane taut silang chitosan/PVA-PEG yang kemudian di grafting dengan heparin untuk meningkatkan kekuatan mekanik dan swelling membrane. Karakterisasi menggunakan FTIR, TGA, SEM dan UV Vis. Penulis memiliki kompetensi dalam penelitian ini sehingga beberapa pengembangan dikembangkan dari literatur yang disitasi..
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   Isi materi memiliki kecukupan terhadap isi dan pengembangan metodologi didasari dengan jurnal-jurnal yang relative baru dengan jumlah jurnal yang berumur kurang dari 10 tahun sebanyak 62% dan hasil Turnitin memiliki similarity index sebebsar 9%.
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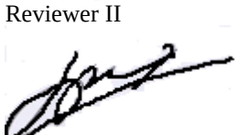

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Grafting of heparin on blend membrane of citric acid crosslinked chitosan/polyethylene glycol-poly vinyl alcohol (PVA-PEG)

Lusiana, Retno Ariadi ; Pambudi, Ginanjar Argo; Sari, Fitra Nilla; Widodo, Didik Setiyo; Khabibi, Khabibi

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Abstract

Heparin, an active sulfate group material, grafted onto blend membrane citric acid cross-linked chitosan/poly (vinyl alcohol)-poly(ethylene glycol) (PVA-PEG) to improve the membrane properties. The physical tests shown that grafting reaction of citric acid crosslinked chitosan increased the mechanical strength and membrane swelling. The permeability test results, it was found that the grafted chitosan membrane was improved permeability of both urea and creatinine as compared to chitosan pure and chitosan crosslinked membrane. The negative charge of the sulphonate group of

heparin increased the number of the active side of the carrier in the membrane, which then correlated to the membrane's permeability process.

Author keywords

Grafting; Heparin; Membrane; Permeability; Polymer

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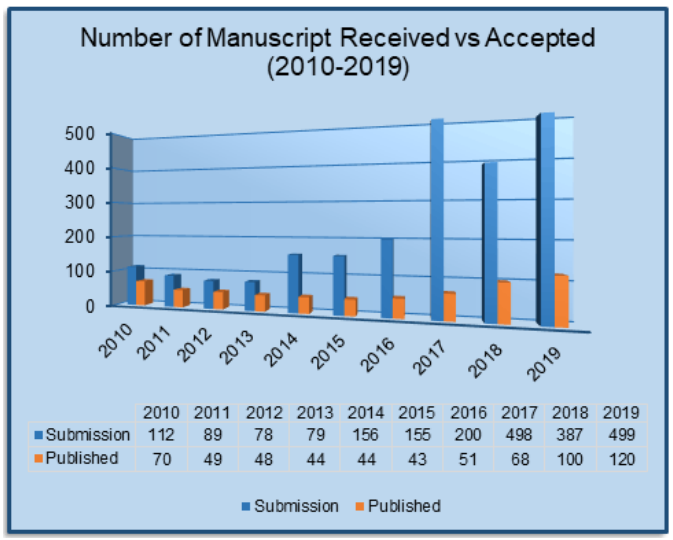

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Submission	112	89	78	79	156	155	200	498	387	499
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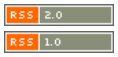
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Processing of Chloride-Containing Productive Solutions after Uranium *in situ* Leaching by Ion Exchange Method

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Abstract

The uranium sorption from productive solutions containing chloride ions using anion-exchange resins was investigated. The VPAE ion exchanger had the highest values of the sorption capacity, which for the experiment in the static mode was 13 kg U m^{-3}, and for the experiment in the dynamic mode, it was equal to 36 kg U m^{-3}. The use of VPAE anion exchanger will make it possible for uranium recovery from productive solutions with an increased content of chloride without sacrificing the productivity of the sorption plant. The process of saturated resins regeneration by various reagents was investigated. The use of ammonium nitrate solution with sulfuric acid ensured maximum value of uranium recovery from the saturated resin phase (76–97%).

Keywords

uranium; ion exchange; chloride ion; regeneration

Full Text:

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Complex Synthesis of Cis-[Pt(Asc) (NH_3)$_2$] and its Effect on Human Breast Cancer MCF-7 Cell *in vitro*

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Abstract

Bosom malignancy is the most regularly analyzed disease and the imperative reason for growth-related passing among ladies, accounting for 23% of all new tumor cases and 14% of tumor passing's. L-Ascorbic acid, commonly known as vitamin C is well-known in chemistry since long back. It has tremendous medical applications in several diseases. Therefore, in this paper five concentrations of complex cis-[Pt(Asc)(NH_3)$_2$] where Asc=L-ascorbic acid derivative on MCF-7 cell line to detect the changes in five cellular parameters (nuclear intensity, mitochondrial membrane potential, valid cell count, cytochrome C, and membrane permeability) after exposure with 24 h are investigated. The results showed that 400 µg/mL has the highest significant effect on the five parameters (nuclear intensity, mitochondrial membrane potential, valid cell count, cytochrome C, and membrane permeability) when compared with Doxorubicin 20 µM (substance used as anti-cancer) which represent the positive control. Also, the 200 µg/mL showed results close to those of the untreated cells which represent the negative control (-ve) with a very few significant differences.

Keywords

breast cancer; vitamin C; cis-platinum; high-content screening

Full Text:

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