

**ICH 2019****International Conference on Humanities****MALAY CAMPHOR IN ARABIC TEXT AND ITS LATEST TREND  
OF RESEARCH**

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***Abstract***

The Arabs have been known for their obsession to scenting items, being Malay camphor is among the exotics. Albeit the noble place the resin secured in ancient Arab community, it is constantly remembered by Malay world for embalming rites. This study attempts to identify the importance of the camphor in ancient Arabs and in tandem, the current concern the resin receives globally based on cutting-edge research. This study relies on textual analysis of classical books pertaining to camphor in Islamic scripture, as well as classical Arab texts. Furthermore, it conducts a bibliometric analysis of researches on the resin's providing plant, *Dryobalanops aromatica*, based on the archive of PubMed Central (PMC) from 2016 – 2019. The analysis provides quantitative and qualitative assessments to study the latest trend of the research. This study finds that the ancient Arabs consumed Malay camphor for incense burning and funeral, and subsequently discovered medicinal properties in the resin. Notwithstanding, Arab states is currently absent in the distinguished discourse on Malay camphor presented by a total of 29 papers. Islamic countries are only represented by Malaysia which contributes a fracture of 6.9% in the discourse. China attains a significant presence as it contributes 65.5% of the total papers. Generally, the trend of research demonstrates concerns on medicinal potential unless 2 papers which direct their attention to sustainability for the vulnerable species. This paper suggests a timely devotion in a form of conservation for the plant, in the face of thriving curiosity on discovering its further properties.

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**Keywords:** Malay camphor, Arabic text, latest trend, research.



## 1. Introduction

In an attempt to unveil the mentioning of camphor in classical Arabic texts, this paper delves into the Holy Quran, hadith and compiled poetries. Other references irrespective of being classical or contemporary are helpful to define the know-what about Malay exotic in ancient Arab world. Regarding the latest trends of papers pertaining to the Malay camphor-producing species *Dryobalanops aromatica* or *Dryobalanops sumatrensis* (“Native Plants”, 2020), PMC at the National Center for Biotechnology Information (NCBI) is chosen as a reliable entity for its reputation as a compiler for the cutting-edge researches contributing to its particular concern. In fact, it is a free full-text archive of biomedical and life sciences journal literature (“PMC”, 2019). The purported species is native to Malesian geographical region (Wiersima & Leon, 2016) which has been known as Malay Archipelago (Johns, 1995).

Prior to this study on trend of researches on plants mentioned in old text, are papers whether on several plants or single plant. An example for the former is a paper in Malay titled ‘Kekerapan Penerbitan Di SCOPUS Mengenai Flora-flora Dalam Al-quran dan Al-hadith’ (translated ‘Frequency of Publication on Plants Mentioned in Al-quran and Al-hadith in SCOPUS Indexed’) by Yakob et al. (2016). The paper opts for the database of SCOPUS to study the frequency and trend of research on certain plants mentioned precisely in the Quranic and hadith texts namely; date, olive, fig, pomegranate, Christ’s thorn jujube and black cumin. The study concludes that various sub-specialty divisions of science have a predominant and significant presence in the research (Yakob et al., 2016). While an example for the latter is a paper titled ‘Aloeswood In; Hadith, Current Distribution and Trend of Research Based on PMC’ by Thuraya Ahmad. The paper opts for the database of PMC to study the trend of research of *Aquilaria malaccensis*, the providing species for the fragrant resin, aloeswood (Ahmad, 2019).

### 1.1. The Acknowledgement of Camphor in Ancient Arab

The precious camphoraceous oleo-resin can be obtained from the genera; *Dryobalanops*, *Cinnamomum* and *Blumea*. The Arab is known for trading in the profitable camphor of the species *Dryobalanops aromatica* in the 6<sup>th</sup> century AD, and it was the kind first brought to Europe. On the other hand, the demand was chiefly from the Chinese before the development of their camphor industry based on the species *Cinnamomum camphora* which is native to their land. Interestingly, the Arabic name for the resin ‘*kāfūr*’ is close to its name in Malay language ‘*kapur*’ (Burkhill, 1966) rather than to Sanskrit language ‘*karpura*’ (Saini, 2018). As an available precious good the Arabs indulged in inhaling its scent, camphor can be traced within lines of Arabic pre-Islamic poetry, for example the one composed by al-Namir ibn Tawlab, being an excerpt of it is narrated:

Pieces of camel hump meat and pure milk alternately help her growing. And she burns incense of musk, camphor and styrax wood.

(al-Qāliy, 1999)

For camphor was an available gratifying exotic for them, not surprisingly it is as well mentioned in the Holy Quran:

As to the righteous, they shall drink of a glass (of spring water) mixed with *Kāfūr*.

(“Surah Al-Insaan”, 2020)

The Quranic verse mentions a drink flavoured with Kafūr among the blessings rewarded abundantly to dwellers of the paradise; for its colour, scent and coolness altogether reminiscence of worldly camphor (al-Zumakhshariy, 1987). Credibly, the divine scripture does promise the believers with the conveniences that are familiar to their worldly life, and does not enumerate the rewards which are total alien to them. Camphor did exist within the consumption of people in the lifetime of Prophet Muhammad as revealed in the sound hadith narrated by Nāfi' as he said that:

When Ibn 'Umar wanted incense burning he got it from aloeswood without mixing it with anything, or he put camphor along with aloeswood and then said: "This is how Allah's Messenger (may peace be upon him) burned incense".

(al-Naysābūriy, 2000)

Besides the usage of camphor as incense, it is recommended in performing bathe to dead body as mentioned in sound hadith narrated by 'Umm 'Aṭiyyat al-'Anṣāriyya:

Allah's Messenger (peace be upon him) came to us when his daughter died and said, "Wash her thrice, five times or more, if you see it necessary, with water and leaves of Christ's thorn jujube and then apply camphor or some camphor at the end; and when you finish, notify me." So when we finished it, we informed him and he gave us his waist-sheet and told us to shroud the dead body in it.

(al-Bukhāriy, 2000; al-Naysābūriy, 2000)

The hadith proves that camphor was the only fragrant substance sprinkled on washed dead body, while another sound hadith indicates to the usage of a mixture of fragrant items as narrated by Ibn 'Abbās:

While a man was performing a wuqūf rite in 'Arafat, he fell down from his camel and broke his neck (and died). The Prophet said: "Wash him with water and leaves of Christ's thorn jujube, then shroud him in two pieces of cloth, and neither perfume him with al-hanūt, nor cover his head, for he will be resurrected on the Day of Resurrection saying; 'Labbayk,' (like a pilgrim)."

(al-Bukhāriy, 2000; al-Naysābūriy, 2000)

al-Ḥanūt as a powdered perfume is a mixture of chosen ingredients from fragrant items namely; sweet flag roots, musk, ambergris, camphor and sandalwood (Ibn Manzūr, 2015). It was to be sprinkled on washed dead body and cloth which made to drape over it (Ibn al-'Athīr al-Jazariy, 2010). Its fragrant scent is believed to be favorable to the angels and as well pleasant for relatives and visitors who bid farewell to the dead. Besides its aromatic scent, the camphor could also be a drying and cooling substance and thereby hardens the corpse. Specifically, the camphor prevents liquid dirt from flowing out and stops quick damage to the corpse. In case when camphor is not available, it can be replaced with other aromatic scents such as musk (*al-misk*), though its goodness is not as potent as camphor (Ibn Ḥajar al-'Asqalāniy, 2019).

Undoubtedly, camphor was known among Arabs as a scenting item. Moreover, it was reputedly acknowledged among neighbouring nation, as the Arabs during the Caliph 'Umar's administration upon their conquest of the then Persian city, Al-Mada'in (al-Ḥamawiy, 2011) they had found camphor being a household item there in abundance (al-Dīnawariy, 2016). Later, in tandem with their civilising movement, Muslim scholars furthered their discovery on benefits of camphor. al-'Anṭākiy (2016) (d. 1592M) imparted that besides the resin is considered a potent medication, the camphor-providing tree is a source

for decay resistant wood, and for that particular, it was used for preparing thrones used by Indian kings. On the other hand, its resin contains medicinal values which can be prepared for curing fever, diarrhea, depression and dental cavity. Additionally, Ibn Sallūm al-Ḥalabiy (2018) (d. 1670M) includes camphor among ingredients of tonic mixture for facial treatment. Prior to them was Ibn Sīnā or Avicenna (d. 1037M) who is honoured as a chief for the fraternity of medicine in Islamic Civilisation, as he introduced five types of camphor tablets. Three types of them are manifestly mentioned for curing certain diseases; being the first is for treating fevers, respiratory diseases and handling dehydration, the second is for gastrointestinal disease, liver disease and sthenic fever and the third is for sthenic fever and hepatic vein obstruction (Ibn Sīnā, 2009).

As referred to the earliest available Arabic writings recorded in the 9<sup>th</sup> century AD, their vessels did arrive Malay Archipelago's shores among their trade junctures to acquire prolific precious goods for trading. As for camphor, they headed to Jazīrat Tiyyūma (Tioman Island), al-Zābaj (the Mollucas) and Sumatra particularly Bārūs (Barus) (Ibn Khurdādhbih, 2014), instead of China. In terms of the fact about the earliest Arab geographers as early as that period mentioned the Archipelago and their accounts which exudes a well-known and frequented sea route, Tibbetts (1956) opines that Arab merchants had ventured to the region a long time before Islam was established in any Malay kingdom.

## **1.2. Trend of Research on Malay Camphor Based on PMC Dated 2016- 2019**

Regarding the research attained on the quintessential source plant for Malay camphor, based on the archive of PMC from 2016 to 2019, this study collects the data within its frame pertaining to the providing species, *Dryobalanops aromatica*, whereas on its synonym *Dryobalanops sumatrensis*, no data is recorded until 6 February 2020. Within the chosen period this study finds a total of 29 papers as shown in Table 01. Based on the collected data, the papers on Malay camphor are predominantly from Asian countries. The most contributing countries is China with the achievement of 19 papers including 2 papers of collaborative researches with other countries as there is a collaborative paper with Singapore, plus another is with South Korea and Japan. All the remained papers are non-collaborative, being Malaysia attained 4 papers while Thailand, Japan, South Korea, Australia, South Africa and United States of America (USA); each of the countries contributes 1 paper. Research from Arab region is noticeably absent, though the resin secured a distinctive attraction in ancient Arab. However, it is interesting that Traditional Chinese Medicine (TCM) acknowledges the benefits of Malay camphor, albeit the presence of Chinese camphor obtained from the species *Cinnamomum camphora* which is native and endemic in mainland of China ("Invasive Species Compendium", 2019).

Medicine has a significant presence in the chosen sample with the total of 27 papers, and apart from the field there are only 2 papers represent the field of Forestry attained by Malaysian researchers. The both researches generally contribute to the preservation of species in Malaysian forest including *Dryobalanops aromatica*; with the difference of chosen spots. Muhd Sahimi et al. (2018) set their concern on East Malaysia, precisely rehabilitated forest in Bintulu, Sarawak, whereas Kiew and Lim (2019) focus on Terengganu of West Malaysia. The step taken by Malaysia is timely for the International Union for Conservation of Nature and Natural Resource – IUCN list this species as vulnerable (Barstow & Randi,

2018). The species is threatened most significantly in Borneo as a result of expanding agricultural frontier, logging and wood harvesting.

Regarding the 27 papers on medicine which are predominant, 24 papers out of them attribute to traditional practice in utilizing the resin, Malay camphor. Precisely, 21 papers attribute to Traditional Chinese Medicine (TCM) with 2 of them add other traditional medicines namely Tibetan Medicine (TM) and Traditional Korean Medicine (TKM). The former attains a comparative study between two independent medical systems; TM and TCM, being among the scope is the using of imported varieties which includes Malay camphor (Zhao et al., 2019). Meanwhile, the latter highlights the role of TKM in smoking cessation programme with brief information about the same role of TCM in China (Jang et al., 2016). Other than TCM attributing are 3 papers, being the first is from Malaysia points to the usage of camphor commonly in traditional medicines, precisely in the preparation of toothpastes, powders, diaphoretics and antiseptics, and for the treatment of hysteria, and dysmenorrhea (Tieng et al., 2019). The second is from Thailand attributes to the Thai traditional antinausea remedy as among drugs registered in the National List of Essential Medicines, used for the treatment of blood circulation disorders, dizziness, fatigue, and insomnia (Damjuti et al., 2019). And the third is from Japan which considers the particular camphor as among medicinal herbs in Japanese tradition (Ito et al., 2016).

The researches on medicine predominantly observe the function or potential of Malay camphor in combination with other herbs or substances, as 19 out of 27 papers on medicine show purported concern. For instance, a research on fragrance inhalation of an essential oil SuHeXiang Wan which consists of 15 crude herbs including Malay camphor instead of Chinese camphor. It is proven to progressively prolong the pentobarbital-induced sleeping time and inhibit brain lipid peroxidation to which the anticonvulsive action is attributed (Wan & Heinbockel, 2018). Meanwhile, only 8 out of the total papers on medicine observe its potential as a single ingredient. An example for the utilization of Malay camphor without blending it with other ingredients is the using of Borneol. It is a simple bicyclic monoterpene derived from either *Dryobalanops aromatica* or *Cinnamomum camphora*, named Bingpian in Chinese is widely applied in TCM. It can be as well derived from other medicinal plants such as *Blumea balsamifera*. However, it is learnt that the one extracted from *Dryobalanops aromatica* can direct drugs to the upper body parts according to TCM's theory (Chen et al., 2016; Song et al., 2018; Zou et al., 2017). Moreover, it has been acknowledged to attenuate Alzheimer's disease, stroke, cerebral ischemia, cerebritis, and cerebral edema (Yu et al., 2017).

Subsequently, upon unveiling the fields of concern demonstrated by the papers, this study finds that they delve on different divisions of medicinal science. Neurology gains predominant concern as 9 out of total 27 paper on medicine contribute to the field. It is followed by Oncology and Cardiology, as each of both divisions is contributed with 5 papers. While Pathophysiology, Dermatology, Pulmonology, Endocrinology, Ophthalmology, Epidemiology, Anesthesiology and General Practice; each of these divisions is represented by 1 paper.

**Table 01.** Latest researches on Malay camphor dated from 2016 – 2019 (data collection finished on 6 February 2020)

Date of publication	State	Field	Traditional medicine attributed	Usage of camphor in treatment
2019 Sep 2	Malaysia	Forestry	-	-
2019 Aug 23	China	General Practice	Tibetan & TCM	single ingredient
2019 Jul 18	Malaysia	Oncology	general	single ingredient
2019 Apr 15	China	Neurology	TCM	single ingredient
2019 Apr-Jun	Thailand	Neurology	Thai	mixed
2018 Dec	China & Singapore	Cardiology	TCM	mixed
2018 Nov 15	China	Neurology	TCM	mixed
2018 Nov 14	China	Cardiology	TCM	mixed
2018 Sep 4	China, South Korea & Japan	Oncology	-	single ingredient
2018 Jun 1	China	Oncology	TCM	mixed
2018 May	USA	Neurology	TCM	mixed
2018 Mar 28	China	Neurology	TCM	single ingredient
2018 Mar;	Malaysia	Forestry	-	-
2018 Feb 28	China	Cardiology	TCM	mixed
2017 Nov 15	China	Neurology	TCM	mixed
2017 Aug 31	China	Pathophysiology	TCM	single ingredient
2017 Sep 1	China	Oncology	TCM	mixed
2017	China	Cardiology	TCM	mixed
2017	South Africa	Dermatology	-	mixed
2016	South Korea	Pulmonology	TKM & TCM	mixed
2016	China	Endocrinology	TCM	mixed
2016	China	Neurology	TCM	mixed
2016	Malaysia	Oncology	-	single ingredient
2016	China	Neurology	TCM	mixed
2016	China	Ophthalmology	TCM	single ingredient
2016 Jun	Australia	Neurology	TCM	mixed
2016 Mar	China	Cardiology	TCM	mixed
2016 Feb	China	Epidemiology	TCM	mixed
2016	Japan	Anesthesiology	Japanese	mixed

Source: "SEARCH RESULT", 2019

## 2. Problem Statement

Malay camphor secured a distinctive place in the ancient Arab world, as it was used in perfumery and embalming. Later, along with religiously insistence on civilised way of life, their fraternity of medicine discovered its medicinal values. No wonder their powerful vessels sailed through stormy waves to as far as the region of Malay Archipelago for an array of products, being among them was the precious camphor. Notwithstanding, the substance is no longer gains deserved appreciation construed from being merely yet constantly remembered by Muslims for funeral. Apart from discovering other potential benefits of Malay camphor, the awareness for the conservation status of its providing species, *Dryobalanops aromatica* is required.

### **3. Research Questions**

3.1. What is the usage of Malay camphor as mentioned in Islamic and classical Arabic text?

3.2. How is the trend of research regarding the Malay camphor based on archive of PMC dated 2016 to 2019?

### **4. Purpose of the Study**

4.1. To identify the usage of Malay camphor as mentioned in Islamic and classical Arabic text.

4.2. To ascertain the trend of research regarding the Malay camphor based on archive of PMC dated 2016 to 2019.

### **5. Research Methods**

Initially, this study relies on content analysis regarding the Holy Scripture and other classical Arabic texts mentioning camphor to grasp the characteristic of the substance. Furthermore, assisted by contemporary sources and reports of reliable bodies the binomial nomenclature of the Malay camphor-producing species is identified, as well as its conservation status. In delving into its further discourse, the study conducts a bibliometric analysis of researches on the species dated 2016 to 2019 compiled by the United States-based PMC, of National Center of Biotechnology Information (NCBI). The analysis provides quantitative and qualitative assessments of a database of the PMC on the meant plant within the chosen publication period. Through the quantitative approach, the number of papers attained pertaining to the species is recorded. The qualitative portion of this study focuses on trend of researches attained by the papers regarding contributing countries, their specific fields of concern, the attribution to traditional medicine and method of usage whether as single ingredient or in mixture with other ingredients.

### **6. Findings**

This study finds that camphor which is mentioned in Islamic and ancient Arabic texts was from Malay Archipelago obtained from the species *Dryobalanops Aromatica*. The resin was used in incense burning and burial preparation for dead body, and later its medicinal properties were discovered by the fraternity of Islamic medicine. Furthermore, Muslim scholars were certain about the fact that its plant provides decay resistant wood for furniture. Subsequently, upon studying on trend of research on the species dated 2016 to 2019 based on the archive of PMC, this paper finds a total of 28 papers. Asian countries especially China achieved a lion's share of the contribution, whereas the remained small fraction is from Australia, South Africa and United States of America. On the contrary with the importance of camphor in ancient Arab, research from Arab states is absent. In terms of the fields of concern, 26 out of the total 28 contribute to medicine, whereas the remained both from Malaysia contribute to forestry, which are endeavoured for the sake of conserving its vulnerable native species. In terms of medicine, Neurology gains predominant concern, followed by Oncology and Cardiology. The other fields are Pathophysiology, Dermatology, Pulmonology, Endocrinology, Ophthalmology, Epidemiology, Anesthesiology and General Practice.

## 7. Conclusion

Indeed, Malay camphor secures a noble place in Islamic text as consuming it is considered following the practice of the Prophet. As well as in the fraternity of Islamic medicine as it was proven to contain remedial values. Notwithstanding, the presence of Muslim countries in cutting-edge research contributes to further discovery on Malay camphor is scant. However, there is a small fraction of the research represented by Malaysia concern on sustainability for the distribution of the providing species on its native land, on the face of thriving researches by others exude further treasure hunting on the vulnerable plant. A timely honour for the species *Dryobalanops aromatica* is in a form of abstinence from consuming it. The specialities of Malay camphor which cater to the need of medicine should be replaced with other available resin or substance, be it natural or synthetic.

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