

Citation Analysis of Muslim Scholars of the Islamic Golden Age on the Web of Science

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Abstract

The purpose of this study is to investigate the scientific impact of Muslim scholars of the Islamic Golden Age (750-1258 AD) through citation analysis of documents indexed in the Web of Science. For this purpose, after reviewing the related reference sources, 150 Muslim scholars of the Islamic Golden Age were selected for the study. To collect citation data for each scholar in the study population, the Cited Reference search option in WoS was used. Of the 150 Muslim scholars, 32 scholars did not receive any citations on the WoS. According to the research findings, *Ibn Sina*, with 3587 citations, was the most cited scholar among the Muslim scholars of the Islamic Golden Age. His book, entitled "Kitab al-shifa" (known as "Book of Healing"), with 1,599 citations, was the most cited work among the works of Islamic Golden Age Muslim scholars. *Al-Ghazali*, *Ibn Rushd*, and *Al-Farabi* were other highly cited scholars of the Islamic Golden Age on the WoS. Subject analysis of citing documents to the works of scholars of the Islamic Golden Age showed that the top 10 subject areas include religion, Asian studies, philosophy, history, humanities (multidisciplinary), medieval and Renaissance studies, history and philosophy of science, Archaeology, Pharmacology and Pharmacy, And Integrative and Complementary Medicine. Furthermore, the USA, the Islamic Republic of Iran, England, Turkey, France, Malaysia, Israel, Germany, Canada, and Spain are the top 10 countries citing the works of Muslim scholars of the Islamic Golden Age, respectively. Finally, English, French, Turkish, Spanish, German, Italian, Arabic, Malay, Russian, and Dutch were the top languages, citing the works of Islamic Golden Age Muslim scholars. The results showed that Muslim scholars of the Islamic Golden Age have had a broad and significant impact on the indexed

documents of the WoS across various subjects. This research provides a core bibliography of the works of Muslim scholars of the Islamic Golden Age.

Keywords: Islamic Golden Age, Muslim Scholars, Citation Analysis, Web of Science.

Introduction

One of the topics that has been worth studying for a long time is research on the history of Islamic civilization and the role of Muslim scholars in various scientific fields. The Muslims acquired elements from the Chaldeans, the Indians, the Persians, and, in particular, from the Greeks. They brought these sciences together in a new format that evolved over the centuries and became integral to Islamic civilization (Karagözoğlu, 2017; Mehfooz & Syed, 2020). In the field of mathematics and astronomy, for example, during the ninth and tenth centuries, Muslim scholars' acquaintance with the works of Greek scholars such as Euclid, Archimedes, and Apollonius, as well as Indian sources such as Aryabhata, led to significant developments such as the decimal system, the first systematic study of Algebra, and many other advances in the study of geometry and trigonometry (Renima, Tiliouine & Estes, 2016; Al-Daffa, 2020). The influence of the Islamic world on Western sciences is also evident in the realm of scientific terminology, as many words used by Muslim scholars have been preserved and entered into the English language. For example, the phrase alcohol, alkali, niter (from which the word nitrate is derived), alkahest (the universal solvent that alchemists had long sought), and alembic (a flask of distillation) in chemistry, and the words almanac, zenith, and rare in astronomy. They have Arabic roots and were used by Muslim scholars (Karagözoğlu, 2017; Gaol, 2024).

One of the glorious periods in the history of science within Islamic civilization is known as the Islamic Golden Age. This age, or the heyday of Islamic knowledge, which lasted from the eighth to the thirteenth century AD (750-1258 AD) under the rule of the caliphs, is a period of Islamic development that lasted almost 5 centuries. This period ended with the collapse of the Abbasid Caliphate following the Mongol invasion in 1258 AD. The Islamic Golden Age is a remarkable period in human history, marked by the incredible achievements of Islamic scholars across various fields, including art and humanities, physical sciences, social sciences, medicine, astronomy, mathematics, economics, and Islamic financial systems, spanning several centuries (Renima et al., 2016). Bobrick (2021) highlights the profound influence of Islam on Western medicine, science, and philosophy during the Islamic Golden Age, which coincided with the Dark Ages in Europe. Focusing on Harun al-Rashid, a prominent leader of the Abbasid dynasty, his study reveals intricate interactions among Islamic regions, spanning from Spain to Central Asia, and encompassing the Frankish Kingdom and the Byzantine Empire during the 8th and 9th centuries (Bobrick, 2021). This period played a pivotal role in shaping global intelligence and knowledge. During that period, the Islamic world reached its cultural zenith, serving as a source of knowledge and inspiration for Europe through connections spanning Spain, Italy, and Syria (Gaol, 2024). The advancements of this period are similar to the flourishing of wisdom in ancient Greece or the Renaissance in Europe. The Golden Age of Islam, like ancient Greece and the European Renaissance, was made possible by the auspicious co-occurrence of favorable political conditions, widespread support, and exceptional minds (Gearon, 2017).

This era hosted famous scholars. Ibn Sina, one of the most important scholars of this period, who made an essential contribution to the study of the nature and philosophy of religion, was well known in medieval Europe. His famous book, *Al-Qanun fi't-Tibb*, known as the *Canon of*

Medicine in the West, encompasses all of ancient Greek medical knowledge, incorporating Arabic idioms and guidelines. This book was translated into Latin in the 12th century and taught in medical schools throughout Europe until the advent of modern science (Faruqi, 2006). A study by Zarshenas and Zargarani (2015) revealed Ibn Sina's remarkable contribution to cardiology. Ibn al-Haytham, a 11th-century experimental physicist, modernized our understanding of vision.

Additionally, he is credited with inventing the early imaging apparatus (obscura camera) and conducting research on the motion of planets (Masood, 2017). Centuries before European scholars such as Bacon, Descartes, and Galileo, who developed the scientific method, Ibn al-Haytham established the principles of empirical theory and described the experimental method in terms of observation, measurement, experimentation, and inference (Serageldin, 2008). Abū Bakr al-Rāzī was another renowned scholar of this period, known as the first great scholar of the Islamic Golden Age and a symbol of the field of cardiovascular science in Iran (Mahmoudi Nejad & Dalfardi, 2014). His works, such as *al-Hawi fi al-tibb* and *Kitāb al-Manṣūrī*, have been translated into Latin and were popular among European medical students until the 16th century (Le Bon, 1974).

Masood (2017) in his book entitled "Science and Islam (Icon Science): A History," states that in the mainstream of science education in Britain - until recently - the history of scientific progress from the classical era of Euclid, Aristotle and Archimedes is directly linked to the birth of the age of science in Europe in the sixteenth and seventeenth centuries. There may have been a brief reference to Muslim participation in science. During the heyday of Islamic civilization, Muslim scholars and engineers made groundbreaking discoveries and inventions, and their impact is still evident in our daily lives. It can be said that a similar situation exists in science education worldwide, which has led to the underappreciated role of Muslims in the development of global science and the impact of their significant scientific achievements. The question arises: if Muslim scholars were able to shine in various scientific fields over the centuries and create new horizons in these fields, what would be their impact on the world of science? There are several approaches to measuring the effects of science, one of which is citation analysis. The present study aims to utilize the method of citation analysis, a key bibliometric tool, to examine the impact of Islamic Golden Age scholars and their notable works based on WoS data. This research can lead to a core bibliography of the works of Muslim scholars of that period. Accordingly, the current study seeks to answer the following questions:

1. What are the most cited works of Muslim scholars of the Islamic Golden Age?
2. Who are the most cited Muslim scholars of the Islamic Golden Age?
3. What are the subject areas of the works citing Muslim scholars of the Islamic Golden Age?
4. Which countries have mostly cited the works of Muslim scholars of the Islamic Golden Age?
5. How is the language distribution of works citing Muslim scholars of the Islamic Golden Age?

Literature Review

The recommendations of the Muslim religious book, the Qur'an, for science and learning, and the Prophet Muhammad's command to seek knowledge, even in distant places, provided the grounds for the emergence of a period in Islamic civilization known as the Islamic Golden

Age (Masood, 2017). Sardar and Masood (2006) discuss "How do you know? Reading Ziauddin Sardar on Islam, science and cultural relations," in which they argue that from the very beginning of Islam, the pervasive concept of science has shaped the perspective of the Muslim people. In fact, Islam has made the acquisition of knowledge a religious obligation, and by this definition, being a Muslim means being in the stronghold of the knowledge production and processing. Faruqi (2006) discusses the role those Muslim scholars played in the development of scientific thought in the Middle Ages. He concludes that the transfer of Muslim-created knowledge to Western Europe played a crucial role in reviving the atmosphere of learning and exploration in Europe, ultimately leading to the Renaissance in the sixteenth and seventeenth centuries. Saliba (2007), in his book entitled "Islamic Science and the Making of the European Renaissance," focuses on the roots of Islamic sciences during the Golden Age and the influence of Islamic sciences on Renaissance Europe. He also argues that there is a close relationship between the Islamic scientific thought that emerged in that period and the science that emerged in Europe during the Renaissance.

Islam (2011) highlights aspects of Muslim participation in the scientific body of knowledge that are subtle and perhaps more important in the development of the entire scientific body. Isenhour (2013), in his book entitled "The evolution of modern science", discusses the participation of scholars of the Islamic Golden Age in various sciences, including agriculture, astronomy, chemistry, geography, mathematics, mechanics, medicine, optics, and measurement sciences. Afridi (2013) claims that Muslim scientists developed many ideas and theories in various fields of knowledge. He highlights some of the intellectual and scientific contributions made by Muslim scholars, with a particular emphasis on their achievements in the fields of mathematics, physics, and medicine. Qaumi (2015) introduces the beginning of the scientific movement in Islamic civilization and the innovative sciences developed by Muslims, as well as some famous scholars of the Islamic Golden Age, and highlights the reasons for the growth of knowledge among them. He considers the encouragement of Islam to acquire knowledge as the foundation for the advancement of science among Muslims. Another issue that contributed to the growth of knowledge among Muslims was their tolerance toward scholars who held different religious beliefs.

Akhmetova (2016) presents a history of science in Islam, highlighting the caliphate of Harun al-Rashid and the establishment of the House of Wisdom, and discusses Islam's relationship with science. As part of her research, she examines the situation of women in Islam. She also mentioned several Muslim women scholars of the Islamic Golden Age, such as Samra 'binti Nuhaik al-Asadiyyah as the accountant (market inspector), al-Shifa (Layla) binti 'Abdullah, as a key player in women's education, and Amrah bent 'Abd al-Rahman as Aisha's pupil and secretary. Karagözoğlu (2017) describes the history of the rise of Islam and the history of science in Islamic civilization, as well as the Islamic Golden Age, and explains how the House of Wisdom (Bayt al-Hikmah) was established and the achievements of the scholars working in this center. It also provides a history of the Muslim successes in Spain. He then discusses the participation of Muslims in science and technology across various fields, and concludes with a brief description of 21 notable scholars of the Islamic Golden Age.

Gearon (2017), in his book "History and achievements of the Golden Age of Islam", describes this age as a very fascinating and complex period that covers all areas of human life and endeavor. In separate chapters, he examines the time, why, and what, as well as the famous historians and scholars of the Islamic Golden Age. Abudawood, Alshareef, and Alghamdi

(2021) provided insights into the great physicians of the 10th to 13th centuries. Despite the destruction of Islamic civilizations by the Mongols in the 13th century, some of their works are still preserved, indicating their lasting influence. These works include the first detailed drawing of the eye anatomy by Hunayn Al-Abadi (808 A.D.), a proposal for the occlusive treatment for amblyopia by Thabit Alharrani (823 A.D.), the discovery of the optics and vision related to light reflection by Ibn Al-Haytham (965 A.D.), the invention of the hollow needle used for cataract aspiration by Ammar Al-Mawsili (1010 A.D.), and design of surgical instruments by Khalifah ibn Al-Mahasin (1256 A.D.). Al-Gharbi (2021) states that Muslims developed their own social science centuries before the Europeans. While providing an overview of the historical and cultural environment in which “Islamic” social science was born, he traces social science development over time through case studies of four prominent scholars: al-Razi, al-Farabi, al-Biruni, and Ibn Khaldun, who had key roles in establishing fields that could be almost equivalent to the disciplines of psychology, political science, anthropology, and sociology.

Hans (2023) explores how innovations and knowledge from the Islamic world, particularly during the 8th to 14th centuries, were transmitted to and integrated within European societies. His study reveals that various technological innovations—such as advancements in mathematics, astronomy, engineering, and medicine—originated from the Islamic world and significantly contributed to European technological progress. According to Ansari and Iqbal (2023), during the Islamic Golden Age, Muslim scholars not only translated Greek works on psychology into Arabic but also improved upon existing instruments, techniques, methods, ideas, and discoveries. An examination of the contributions by medieval Islamic scholars in various fields of psychology revealed their remarkable ability to refine, enhance, and apply theories and concepts inherited from the early Greeks. Gaol (2024) discusses the pivotal role that those Muslim scholars of the Islamic Golden Age played in shaping Western scientific discourse. Their influence extended across various disciplines, including natural philosophy, logic, ethics, metaphysics, political philosophy, and philosophical theology. These visionary scholars fostered interfaith interaction and cooperation, demonstrating that, amidst historical tensions, scientific progress could thrive. Their work laid the groundwork for the reciprocal exchange of ideas and knowledge between Islamic civilization and Europe, leaving an indelible mark on the evolution of science. A literature review revealed that many researchers have attempted to demonstrate the participation of Muslim scholars in scientific advancement using various methods and approaches. What distinguishes this research is the use of the citation analysis method, examining the influence and participation of these scholars in the world of science and technology.

Materials and Methods

The present study population comprises 150 renowned scholars of the Islamic Golden Age, whose full names, along with various written forms of each scientist's name, are listed in Appendix 1. Several criteria were considered to identify well-known scholars: 1. They must belong to the Islamic Golden Age, meaning that their lifetime was from the 8th to the 13th century AD, 2. They must belong to the geography of the Islamic world, in other words, wherever Islam spread, including Andalusia and Africa 3. They must be Muslim, 4. They must have a prominent and influential work 5. They must have been cited in credible and

authoritative sources. Numerous sources were used to identify the Muslim scholars of the Islamic Golden Age, including "The contribution of muslim scholars to science and technology" by Karagözoğlu (2017), the English Wikipedia entry entitled "List of Scientists in Medieval Islamic world" (Wikipedia, 2024), and other related works.

To extract the various written forms of the scholars' names in Latin, resources such as Google Scholar, English Wikipedia, and The Great Islamic Encyclopedia were consulted. For example, for a scholar named Ibn Abi Useibia, the following written forms were identified. Ibn Abī Uṣaybi'a Mu' affaq Al-Dīn Abū Al-'abbās Aḥmad, ibn Al-Qāsim Ibn Khalīfa Al-Khazrajī, Ibn Abi Usaybi'a, Ibn Abī Uṣaybi, Ibn Abi Usaibia, Abī Uṣaybi'ah. To collect citation data for each scholar in the study population, WoS was queried. This data collection effort took place in November and December 2023. Since the studied scholars did not have any indexed works in this database, the Cited Reference search was the best option to determine the citation status of them and their works. In the Cited Reference search, the Cited Author field was selected to run the query. Using the "Select from index" option, all or part of the name of the desired scholar was entered, which led to the appearance of various written forms of that scholar in the WoS.

At this stage, the different written forms of the scholar's name, which were identified previously, were selected. After selecting all the written forms of the scholar's name and running the search, the preliminary results page was displayed. On this page, cited references embracing that scholar's name in the author field were provided. At this stage, relevance judgments were conducted, and records relevant to the searched scholar were selected as cited works by that scholar. This stage was delicate and time-consuming due to the problem of author name similarities, as well as the different written forms of a single work. For example, Avicenna's book, entitled "Kitāb al-Shifā'", appeared in the search results under various forms, including "al-Shifa", "Assepha", "The Book of Healing", and "The Cure". So, we did our best to take this step with high sensitivity and accuracy. The results of this stage were rechecked several times by all authors of this paper to ensure the accuracy of the findings.

The citations of every single work were calculated by summing the citations of different written forms of that work (question 1). Also, the citations received by each scholar were calculated by summing the citations of his/her works (question 2). Selecting the cited work(s) of the searched scholars and clicking on the Finish Search button completed the search process and provided the complete list of citing documents. Several options on the left side of the final results page can be used to filter results by year of publication, WoS category, document type, organization, funding organizations, authors, countries, language, and subject area. These filters were used to answer questions 3 to 5.

Results

The most cited works of Muslim scholars of the Islamic Golden Age

The 20 most cited works of Muslim scholars of the Islamic Golden Age were presented in Table 1. As shown in this table, Ibn Sina's book entitled *Kitab al-shifa (also known as the book of healing)* ranked first with 1599 citations, followed by another book under the title of *Al-Qanun fi't-Tibb* with 1211 citations and Al-Ghazali's book entitled *Iḥyā ulūm ad-dīn* with 668 citations. Al-Ghazali had and Ibn Rushd each had three works, Ibn Sina and Al-Tabari, each had two works, and Ibn Khaldun, Al-Maqdisī, Ibn Al-Nadīm, Al-Mawardi, Al-Idrisi, Al-Jurjani, Al-Mas'udi, Al-Razi, Al-Bakrī, and Al-Ya'qūbī each had one work among the 20 most

cited works of Muslim scholars of the Islamic Golden Age. A comprehensive list of cited works by Muslim scholars of the Islamic Golden Age, along with the frequency of their citations, is provided in Appendix 2. Ibn Sina, with 43 works, Ibn Rushd, with 42 works, and Al-Ghazali, with 40 works, had the highest number of works in this list.

Table 1

The 20 most cited works of Muslim scholars of the Islamic Golden Age

rank	title	scholar	citations
1	Kitab al-shifa	Ibn Sina	1599
2	Al-Qanun fi't-Tibb	Ibn Sina	1211
3	Iḥyā' 'ulūm ad-dīn	Al-Ghazali	668
4	Tarikh al-Rusul wa al-Muluk (History of the Prophet and the Kings)	Al-Tabari	550
5	Al-Muqaddimah	Ibn Khaldun	457
6	Tafsir al-Tabari	Al-Tabari	348
7	Aḥsan al-taqāsīm fī ma'rifat al-aqālīm	Al-Maqdisī	296
8	Al-Fihrist	Ibn Al-Nadīm	265
9	Al-Ahkam al-Sultania w'al-Wilayat al-Diniyya (The Ordinances of Government)	Al-Mawardi	256
10	Sharḥ Kitāb al-nafs	Ibn Rushd	254
11	Kitāb nuzhat al-mushtāq fī ikhtirāq al-āfāq	Al-Idrisi	248
12	Faṣl al-Maqāl	Ibn Rushd	239
13	Zakhireh-I Kharazmshahi	Al-Jurjani	239
14	Tahāfut al-Falāsifa	Al-Ghazali	236
15	Murūj al-Dhahab wa-Ma'ādin al-Jawhar	Al-Mas'udi	225
16	al-Mustasfa fi 'ilm al-isul	Al-Ghazali	224
17	al-Hawi fi al-tibb (Liber Continens)	(Al-) Razi	223
18	Kitāb al-Masālik wa'l-Mamālik	Al-Bakrī	221
19	Ta'rikh Ya'qubi (History)	Al-Ya'qūbī	220
20	Tahāfut al-Tahāfut	Ibn Rushd	214

Citation received by Muslim scholars of the Islamic Golden Age

Table 2 presents the 20 highly cited Muslim scholars of the Islamic Golden Age, as identified based on the WoS data. The citations received by each scholar indicate the frequency of his/her name's appearance in the references of documents indexed in WoS. As shown in Table 2, Ibn Sina, with 3,587 citations, has received the most citations. Al-Ghazali, with 2088 citations, ranked second, and Ibn Rushd, with 1948 citations, ranked third. The absolute number of received citations by each scholar may be biased in favor of scholars who have more cited works in WoS.

Table 2

Twenty highly cited Muslim scholars of the Islamic Golden Age

rank	scholar	citations	rank	scholar	citations
1	Ibn Sina	3587	11	Fakhr Al-Din Al-Razi	393
2	Al-Ghazali	2088	12	Al-Jurjani	336
3	Ibn Rushd	1948	13	Al-Ya'qūbī	326
4	Abu Nasr Al-Farabi	1023	14	Al-Maḡdisī	296
5	Al-Tabari	916	15	Al-Mas'udi	272
6	Al-Biruni	676	16	Al-Kindī	270
7	Ibn Khaldun	578	17	Ibn Al-Nadīm	265
8	Al-Jāhīz	561	18	Al-Idrisi	261
9	Al-Razi	460	19	Al-Bakrī	255
10	Al-Mawardi	440	20	Al-Khaṭīb Al-Baghdādī	235

Therefore, the top 20 scholars, ranked by citations per work, are also presented in Table 3. Compared to Table 2, the order of the scholars has changed in Table 3, and many new scholars have been added to the list. As shown in Table 3, Al-Maḡdisī, Ibn Al-Nadīm, and Al-Tabari ranked first, second, and third, with an average of 296, 265, and 183.2 citations per work, respectively.

Table 3

Top 20 Muslim scholars of the Islamic Golden Age in terms of citations per work

rank	scholar	Citations per work	rank	scholar	Citations per work
1	Al-Maḡdisī	296	11	Al-Idrisi	87
2	Ibn Al-Nadīm	265	12	Al-Jurjani	84
3	Al-Tabari	183.2	13	Ibn Sina	81.1
4	Al-Ya'qūbī	163	14	Said al-Andalusi	80
5	Sibawayh	160	15	Al-Sarakhsi	71.7
6	Ibn Abi Usaybi'a	159	16	Al-Mas'udi	68
7	Ibn Khaldun	144.5	17	Gardizi	65
8	Al-Bakrī	127.5	18	Abu Nasr Al-Farabi	60.2
9	Masoudi (Haly Abbas)	122	19	Al-Zahrawi	57
10	Ibn Jubayr	115	20	Al-Ghazali	52.2

Subject areas of documents citing the works of Muslim scholars of the Islamic Golden Age

Various subject areas have cited the works of Muslim scholars of the Islamic Golden Age. Table 4 shows the top 20 subject areas that have made the most citations to the works of Muslim scholars of the Islamic Golden Age. The thematic classification of citing works was based on WoS subject categories. According to Table 4, the subject areas of religion with 2724 citations, Asian Studies with 1881 citations, and Philosophy with 1820 citations are the 3 subject areas that have the most citations to the works of Muslim scholars of the Islamic Golden Age, respectively.

Table 4

Top 20 subject areas citing the works of Muslim scholars of the Islamic Golden Age

rank	subject area	citations	rank	subject area	citations
1	Religion	2724	11	Area Studies	283
2	Asian Studies	1881	12	Literature	280
3	Philosophy	1820	13	Medicine, General & Internal	257
4	History	1143	14	Art	255
5	Humanities, Multidisciplinary	866	15	Plant Science	203
6	Medieval & Renaissance Studies	908	16	Language & Linguistics	197
7	History & Philosophy of Science	901	17	Chemistry, Medicinal	192
8	Archaeology	499	18	Social Sciences, Interdisciplinary	138
9	Pharmacology & Pharmacy	383	19	Mathematics, Interdisciplinary Applications	136
10	Integrative & Complementary Medicine	350	20	Ethics	134

Countries citing the works of Muslim scholars of the Islamic Golden Age

The frequency distribution of countries that have cited the works of Muslim scholars of the Islamic Golden Age was presented in Table 5. The USA, the Islamic Republic of Iran, and England, with 2764, 1666, and 907 citations, are the top three countries citing the works of Muslim scholars of the Islamic Golden Age. A combination of Islamic and non-Islamic countries has cited the works of Muslim scholars. A comprehensive list of countries that cite the works of Muslim scholars from the Islamic Golden Age is presented in Appendix 3. As shown in this table, a wide range of countries have cited the works of Muslim scholars.

Table 5

Frequency distribution of countries citing the works of Muslim scholars of the Islamic Golden Age

Rank	Country	Citations	Rank	Country	Citations
1	USA	2764	11	Italy	279
2	Iran, Islamic Republic	1666	12	Australia	173
3	England	907	13	Netherland	171

4	Turkey	733	14	India	166
5	France	601	15	Scotland	157
6	Malaysia	572	16	Saudi Arabia	140
7	Israel	558	17	Belgium	116
8	Germany	551	18	Indonesia	111
9	Canada	432	19	Russia	105
10	Spain	355	20	Egypt	91

Language of documents citing the works of Muslim scholars of the Islamic Golden Age

The language of documents citing the works of Muslim scholars of the Islamic Golden Age was another topic of interest in this study. Table 6 presents the frequency distribution of languages that cite the works of Muslim scholars. As shown in this table, most of the citing documents were in English, French, and Turkish. The absence of Persian language among the languages cited in works, as well as the presence of Arabic language in the last rank of citing documents, are some of the interesting findings of this section.

Table 6

The frequency distribution of languages citing the works of Muslim scholars of the Islamic Golden Age

Rank	Language	Citations	Rank	Language	Citations
1	English	9573	16	Latin	6
2	French	873	17	Polish	3
3	Turkish	411	18	Norwegian	3
4	Spanish	330	19	Chinese	3
5	German	312	20	Lithuania	3
6	Italian	206	21	Slavic	3
7	Arabic	182	22	Slovakia	3
8	Malaysian	147	23	Korean	2
9	Russian	133	24	Bulgarian	2
10	Dutch	33	25	Japanese	1
11	Portuguese	28	26	Greek	1
12	Croatian	13	27	Bengali	1
13	Indonesian	12	28	Catalan	1
14	Multiple languages	11	29	Malayalam	1
15	Czech	10			

Discussion

According to the findings of this study, Ibn Sina was the most widely cited Muslim scholar of the Islamic Golden Age. He was one of the most prominent scholars of the Islamic Golden

Age, having a significant impact on science, particularly in philosophy and medicine. His works have made important contributions to various aspects of the sciences mentioned above. Ibn Sina's book, entitled *Kitab al-Shifa*, was the most cited work among the cited works of Muslim scholars of the Islamic Golden Age. This work is considered an encyclopedia in science and philosophy. Its purpose was to heal the soul's ignorance. Ibn Sina's other work, entitled *Al-Qanun fi't-Tibb*, was the second highly cited work among the works of Muslim scholars of the studied period. This manuscript was translated into Latin by Gerard of Cremona in the 12th century. It was recognized as one of the significant works of medical reference in Western countries until the 16th century (Zargaran Mehdizadeh, Zarshenas, and Mohagheghzadeh, 2012). Al-Ghazali was the second most cited Muslim scholar of the Islamic Golden Age. He is one of the most distinguished and influential philosophers, theologians, jurists, logicians, and mystics of Islam. His work, entitled *Iḥyā'ulūm ad-dīn*, translated as "The Revival of Religious Sciences," was the third most highly cited work among the works of Muslim scholars of the Islamic Golden Age. It is considered one of Al-Ghazali's major works and is a comprehensive guide to ethical behavior in the everyday life of Muslims. This book consists of four sections, each containing ten books. The first section is about ritual practices, the second deals with social customs, the third addresses things that lead to perdition and should be avoided, and the fourth discusses things that lead to salvation and should be sought (Griffel, 2020). The third most cited scholar of the Islamic Golden Age was Ibn Rushd. Like many other scholars of that period, he worked in several scientific fields; however, most of his fame is associated with the field of philosophy. Ibn Rushd can be considered one of the greatest commentators of Aristotle's works in all periods (Ben Ahmed & Pasnau, 2021). The findings of this study highlight the profound intellectual contributions of Muslim scholars during the Islamic Golden Age, particularly Ibn Sina, Al-Ghazali, and Ibn Rushd, whose works have left an indelible mark on science, philosophy, and theology. The prominence of these scholars, as evidenced by their citation frequency, underscores their enduring influence not only within the Islamic world but also in Western intellectual traditions. Their works transcended geographical and cultural boundaries, shaping the course of human knowledge for centuries.

Most of the documents citing the works of Muslim scholars of the Islamic Golden Age were from the religion subject area. This shows the boldness of religion in the works of Muslim scholars of the Islamic Golden Age. Asian studies were another subject area that has made many citations to the works of scholars of the Islamic Golden Age. Given that the predominant origin of Muslim scholars of the Islamic Golden Age was from the Asian region, this finding seems reasonable. It indicates the attention to science and the works of scholars from that period in the field of Asian studies. The subject area of philosophy was the third field that had the most citations to the works of Muslim scholars of the Islamic Golden Age. This highlights the significance of the philosophical works of the studied scholars, who, according to the findings, were more influenced by the *Kitab al-Shifa*, a philosophical treatise by Ibn Sina, and the works of Ibn Rushd, Al-Kindi, Al-Farabi, and Al-Ghazali.

Furthermore, the medical subject area cited the works of Muslim scholars of that period, including those such as *Al-Qanun fi't-Tibb* by Ibn Sina and *Al-Shamil fi al-Tibb* by Ibn Nafis, in the fields of medicine and pharmacy. Other notable scholars in this field include Abū Bakr al-Rāzī, Al-Zahrawī, and Ibn Zuhr. The findings of this study reveal the core thought and multidisciplinary influence of Muslim scholars during the Islamic Golden Age. The prominence of religion as the most cited subject area highlights the centrality of religious

thought in the works of Muslim scholars during this period, while the significant citations in Asian studies, philosophy, and medicine reflect the global and interdisciplinary impact of their contributions.

Results showed that the USA, Iran, England, Turkey, France, Malaysia, Israel, Germany, Canada, and Spain were among the top 10 countries with the most citations to the works of Muslim scholars of the Islamic Golden Age. The presence of the USA and England in the first and third ranks of countries citing Muslim scholars of the Islamic Golden Age can be linked to the existence of several centers of Islamic studies and Orientalism in these countries, as well as the attention of their new-generation scientists to the works of scholars of that period. Also, Iran and Turkey are two leading Islamic countries in science production, and their attention to the scientific tradition of Muslim scholars of the Islamic Golden Age is justifiable. Finally, the presence of Islamic countries such as Saudi Arabia, Egypt, Iraq, and Syria in the low rankings of countries citing the works of Muslim scholars of the Islamic Golden Age was another interesting point that needs more consideration. The lower citation rates from these countries could also reflect a broader trend of disconnection from the intellectual traditions of the Islamic Golden Age.

In some cases, there may be a perception that these works are irrelevant to modern scientific and philosophical discourse. Additionally, researchers in these countries may not have access to the works of scholars from the Islamic Golden Age. Another possible justification for this phenomenon could be the regional disparities in academic journal coverage of Web of Science. Studies have shown that citation indexes, such as Web of Science, disproportionately index publications in English and other European languages (Asubiaro, Onaolapo, & Mills, 2024). This means that research from non-English speaking regions, including many Islamic countries, is less likely to be included in these indices. Therefore, citations of articles published in non-indexed journals are not counted in the works of the studied scholars. The language distribution of documents citing the works of Muslim scholars of the Islamic Golden Age showed that the language of most of them was English, followed by French and Turkish. Although citation works have been translated into 29 different languages, Persian was not included in the list, and Arabic was in 7th place. This finding also highlights once again the well-known fact that the Web of Science is more dominated by English-language documents, and to some extent, by Romance-language documents.

Conclusion

Muslim scholars of the Islamic Golden Age have received a considerable number of citations from the documents indexed in the Web of Science database, indicating that contemporary authors have paid much attention to their works. These citations have been drawn from a range of subject areas, suggesting that Muslim scholars of that period engaged with a variety of scientific topics. The participation of Muslim scholars in various subject areas has been documented in almost all relevant literature. This can be explained by Muslims' perception of science, which includes both attention to religion and attention to nature (Masood, 2017). Accordingly, most Muslim scholars of this period were polymaths who worked simultaneously in multiple scientific fields.

This study helps identify the most cited Muslim scholars and their most cited works from the Islamic Golden Age. However, it is essential to note that the results of this study provide only an overview of the impact of Muslim scholars from that period. Further analysis is required

to get a more accurate image of their Impact. For instance, Ibn Sina, the most cited Muslim scholar of the Islamic Golden Age, and his works are among the most cited of that period, have many supporters and critics. Therefore, a content analysis of citing documents can provide a clearer picture by revealing the motivations behind the citations. It is also recommended to examine the scientific contributions of Muslim scholars across various scientific fields during the Islamic Golden Age. As expected, leading Islamic countries in the production of science, such as Iran, Turkey, and Malaysia, have cited heavily the works of Muslim scholars of the Islamic Golden Age. The other countries citing the works of Muslim scholars of the Islamic Golden Age were those countries that came to the forefront of world science production, and their researchers' citations to the works of Muslim scholars indicate their attention to the scientific tradition in the Islamic world. Although Iran is one of the countries that has cited the works of Muslim scholars of the Islamic Golden Age primarily, its national language, Persian, is not among the languages cited in these works.

This finding is justifiable given the dominance of English-language documents in the Web of Science database, as Iranian-indexed documents in the Web of Science that cite Muslim scholars were predominantly in English and non-Persian languages. However, Turkish, Malaysian, and Arabic, the languages that belong to Islamic countries, are on the list of languages citing the works of Muslim scholars. The most significant limitation of this research was the existence of different writing forms for the names of scholars and their works in English, which made the search process very slow. Therefore, lots of effort was made to identify all forms of writing names and works; however, some writing forms of scholars' names and works may be hidden from our view. Overall, this limitation appears to have a minimal impact on the research results. To address this limitation, it is recommended that the Web of Science database provide an authority list for the names of early scholars and their works, thereby facilitating citation analysis of these scholars and their works.

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Conflict of interest

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References

- Abudawood, G. A., Alshareef, R. & Alghamdi, S. (2021). Arab and Muslim scientists and their contributions to the history of ophthalmology. *Saudi journal of ophthalmology: Official journal of the Saudi Ophthalmological Society*, 34(3), 198–201. <https://doi.org/10.4103/1319-4534.310407>
- Al-Gharbi, M. (2021). People of the Book: Empire and Social Science in the Islamic Commonwealth Period. *Socius*, 7. <https://doi.org/0.1177/23780231211021200>
- Afridi, M. A. (2013). Contribution of Muslim scientists to the world: An overview of some selected fields. *Revelation and Science*, 3(01). <https://doi.org/10.31436/revival.v3i01.86>
- Akhmetova, E. (2016). Women in Islamic civilisation: Their rights and contributions. *ICR Journal*, 7(4), 476-491. <https://doi.org/10.52282/icr.v7i4.230>

- Al-Daffa, A. A. (2020). *The Muslim contribution to mathematics*. Routledge. <https://doi.org/10.4324/9781003074793>
- Ansari, S. & Iqbal, N. (2023). Contributions of Muslim medieval scholars to psychology. *Archive for the Psychology of Religion*, 45(3), 308-333. <https://doi.org/10.1177/00846724231197238>
- Asubiario, T., Onalapo, S. & Mills, D. (2024). Regional disparities in Web of Science and Scopus journal coverage. *Scientometrics* 129(3), 1469-1491. <https://doi.org/10.1007/s11192-024-04948-x>
- Ben Ahmed, F. & Pasnau, R. (2021). *Ibn Rushd [Averroes]*. In Edward N. Zalta & Uri Nodelman (eds.). *Stanford Encyclopedia of Philosophy*. (Fall 2021 Edition). Retrieved from <https://plato.stanford.edu/entries/ibn-rushd/>
- Bobrick, B. (2021). *The Caliph's splendor: Islam and the West in the Golden Age of Baghdad* (Illustrated Edition). Simon & Schuster.
- Faruqi, Y. M. (2006). Contributions of Islamic Scholars to the Scientific Enterprise. *International Education Journal*, 7(4), 391-399. Retrieved from <https://files.eric.ed.gov/fulltext/EJ854295.pdf>
- Gaol, E. L. L. (2024). The Influence of Islamic Scholars on Western Scientific Discourse during the Medieval Era. *Riwayat: Educational Journal of History and Humanities*, 7(1), 280-294. <http://doi.org/10.24815/Riwayat.v7i1.37094>
- Gearon, E. (2017). *The history and achievements of the Islamic Golden Age*. Virginia. Teaching company.
- Griffel, F. (2020). *al-Ghazali*. In Edward N. Zalta (ed.), *The Stanford Encyclopedia of Philosophy*. (Summer 2020 Edition). Metaphysics Research Lab, Stanford University. Retrieved from: <https://plato.stanford.edu/archives/sum2020/entries/al-ghazali/>
- Hans, D. (2023). The Golden Age of islam and its impact on European technology: A historical analysis. *ENDLESS: International Journal of Futures Studies*, 6(3), 218-227. <https://doi.org/10.54783/endlessjournal.v6i3.217>
- Isenhour, T. L. (2013). *The evolution of modern science*. Bookboon: the ebook company. Retrieved from <https://library.act.edu.et/index.php?p=fstream&fid=608&bid=631>
- Islam, A. (2011). The contribution of Muslims to science during the Middle Abbasid Period (750-945). *Revelation and science*, 1(01), 39-56. <https://doi.org/10.31436/revival.v1i01.18>
- Karagözoğlu, B. (2017). Contribution of Muslim scholars to science and technology. In *Science and Technology from Global and Historical Perspectives* (pp. 137-184). Springer International Publishing, Cham. https://doi.org/10.1007/978-3-319-52890-8_6
- Le Bon, G. (1974). *The world of Islamic civilization*: Tudor Publishing Company.
- Mahmoudi Nezhad, G. S. & Dalfardi, B. (2014). Rhazes (865-925AD), the icon of Persian cardiology. *International Journal Of Cardiology*, 177(3), 744-747. <https://doi.org/10.1016/j.ijcard.2014.11.045>
- Masood, E. (2017). *Science and Islam: A history*. UK: Icon Books. Retrieved from <http://islamicblessings.com/upload/Science-and-Islam-a-History.pdf>
- Mehfooz, M. & Syed, A. S. (2020). The development of science and technology in the Muslim world: Past and present issues with possible resolutions. *Islamic Studies*, 59(2), 225-238. <https://doi.org/10.52541/isiri.v59i2.919>

- Qaumi, A. (2015). The development of science in the context of Islamic civilization. *Science and Technology Policy Letters*, 05(1), 41-49. [in Persian] <https://dor.org/20.1001.1.24767220.1394.05.1.4.0>
- Renima, A., Tiliouine, H. & Estes, R. J. (2016). The islamic Golden Age: A story of the triumph of the islamic civilization. In: Tiliouine, H., Estes, R. (eds) *The State of Social Progress of Islamic Societies. International Handbooks of Quality-of-Life*. Springer, Cham. https://doi.org/10.1007/978-3-319-24774-8_2
- Saliba, G. (2007). *Islamic Science and the Making of the European Renaissance*: MIT Press.
- Sardar, Z. & Masood, E. (ed.) (2006). *How do you know? Reading Ziauddin Sardar on Islam, science, and cultural relations*. Pluto Press
- Serageldin, I. (2008). Editorial: Science in Muslim countries. *Science*, 321 (5890), 745. <https://doi.org/10.1126/science.1162825>
- Wikipedia (2024). List of scientists in the medieval Islamic world. English Wikipedia. Retrieved from https://en.wikipedia.org/wiki/List_of_scientists_in_medieval_Islamic_world
- Zargaran, A., Mehdizadeh, A., Zarshenas, M. M., & Mohagheghzadeh, A. (2012). Avicenna (980–1037 AD). *Journal of Neurology*, 259(2), 389-390. <https://doi.org/10.1007/s00415-011-6219-2>
- Zarshenas, M. M. & Zargaran, A. (2015). A review of Avicenna's contribution to the field of cardiology. *International journal of cardiology*, 182, 237-241. <https://doi.org/10.1016/j.ijcard.2014.12.145>

Appendix 1

Different forms of names of Muslim scholars of the Islamic Golden Age

row	Known names	Different forms of names in the Latin alphabet	row	Known names	Different forms of names in the Latin alphabet
1	Ibn Abi Usaybi'a	<ul style="list-style-type: none"> ▪ Ibn Abī Uṣaybi‘a Mu‘affaq Al-Dīn Abū Al-‘abbās Aḥmad ibn Al-Qāsim Ibn Khalīfa Al-Khazrajī ▪ Ibn Abi Usaybi'a ▪ Ibn Abī Uṣaybi ▪ Ibn Abi Usaibia ▪ Abī Uṣaybi‘ah ▪ Ibn Abi Useibia 	76	Abu Hanifa Dinawari	<ul style="list-style-type: none"> ▪ Abū Ḥanīfah Aḥmad ibn Dāwūd Dīnawarī Abū Abu Hanifa Dinawari

row	Known names	Different forms of names in the Latin alphabet	row	Known names	Different forms of names in the Latin alphabet
2	Muhyi Al-Din Al-Maghribi	<ul style="list-style-type: none"> ▪ Muhyi Al-Din Al-Maghribi ▪ Muḥyī al-Milla wa al-Dīn Yaḥyā Abū ‘ Abdallāh ibn Muḥammad ibn Abī al-Shukr al-Maghribī al-Andalusī ▪ Ibn Abī al-Shukr Ibn Shukr 	77	Abu Zayd al-Balkhi	<ul style="list-style-type: none"> ▪ Abu Zayd Ahmed ibn Sahl Balkhi ▪ Abu Zayd Al-Balkhi
3	Ibn Al-Akfani	<ul style="list-style-type: none"> ▪ Muhammad Ibn Ibrāhīm ibn Al-Akfani ▪ Ibn Al-Akfani ▪ Al-Akfani 	78	Ja'far al-Sadiq	<ul style="list-style-type: none"> ▪ Ja'far ibn Muḥammad Al-Ṣādiq ▪ Ja'far Al-Ṣādiq
4	Ibn Amājūr	<ul style="list-style-type: none"> ▪ Benou Amajour ▪ Ibn Amājūr ▪ Banu Amajur ▪ Ibn Amajour 	79	Ibn Yunus	<ul style="list-style-type: none"> ▪ Abu Al-Hasan 'Ali ibn 'Abd Al-Rahman ibn Ahmad ibn Yunus Al-Sadafi Al-Misri ▪ Ibn Yunus
5	Ibn Al-Amshati	<ul style="list-style-type: none"> ▪ Ibn Amshati Muzaffar Al-Din Mahmud ibn Ahmad Aintabi ▪ Al-Amshati ▪ Ibn Al-Amshati 	80	Abu Kamil	<ul style="list-style-type: none"> ▪ Abū Kāmil Shujā‘ ibn Aslam ibn Muḥammad Ibn Shujā ▪ Auoquamel ▪ al-ḥāsib al-miṣrī ▪ Abu Kamil
6	Ibn Bajja	<ul style="list-style-type: none"> ▪ Abū Bakr Muḥammad ibn Yaḥyā ibn Aṣ-Ṣā’igh At-Tūjībī Ibn Bājja Avempace ▪ Ibn Bajjah ▪ Ibn Bajja ▪ Ibn Bagga ▪ Ibn Bayya 	81	Abu'l-Hasan al-Uqlidisi	<ul style="list-style-type: none"> ▪ Abu'l Hasan Ahmad ibn Ibrahim Al-Uqlidisi ▪ Abu'l-Hasan Al-Uqlidisi
7	Ibrahim Ibn Baks	<ul style="list-style-type: none"> ▪ Ibn Bakqs ▪ Ibrahim Ibn Baks 	82	Abu Bakr al-Hassar	<ul style="list-style-type: none"> ▪ Abu Bakr Muhammad ibn Abdallah ibn Ayyash Al-Hassar ▪ Al-Hassar ▪ Abu Bakr Al-Hassar
8	Ibn al-Bannā' al-Marrākushī	<ul style="list-style-type: none"> ▪ Abū Al-Abbās Aḥmad ibn Muḥammad Ibn ḥuthmān Al-Azdī Al-Marrākushī ▪ Ibn al-Bannā' al-Marrākushī 	83	al-Kāshī	<ul style="list-style-type: none"> ▪ Ghiyāth Al-Dīn Jamshīd Mas‘ūd Al-Kāshī (or Al-Kāshānī) ▪ Jamshīd Al-Kāshī

row	Known names	Different forms of names in the Latin alphabet	row	Known names	Different forms of names in the Latin alphabet
9	Ibn Al-Baytar	<ul style="list-style-type: none"> ▪ Diyā' Al-Dīn Abū Muḥammad Abdllāh ibn Aḥmad Al-Mālaqī ▪ Ibn Al-Baitar ▪ Ibn Al-Baytār ▪ Ibnu'l-Bavytar ▪ Ibn El-Beithar 	84	Ibrahim al-Fazārī	<ul style="list-style-type: none"> ▪ Ibrahim ibn Habib ibn Sulayman ibn Samura ibn Jundab Al-Fazari ▪ Ibrahim ibn Habib Al-Fazari,
10	Ibn Daniel	<ul style="list-style-type: none"> ▪ Chams Eddine Mohammed ibn Daniel El-Moussili ▪ Ibn Daniel ▪ Ibn Daniyal 	85	Abu Ishaq al-Fazari	<ul style="list-style-type: none"> ▪ Ibrahīm ibn Muḥammad ibn Al-Ḥārith, Abū Ishāq Al-Fazārī ▪ Abū Ishāq Al-Fazārī
11	Ibn Rushd	<ul style="list-style-type: none"> ▪ Abū L-Walīd Muḥammad ibn Aḥmad ibn Rušd ▪ Averroes ▪ Ibn Rushd ▪ ibn rugd ▪ Ibn Ruzd 	86	Sharaf al-Din al-Tusi	<ul style="list-style-type: none"> ▪ Sharaf Al-Dīn Al-Muzaffar ibn Muḥammad ibn Al-Muzaffar Al-Tūsī ▪ Sharaf Al-Dīn Al-Ṭūsī
12	Ibn Al-Nafis	<ul style="list-style-type: none"> ▪ ibn Al-nafis ▪ alauddin ibn Al-nafis ▪ ibn an-nafis ▪ ibn nafis 	87	Mu'ayyad al-Din al-Urdi	<ul style="list-style-type: none"> ▪ Moayad Al-Dīn Al-Urdi Al-Amiri Al-Dimashqi ▪ Al-Urdi ▪ Mu'ayyad Al-Din Al-Urdi
13	Ibn Zuhr	<ul style="list-style-type: none"> ▪ Abū Marwān 'Abd Al-Malik Ibn Zuhr ▪ Avenzoar ▪ Ibn Zuhr ▪ Abu L-'Ala'Zuhr ▪ Zuhr Ibn Zuhr 	88	al-Katibi	<ul style="list-style-type: none"> ▪ Najm Al-Dīn 'Alī ibn 'Umar Al-Qazwīnī Al-Kātībī ▪ Najm Al-Din Al-Qazwini Al-Katibi
14	Ibn Jubayr	<ul style="list-style-type: none"> ▪ Ibn Jubair ▪ Ibn Jubeyr ▪ Ibn Jubayr ▪ Ibn Jobair ▪ Ibn Djubayr ▪ Ibn Jobayr 	89	Athir al-Din al-Abhari	<ul style="list-style-type: none"> ▪ Athīr al-Dīn al-Mufaḍḍal ibn 'Umar ibn al-Mufaḍḍal al-Samarqandī al-Abharī ▪ Athīr al-Dīn al-Munajjim ▪ Athir Al-Din Al-Abhari ▪ Al-Abhārī
15	Ibn Khordadbeh	<ul style="list-style-type: none"> ▪ Abu'l-Qasim Ubaydallah ibn Abdallah ibn Khordadbeh ▪ Ibn Khordadbeh ▪ Ibn Khurradadhbih 	90	Al-Battani	<ul style="list-style-type: none"> ▪ Abū ' Abd Allāh Muḥammad ibn Jābir ibn Sinān Al-Raqqī Al-Ḥarrānī aṣ-Ṣābī' Al-Battānī

row	Known names	Different forms of names in the Latin alphabet	row	Known names	Different forms of names in the Latin alphabet
		<ul style="list-style-type: none"> ▪ Ibn Khurdadhbah ▪ Ibn Chordadhbeh ▪ Ibn ḤArradabeh ▪ Ibn ḤUrradāḡbih 			<ul style="list-style-type: none"> ▪ Albategnius, Albategni or Albatenius
16	Ibn Khaldun	<ul style="list-style-type: none"> ▪ Abū Zayd ‘Abd Ar-Raḥmān Ibn Muḥammad ibn Khaldūn Al-Ḥaḍramī ▪ Ibn Khaldun ▪ Ibn Khaldoun ▪ Ibn Haldun ▪ Ibn Khaldan 	91	Muhammad al-Shaybani	<ul style="list-style-type: none"> ▪ Abu 'Abdullah Muḥammad ibnu-l-Ḥasan Ibn Farqad ash-Shaybānī ▪ Muhammad Al-Shaybani ▪ Al-Shaybānī
17	Ibn Al-Quff	<ul style="list-style-type: none"> ▪ Abu Al-Faraj Amin Al-Dawla Ibn Ya'qub ibn Ishaq ibn Al-Quff Al-Karaki ▪ Ibn Al-Quff 	92	Jabril ibn Bukhtishu	<ul style="list-style-type: none"> ▪ Jabril ibn Bukhtishu ▪ Bakhtyshu ▪ Jibril ibn Bakhtisha
18	Ibn Ṭufail	<ul style="list-style-type: none"> ▪ Abu Bakr Muhammad ibn Abd Al-Malik Ibn Muhammad ibn Tufail Al-Qaisi Al-Andalusi ▪ Avetophail ▪ Aben Tofail ▪ Ibn Tufail ▪ Ebn Tophail ▪ Ibn Tufayl 	93	Qusta ibn Luqa	<ul style="list-style-type: none"> ▪ Qusta Ibn Luqa Al-Ba'albakki ▪ Qusta ibn Luqa ▪ Costa ben Luca ▪ Constabulus
19	Ibn Al-Muṭrān	<ul style="list-style-type: none"> ▪ Muwaffaq Al-Dīn, Abū Naṣr As'ad ibn Ilyās ▪ Ibn Al-Matran ▪ Ibn-Al-Mutran 	94	Al-Zarkali	<ul style="list-style-type: none"> ▪ Abū Ishāq Ibrāhīm ibn Yaḥyā Al-Naqqāsh Al-Zarqālī Al-Tujibi ▪ Al-Zarkali or Ibn Zarqal ▪ Abū Ishāq Ibrāhīm Al-Zarqālī ▪ Arzachel or Arsechieles Arzachel
20	Ibn Al-Nadīm	<ul style="list-style-type: none"> ▪ Abū Al-Faraj Muḥammad ibn Ishāq Al-Nadīm ▪ Ibn Abī Ya'qūb Ishāq ibn Muḥammad ▪ Ibn Al-Nadim ▪ Al-Nadīm 	95	Nur ad-Din al-Bitruji	<ul style="list-style-type: none"> ▪ Nur ad-Din Al-Bitruji ▪ Nur Al-Din Ibn Ishaq Al-Betruji ▪ Abu Ishāk ibn Al-Bitrogi ▪ Alpetragius ▪ Al-Bitrūjī
21	Ibn Al-Haytham	<ul style="list-style-type: none"> ▪ Ḥasan Ibn Al-Haytham ▪ Ibn Al-Haytham ▪ Ibn, Al-Ha'im ▪ Ibn Hai Tham 	96	Al-Sarakhsi	<ul style="list-style-type: none"> ▪ Muhammad b. Ahmad b. Abi Sahl Abu Bakr Al-Sarakhsi

row	Known names	Different forms of names in the Latin alphabet	row	Known names	Different forms of names in the Latin alphabet
		<ul style="list-style-type: none"> ▪ Alhazen ▪ Ibu Hajsem ▪ Al-Haytham 			<ul style="list-style-type: none"> ▪ Abu Bakr Al-Sarakhsi
22	Ibn al-Tayyib	<ul style="list-style-type: none"> ▪ Abū al-Faraj ‘Abd Allāh ibn al-Ṭayyib ▪ Ibn Al-Tayyib ▪ Abulpharagius Abdalla Benattibus ▪ Abu Al-Faraj Ibn Tayyib 	97	Al-Zahrawi	<ul style="list-style-type: none"> ▪ Abū Al-Qāsim Khalaf ibn Al-'Abbās Al-Zahrāwī Al-Ansari ▪ Al-Zahrawi ▪ Abulcasis
23	Al-Biruni	<ul style="list-style-type: none"> ▪ Abu Rayhan Al-Biruni ▪ Al-Biruni ▪ Alberuni ▪ Albiruni ▪ Abu Rihan ▪ Abou-Rihan 	98	Ali ibn Ridwan	<ul style="list-style-type: none"> ▪ Abu'l Hassan Ali ibn Ridwan Al-Misri ▪ Ali ibn Ridwan ▪ Haly ▪ Haly Abenrudian
24	Abu Sa'īd Al-Yamami	<ul style="list-style-type: none"> ▪ Abū Sa'īd al-Yamāmī, al-Faḍl b. 'Īsā ▪ 	99	Abu Mansur Muwaffaq	<ul style="list-style-type: none"> ▪ Abū Maṣṣūr Muwaffaq Harawī ▪ Abu Mansur Muwaffaq
25	Avicenna (ibn sina)	<ul style="list-style-type: none"> ▪ Abū 'Alī al-Ḥusayn bin 'Abdullāh ibn al-Ḥasan bin 'Alī bin Sīnā al-Balkhi al-Bukhari ▪ Avicenna ▪ Avicinna ▪ Pur Sina ▪ Abu Ali Sina ▪ Bu-Ali Sina ▪ Ibn Sina ▪ Ibn-E Sina ▪ Ali Bin Sina ▪ Abu-Ali Bin Sina 	100	Abu al-Wafa' Buzjani	<ul style="list-style-type: none"> ▪ Abū Al-Wafā', Muḥammad ibn Muḥammad ibn Yaḥyā ibn Ismā'īl ibn Al-'Abbās Al-Būzjānī or Abū Al-Wafā Būzhjānī ▪ Abu Al-Wafa' Al-Buzjani
26	Al-Sarakhsi	<ul style="list-style-type: none"> ▪ Ahmad Ibn Al-Tayyib Al-Sarakhsi 	101	Omar Khayyam	<ul style="list-style-type: none"> ▪ Abu'l Fath Omar ibn Ibrahim Al-Khayyam ▪ Omar Khayyam
27	Ismail Al-Jazari	<ul style="list-style-type: none"> ▪ Badī' az-Zaman Abu l-'Izz ibn Ismā'īl ibn ar-Razāz al-Jazarī ▪ Ibn Al-Razzāz ▪ Ismail al-Jazari ▪ Al-Jazari 	102	Ibn al-Wafid	<ul style="list-style-type: none"> ▪ Alī ibn Al-Ḥusayn ibn Al-Wāfid Al-Lakhmī ▪ Ibn Al-Wafid ▪ Abenguefith
28	Abd Al-Qahir Al-Baghdadi	<ul style="list-style-type: none"> ▪ Abū Maṣṣūr 'Abd Al-Qāhir Ibn Ṭāhir Bin Muḥammad Bin 'Abd Allāh 	103	Ibn Bassal	<ul style="list-style-type: none"> ▪ Abu Abdullah Muhamed Ibn Ibrahim Ibn Bassal ▪ Ibn Bassal

row	Known names	Different forms of names in the Latin alphabet	row	Known names	Different forms of names in the Latin alphabet
		Al-Tamīmī Al-Shāfi'ī Al-Baghdādī <ul style="list-style-type: none"> ▪ Abu Mansur Al-Baghdadi ▪ Al Baghdadi, Abu Mansur ▪ Abd Al-Qāhir ▪ Ibn-Tahir Al Baghdadi ▪ Ibn Tahir Al-Tamimi ▪ Abd-Al-Kāhir Ibn Tāhir 			
29	Banu Musa	<ul style="list-style-type: none"> ▪ Banu Musa ▪ Musa Ibn Shakir 	104	Kamāl al-Dīn al-Fārisī	<ul style="list-style-type: none"> ▪ Kamal Al-Din Hasan ibn Ali ibn Hasan Al-Farisi ▪ Abu Hasan Muhammad ibn Hasan ▪ Kamal Al-Din Al-Fāris
30	Sinan ibn Thabit	<ul style="list-style-type: none"> ▪ Abū Sa'īd Sinān ibn Thābit ibn Qurra ▪ Sinan Ibn Thabit ▪ 	105	Abd al-Rahman al-Sufi	<ul style="list-style-type: none"> ▪ Abd ar-Rahman as-Sufi ▪ Abd Al-Rahman Abu Al-Husayn, ▪ Abdul Rahman Sufi ▪ Abdurrahman Sufi ▪ Azophi ▪ Azophi Arabus
31	Thābit ibn Qurra	<ul style="list-style-type: none"> ▪ Abū al-Ḥasan ibn Zahrūn al-Ḥarrānī al-Šābi ▪ Thābit ibn Qurra ▪ Thebit/Thebith/Tebit 	106	Safi al-Din al-Urmawi	<ul style="list-style-type: none"> ▪ Safi Al-Din Abd Al-Mu'min ibn Yusuf ibn Al-Fakhir Al-Urmawi Al-Baghdadi ▪ Safi Al-Din Al-Urmawi Al-Baghdadi ▪ Safi Al-Din Al-Urmawi
32	Jābir ibn Ḥayyān	<ul style="list-style-type: none"> ▪ Abū Mūsā Jābir ibn Ḥayyān ▪ Jabir Ibn Ḥayyān ▪ Jabir B. Hayyan ▪ Gabir ▪ Ibn Hayyan ▪ Geber ▪ Ibn-Haiyan 	107	Al-Farghani	<ul style="list-style-type: none"> ▪ Abū Al-'Abbās Aḥmad ibn Muḥammad ibn Kathīr Al-Farghānī ▪ Alfraganus ▪ Al-Farghani
33	Al-Jāḥiẓ	<ul style="list-style-type: none"> ▪ Abū 'Uthman 'Amr Ibn Baḥr Al-Kinānī Al-Baṣri ▪ Al-Jahi ▪ Al-Jahez 	108	Masawaiyh	<ul style="list-style-type: none"> ▪ Yuhanna ibn Masawaih ▪ Ibn Masawaih ▪ Masawaiyh

row	Known names	Different forms of names in the Latin alphabet	row	Known names	Different forms of names in the Latin alphabet
		<ul style="list-style-type: none"> ▪ Al-Dzahiz 			<ul style="list-style-type: none"> ▪ Janus Damascenus ▪ Mesue, Masuya, Mesue Major, Msuya ▪ Mesuë the Elder
34	Al-Jurjani	<ul style="list-style-type: none"> ▪ Zayn Al-Din Sayyed Isma 'Il Ibn Husayn Gorgani ▪ Zayn Al-Din Gorgani ▪ Esmail Jorjani ▪ Ismail Jorjani 	109	Zakariya al-Qazwini	<ul style="list-style-type: none"> ▪ Abū Yaḥyā Zakariyyā' ibn Muḥammad ibn Maḥmūd Al-Qazwīnī ▪ Zakariyya' Al-Qazwini ▪ Qazvini
35	Al-Ḥajjāj ibn Yūsuf ibn Maṭar	<ul style="list-style-type: none"> ▪ Al-Ḥajjāj ibn Yūsuf ibn Maṭar 	110	Abu'l-Barakāt al-Baghdādī	<ul style="list-style-type: none"> ▪ Abu'l-Barakāt Hibat Allah ibn Malkā Al-Baghdādī ▪ Baruch ben Malka ▪ Nathanel
36	Al-Khāzini	<ul style="list-style-type: none"> ▪ Abū Al-Fath Abd Al-Rahman Mansūr Al-Khāzini ▪ Al-Khazini ▪ Al-Khazani 	111	Ammar al-Mawsili	<ul style="list-style-type: none"> ▪ Abu Al-Qasim Ammar ibn Ali Al-Mawsili
37	Al-Khaṭīb Al-Baghdādī	<ul style="list-style-type: none"> ▪ Abū Bakr Aḥmad Ibn 'Alī Ibn Thābit ibn Aḥmad ibn Māhdī Al-Shafī' ▪ Al-Khatib Al-Baghdadi ▪ Khatib Bagdadi ▪ Sabit Baghdadi 	112	Abu Sahl al-Quhi	<ul style="list-style-type: none"> ▪ Abū Sahl Wayjan ibn Rustam Al-Kūhī ▪ Al-Qūhī ▪ Abusahl Bijan-e Koochi ▪ Abū Sahl Al-Qūhī
38	Muḥammad ibn Mūsā Al-Khwārizmī	<ul style="list-style-type: none"> ▪ Muhammad Ibn Musa Al-Khwarizmi ▪ Moḥammad ben Musā Khwārazmi ▪ Al-Khwarizmi ▪ Al Kharazmi 	113	Ibn Butlan	<ul style="list-style-type: none"> ▪ Yawānīs Al-Mukhtār ibn Al-Ḥasan ibn 'Abdūn Al-Baghdādī ▪ Ibn Buṭlān
39	Abū Bakr al-Rāzī	<ul style="list-style-type: none"> ▪ Abū Bakr Muḥammad bin Zakariyyā' al-Rāzī ▪ Abū Bakr al-Rāzī ▪ Rhazes ▪ Rasis ▪ Al-Razi ▪ Zakariyyā-Ye Rāzī 	114	Qutb al-Din al-Shirazi	<ul style="list-style-type: none"> ▪ Qotb Al-Din Mahmoud b. Zia Al-Din Mas'ud b. Mosleh Shirazi ▪ Qutb Al-Din Al-Shirazi ▪ Qutb Al-Din Shirazi
40	Abbas ibn Firas	<ul style="list-style-type: none"> ▪ Abu Al-Qasim Abbas ibn Firas ibn Wirdas Al-Takurini ▪ Ibn Firas ▪ Ibn Al Firas ▪ Fernasan 	115	Abu Sulayman Sijistani	<ul style="list-style-type: none"> ▪ Abu Sulayman Muhammad Sijistani ▪ Abu Sulayman Sijistani

row	Known names	Different forms of names in the Latin alphabet	row	Known names	Different forms of names in the Latin alphabet
41	Al-Majusi	<ul style="list-style-type: none"> ▪ Ali Ibn Al-Abbas Al-Majusi ▪ Haly Abbas ▪ Al-Majusi ▪ Masoudi 	116	Ibn Hawqal	<ul style="list-style-type: none"> ▪ Muḥammad Abū'l-Qāsim Ibn Ḥawqal ▪ Abū Al-Qāsim b. 'Alī Ibn Ḥawqal Al-Naṣībī ▪ Ibn Hawqal
42	Al-Farabi	<ul style="list-style-type: none"> ▪ Abu Nasr Muhammad ibn Tarkhan Al-Farabi ▪ Alfarabius ▪ Al-Farabi ▪ Abu Nasr Al-Farabi 	117	Istakhri	<ul style="list-style-type: none"> ▪ Abu Ishaq Ibrahim ibn Muhammad Al-Farisi Al-Istakhri ▪ Estakhri ▪ Istakhri
43	Al-Kindī	<ul style="list-style-type: none"> ▪ Abu Yūsuf Ya'qūb Ibn 'Ishāq Aṣ-Ṣabbāḥ Al-Kindī ▪ Al-Kindi ▪ Alkindus 	118	Alī ibn Ahmad al-Nasawī	<ul style="list-style-type: none"> ▪ Alī ibn Aḥmad Al-Nasawī ▪ Nasawī ▪ eINasawi ▪ Alnasawi ▪ Al-nasawi ▪ Ahmad Al-Nasawī
44	Ibn Miskawayh	<ul style="list-style-type: none"> ▪ Abū 'Alī Aḥmad ibn Muḥammad ibn Ya'qūb ibn Miskawayh ▪ Ibn Miskawayh ▪ Miskawayh ▪ Muskūyah 	119	Jabir ibn Aflah	<ul style="list-style-type: none"> ▪ Abū Muḥammad Jābir ibn Aflaḥ ▪ Geber/Gebir ▪ Jabir ibn Aflah
45	Al-Ghazali	<ul style="list-style-type: none"> ▪ Abū Ḥāmid Muḥammad ibn Muḥammad aṭ-Ṭūsiyy Al-Ġaz(z)ālīy ▪ Al-Ghazali ▪ Algazelus ▪ Algazel ▪ Ghazali 	120	Al-Khazin	<ul style="list-style-type: none"> ▪ Abu Jafar Muhammad ibn Husayn Khazin ▪ Al-Khazin ▪ Abu Jafar Al-Khazin ▪ Husayn Khazin ▪ Alkhazin ▪ Al-Khdzin ▪ Al-Khdzin
46	Ibn Al-Jazzar	<ul style="list-style-type: none"> ▪ Ahmed Bin Jaafar Bin Brahim Ibn Al Jazzar Al-Qayrawani ▪ Algizar ▪ Ibn Al-Jazzar ▪ Ibn Al Jazzar 	121	Ziryab	<ul style="list-style-type: none"> ▪ Abu l-Hasan 'Ali Ibn Nafi ▪ Ziryab/Zeryab or Zaryab
47	Sadr Al-Din Al-Qunawi	<ul style="list-style-type: none"> ▪ Ṣadr Al-Dīn Muḥammad b. Ishāq b. Muḥammad b. Yūnus Qūnawī ▪ Sadreddin Konevî ▪ Sadr Al-Din Al-Qunawi ▪ Al-Kunawi 	122	Abu 'Ubayd al-Juzjani	<ul style="list-style-type: none"> ▪ Abu 'Ubayd Al-Juzjani

row	Known names	Different forms of names in the Latin alphabet	row	Known names	Different forms of names in the Latin alphabet
		<ul style="list-style-type: none"> ▪ Al Qūnyawī 			
48	Maslama Al-Majriti	<ul style="list-style-type: none"> ▪ Abu 'l-Qāsim Maslama ibn Aḥmad al-Faraḍī al-Ḥāsib al-Majrītī al-Qurṭubī al-Andalusī ▪ Methilem ▪ Maslama Al-Majriti ▪ Al-Majriti 	123	Sibawayh	<ul style="list-style-type: none"> ▪ Abu Bishr Amr ibn Uthman ibn Qanbar Al-Basri ▪ Sibawayh ▪ Sibawayhi ▪ Sibuyah
49	Hunayn ibn Ishaq	<ul style="list-style-type: none"> ▪ Abū Zayd Ḥunayn ibn 'Ishāq ▪ Hunayn ibn Ishaq ▪ Al-Abadi ▪ Iohannitius 	124	Abi Al-Khair Al-Ashbili	<ul style="list-style-type: none"> ▪ Abi Al-Khair Al-Ashbili ▪ Al-ashbili ▪ alashbili ▪ Alkhair, Abu al Khair ishbili ▪ Abi alkhair alashbili
50	Al-Maqdisī	<ul style="list-style-type: none"> ▪ Shams Al-Dīn Abū 'Abd Allāh Muḥammad ibn Aḥmad ibn Abī Bakr Al-Maqdisī ▪ Al-Maqdisī ▪ Al-Muqaddasī ▪ Muḥammad ibn Aḥmad Shams Al-Dīn Al-Maqdisī 	125	Yaqub ibn Tariq	<ul style="list-style-type: none"> ▪ Yaqub ibn Tariq
51	Al-Mas'udi	<ul style="list-style-type: none"> ▪ 'Abū Al-Ḥasan 'Alī ibn Al-Ḥusayn ibn 'Alī Al-Mas'ūdī ▪ Al-Mas'udi 	126	Abu Nasr Mansur	<ul style="list-style-type: none"> ▪ Abu Nasr Mansur ibn Ali ibn Iraq ▪ Abu Nasr Mansur
52	Al-Idrisi	<ul style="list-style-type: none"> ▪ Abu Abdullah Muhammad Al-Idrisi Al-Qurtubi Al-Hasani as-Sabti ▪ Al-Idrisi ▪ Muhammad Al-Idrisi ▪ Idrisi ▪ Edrisi ▪ Ash-Sharīf Al-Idrīsī 	127	Abu-Mahmud Khojandi	<ul style="list-style-type: none"> ▪ Abu Mahmud Hamid ibn Al-Khidr Al-Khojandi ▪ Al-Khidr Al-Khojandi ▪ Abu Mahmud Khojandi
53	Nasir Al-Din Al-Tusi	<ul style="list-style-type: none"> ▪ Muhammad ibn Muhammad ibn Al-Hasan Al-Tūsī ▪ Nasir Al-Din Al-Tusi ▪ Tusi ▪ Sharaf Al-Din Al-Muzaffar Al-Tusi ▪ Al-Tusi, Khwajah Nasir 	128	Abd al-Hamīd ibn Turk	<ul style="list-style-type: none"> ▪ Abd al-Hamīd ibn Wase ibn Turk Jili ▪ Abd al-Hamīd ibn Turk

row	Known names	Different forms of names in the Latin alphabet	row	Known names	Different forms of names in the Latin alphabet
54	Fakhr al-Din al-Razi	<ul style="list-style-type: none"> ▪ Abū 'Abd Allāh Muḥammad ibn 'Umar ibn Al-Ḥusayn ▪ Fakhr Al-Dīn Al-Rāzī ▪ Fakhruddin Razi ▪ Shaykh Al-Islam ▪ Al-Fakhr Al-Razi 	129	Al-Jawhari	<ul style="list-style-type: none"> ▪ Al-Abbās ibn Said al-Jawharī ▪
55	Al-Tabari	<ul style="list-style-type: none"> ▪ Abū Ja'far Muḥammad ibn Jarīr ibn Yazīd Al-Ṭabarī ▪ Al-Tabari ▪ Tabari ▪ Muhammad ibn Jarir Al-Tabari 	130	Al-Mahani	<ul style="list-style-type: none"> ▪ Abu-Abdullah Muhammad ibn Īsa Māhānī Al-Mahani ▪ Al-Mahani
56	Abd Al-Latif Al-Baghdadi	<ul style="list-style-type: none"> ▪ Muwaffaq Al-Dīn Muḥammad 'Abd Al-Laṭīf ibn Yūsuf Al-Baghdādī ▪ Abd Al-Latif Al-Baghdadi 	131	Abu Abdullah al-Shaqaq	<ul style="list-style-type: none"> ▪ abu abdullah shaghagh hussain ibn ahmad
57	Al-Hamdani	<ul style="list-style-type: none"> ▪ Abu Muhammad Al-Ḥasan ibn Aḥmad ibn Yaḡub Al-Hamdani ▪ Abu Muhammad Al-Hasan Al-Hamdani 	132	Al-Hasib	<ul style="list-style-type: none"> ▪ Habash al-Hasib al-Marwazi ▪ Ahmad ibn 'Abdallah Habash Hasib Marwazi ▪ Al-Hasib
58	Gardizi	<ul style="list-style-type: none"> ▪ Abū Sa'īd 'Abd-Al-Ḥayy ibn Ḍaḥḥāk b. Maḥmūd Gardīzī ▪ Gardizi 	133	Abu al-Abbas al-Nabati	<ul style="list-style-type: none"> ▪ hmad bin Muhammad bin Mufarraj bin Ani al-Khalil ▪ Abu al-Abbas al-Nabati ▪ Ibn al-Rumiya ▪ al-Ashshab
59	Samau'al Al-Maghribi	<ul style="list-style-type: none"> ▪ Al-Samaw'al ibn Yaḥyā Al-Maghribī ▪ Al-Samawal Al-Maghribi ▪ Al-Samaw'al 	134	Abū Ja'far al-Ghāfiqī	<ul style="list-style-type: none"> ▪ Abū Ja'far Al-Ghāfiqī
60	Al-Tamimi	<ul style="list-style-type: none"> ▪ Muhammad ibn Sa'īd Al-Tamimi ▪ Muhammad Al-Tamimi ▪ Al-Tamimi 	135	Ibn Juljul	<ul style="list-style-type: none"> ▪ Abu Dawud Sulayman ibn Hassan Ibn Juljul ▪ Ibn Juljul ▪ Gilgil ▪ Ibn Juljul Al-Andalusī
61	Al-Bakrī	<ul style="list-style-type: none"> ▪ Abū 'Ubayd 'Abd Allāh ibn 'Abd Al-'Azīz ibn 	136	Khalid ibn Yazid	<ul style="list-style-type: none"> ▪ Abū Hāshim Khālid ibn Yazīd ibn

row	Known names	Different forms of names in the Latin alphabet	row	Known names	Different forms of names in the Latin alphabet
		Muḥammad ibn Ayyūb ibn 'Amr Al-Bakrī ▪ Al-Bakrī			Mu'āwiya ibn Abī Sufyān ▪ Khalid ibn Yazid
62	Al-Ya'qūbī	▪ 'Abū l-'Abbās 'Aḥmad bin 'Abī Ya'qūb bin Ğa'far bin Wahb bin Waḍīḥ Al-Ya'qūbī ▪ Al-Ya'qūbī ▪ Ya'qubi	137	Al-Asma'ī	▪ Abu Saeed 'Abd Al-Malik b. Quraib Al-Aşma'ī Al-bahili ▪ Al-Asma'ī ▪ Asmai
63	Kūshyār Daylami	▪ Abul-Hasan Kūshyār ibn Labbān ibn Bashahri Daylami ▪ Kūshyār Daylami ▪ Kushyar Gilani	138	Ibrahim al-Nazzam	▪ Abū Ishāq Ibrāhīm Ibn Sayyār Ibn Hānī' an-Nazzām ▪ Ibrahim Al-Nazzam
64	Al-Nairīzī	▪ Abū'l-'Abbās Al-Faḍl ibn Ḥātīm Al-Nairīzī ▪ Anaritus ▪ Nazirius	139	Yahya Ibn al-Batriq	▪ Abu Yahya Ibn Al-Batriq ▪ Yahya Ibn Al-Batriq
65	Al-Sijzi	▪ Abu Sa'id Ahmed ibn Mohammed ibn Abd Al-Jalil Al-Sijzi ▪ Al-Sinjari ▪ Al-Sijazi ▪ Al-Sijzi ▪ Abu Sa'id Al-Sijzi	140	Abu Said Gorgani	▪ Abu Sa'id al-Dharir al-Jurjani ▪ Abu Said Gorgani ▪ Gurgani
66	The Brethren of Purity	▪ Ikhwān Al-Şafā ▪ The Brethren of Purity	141	Mashallah ibn Athari	▪ Mā Shā' Allāh ibn Athari
67	Abū Bakr Al-Karajī	▪ Abū Bakr Muḥammad ibn al Ḥasan Al-Karajī ▪ Abū Bakr Al-Karajī ▪ Al-Karajī	142	Naubakht	▪ Nobakht Ahvazi ▪ Naubakht Ahvaz ▪ Naubakht
68	Abū Ḥanīfa	▪ Abū Ḥanīfa Al-Nu'mān ibn Thābit b. Zūţā ibn Marzubān ▪ Abū Ḥanīfa ▪ Imam Abū Ḥanīfa	143	ibn Farrukhān Tabarī	▪ Omar Tiberiades or Abū Hafs 'Umar ibn Farrukhān Tabarī
69	Abu Yusuf	▪ Yaqub ibn Ibrahim Al-Ansari ▪ Abu Yusuf	144	Ahmad Nahavandi	▪ Ahmad ibn Muhammad Al-Nahawandi ▪ Ahmad Nahavandi
70	Abu Sahl Al-Masihi	▪ Abu Sahl 'Isa ibn Yahya Al-Masihi Al-Jurjani ▪	145	Yahya ibn Habash Suhrawardi	▪ Shahāb ad-Dīn Yahya ibn Habash ibn Amirak as-Suhrawardī ▪ Sohrevardi ▪ Shahab Al-Din

row	Known names	Different forms of names in the Latin alphabet	row	Known names	Different forms of names in the Latin alphabet
71	Ahmad ibn Fadlan	<ul style="list-style-type: none"> ▪ Aḥmad ibn Faḍlān ibn Al-‘Abbās ibn Rāšid ibn Ḥammād ▪ Ahmad ibn Fadlan 	146	Ibn Khatima	<ul style="list-style-type: none"> ▪ Abu Dja‘far Ahmad ibn ‘Ali ibn Muhammad ibn Khatima Al-Ansari ▪ Ibn Khatima
72	Al-Mawardi	<ul style="list-style-type: none"> ▪ Abū Al-Ḥasan ‘Alī ibn Muḥammad ibn Ḥabīb Al-Baṣrī Al-Māwardī ▪ Alboacen ▪ Al-Mawardi ▪ Abu Al-Hasan Al-Mawardi 	147	Yahya ibn Abi Mansur	<ul style="list-style-type: none"> ▪ Abū ‘Alī Yahyā ibn Abī Maṣṣūr al-Munajjim ▪ Bizist, son of Firuzan ▪ Yahya ibn Abi Mansur
73	Al-Qabisi	<ul style="list-style-type: none"> ▪ Abu Al-Saqr Abd Al-Aziz ibn Uthman ibn Ali Al-Qabisi ▪ Al-Qabisi ▪ Alchabitius ▪ Alcabitius ▪ Alchabiz, Abdelazys, Abdilaziz 	148	Sanad ibn Ali	<ul style="list-style-type: none"> ▪ Abu Al-Tayyib Sanad ibn Ali Al-Yahudi ▪ Sanad ibn Ali
74	Ibn Mada'	<ul style="list-style-type: none"> ▪ Abu Al-Abbas Ahmad bin Abd Al-Rahman bin Muhammad bin Sa'id bin Harith bin Asim Al-Lakhmi Al-Qurtubi ▪ Ibn Maḍā 	149	Ibn al-Shatir	<ul style="list-style-type: none"> ▪ Abu Al-Ḥasan Alā' al-Dīn ‘Alī ibn Ibrāhīm Al-Ansari
75	Said al-Andalusi	<ul style="list-style-type: none"> ▪ Abū Al-Qāsim Ṣā‘id ibn Abū Al-Walīd Aḥmad ibn Abd Al-Raḥmān ibn Muḥammad ibn Ṣā‘id ibn ‘Uthmān Al-Taghlibi Al-Qūrtūbi ▪ Ṣā‘id Al-Andalusī 	150	Mūsā ibn Shākir	<ul style="list-style-type: none"> ▪ Muhammad ibn Musa bin Shakir ▪ Abu Abdullah

Appendix 2

Full list of cited works of Muslim scholars of the Islamic Golden Age

row	author	Title	Citation(s)	Total citations
1	Ibn Abi Usaybi'a	Uyūn ul-Anbā' fī Ṭabaqāt al-Aṭṭibbā	159	159

row	author	Title	Citation(s)	Total citations
2	Ibn Al-Baytar	Kitāb al-Jāmi' li-Mufradāt al-Adwiya wa-l-Aghdhiya	64	68
		Tafsīr Kitāb Diyāsqūrīdūs	4	
3	Ibn Jubayr	al-Rihla ibn Jubayr	115	115
4	Ibn Khordadbeh	Kitāb al Masālik w'al Mamālik	20	20
5	Ibn Khaldun	Al-Muqaddimah	458	578
		Kitāb al-'Ibar wa-Dīwān al-Mubtada' wa-l-Khabar fī Ta'rīkh al-'Arab wa-l-Barbar wa-Man 'Āsharahum min Dhawī ash-Sha'n al-Akbār	105	
		Shifa al-Sa'il li-Tahdhib al-Masa'il	14	
		Lubābu l-Muhassal fi Usul al-Din	1	
6	Ibn Rushd	Tafsīr mā ba'da al-ṭabī'ah	200	1948
		Sharḥ Kitāb al-nafs	254	
		Sharḥ "al-Burhān" li-Aristū	18	
		Sharḥ al-Samā' wa-al-'ālam lil-Ḥakīm Aristūṭālīs	24	
		Grand commentaire sur le Traité de l'âme d'Aristote	153	
		talkhīsh Kawn wa-al-fasād	30	
		Talkhīsh al-khaṭābah	18	
		Talkhīsh Kitāb al-shi'r	33	
		Middle Commentary on Aristotle's Nicomachean Ethics	14	
		Talkhīsh kitāb al-Maqūlāt	27	
		Talkhis Aristotle Ṭabī' iyyāt	84	
		Talkhīsh kitāb al-ḥiss wa-al-maḥsūs	7	
		Kitāb al-Burhān	5	
		Talkhīsh al-Qiyās li-Aristū	4	
		Talkhīsh kitāb al-Jadal	3	
		Middle commentary on Porphyry's Isagoge	6	
		Talkhīshāt Ibn Rushd ilā Jālīnūs	5	
		Talkhīsh al-Āthār al-'ulwīyah	6	
		Talkhīsh Kitāb al-nafs	33	
		Talkhīs kitāb al-'Ibārah	22	
		Talkhīsh mā ba'da al-ṭabī'ah	48	
		Kitāb al-Samā' al-ṭabī'ī	5	
		Kitāb al-Samā' al-ṭabī'ī	7	
		Epitome of Parva naturalia	11	
		mā ba'da al-ṭabī'ah	16	
		Averroës' three short commentaries on Aristotle's "Topics," "Rhetoric," and "Poetics"	9	
		Commentary on Plato's Republic	80	
Kitāb al-hayawan	3			
kitāb al-Maqūlāt	3			
Fatāwā Ibn Rushd	10			

row	author	Title	Citation(s)	Totoal citations
		Rasā'il Ibn Rushd al-ṭibbīyah	4	
		al -Bayān wa al-taḥsīl wa al-Sharḥ wa al-Tawjīh wa al-Ta`līl Fī Masā'il al-Mustakhrajah	22	
		Bidāyat al-mujtahid wa-nihāyat al-muqtaṣid	172	
		Tahāfut al-Tahāfut	214	
		al-Kullīyāt fī al-Ṭibb	68	
		Sharḥ Ibn Rushd li-Urjūzat Ibn Sinā fī al-ṭibb	1	
		Faṣl al-Maqāl	239	
		al- Ḍarūrī fī uṣūl al-fiqh, aw, Mukhtaṣar al-Mustaṣfā	4	
		al -Muqaddimāt al-mumahhidāt li-bayān mā iqtadathu rusūm al-Mudawwanah min al-Aḥkām al-Shar`īyyah wa al-Taḥṣīlāt al-Muḥkamāt li Ummahāt Masā'luhā al-mushkilāt	14	
		Essay on the Motion of the Sphere	17	
		al-Kashf 'an manāḥij al-adilla fī 'aqā'id al-milla	23	
		Bajja's Risalat Ittisal al-'Aql Bi-l-Īnsan	32	
7	Ibn Zuhr	Kitab al-Taisir fī al-Mudawat wa al-Tadbir	32	48
		Kitab al-Aghdhiya	13	
		kitab al-muyarrabat	3	
		Al-Qanun fi't-Tibb	1211	
		Kitab al-shifa	1622	
		Al-isharat wa al-tanbihat	198	
		Kitab al-najat	129	
		al-Ta`līqāt	45	
		Danishnama-i 'ala'i	75	
		al-Mubāḥathāt	19	
		Traités mystiques d'Avicenne	19	
		hikmat-al-mashriqqiyya	21	
		Ithbat Al-Nubuwat	9	
		Urjūza fī l-ṭibb	3	
		Risala fi'l-Ishq	22	
		Fī aqsām al- 'olūm al- 'aqlīya	10	
		Uyūn al-ḥikma	13	
		Tirasāyil fī al-ḥikmah wa-al-ṭabī'iyāt	9	
		Kitāb al-hudūd	18	
		Kitab al-Siyasa	2	
		Risāla al-Inṣāf	3	

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8	Ibn Sina	Daf' al-maḍārr al-kullīyah 'an al-abdān al-insānīyah	1	3587
		Rag'shināsī yā risālah-i dar nabẓ	9	
		treatise Al-Tair	2	
		Al-Qulanj	2	
		Al-Hidayah	3	
		The Treatise of the Covenant	3	
		Al-Advia al-Qalbia	11	
		Al-Jumāna al-ilāhiyya fī l-tawḥīd	1	
		Aristotle's Poetics	16	
		Poè me de la médecine	10	
		Aristotle's Ilāhiyyāt	27	
		Al-Mukhtasar al-Awsat fil-Mantiq	1	
		A treatise on the truth and quality of the order of beings and the order of causes	2	
		Makhārij al-ḥurūf	1	
		Resāla fī ebṭāl aḥkām al-nojūm	7	
		Risalah tadbir-i manzil	2	
		Summary of the Almagest	1	
		Tarjamah-'i Risālah-'i azḥavīyah	7	
		The message of the soul	2	
		Risalah fi sirr al-qadar	5	
		al- Risālah al-'arshīyah: fī ḥaqā'iq al-tawḥīd wa-ithyāt [i.e., ithbāt] al-nubūwah	7	
Kitāb al-Majmū' aw al-Ḥikma al-'Arūḍiyya	4			
Lettre au vizir abu sa'd	11			
Al-Ajwiba 'an masā'il Abī Rayḥān al-Bīrūnī	7			
Majmoo' rasaa'il	17			
9	Ibn Ṭufail	Hayy ibn Yaqdhan	24	24
10	Ibn Al-Muṭrān	Bostan Al-Attabi and Rawza Al-Alba	3	3
11	Ibn al-Tayyib	Interpretation of the Torah Genesis Journey	2	5
		Commentary on the Isagoge of Porphyry	1	
		Fiqh al-naṣrāniyya	1	
		Commentaries on Categories of Aristotle	1	
		Al-usul fi sarh al-fusul	4	

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12	Ibn Al-Quff	Kitāb al-'Umda fi 'l-ğirāha	4	9
		Jāmi' al-gharaḍ fi ḥifz al-ṣiḥḥah wa-daf' al-maraḍ	1	
13	Ibn Miskawayh	Tajarib al-umam (Experiences of Nations)	66	192
		Ketāb al-ḥekma al-kāleda (Javidhan Khirad)	15	
		Tahdhib al'Akḥlaq wa Tathir al'Araq	91	
		Al-Fawz al-Asghar	3	
		Al-Rasa'il wa Al-Makatib	11	
		al-Hawamil wa-l-shawamil	6	
14	Ibn Al-Nadīm	Al-Fihrist	265	265
15	Ibn Al-Nafis	Al-Shamil fi al-Tibb	18	44
		Kitāb Sharḥ tashrīḥ al-Qānūn	12	
		al-Risālah al-Kāmiliyyah fī al-Ssīrah al-Nabawiyyah	3	
		Sharḥ Fuṣūl Abuqrāt	11	
16	Ibn Al-Haytham	Kitab al-Manazir	187	213
		Al-Shukūk 'alā Batlamiyūs	16	
		On the Burning Sphere	1	
		On the Form of Eclipse	4	
		Explain the origins of Euclid	5	
		Iḥyā' 'ulūm ad-dīn	668	
		al-Mustasfa fi 'ilm al-isul	224	
		Tahāfut al-Falāsifa	236	
		al-Muniqidh min a-alal	194	
		Al-Iqtisād fī al-i'tiqad	96	
		Mishkat al-Anwar	83	
		Kimiya-yi sa'adat	63	
		al-Mustazhiri or Fada'ih al-baṭiniyya wa faḍa'il al-mustazhiriyya	35	
		al-maqsad al-asna fi sharah asma' Allahu al-husna	64	
		Jawahir al-Qur'an wa duraruh	17	
		Nasihah al-muluk	43	
		Mizan al-'amal	51	
		Maqasid al falasifa	81	
		Al-wasit fi al-mathab	21	

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17	Al-Ghazali	al-Qistas al-mustaqim	14	2088
		shifā' al-ghalīl	10	
		al-'Ara'bin fi işul al-din	9	
		Bidayat al-Hidaya	17	
		Miyar al-Ilm fi fan al-Mantiq	20	
		Mihak al-Nazar fi al-mantiq	7	
		Ayyuha al-walad	13	
		Minhāj al-'ārafīn	3	
		Minhaj al-'Abidin	8	
		al-Wajiz fi fiqh al-imam al-shafi'i	7	
		Faysal al-tafriqa bayn al-Islam wa-l-zandaqa	23	
		al-Mankhul min ta'liqat al-işul	15	
		al-Maḍnun bihi 'ala ghyar ahlihi	5	
		Iljam al-'awamm 'an 'ilm al-kalam	7	
		Al-ḥikmah fi makhluqat illah	4	
		al-Muntakhal fi al-jadal	2	
		al-Durrah al-fākhirah fi khasf 'ulum al-'akhira	5	
		al-risāla al-ladunīa	4	
		al-Kashf wa-t-Tabyin fi Ghurur al-Khalq Ajma'in	1	
		al-Risala al-qudsia	1	
		Qawaid al-Aqaid	4	
Qanun al-ta'wil	3			
al-Imala' 'ala Ishkalat al-Ihya	1			
Rawḍat al-ṭālibīn wa Mi'raj al-sālikīn	3			
Faza'ilul al-anam min rasa'ili hujjat al-Islam	15			
Majmu't Rasi'l al-Imam al-Ghazālī	11			
18	Ibn Al-Jazzar	Zād al-Musāfir wa Quwwat-ul-Hadhir	4	7
		al- I'timād fi al-adwiyah al-mufradah	1	
		Kitāb siyāsāt al-şibyān wa-tadbīruhum	2	
19	Sadr Al-Din Al-Qunawi	Kitāb al-Fukūk	9	53
		I'jāz al-bayān fi ta'wil Umm al-Kitāb	12	
		al-Murāsālāt bayna Şadr al-Dīn al-Qūnawī wa-Naşīr al-Dīn al-Ṭūsī	8	
		Miftāḥ ghayb	11	
		Tafsīr al-Sūrah al-mubārakah al-Fātiḥah	2	

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		Kitāb al-nafaḥāt al-ilāhīyah	4	
		Tabsirat al-Mubtada wa Tadhkirat al-Muntaha	1	
		Sharḥ al-asmā' al-ḥusnā	1	
		Kitāb al-nuṣūṣ	4	
		Sharḥ al-arbaʿin ḥadīthan	1	
20	Ismail Al-Jazari	Kitāb fī maʿrifat al-ḥiyal al-handasiyya	32	32
21	Banu Musa	Kitāb al-ḥiyal	5	5
22	Jābir ibn Ḥayyān	Ketab alchemia	3	26
		Tadbīr al-iksīr al-aʿzam	2	
		Kitāb al-Sumūm wa-dafʿ maḍārrihā	2	
		The Summa perfectionis of Pseudo-Geber	7	
		dix traites alchemie	5	
		Jabir's Seventy Books	2	
		Kitāb al-Mājid	1	
		Mukhtar rasa'il	3	
		Kitāb al-hudūd	1	
23	Al-Jāḥiẓ	Kitāb al-Bayān wa-al-Tabyīn	103	561
		Kitāb al-Ḥayawān	194	
		al-Bursan wa-l-Urjan wa-l-Umyan wa-l-Hulan	10	
		Rasā'el al-Jāḥezá	95	
		Mufakhira al-Jawari wa al-Ghilman	8	
		Kitāb al-Bukhalā	46	
		Kitāb al-buldān	3	
		Al- 'Uthmaniyah	21	
		Al-Taj fi Akhlaq Al-Mulook	13	
		Nine Essays of al-Jahiz	6	
		al-Ġahiz: quatre essais	2	
		Kitab al-Tabassur bi al-Tijarah	8	
		Le Kitāb at-tarbī' wa-t-tadwīr de Ġāḥiẓ	11	
		al-Mukhtār fī al-radd 'alā al-Nṣarā	4	
		Al-Mahasaen Wa Al-Addad	4	
		Manākib Cund el-Hilāfa ve Faẓā' il el-Etrāk	4	
		Kitab al-Qawl fi al-Bighal	3	
Risalat al-qiyān	13			
Faḍr al-sudān 'alā al-bizān	7			

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		Al- Dalā'il wa-al-I'tibār	1	
		al- 'Ibar wa-al-i'tibār	1	
		Falsafat al-jidd wa-al-hazl	2	
		Dhamm Akhlaq 'l-Kuttab	1	
		Nazm al-Qur'ān	1	
24	Maslama Al-Majriti	Ghāyat al-Ḥakīm	9	9
		Hunayn Ibn Ishaq on His Galen Translations	4	
25	Hunayn ibn Ishaq	al-Masail fi'l-Tibb li'l-Muta'allimin	1	6
		al-'Ashar Maqalat fi'l-Ayn	1	
26	Al-Maqdisī	Aḥsan al-taqāsīm fī ma'rifat al-aqālīm	296	296
		Murūj al-Dhahab wa-Ma'ādin al-Jawhar	225	
27	Al-Mas'udi	At-Tanbih wa al-Ashraf	44	272
		Ithbat al-wasiyya	1	
		Akhbār al-zamān	2	
		Kitāb nuzhat al-mushtāq fī ikhtirāq al-āfāq	248	
28	Al-Idrisi	Uns al-muhaj wa ḥadā'iq al-furaj	10	261
		Kitāb al-Jāmi' li- sifāt ashtāt al-nabāt wa-durūb anwā' al-mufradāt	3	
		Zakhireh-I Kharazmshahi	239	
29	Abu Said Gorgani	Al-Iqraz al-Tebbieh and Al-Mabahis al-Alaieh	89	336
		Khafi Alayee	6	
		Tib Yadegar	2	
		Zīj al-Sanjari	6	
30	Al-Khāzini	Kitab Mizan al-hikma	6	12
		Ta'rīkh Madīnat al-Salām: or Ta'rīkh Baghdād wa Dha'ilih wa-l-Mustafād	188	
		Takyid al-ilm	7	
		Faqīh wa-al-mutafaqqih	8	
31	Al-Khaṭīb Baghdādī	Al-Djami' li-akhlaq al-rawi wa-adab al-sami	7	235
		al-Muttafik wa 'l-muftarik	1	
		al-Kifaya fi ma'rifat usul 'ilm al-riwaya	23	
		al- Muntakhab min kitāb al-zuhd wa-al-raqā'iq	1	
		Akhlaq-i-Nasri	20	
		Zij-I ilkhani	4	

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32	Nasir Al-Din Al-Tusi	Sharḥay al-Ishārāt wa al-tanbihat	19	97
		Tahrir usul li-Iqlīdis	4	
		Asās al-iqtibās	4	
		Tahrir al-majisti	4	
		Tajrid al-I'tiqad	6	
		Risalat Nafs al-amr	1	
		Risalat Nasir al-Din al-Tusi fi 'ilm al-musica	1	
		Muṣāra' al-muṣāra'	3	
		Talkhis al-Muhassal	10	
		al-Tadhkira fi. Ilm al-hay'a	4	
		Taḥrīr Kitāb-ul- Mafruzat Archimedes	1	
		Sultan's Sex Potions	4	
		Taḥrīr Menelaus' Spherics geometry	2	
		Tahrir On the Sphere and Cylinder Archimedes	4	
		Awsaf al-Ashraf	1	
Risalah al-shafiyyah 'an al-shakk fi-l-khutut al-mutawaziyah	1			
Majmū' al-rasā'il	4			
33	Muḥammad ibn Mūsā Al-Khwārizmī	al-jabr wal-muqābala	17	37
		Rasā'il Khwārizmī	3	
		Kitāb surat al-ard	5	
		kitāb al-ḥisāb al-hindī	5	
		Zīj al-Sindhind	6	
		Risāla fi istikhrāj ta'rīkh al-yahūd	1	
	Abū Bakr al-Rāzī	al-Hawi fi al-tibb (Liber Continens)	223	
		Kitāb al-Manṣūrī or Al-Kunnash al-Mansuri	73	
		al-Judari wa al-Hasbah	46	
		Fī al-ṭibb al-rūḥānī	26	
		al-Rāzī's al-Shukūk 'alā Jalīnūs	17	
		corpus	16	
		Rasā'il falsafīyya	15	
		Manafi' al-Aghdhiya wa-Daf Madarriha	6	
		Tarjamah-yi qisas va-hikayat al-marza	6	
		Al-Madkhal Ila al-Tibb	5	

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34		on the treatment of small children (De curis puerorum)	4	460
		Kitāb al-Murshid aw al-Fuṣūl	3	
		Rāhnamā-yi āmūzish-i ṣan'at-i kīmiyā	2	
		Man la Yahduruḥu al-Tabib	2	
		Maqalah fi al- Hasat fi Kuli wa al-Mathana	2	
		Akhlaq al-Tabib	2	
		Taqsim wa al-Tashjir	2	
		Kitab al-Abdal	1	
		Daf' Madarr al-Aghdhiyyah	1	
		Kitāb mā al-fāriq aw-al-furūq aw-kalām fi al-furūq bayn al-amrād	1	
		Kitab Būr' al-Sā'ah	1	
		Makharīq al-Anbiyā'	1	
		al-'Ilm al-Ilāhī	1	
		Kitaban fi al-Tajarib	1	
		Kitāb al-qawlanj	1	
		Al-Asrar	1	
Al-Tibb al-Muluki	1			
35	Al-Farabi	Mabādi' ārā' ahl al-madīnah al-fāḍilah	173	1023
		Fi al-radd ala Jalinus	1	
		Philosophy of Aristotle: Falsafat Aristūtālīs	45	
		Falsafat Aflātūn	35	
		Fi Aqrad Ma Ba 'd al-Tabi 'a	11	
		Alfarabius Compendium Legum Platonis	1	
		Kitab ihṣa' al-'ulum	132	
		Mā yanbaghī an yuqaddam qabla ta'allum falsafat Aristū	4	
		Al-Farabi's Introductory Risalah on Logic	36	
		Al-Farabi's Eisagoge	5	
		Kitāb al-shi'r	4	
		Kitab al-Jadalal	5	
		Kitāb al-alfāz al-musta'mala fi al-mantiq	18	
		Fārābī's Canons of Poetry	4	
		Kitāb Šara'iṭ al-yaqīn	2	
		Kitāb al-Burhān	8	

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		Kitāb al-qiyās	11	
		ma 'qūlāt	5	
		Kitāb al-Ḥaṭāba	12	
		Uyūn al-masā'il fī al-mantiq	1	
		The Political Writings	109	
		Risalat al-siyasah al-madaniyah	70	
		Rasā'il	61	
		Al-jam' bayna ra'yay al-ḥakīmayn aflatūn al-ilāhī wa-aristūṭālīs	59	
		Kitāb taḥṣīl al-sa'āda	57	
		Kitab al-Huruf	50	
		Kitāb al-mūsīqā al-kabīr	31	
		L' épître sur l'intellect =: al-Risāla fī-l-'aql	22	
		Fusul muntaza'ah	15	
		Kitāb al-millah, wa-nuṣūṣ ukhrā	13	
		Fuṣūṣ al-ḥikm	5	
		Risālat al-tanbīh 'alā sabīl al-sa'āda	5	
		Kitāb al-Wāḥid wa-al-waḥdah	3	
Tafsir Ptolemy's Almagest	1			
36	Fakhr al-Din al-Razi	Al-Tafsir al-Kabir (Mafatih al-Ghayb (211	390
		Al-Mahsul fī 'Ilm al-Usul	22	
		Muḥaṣṣal Afkār al-Mutaqaddimīn wal-Muta'akhhirīn	23	
		Sharḥ al-ishārāt va al-tanbīhāt	26	
		Sharḥ Uyun al-Hikmah	9	
		Nihayat al 'Uqul fī Dirayat al-Usul	10	
		Kitāb al-Arba'in Fī Uṣūl al-Dīn'	8	
		Asās al-taqdīs fī 'ilm al-kalām	5	
		Mabahith al-mashriqiyya fī 'ilm al-ilahiyyat wa-'l-tabi 'iyyat	25	
		Kitab al-nafs wa'l-ruh wa sharḥ quwa-	4	
		almukhlis fī hokm w al-mantiq	8	
		al- Risālah al-kamālīyah fī al-ḥaqā'iq al-ilāhīyah	2	
		Ma'ālim uṣūl al-dīn	14	
		Sharḥ Kulliyyat al-Qanun fī al-Tibb	2	

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		Sharh Asma' Allah al-Husna	3	
		Al-Matālib al- 'Āliyyah min al- 'ilm al-ilahī	14	
		al- Firāsah 'ind al-'Arab wa-kitāb "al-Firāsah" li-Fakhr al-Dīn al-Rāzī	1	
		shajarah almubarikh	1	
		al- Masā'il al-khamsūn fī uṣūl al-dīn	1	
		Manāqib al-Imām al-Shāfi'ī	1	
37	Al-Kindī	Rasā'il al-Kindī al-falsafiyah	161	270
		De radiis	74	
		sharah risalah qirabadyn	14	
		De mutatione temporum	3	
		Treatise on the Dominion of the Arabs and its Duration	2	
		The Book of the Judgement of the Stars	6	
		Mu'allafāt al-Kindī al-mūsiqīyah	2	
		Kitāb Kīmiyā' al- 'iṭr wa-l-taṣ' idāt	4	
		Deciphering Cryptographic Messages	4	
38	Al-Tabari	Tarikh al-Rusul wa al-Muluk	550	916
		Tafsīr al-Ṭabarī	348	
		Ikhtilāf al-fuqahā'	10	
		albasayrat fī taealim aldiyn	1	
		Tahdhīb al-āthār	7	
39	Abd Al-Latif Al-Baghdadi	al- Ifādah wa-al-i'tibār fī al-umūr al-mushāhadah, wa-al-ḥawādith al-mu'āyanah bi-arḍ Miṣr	8	8
40	Al-Majusi	<u>Kitāb Kāmil as-Sinā'a at-Tibbiyya</u>	122	122
41	Al-Hamdani	Kitāb al-Iklīl min akhbār al-Yaman wa-ansāb Ḥimyar	65	108
		Sifat Jazirat ul-Arab	40	
		al-Jawharatayn al-'atīqatayn	3	
42	Gardizi	Zayn al-Akhhbār(Tārīkh-i Gardīzī)	65	65
43	Samau'al Maghribi	Ifḥām al-Yahūd	4	4
44	Al-Tamimi	Ḥabīb al-'arūs, wa-rayḥān al-nufūs	2	2
45	Al-Bakrī	Mu'jam mā ista'jam	34	255
		Kitāb al-Masālik wa'l-Mamālik	221	
46	Al-Ya'qūbī	Ta'riḥ Ya'qubi	220	326
		Kitab al-Buldan	106	

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47	Kūshyār Daylami	Kitab fi usul hisab al-hind	4	7
		az-Zīj al-Jamī wal-Baligh	1	
		Kūshyār ibn Labbān's introduction to astrology	2	
48	Al-Nairīzī	Shrhe kitab usul aqlidus	17	17
49	The Brethren of Purity	Rasa'il Ikhwan al-safa,	6	6
50	Al-Sijzi	almadkhal	4	4
51	Abū Bakr Al-Karajī	Al-Badi' fi 'l-hisab	7	19
		Al-Kafi fi 'l-hisab)	8	
		Kitab inbat al-miyah al-khafiya	4	
52	Abū Ḥanīfa	Al-Fiqh al-Akbar	5	7
		Al-Fiqh al-Absat	1	
		Kitaab-ul-Athaar	1	
53	Abu Yusuf	Kitāb al-Kharāj	27	48
		Kitab al-Radd 'Ala Siyar al-Awza'i	5	
		Kitab Ikhtilaf Abi Hanifa wa Ibn Abi Layla	7	
		Kitab al-Athar	9	
54	Abu Sahl Al-Masihi	al-mā'a fi-l-sanā'a al-tabi'iyyah	5	5
55	Ahmad ibn Fadlan	Safar nāmah	36	36
56	Al-Mawardi	Al-Ahkam al-Sultania w'al-Wilayat al-Diniyya)	256	438
		al- Nukat wa-al- 'uyūn, tafsīr al-Māwardī	35	
		Kitab Nasihat al-Mulk	9	
		Ḥāwī al-kabīr fi al-furū'	62	
		Adab al-dunyā wa-al-dīn	44	
		Adab al-qāḍī	16	
		A 'lām al-nubūwah	7	
		Qawānīn al-wizārah wa-siyāsāt al-Mulk	3	
		al- Amthāl wa-al-ḥikam	2	
Tashīl al-nazar wa-ta'jīl al-ḥikam wa-siyāsāt al-mulk	4			
57	Al-Qabisi	Introduction to the Art of Judgments of the Stars	18	18
58	Ibn Mada'	al-Radd 'alā al-Nuḥāh	1	1
59	Said al-Andalusi	Ṭabaqāt al-'Umam	80	80
60	Abu Hanifa Dinawari	Kitāb al-akhbār al-ṭiwāl	22	22
61	Abu Zayd al-Balkhi	Masalih al-Abdan wa al-Anfus	9	9
62	Ja'far al-Sadiq	Tafsir al-Quran	3	6
		misbah al shariah	3	
63	ibn Yunus	al-Zij al-Kabir al-Hakimi	1	1
64	Abu Kamil	Kitāb fi al-jabr wa al-muqābala	3	3
65	Abu'l-Hasan al-Uqlidisi	Kitab al-Fusul fi al-Hisab al-Hindi	7	7
66	Abu Bakr al-Hassar	Kitab al-bayan wat-tadhkar	4	4

row	author	Title	Citation(s)	Total citations
67	Jamshīd al-Kāshī	Miftāḥ al-ḥisāb	13	23
		Khaqani Zij	6	
		Treatise on Astronomical Observational Instruments	1	
		Sullam al-Sama	3	
68	Ibrahim al-Fazārī	Kitāb al-siyar	16	16
69	Sharaf al-Din al-Tusi	Treatise on equations (Fi Mu'ādalāt)	8	8
70	Mu'ayyad al-Din al-Urdi	Kitāb al-Hay'a	3	3
71	al-Katibi	Hikmat al-'Ain	2	4
		al-Risāla al-Shamsiyya	2	
72	Athir al-Din al-Abhari	Almagest treatise	2	44
		Kashf al-ḥaqā'iq fī taḥrīr al-daqa'iq	11	
		Hidayah al-Hikmah	7	
		tanzil ul-afkar fī tadil ul-asrar	4	
		Sharh Isāghūjī fī al-Mantiq	4	
		Zubdat-ul-Asrar ya Zubdat-ul-haqaiq	3	
		Muntahī al-afkār fī ibānah al-asrār	4	
		bayan al-asrār	3	
		Talkhis al-haqaiq	3	
		unwan alhaqi w Burhan al-sedg	1	
Tahrir al-dala'il fī taqir al-Masa'il	2			
72	Al-Battani	Kitāb az-Zīj aṣ-Ṣābi'	15	21
		Kitāb az-Zīj	5	
		Arba'u Maqālāt	1	
74	Muhammad al-Shaybani	al-Jami al-Saghir	4	107
		al-Jami al-Kabir	3	
		Kitāb al-Aṣl, al-ma'rūf bi-al-Mabsūṭ	29	
		al-Siyar al-Kabir wa al-Siyar al-Saghir	50	
		Radd Al Ahli alMadinah	7	
		Kitāb al-āthār	7	
		Al- Muwatta	2	
		alksb: aktisab fī alrizq almustatab	4	
al-Makhārij fī al-ḥiyal	1			
75	Jabril ibn Bukhtishu	Kitāb ṭabā'i' al-ḥayawān wa-khawāṣṣihā wa-manāfi' a'dā'ihā	1	1
76	Qusta ibn Luqa	Risālah fī al-farq bayna al-ruḥ wa-al-nafs	7	10
		The Risāla Fī Tadbīr Safar Al-ḥajj	2	
		The Introduction to Geometry	1	
77	Al-Zarkali	Tables of Toledo	2	2
78	Nur ad-Din al-Bitruji	Kitāb al-Hay'ah	20	20
79	Al-Sarakhsi	Kitab al-Mabsut	174	215
		Uṣūl al-Sarakhsī	17	
		Sharḥ Kitāb al-siyar al-kabīr	24	

row	author	Title	Citation(s)	Total citations
80	Al-Zahrawi	Kitab al-Tasrif	57	57
81	Ali ibn Ridwan	al-Kitāb al-nāfi‘ fi kayfiyat ta‘līm šinā‘at al-ṭibb	3	14
		Risālah fī al-ḥīlah fī Daf‘ maḍārr al-abdān bi-arḍ Mişr	4	
		fī al-toraqə betibb ela-saeada	3	
		sharh almaqalat al'arbae fī gazaya alnujum	1	
		sharh alsinaeat alsaghirat li Jalinus	3	
82	Abu Mansur Muwaffaq	Kitab al-Abniya 'an Haqa'iq al-Adwiya	33	33
83	Al-Biruni	Kitab al-Bīrūnī fī Taḥqīq mā li-al-Hind	163	671
		Kitab al-saydala fī al-tibb	75	
		Kitab al-Āthār al-Bāqīyah ‘an al-Qurūn al-Khālīyah	159	
		Rasā'el al-Bīrūnī	12	
		Tamhid al-mustiqarr li tabqīq ma'na al-mamarr	9	
		Kitāb al-Qānūn al-Ma‘sudī	50	
		Yoga Sutras of Patañjali	4	
		Kitāb maqālīd ‘ilm al-hay‘a	7	
		Taḥdīd nihāyāt al-amākin li-taṣḥīḥ masāfāt al-masākin	38	
		Ifraḍ al-maqāl fī amr al-zilāl	12	
		Kitāb al-jamāhir fī ma‘rifat al-jawāhir	43	
		Kitāb al-Tafhīm li-awā‘il šinā‘at al-tanjīm	93	
		Fihrist-i kitābhā-yi Rāzī va nāmā-yi kitābhā-yi Bīrūnī	5	
		Ḡorrat al-zījāt	1	
84	Abu al-Wafa' Buzjani	Kitāb fī mā yaḥtāj ilayh al-šāni‘ min al-a‘māl al-handasiyya	11	22
		Kitāb fī mā yaḥtāj ilayh al-kuttāb wa'l-‘ummāl min ‘ilm al-ḥisāb	10	
		Ketāb Nejarat	1	
85	Omar Khayyam	Maqāla fī l-jabr wa l-muqābala	5	135
		Nawrūznāmāh	2	
		Ruba'iyat	125	
		Risālah fī'l-wujūd	1	
		Avicenna's Al-Khutbat al-Tawhīd	1	
		Risālah fī sharḥ mā ashkala min muşādarāt Kitāb Uqlīdis	1	
86	Abd Al-Qahir Al-Baghdadi	Kitāb Uşūl al-Dīn	25	68
		Kitāb al-Milal wa al-Nihal	1	
		al-Farq bayn al-Firaq	36	
		al-Nāsikh wa-al-mansūkh	1	
		Tafsir al-Quran	1	
		al-Īdāḥ ‘an uşūl šinā‘at al-massāḥ	1	
		al-Takmila fī'l-Hisab	3	

row	author	Title	Citation(s)	Total citations
87	Muhyi Al-Din Al-Maghribi	Adwār al-anwār madā al-duhūr wa-'l-akwār	6	12
		Talkhīsh al-Majisti	6	
88	Ibn Al-Akfani	Kitāb nuhab al-dahā'ir fī ahwāl al-jawāhir	2	7
		Iršād al-qāsīd ilā asnā' al-maqāsīd	5	
89	Ibn Bajja	Tadbīr al-mutawaḥḥid	15	31
		Risālat al-wadā'	7	
		Sharḥ al-Samā' al-ṭabī'ī li-Aristūṭalīs	2	
		Risālat al-ittiṣāl al-'aql bi al-insān	4	
		commentary on treatise of Meteorology	1	
		commentary on De generatione et corruptione	1	
90	Ibn al-Wafid	Ta'ālīq Ibn Bājah 'alā mantiq al-Fārābī	1	17
		alwasad fi altibb	6	
		Kitāb al-adwiya al-mufrada	10	
91	Ibn Bassal	Al-majmue fi Al-filahuh	1	22
		Dīwān al-filāha	16	
92	Kamāl al-Dīn al-Fārisī	'Kitāb al-Kasd wa 'l-bayān	6	9
		Tanqih al-Manazir	4	
		Asas al-qawa'id fī usul al-fawa'id (The base of the rules in the principles of uses)	4	
93	Abd al-Rahman al-Sufi	Al-Basa'ir fi 'ilm al-manazir (Insights Into the Sciences of Optics)	1	24
		Kitāb ṣuwar al-kawākib	22	
94	Safi al-Din al-Urmawi	Kitābān fī al-'amal bi-al-aṣṭurlāb	2	3
		Kitāb al-Adwār fī al-mūsīqā	3	
95	Al-Farghani	On the astrolabe	4	32
		Kitāb fī-al-ḥarakah al-samāwiyah wa-jawami' 'ilm al-nujūm bi-tafasīr al-shaykh al-fādi	27	
		The compendium (jawāmi') of the Almagest	1	
96	Masawaiyh	Kitāb jawahir altaib almufradat biasmayiha w sifatihā w maediniha	1	1
97	Zakariya al-Qazwini	Āthār al-bilād wa-akhbār al-'ibād	51	100
		'Ajā'ib al-makhlūqāt wa-gharā'ib al-mawjūdāt	49	
98	Abu'l-Barakāt al-Baghdādī	Kitab al-Mu'tabar	24	24
99	Ammar al-Mawsili	Kitāb al-muntakhab fī ilm al-ayn	1	1
100	Abu Sahl al-Quhi	Kitāb ṣan'at al-aṣṭurlāb bi-al-burhān	1	1
101	Ibn Butlan	Taqwim al-Sihha	2	5
		safarnamuh Buṭlān	1	
		Resalat fi shari al-raghigh va taghlib al-bai'd	2	
102	Ibn al-Bannā' al-Marrākushī	Talkhīsh 'amal al-ḥisāb	1	7
		Al-uṣūl wa-al-muqaddimāt fī al-jabr wa-al-muqābalah	1	
		Tanbīh al-Albāb	1	
		Jāmi' al-mabādi' wa-al-ghāyāt fī 'ilm al-miqāt	4	

row	author	Title	Citation(s)	Total citations
103	Qutb al-Din al-Shirazi	Eḳtiārāt-e moẓaffari	4	17
		Nehāyat al-edrāk fi dirayat al-aflak	3	
		Al-Tuḥfa al-šāhiya fi'l-hay'a	4	
		Šarḥ Ḥekmat al-ešrāq	4	
		Dorrat al-tāj fi ḡorrat al-dabbāj	2	
104	Abu Sulayman Sijistani	Siwān al-Ḥikma	14	14
105	Ibn Daniel	Three of Ibn Daniel's plays	15	15
106	Ibn Ḥawqal	Šūrat al-'Arḍ	64	64
107	Istakhri	Masālik al-Mamālik	129	132
		Šuwar al-'Aqālīm	3	
108	Thābit ibn Qurra	Al-madkhal ilá al- mantīq	1	18
		Mukhtaṣar fi 'ilm al-nujūm	12	
		Kitāb al-dhakhīra fi 'ilm al-ṭibb	4	
		Al-kawākib	1	
109	Alī ibn Ahmad al-Nasawī	al-muqni fi-l-hisab al Hindi	1	2
		Al-Tajrīd fi uṣūl al-ḥandasa	1	
110	Jabir ibn Aflah	Iṣlāḥ al-Majisti	2	2
111	Sibawayh	Al-Kitāb	160	160
112	Ibn Juljul	Ṭabaqāt al-aṭibbā' w'al-hukamā'	10	10
113	Abi Al-Khair Al-Ashbili	Kitāb al-Filāḥa (Treatise on agriculture)	2	15
		Fahrasat mā rawāhu 'an <u>shuyūkh</u> i-hi min al-dawāwīn al-muṣannafa fi durūb al-ilm-	6	
		Omdata-al-Tabib fi Marefat al-Nabat	7	
114	Ibn al-Shatir	al-Zij al-jadid	2	2
115	ibn Farrukhān Tabarī	Kitāb fi'l-mawālīd	1	1
116	Al-Asma'i	Asma'iyyat	8	21
		Plants and Trees	4	
		Kitab Khalaq al-Insan	1	
		Fuḥūlat al-Shu'arā	5	
		Kitab al-Wuhush	1	
		Kitāb al-Khail	2	
117		Kitab Hikmat al-ishraq	54	152
		The strange west	7	
		majmueat asar alfalsafiat wa alsuwfia	42	
		Resalat fi haqyqah al-ishq ya munis aleashaaq	7	
		Hayakal al-Nur al-Suhrawardi	6	
		al-Lamahat	2	
		Aql-i Surkh	1	
		Kitab al-talwihat	4	
		Kitab al-moqawamat	1	
		Kitab al-mashari' wa'l-motarahat	7	
		al-Alwāḥ al-'imādiyyah	1	
		Partaw Nama	4	

row	author	Title	Citation(s)	Totoal citations
	Yahya ibn Habash Suhrawardi	alraqam alqudsi	1	
		Risalat al-Tayr	1	
		Awaz-i Par-i Jebrail	1	
		Safir-i Simurgh	2	
		Resalat fi alaietiqaad wa alhukma'	1	
		Kalimāt al-taṣawwuf	1	
		Majmū'ah-'i āsār-i Fārsī-i Shaykh-i Īshrāq	6	
		Sih risālah	2	
		hasht namah	1	
118	Ibn Khatima	Tahsil al-gharad al-qasid fi tafsil al-marad al-wafid	1	1

Appendix 3

Full list of Countries citing works of Muslim scholars of the Islamic Golden Age

Rank	Country	Citations	Rank	Country	Citations	Rank	Country	Citations
1	USA	2764	39	Northern Ireland	28	77	Armenia	7
2	Iran	1666	40	Chile	27	78	Columbia	5
3	England	907	41	Denmark	25	79	Somali	5
4	Turkey	733	42	Palestine	23	80	Bosnia	4
5	France	601	43	New Zealand	23	81	Costa Rica	4
6	Malaysia	572	44	Kuwait	23	82	Slovakia	3
7	Israel	558	45	Portugal	21	83	Georgia	3
8	Germany	551	46	Iraq	20	84	Senegal	3
9	Canada	432	47	Singapore	19	85	Tajikistan	2
10	Spain	355	48	Oman	19	86	Uganda	3
11	Italy	279	49	Sweden	18	87	Venezuela	2
12	Australia	173	50	Bangladesh	18	88	Tanzania	2
13	Netherlands	171	51	Greece	17	89	Malta	2
14	India	166	52	Azerbaijan	16	90	Uruguay	2
15	Scotland	157	53	Sudan	16	91	Sri Lanka	2
16	Saudi Arabia	140	54	Algeria	15	92	Niger	2
17	Belgium	116	55	Bulgaria	15	93	Gambia	1
18	Indonesia	111	56	Nigeria	15	94	Zimbabwe	1
19	Russia	105	57	Norway	14	95	Jamaica	1
20	Egypt	91	58	Syria	14	96	Thailand	1

Rank	Country	Citations	Rank	Country	Citations	Rank	Country	Citations
21	United Arab Emirates	88	59	South Korea	14	97	Slovenia	1
22	Qatar	86	60	Wales	14	98	Kosovo	1
23	Pakistan	78	61	Lebanon	13	99	Afghanistan	1
24	Finland	72	62	Bahrain	12	100	Iceland	1
25	Morocco	69	63	Ukraine	12	101	Papua New Guinea	1
26	Switzerland	66	64	Croatia	12	102	Botswana	1
27	Jordan	66	65	Argentina	12	103	Trinidad and Tobago	1
28	Japan	58	66	Romania	12	104	Hong Kong	1
29	South Africa	56	67	Uzbekistan	12	105	Financial	1
30	China	55	68	Taiwan	12	106	Kenya	1
31	Tunisia	53	69	Kazakhstan	12	107	Cuba	1
32	Hungary	44	70	Brunei	11	108	Nepal	1
33	Poland	43	71	Cyprus	9	109	Philippines	1
34	Austria	41	72	Libya	8	110	Mauritania	1
35	Mexico	37	73	Ghana	8	111	Moldova	1
36	Soviet Union	33	74	Kyrgyzstan	8	112	Lithuania	1
37	Brazil	32	75	Yemen	7			
38	Czech Republic	28	76	Serbia	7			