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

Judul Publikasi Ilmiah (Artikel)		: Key conditions of alpha-tocopherol encapsulation in gum ~~Arabic dispersions~~
Jumlah Penulis		: 4 orang
Status Pengusul		: penulis corresponding
Identitas Jurnal Ilmiah	a. Nama Jurnal Ilmiah:	: International Journal of Research in Pharmaceutical Sciences
	b. Nomor ISBN /ISSN	: ISSN: 0975-7538
	c. Volume, Nomor, Bulan, Tahun	: Volume 10, Issue 4, October 2019, Pages 2622-2627
	d. Penerbit	: J. K. Welfare and Pharmascope Foundation.
	e. DOI artikel (jika ada)	: https://doi.org/10.26452/ijrps.v10i4.1520
	f. ~~Alamat web jurnal~~	: https://pharmascope.org/index.php/ijrps/issue/view/41
	g. Terindeks di SCOPUS (CiteScore is 0.21), Scimago journal Rank (**SJR 0.12, Q4, H-index 15**)	
	e. Jumlah Halaman	: 6 halaman

Kategori Publikasi Jurnal Ilmiah :

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☐ Jurnal Ilmiah Nasional Terakreditasi
☐ ~~Jurnal Ilmiah Nasional/Nasional~~ Terindeks di ~~DOAJ, CABI, COPERNICUS~~******

Hasil Penilaian *Peer Review*

Komponen Yang Dinilai	Nilai Maksimal Jurnal Ilmiah			Nilai Akhir yang diperoleh
	Internasional terindeks pada data base bereputasi	Nasional Terakreditasi	Nasional	
	(30)			
a. Kelengkapan unsur isi jurnal (10%)	3			3
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 penerbit (30%)	9			9
Total = (100 %)	30			30
Nilai Pengusul = (40% x 30) =12				12

Catatan Penilaian artikel oleh Reviewer :

1. **Kesesuaian dan kelengkapan unsur isi artikel:**
   Artikel sangat lengkap, dimana analisis tentang kondisi optimum enkapsulasi alpha-tokoferol dalam dispersi gum arab di disajikan dengan terperinci, disitasi dan dibahas. Topik dan materi sesuai dengan jurnal yang bersangkutan. Tata penulisan tersaji dengan sangat baik.
2. **Ruang lingkup dan kedalaman pembahasan:**
   Artikel ini membahas tentang kondisi optimum enkapsulasi alpha-tokoferol dalam dispersi gum arab. Gum arab adalah suatu polimer alam yang berpotensi untuk digunakan sebagai matrik enkapsulasi. Untuk mengetahui kemampuannya sebagai matrik enkapsulasi maka dilakukan analisis pada berbagai konsentrasi gum arab dan pH dengan parameter yang diukur adalah efisiensi enkapsulasi, kecepatan release dan dan kapasitas loadingnya. Data yang dihasilkan dibahas secara rinci dan komprehensif, sehingga hasil penelitian cukup siginifikan bagi pengembangan ilmu.
3. **Kecukupan dan kemutakhiran data/informasi dan metodologi:**
   Referensi yang dicitasi dalam artikel ini ada **23** dimana **20** Baru (dalam 10 tahun terakhir). Nilai novelty/kebaruan artikel sangat baik. Analisa dilakukan secara terperinci setiap bagiannya. Metode disajikan dengan tahapan yang jelas.
4. **Kelengkapan unsur dan kualitas terbitan:**
   Penerbit adalah J. K. Welfare and Pharmascope Foundation (internasional), Jurnalnya termasuk kategori Q4, dengan nilai SJR 0.12 dan H-index 15. Nilai similaritas artikel berdasarkan Turnitin hanya 7%, sehingga orisinalitas sangat baik.

Semarang, November 2019
Reviewer

Prof. Dr. Moh Djaeni, ST, M.Eng
NIP 197102071995121001
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Jabatan Fungsional : Guru Besar
~~Bidang Ilmu~~ : ~~Teknik Kimia~~

LEMBAR
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	g. Terindeks di SCOPUS (CiteScore is 0.21), Scimago journal Rank (**SJR 0.12 (2019), Q4 (2019), H-index 15 (2019)**)	
	e. Jumlah Halaman	: 6 halaman

Kategori Publikasi Jurnal Ilmiah :
√ **Jurnal Ilmiah Internasional / ~~Internasional Bereputasi~~ ****
☐ Jurnal Ilmiah Nasional Terakreditasi
☐ Jurnal Ilmiah Nasional/Nasional Terindeks di DOAJ, CABI, COPERNICUS**

Hasil Penilaian *Peer Review*

Komponen Yang Dinilai	Nilai Maksimal Jurnal Ilmiah			Nilai Akhir yang diperoleh
	Internasional terindeks pada database bereputasi	Nasional Terakreditasi	Nasional	
	(30)			
a. Kelengkapan unsur isi jurnal (10%)	3			2,85
b. Ruang lingkup dan kedalaman pembahasan (30%)	9			8,55
c. Kecukupan dan kemutahiran data/ informasi dan metodologi (30%)	9			8,55
d. Kelengkapan unsur dan kualitas penerbit (30%)	9			8,55
Total = (100 %)	30			28,5
Nilai Pengusul = (40% x 28,5) = 11,4				

Catatan Penilaian artikel oleh Reviewer :

a. **Kesesuaian dan kelengkapan unsur isi artikel:**
Jurnal IJRPS dapat diakses online dengan web lengkap menampilkan fitur2 standar jurnal internasional. Artikel yang ditulis sangat lengkap, yaitu tentang kondisi optimum enkapsulasi alpha-tokoferol dalam dispersi gum arab. Tata penulisan tersaji dengan baik, meskipun ada beberapa kesalahan tata bahasa. Jurnal memperhatikan originalitas artikel. Tingkat similaritas artikel berdasarkan Turnitin hanya 7%, sehingga orisinalitas sangat baik.

b. **Ruang lingkup dan kedalaman pembahasan:**
Ruang lingkup pembahasan dalam artikel ini terfokus pada enkapsulasi alpha-tokoferol dalam dispersi gum arab dan cukup komprehensif. Pembahasan diuraikan mendalam, didukung konsep-konsep dasar tentang terjadinya enkapsulasi disertai referensi. Kekurangan pembahasan adalah tidak adanya komparasi dengan penelitian sebelumnya.

c. **Kecukupan dan kemutakhiran data/informasi dan metodologi:**
Data penelitian yang dilaporkan memadai berupa tabel dan gambar serta spektra hasil karakterisasi. Metode penelitian disajikan lengkap, meskipun masih ada beberapa bagian yang kuantitas bahan yang digunakan tidak lengkap. Misalnya: A series of GA dispersion in a buffer solution with concentration (CGA from 10% to 40% (w/v) (berapa volume?) were formultated under various pH condition (nilai pH berapa?). Referensi yang disitasi sangat baik, dari 23 referensi, 20 terbit dalam 10 tahun terakhir.

d. **Kelengkapan unsur dan kualitas terbitan:**
Penerbit adalah J. K. Welfare and Pharmascope Foundation (internasional) dari India, Jurnal yang diterbitkan (IJRPS) terindeks Scopus, Q4 (2019), dengan nilai SJR 0.12 (2019) dan H-index 15 (2019).

Yogyakarta, November 2019
Reviewer 2

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NIP. 196407141988111001
Bidang ilmu/Unit kerja :
Departemen Kimia pada Fakultas MIPA UGM Yogyakarta

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Volume 10, Issue 4, October 2019, Pages 2622-2627

Key conditions of alpha-tocopherol encapsulation in gum Arabic dispersions

(Article) (Open Access)

Al Khafiz, M.F.[a], Hikmahwati, Y.[a], Anam, K.[b], Hudiyanti, D.[b]

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[a]Faculty of Science and Mathematics, Diponegoro University, Jl. Prof. Soedarto, SH, Semarang, 50 275, Indonesia
[b]Chemistry Department, Faculty of Science and Mathematics, Diponegoro University, Jl. Prof. Soedarto, SH, Semarang, 50 275, Indonesia

Abstract

View references (23)

Alpha-tocopherol or TOC is among substances that has medicinal capabilities. However, alpha-tocopherol is vulnerable to surrounding milieu settings. This leads to the necessity to shield it against unforeseen alterations during the storing or handling procedures. Encapsulation is presented as a procedure which can shield active agents from adverse changes by means of coating with polymers. In this study, gum Arabic (GA), a biopolymer derived from Acacia species, was used as the encapsulation matrix. Encapsulation process was done at different concentrations of GA dispersions (10%, 20%, 30% and 40%) and at various pH levels (5.4, 6.4, 7.4 and 8.4). To evaluate the key conditions of TOC encapsulation in GA dispersion we analysed TOC encapsulation efficiency (EE) and rate of release (RR) from GA dispersions as well as loading capacity (LC) of GA for TOC. The EE, RR and LC were determined by measuring the TOC concentration in the GA dispersions using UV Visible spectrophotometry at 291 nm. Results disclosed that the key conditions for achieving a high LC by GA with high efficiency of TOC encapsulation were in a dispersion of 20% GA at pH range of 6.4 and 7.4. The best EE of TOC and LC of GA were 48% and 2.8%, respectively, with a TOC average RR of 1.05-1.09 ppm/day. The results indicate that gum Arabic is a potential matrix to encapsulate alpha-tocopherol. © International Journal of Research in Pharmaceutical Sciences.

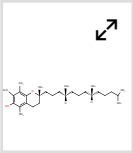
SciVal Topic Prominence

Topic: Emulsions | Oxidative stability | Oil-in-water emulsions

Prominence percentile: 95.872

Chemistry database information

Substances



Author keywords

Drug delivery system | Encapsulation efficiency | Loading capacity | Rate of release

Indexed keywords

EMTREE drug terms: alpha tocopherol | gum arabic

EMTREE medical terms: Article | controlled study | dispersion | drug concentration | drug formulation | drug release | drug solubility | drug stability | encapsulation | loading capacity | nanoencapsulation | pH | ultraviolet visible spectrophotometry

Chemicals and CAS Registry Numbers:

alpha tocopherol, 1406-18-4, 1406-70-8, 52225-20-4, 58-95-7, 59-02-9; gum arabic, 9000-01-5

Manufacturers:

Drug manufacturer:

Merck;

Sigma Aldrich

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	2019	

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International Journal of Research in Pharmaceutical Sciences

Country	India - SIR Ranking of India
Subject Area and Category	Pharmacology, Toxicology and Pharmaceutics Pharmacology, Toxicology and Pharmaceutics (miscellaneous)
Publisher	JK Welfare & Pharmascope Foundation
Publication type	Journals
ISSN	09757538
Coverage	2010-ongoing
Scope	International Journal of Research in Pharmaceutical Sciences (IJRPS) is quarterly publishing online peer-reviewed scientific journal sponsored by Pharmascope Publications. The journal publishes research articles, review articles, short communications, case studies and reports in Pharmaceutical Sciences. Coverage Area: Pharmaceutics, Novel Drug Delivery Systems, Pharmaceutical Chemistry and Drug Design, Pharmaceutical Analysis and Quality Assurance, Pharmaceutical Nanotechnology, Pharmacology and Toxicology, Hospital and Clinical Pharmacy, Clinical Research, Clinical Report, Case Studies, Pharmacognosy and Phytochemistry, Microbiology and Biotechnology, Alternative Medicine, Polymer Science, Industrial Pharmacy, Drug Regulatory Affair, Intellectual Property Rights (IPR), Molecular Modeling, Herbal Medicines, Dental Medicines, Paramedical and Lifesciences.

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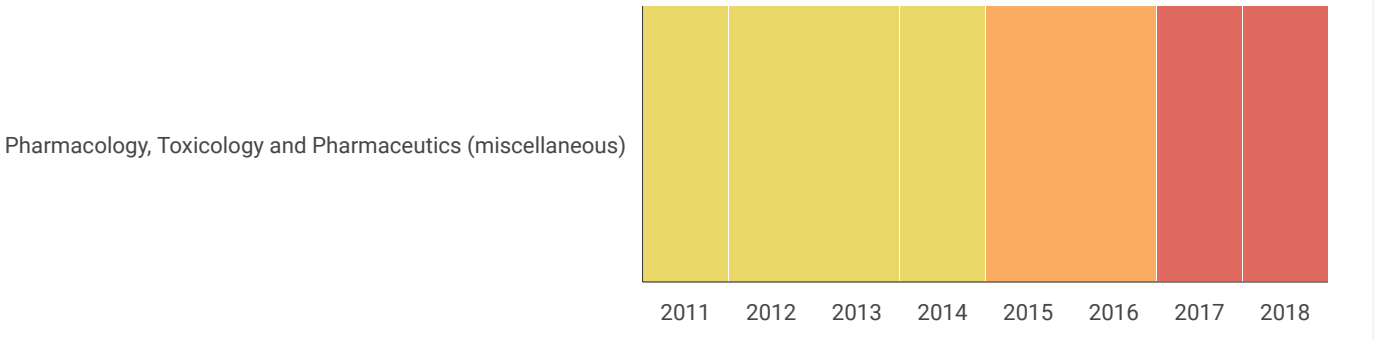

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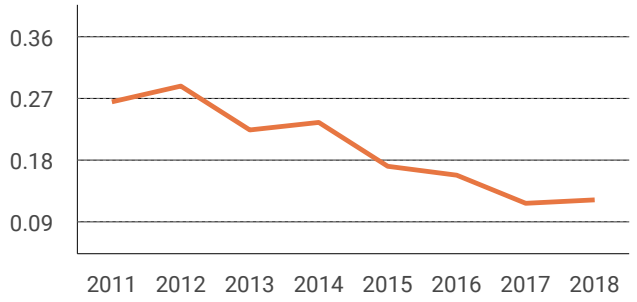

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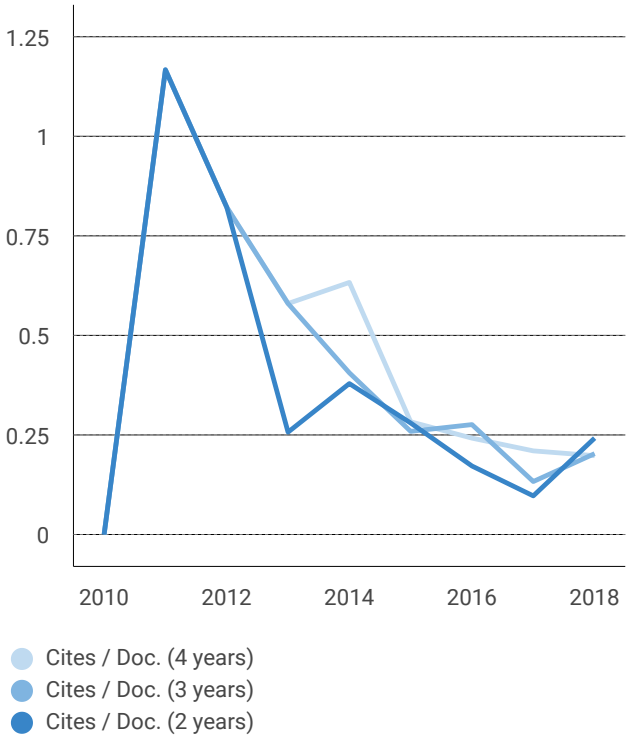

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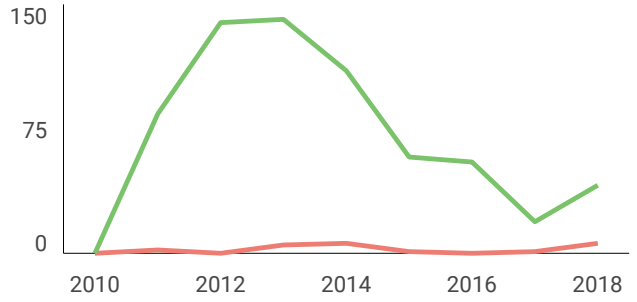

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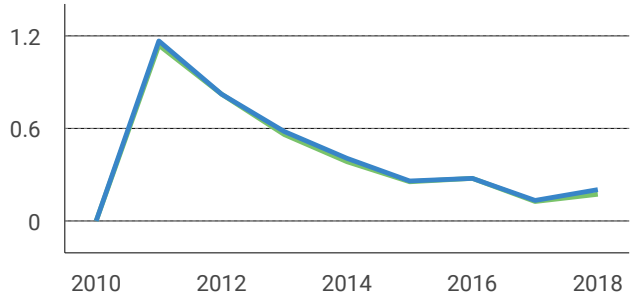

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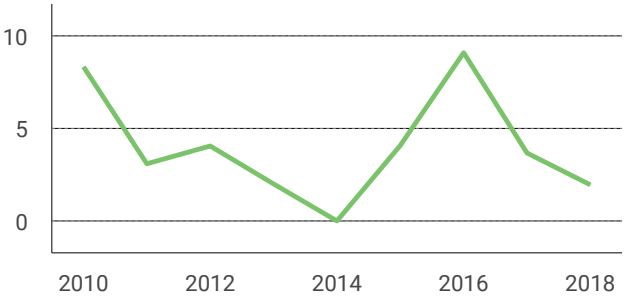

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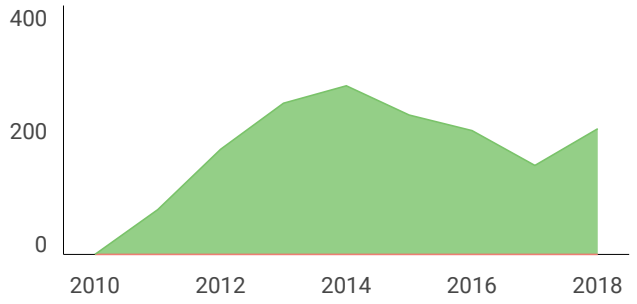

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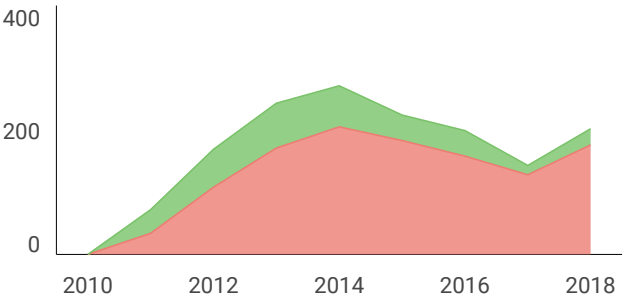

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ORIGINAL ARTICLE

INTERNATIONAL JOURNAL OF RESEARCH IN PHARMACEUTICAL SCIENCES

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Development of biodegradable scaffolds loaded with vancomycin micropartricles for the treatment of osteomyelitis

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Vancomycin hydrochloride, Chitosan Polymer, Microparticles, Biodegradable Scaffolds

ABSTRACT

In this present research work, the development of biodegradable scaffolds loaded with Vancomycin micropartricles was carried out for the treatment of Osteomyelitis. Characterization Vancomycin Loaded microparticles and evaluation of the microparticles loaded scaffolds and also to carry out In-vitro release studies. Vancomycin hydrochloride microparticles were prepared with the help of double emulsion method. HPMC and Polaxomer 407 has been taken as the main polymers for the preparation of the microparticles. Chitosan was taken as the major polymer for the preparation of scaffolds for its greater biocompatibility and biodegradability. The preparation was done with the help of the solvent casting method. The formulation was taken for further characterization and evaluation studies. Fourier-Transform Infrared Spectroscopy and Differential scanning calorimetry were carried out for the pure vancomycin drug, and the chitosan polymer X-ray diffraction was carried out to check the crystallinity of the prepared scaffolds. The particle size, zeta potential and polydispersity index for vancomycin loaded microparticles were found to be 577.0±102.5 nm, 1624 mv and 0.254. The maximum and sustained release rate of the drug was found to be 95.6±0.478, at 16^{th} Hr. By taking all the reports, a conclusion can be drawn that, the formulated VLM biodegradable scaffolds will show burst release at the initial time of administration, which is essential for the wound healing activity and will be sustained throughout the process of treatment of osteomyelitis.

ORIGINAL ARTICLE

INTERNATIONAL JOURNAL OF RESEARCH IN PHARMACEUTICAL SCIENCES

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The population dynamics of T - and B-lymphocytes in blood of the cattle vaccinated against anthrax

Aleksandr P. Rodionov*[1], Lilia A. Melnicova[1], Haris N. Makaev[1], Ekaterina V. Pankova[1], Svetlana V. Ivanova[1], Albert K. Galiullin[2], Sergey Yu. Smolentsev[3]

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ABSTRACT

Anthrax remains a serious problem for many countries in the world. Containment of major outbreaks of this disease is possible only with the help of specific preventive measures as vaccinating all susceptible livestock. Immunization of animals should create solid immunity in the organism, which should resist the development of the infection process when introducing field strains of an agent. Currently, the specific immunity of the organism to anthrax is studied in detail by Russian and foreign scientists. However, there are no data on the dynamics of the development of immunity in the literature. The purpose of this work is to study the cellular component of adaptive post-vaccinal immunity in animals at different stages after immunization against anthrax. The authors have studied the dynamics of the quantitative composition of T- and B-lymphocytes in cattle during a year. Isolation of T- and B-cells causes spontaneous rosetting of lymphocytes with erythrocytes of heterologous species of animals: sheep and mouse respectively. Recording of the reaction was carried out under a light microscope. 200 lymphocytes were counted, and the percentage of rosette-forming cells was calculated. It was found that immunization leads to an increase in the number of lymphoid cells and epiphylaixis. The increase of lymphocytes gives reason to talk about the enhanced immunity level of animals against this agent. The number of T- and B-lymphocytes in the blood of vaccinated animals has been observed for 35 days after immunization and has been maintained at the same level for two months; 3 months later the number of cells decreased, which shows weakening of the immune system and immune memory by the 6th month after immunization of animals.