



Drug Delivery Contact Lenses: A Bibliographic Review

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Abstract

Drug delivery contact lenses have gained attention as a promising alternative to conventional eye drops, offering improved therapeutic efficacy and patient compliance. This bibliometric review analyzes research trends, publication impact, and global collaboration patterns using data retrieved from the Scopus and Web of Science (WOS) databases. A total of 287 articles from Scopus and 254 from WOS were included. The United States and China emerged as the most active contributors, with China leading the field in the past five years. Articles and reviews were the dominant document types. The National Institutes of Health (U.S.) and Fundação para a Ciência e a Tecnologia (Portugal) were identified as major funding agencies, while the International Journal of Pharmaceutics and Investigative Ophthalmology & Visual Science were the most prolific publication sources. Key research areas include pharmacology, toxicology, pharmaceuticals, and materials science. Keyword co-occurrence analysis revealed thematic clusters related to drug delivery systems, lens materials, and therapeutic applications. Timolol was among the most frequently mentioned drugs. Additionally, this study highlights the most cited authors, most impactful publications, and the latest contributions in the field. These findings offer a comprehensive overview and can inform future research and collaboration.

Keywords: Bibliographic review; Contact lenses; Drug delivery.

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1. Introduction

Ocular drug delivery through traditional eye drops faces significant challenges due to the unique anatomy and physiology of the eye. The primary limitation is the rapid elimination of drugs from the ocular surface, resulting in poor bioavailability and therapeutic response.^[1,2] Conventional eye drops typically achieve less than 5% bioavailability due to precorneal elimination, tear production, and ocular barriers.^[1,3] Several factors contribute to this low drug retention, including frequent blinking, tear turnover, and nasolacrimal drainage.^[2,4] These natural ocular mechanisms quickly wash away the applied drug, limiting its contact time with the ocular epithelium and reducing its therapeutic efficacy.^[3,5] Additionally, the presence of ocular barriers, such as the corneal epithelium, further impedes drug penetration into deeper ocular tissues.^[3,5]

To overcome these limitations, researchers have developed

various novel drug delivery systems. These include nanocarriers, in situ gelling systems, and microneedle-based approaches.^[2,6,7] These advanced formulations aim to increase drug retention time on the ocular surface, enhance corneal permeability, and provide sustained drug release.^[5,8] For instance, hypotonic gelling solutions and chitosan-based systems have shown promise in improving ocular drug bioavailability and extending drug-epithelium contact time.^[4,8] These innovative approaches hold potential for more effective and patient-friendly ocular drug delivery, addressing the shortcomings of traditional eye drops.

Drug-loaded contact lenses have emerged as a promising alternative to conventional eye drops for ocular drug delivery. These lenses offer several advantages, including increased bioavailability, sustained drug release, and improved patient compliance.^[9,10] Studies have shown that contact lenses can deliver drugs with higher efficacy compared to eye drops, with one study demonstrating comparable intraocular pressure (IOP) reduction using only one-third of the drug dose in contact lenses.^[11] Interestingly, drug-eluting contact lenses not only improve drug delivery to the anterior segment of the eye but also show potential for treating posterior segment disorders. Recent animal studies have demonstrated the

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presence of therapeutic drug levels in the back of the eye after wearing drug-loaded contact lenses, suggesting a non-invasive alternative to intraocular injections for posterior segment treatments.^[12]

Despite the numerous advantages, challenges remain in the commercialization of drug-eluting contact lenses. These include maintaining critical lens properties such as water content, optical transparency, and oxygen permeability while incorporating drugs.^[13,14] Additionally, issues like drug stability during processing, zero-order release kinetics, and protein adherence need to be addressed.^[14] However, ongoing research in areas such as molecular imprinting, nanoparticle incorporation, and bioinspired techniques shows promise in overcoming these challenges and improving the efficacy of drug-eluting contact lenses.^[15,16]

Bibliometric analysis, comprising performance analysis and science mapping, is a powerful tool for evaluating research trends and impact in various scientific fields.^[17] Performance analysis typically includes examining publication statistics, citation metrics, top authors, institutions, and journals.^[18] Science mapping, on the other hand, involves visualizing research landscapes through techniques like co-citation analysis, keyword co-occurrence, and collaboration networks.^[19]

The growing interest in drug-delivery contact lenses has generated a substantial body of research. Understanding the development and trends in this field requires systematic evaluation, for which bibliometric analysis is a valuable tool. Bibliometric studies, which can be applied to large datasets such as institutional or global publication records, are divided into two main categories: performance analysis and science mapping. These methods enable the assessment of research productivity, impact, and the exploration of thematic and collaborative patterns within a scientific domain. This study aims to bridge that gap by conducting a comprehensive bibliometric analysis focused on drug-delivery contact lenses. This research seeks to identify key contributors, collaborative

networks, topical foci, and the impact of scholarly publications in the field through co-authorship, co-citation, and co-occurrence analyses. The findings will offer valuable insights into the field's evolution and help guide future research directions.

2. Materials and methods

This bibliometric analysis paper examined the Scopus and Web of Science (WOS) collection database on drug delivery contact lenses literature. The data was collected from Scopus and WOS databases on March 12th 2025. Scopus offers the capability to search for prompted keywords in article titles, abstracts, and keywords included in the literature. WOS provides options to search for relevant keywords within broader categories such as affiliation, publisher, and journal sources. However, to ensure the search results are more focused on the cohesive topic of drug delivery contact lenses, a filter is applied to show the literature that contains "drug," "contact," and "lenses" in their title. The term "delivery" is excluded due to its absence in some articles, which utilize related terms such as "releasing," "emitting," or "laden." It is noteworthy that no additional filters are applied to the search. The Scopus and WOS databases also provide detailed information regarding the included documents, including abstracts, titles, publication dates, publication source titles, and number of citations, which can be used for analysis. Additionally, the VOSviewer software version 1.6.20 is utilized to visualize data for the co-occurrence of keywords within the published paper.

3. Results and discussion

3.1. Literature publication growth

A different number of articles appear in the Scopus and WOS databases with the keywords "drug", "contact", and "lenses" in the title. The Scopus database displays 301 articles, while the WOS database shows 262. Following a thorough examination of the titles and focus of the literature, some were excluded because they are unrelated to the topic of "drug delivery contact lenses". Consequently, the final number of articles selected for analysis is 287 from Scopus and 254 from WOS.

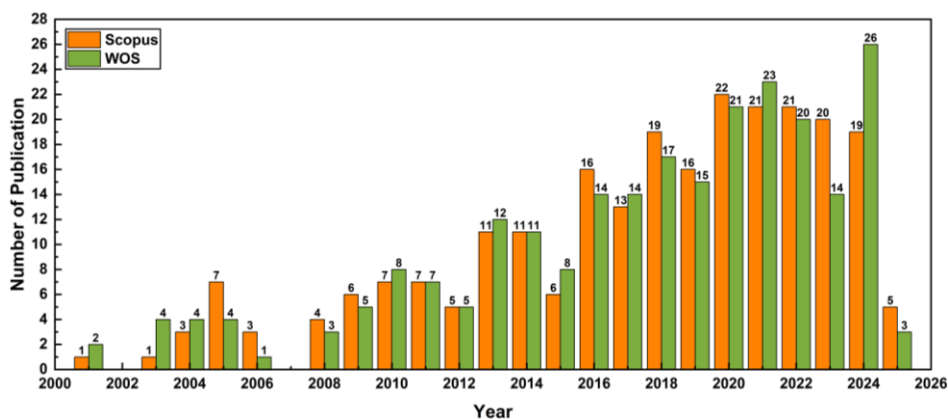


Fig. 1: The number of "drug delivery contact lens" publications from 1986 to 2025 according to Scopus and WOS.

As depicted in Fig. 1, the number of publications concerning drug delivery contact lenses from 2000 to 2025 is presented. Notably, the initial publication dates for drug delivery contact lenses in Scopus and WOS differ significantly. In Scopus, the earliest publication on this topic was recorded in 1965, whereas in WOS, the first publication was dated 1986. According to Fig. 1, Scopus recorded the

highest number of publications in 2020, with 22 publications, accounting for 7.67% of the total publications. Conversely, WOS reported the highest number of publications in 2024, with 26 publications, constituting 10.24% of the total. Both Scopus and WOS demonstrate a similar trend, with a consistent increase in publications over the years, indicating a growing interest in the field.

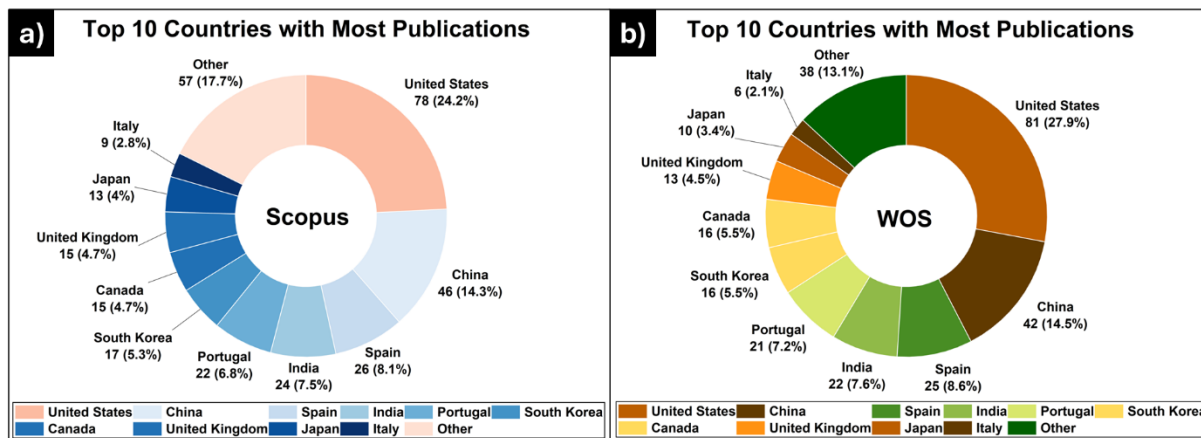
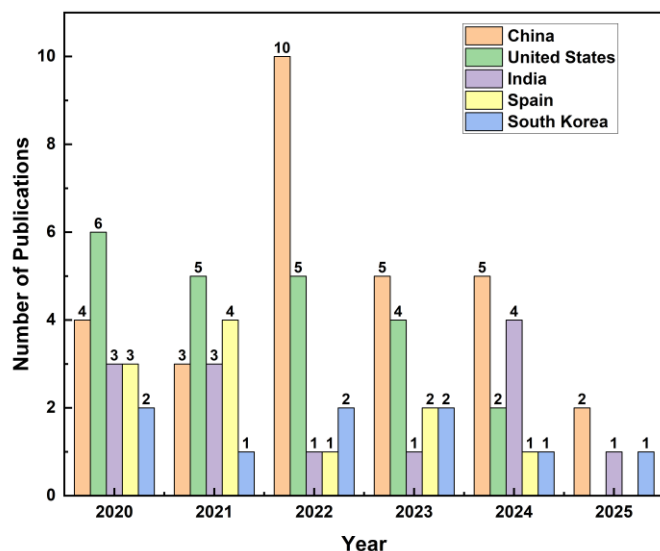


Fig. 2: Top 10 countries with the most publications in drug delivery contact lenses according to a) Scopus and b) WOS.

Fig. 2 illustrates the ten countries with the highest number of publications on drug delivery contact lenses, as documented in the Scopus and WOS databases. According to Scopus and WOS, the United States emerges as the leading contributor, with 78 or 81 publications, accounting for 24.2% or 27.9% of the total publications. China ranks as the second highest contributor, followed by other Asian nations such as India (4th), South Korea (6th), and Japan (9th). European countries, including Spain, Portugal, the United Kingdom, and Italy, are also featured in the list, occupying the 3rd, 5th, 8th, and 10th positions, respectively. Additionally, Canada ranks as the 7th most prolific country in the Americas. It is noteworthy that Spain, India, and Portugal demonstrate a comparable level of publication activity, with figures ranging from 21 to 26. Furthermore, South Korea, Canada, the United Kingdom, and

Japan exhibit similar levels, with no more than 20 publications each.

According to the Scopus database, the top five countries with the highest number of publications in the past five years are illustrated in Fig. 3. China has published the most publications in the field of drug delivery contact lenses, with 29 publications, accounting for 63.04% of its total recorded output in this field. The United States has the second-highest number of publications, with 22 recorded publications, though none were recorded in 2025. India and Spain occupy the third and fourth positions, respectively, with approximately half of their total publications being produced within the past five years. It is noteworthy that South Korea has surpassed Portugal to claim the fifth position, with a total of nine publications in the past five years. These trends suggest that recent research



Top 5 Countries with Most Publications in Recent 5 Years

Country	2020	2021	2022	2023	2024	2025	Total
China	4	3	10	5	5	2	29
United States	6	5	5	4	2	0	22
India	3	3	1	1	4	1	13
Spain	3	4	1	2	1	0	11
South Korea	2	1	2	2	1	1	9

Fig. 3: Top 5 countries with the most publications in the recent 5 years.

on drug delivery contact lenses is becoming increasingly concentrated in Asia, particularly in China.

Fig. 4 illustrates the various types of documents cataloged in the Scopus and Web of Science (WOS) databases. The most prevalent document type in both databases is the Article, followed by the Review. Specifically, Scopus has recorded 206 Article publications and 55 Review publications, whereas WOS has documented 159 Article publications and 45 Review publications. Furthermore, WOS has a significant number of Meeting Abstract documents. According to the WOS website, a Meeting Abstract is defined as an abstract or extended

abstract of completed papers that have been or will be presented at a symposium or conference.^[20]

According to the Scopus database, approximately 150 funding agencies are recorded, while the Web of Science (WOS) database records more than 200. However, it is essential to note that the same funding agencies may be listed more than once in these databases. A thorough review of the data shows that the top 10 funding agencies with the most publications based on Scopus and WOS are listed in Table 1 and Table 2, respectively.

As shown in Table 2, according to the Scopus database, the

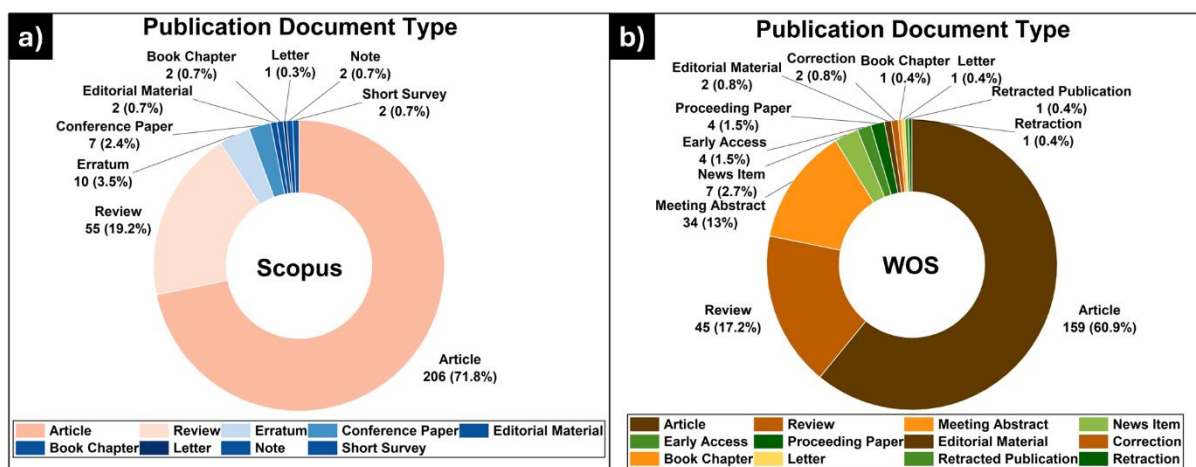


Fig. 4: Number of publications per document type regarding drug delivery contact lenses according to a) Scopus and b) WOS.

Table 1: Top 10 funding agencies according to Scopus.

No	Funding Agencies	Country/Region	Number of Publication
1	National Eye Institute – National Institute of Health	United States	16
2	National Natural Science Foundation of China	China	14
3	National Science Foundation	United States	13
4	European Commission	EU	11
5	Fundação para a Ciência e a Tecnologia	Portugal	10
6	National Research Foundation of Korea	South Korea	9
7	European Regional Development Fund	EU	8
8	Ministério da Educação e Ciência	Portugal	8
9	Xunta de Galicia	Spain	8
10	Ministerio de Economía y Competitividad	Spain	6

Table 2: Top 10 funding agencies according to WOS.

No	Funding Agencies	Country/Region	Number of Publication
1	Fundação para a Ciência e a Tecnologia	Portugal	16
2	National Natural Science Foundation of China	China	15
3	European Union	EU	13
4	National Science Foundation	United States	13
5	Spanish Government	Spain	12
6	National Institutes of Health	United States	8
7	United States Department of Health Human Services	United States	8
8	Xunta de Galicia	Spain	7
9	UK Research Innovation	United Kingdom	6
10	National Science Foundation of Jiangsu Province	China	5

funding agency with the most publications is the National Institute of Health of the United States, with 16 publications. Another funding agency from the United States, the National Science Foundation, is in third place with 13 publications. The National Natural Science Foundation of China and the National Research Foundation of Korea are the second and sixth most prolific funding agencies, with 14 and 9 publications, respectively. The remaining funding agencies identified in the database are from the European Union, Portugal, and Spain.

As shown in Table 2, the Web of Science (WOS) database identifies the Fundação para a Ciência e a Tecnologia from Portugal as the leading funding agency, with a total of 16 publications. The National Natural Science Foundation of China ranks second, contributing 15 publications. Additionally, the National Science Foundation of Jiangsu Province, also from China, occupies the tenth position with five publications. The remaining funding agencies listed are based in European countries and the United States.

3.2. Paper Publication

Table 3 delineates the distribution of articles by publication source title, as extracted from the Scopus and WOS databases. A comparative analysis of these databases reveals a substantial degree of concordance between their respective lists. According to the WOS database, the journal Investigative Ophthalmology Visual Science emerges as the leading publication in terms of the number of articles on drug delivery contact lenses, with 26 publications, representing 10.24% of the total. The International Journal of Pharmaceutics is ranked second. However, a divergence is observed when considering the Scopus database, which identifies the International Journal of Pharmaceutics as the most prolific source, with 18 articles, accounting for 6.27% of the total publications. Notably, the Scopus database includes the journal "Contact Lens and Anterior Eye" with eight publications, a journal absent from the WOS list.

The Scopus and Web of Science (WOS) databases have categorized the publications into various subjects or research

Table 3: Number of publications based on publication (source title) according to Scopus and WOS databases.

Scopus		WOS	
Publication Title (Source)	Number of Publication	Publication Title (Source)	Number of Publication
International Journal of Pharmaceutics	18	Investigative Ophthalmology Visual Science	26
Journal of Drug Delivery Science and Technology	16	International Journal of Pharmaceutics	18
Biomaterials	10	Journal Of Drug Delivery Science and Technology	12
Contact Lens and Anterior Eye	8	Biomaterials	10
European Journal of Pharmaceutics and Biopharmaceutics	7	European Journal of Pharmaceutics and Biopharmaceutics	7
Journal of Controlled Release	7	Journal of Controlled Release	7

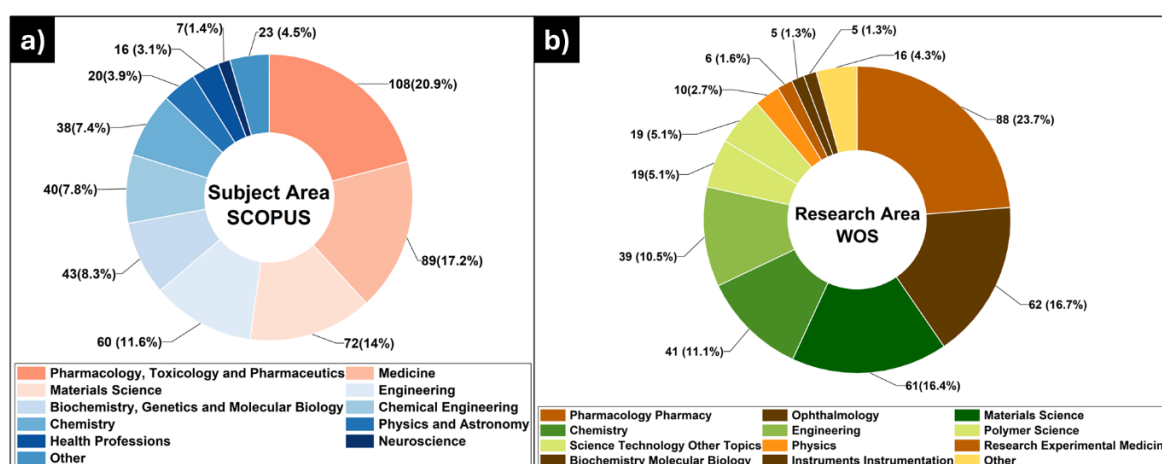


Fig. 5: Number of publications based on (a) the subject area of Scopus and (b) the research area of WOS.

areas, as illustrated in Fig. 5. According to this figure, Scopus has classified over 50% of the articles into the fields of Pharmacology, Toxicology, and Pharmaceutics; Material Science; and Biochemistry, Genetics, and Molecular Biology. A similar trend is observed in the WOS database, where more

than 50% of the articles are categorized into Pharmacology, Pharmacy, Ophthalmology, and Material Science.

3.3. Preferred paper

According to the Scopus and Web of Science (WOS)

databases, the top ten most cited publications on the topic of Drug Delivery Contact Lenses are identical, as presented in Table 4. As to the time this data was collected, the publication with the highest citation count is titled "Ophthalmic Drug Delivery through Contact Lenses" by Gulsen, D. and Chauhan, A., published in 2004. This study investigates the development of drug-loaded p-HEMA contact lenses and has been cited by 260 other publications. The majority of these highly cited works originate from the United States, with some representing collaborations with India, and were published between 15 to 20 years ago. Notably, the most recent publication on this list is from China. It was published in 2018 and titled "A Comprehensive Review on Contact Lens for Ophthalmic Drug Delivery" by Xu, J. *et al.* This paper has been cited by 163 other publications, placing it in the ninth position.

Table 5 presents the ten most recent publications on drug delivery contact lenses as of the time the data was collected. Notably, discrepancies exist between the Scopus and Web of Science (WOS) databases. While all publications are cataloged in the Scopus database, two recent publications are absent from the WOS database. These are "Mathematical Models of Drug Delivery via a Contact Lens During Wear" by Anderson D.M. and Luke R.A., and "Topical insulin used alone or in combination with drug-depository contact lens for refractory cases of neurotrophic keratopathy" by Mancini A. *et al.* Conversely, the WOS database includes "Elucidating acceptance and clinical indications to support the rational

Table 4: Top 10 publications with the most citations based on Scopus and WOS databases.

Publication Title	Year	Country	Source Title	Total Citation		Summary	Reference
				Scopus	WOS		
Ophthalmic drug delivery through contact lenses	2004	United States	Investigative Ophthalmology and Visual Science	260	260	Disposable particle-laden p-HEMA contact lenses, incorporating drug-loaded nanoparticles, offer a transparent and efficient system for sustained ophthalmic drug delivery with controllable release rates	[21]
Polymeric hydrogels for novel contact lens-based ophthalmic drug delivery systems: A review	2008	United Kingdom, China	Contact Lens and Anterior Eye	244	244	This review critically analyzes various polymeric hydrogel-based strategies for soft contact lens ophthalmic drug delivery systems, highlighting their mechanisms, advantages, and limitations in improving the low bioavailability of conventional eye drops	[22]
Extended delivery of hydrophilic drugs from silicone-hydrogel contact lenses containing Vitamin E diffusion barriers	2010	United States	Biomaterials	229	229	This study demonstrates that incorporating Vitamin E into contact lenses significantly prolongs drug release by creating diffusion barriers, with quadratic dependence on loading, while also impacting lens properties like size, oxygen, and ion	[23]

Publication Title	Year	Country	Source Title	Total Citation		Summary	Reference
				Scopus	WOS		
						permeability, and providing added UV protection	
A drug-eluting contact lens	2009	United States	Investigative Ophthalmology and Visual Science	211	211	This study presents a prototype drug-eluting contact lens using PLGA films coated with pHEMA, achieving sustained, zero-order drug release for over four weeks with adjustable kinetics and confirmed antimicrobial efficacy	[24]
A review on therapeutic contact lenses for ocular drug delivery	2016	India, United States	Drug Delivery	203	203	This review discusses the growing field of therapeutic contact lenses for sustained ophthalmic drug delivery, highlighting various advanced drug-loading techniques and delivery systems, while also addressing key challenges related to lens properties, drug stability, release kinetics, and commercialization barriers	[14]
Modeling ophthalmic drug delivery by soaked contact lenses	2006	United States	Industrial and Engineering Chemistry Research	202	202	This study models drug release from contact lenses into tear films and cornea, showing that lens-based delivery is significantly more efficient than eye drops—achieving up to ~95% corneal uptake versus ~5% for drops—due to extended residence time and eyelid-driven mass	[25]

Publication Title	Year	Country	Source Title	Total Citation		Summary	Reference
				Scopus	WOS		
Extended delivery of ophthalmic drugs by silicone hydrogel contact lenses	2008	United States	Biomaterials	197	197	transfer in the postlens tear film This study reports the development of extended-wear silicone hydrogel contact lenses capable of delivering ophthalmic drugs over periods ranging from 20 days to over three months, with release profiles and lens properties tunable through the hydrophilic–hydrophobic composition of the gel	[26]
In vitro and in vivo evaluation of novel implantation technology in hydrogel contact lenses for controlled drug delivery	2016	India, United States	Journal of Controlled Release	173	173	This study presents a nanoparticle-laden ring implant in hydrogel contact lenses for controlled timolol maleate delivery, achieving sustained therapeutic release for up to 192 hours without compromising lens properties, and demonstrating superior pharmacokinetic and pharmacodynamic performance over eye drops in treating glaucoma	[27]
A comprehensive review on contact lens for ophthalmic drug delivery	2018	China	Journal of Controlled Release	163	164	This review highlights the growing potential of contact lenses as advanced drug delivery systems for chronic eye diseases, summarizing their classifications, drug-loading strategies, and clinical relevance, while addressing limitations of conventional eye drops and offering future perspectives in ocular therapeutics	[28]

Publication Title	Year	Country	Source Title	Total Citation		Summary	Reference
				Scopus	WOS		
The nature of backbone monomers determines the performance of imprinted soft contact lenses as timolol drug delivery systems	2004	Spain, Japan	Biomaterials	162	162	This study shows that by modulating the composition of soft contact lenses—particularly through molecular imprinting and monomer selection—it's possible to significantly enhance timolol loading and control its release, enabling customizable drug delivery profiles tailored to specific ocular treatment needs	[29]

Table 5: Top 10 most recent published papers based on Scopus and WOS databases.

Publication Title	Year	Source Title	Reference
Establishment of Optimal Drug Delivery System and Evaluation of Utilization of Hydrogel Contact Lens According to the Addition Method of Tretinoin and Bovine Serum Albumin	2025	Polymers	[30]
Fish Fin-Derived Non-Invasive Flexible Bioinspired Contact Lens for Continuous Ophthalmic Drug Delivery	2025	Advanced Science	[31]
Treatment of glaucoma with drug-loaded contact lenses: A systematic review and meta-analysis	2025	European Journal of Pharmacology	[32]
From Vision Correction to Drug Delivery: Unraveling the Potential of Therapeutic Contact Lens	2025	Current Drug Delivery	[33]
Composite hydrogel contact lens systems for naringenin: A comparison of drug loading and release behaviour in drug carrier systems	2024	Journal of Drug Delivery Science and Technology	[34]
Mathematical Models of Drug Delivery via a Contact Lens During Wear*	2024	Matematica	[35]
Poly(2-hydroxyethyl methacrylate-co-methacrylated hyaluronan-β-cyclodextrin) hydrogel: A potential contact lens material with high hydrophilicity, good mechanical properties and sustained drug delivery	2024	International Journal of Biological Macromolecules	[36]
In vitro tear replenishment system: assessing drug delivery from contact lens biomaterials through corneal epithelial monolayer and multilayer under replenishment conditions	2024	Drug Delivery and Translational Research	[37]
Levofloxacin-loaded silicone contact lenses materials for ocular drug delivery	2024	Journal of Biomaterials Applications	[38]
Topical insulin used alone or in combination with drug-depository contact lens for refractory cases of neurotrophic keratopathy*	2024	American Journal of Ophthalmology Case Reports	[39]
Elucidating acceptance and clinical indications to support the rational design of drug-eluting contact lenses#	2024	International Journal of Pharmaceutics	[40]
Design and optimization of acetazolamide nanoparticle-laden contact lens using statistical experimental design for controlled ocular drug delivery#	2024	Journal of Biomaterials Science, Polymer Edition	[41]

Note: * = only recorded in Scopus database; # = included in Top 10 according to WOS database

design of drug-eluting contact lenses" by Zhu Q. *et al.*, and "Design and optimization of acetazolamide nanoparticle-laden contact lens using statistical experimental design for controlled ocular drug delivery" by Chawnani D. *et al.* in its list of the top ten most recent publications. Fig. 6 presents the top 10 authors with the highest number

of publications, with citation details provided in Table 6 based on the Scopus and Web of Science (WOS) databases. While the majority of authors appear on both lists, discrepancies exist between the Scopus and WOS databases. Notably, Scopus identifies Kohane D.S. as the leading author, whereas WOS lists de Sousa H.C. in this position. According to Scopus, Kohane D.S. has authored seven publications, accumulating a total of 537 citations. In contrast, WOS records five

publications by Kohane, with a total of 489 citations. The number of publications attributed to Kohane in WOS is fewer than those of de Sousa H.C., who has seven publications with a total of 308 citations. Consequently, Kohane D.S. does not appear to be the top author in the WOS database.

3.4. Analysis of keywords

Keywords identified by the author of the paper, which

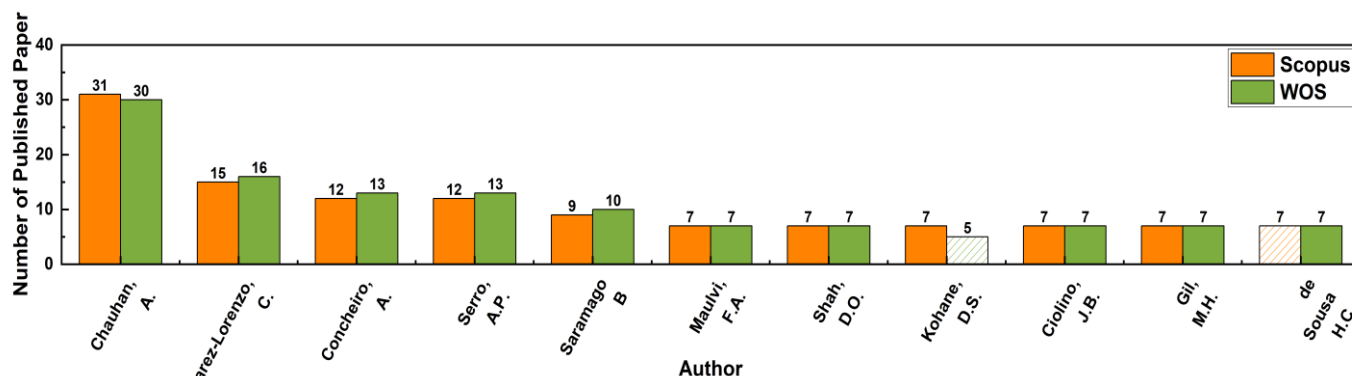


Fig. 6: Number of publications based on (a) the subject area of Scopus and (b) the research area of WOS.

Table 6: Top 10 authors with the most published papers based on Scopus and WOS databases.

Author	Scopus		WOS	
	Number of Published Papers	Citation (Average)	Number of Published Papers	Citation (Average)
Chauhan, A.	31	2312 (75)	30	2118 (71)
Alvarez-Lorenzo, C.	15	938 (63)	16	765 (48)
Concheiro, A.	12	716 (60)	13	562 (43)
Serro, A.P.	12	309 (26)	13	279 (21)
Saramago B	9	224 (25)	10	220 (22)
Maulvi, F.A.	7	712 (102)	7	639 (91)
Shah, D.O.	7	712 (102)	7	639 (91)
Kohane, D.S. ^a	7	537 (77)	5	489 (98)
Ciolino, J.B.	7	537 (77)	7	489 (70)
Gil, M.H.	7	322 (46)	7	308 (44)
de Sousa H.C. ^b	7	316 (45)	7	308 (44)

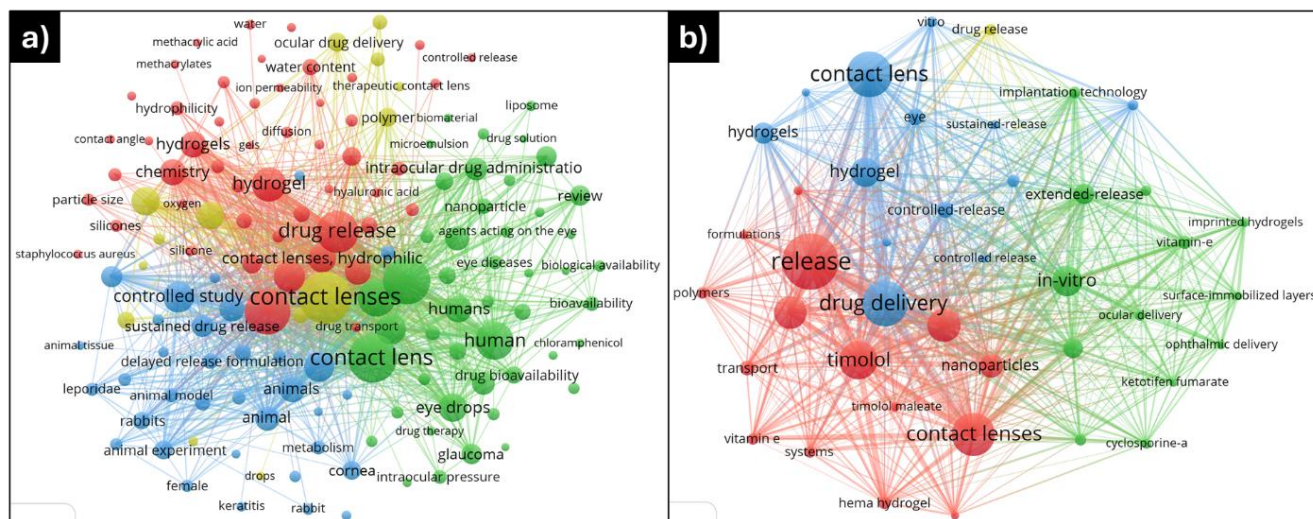


Fig. 7: Co-occurrence keywords in drug delivery contact lenses publications based on a) Scopus and b) WOS database.

appeared more than ten times in both the Scopus and Web of Science (WOS) databases, were incorporated into the final analysis. The overall interrelation of these keywords is illustrated in Fig. 7. Furthermore, the top five keywords with the highest frequency, as determined by the Scopus and WOS databases, are presented in Table 7. The majority of keywords from both databases are centered around "contact lenses,"

"drug delivery," and "release." Notably, the keyword "timolol" ranks fifth, with 45 occurrences in the WOS database. Timolol is a medication commonly used in the treatment of glaucoma. This indicates that in the development of drug delivery systems via contact lenses, timolol is a prominently utilized drug in the field.

Table 7: Top five keywords in the published publications based on Scopus and WOS databases.

Keyword	Scopus		Keyword	Web of Science	
	Occurrence	Total Link Strength		Occurrence	Total Link Strength
Contact lenses	166	3037	Release	66	256
Drug delivery system	142	2916	Drug delivery	54	217
Contact lens	150	2764	Contact lens	54	179
Drug release	119	2391	Contact lenses	51	230
Drug delivery system	100	2228	Timolol	45	232

4. Conclusion and perspective

This bibliometric review analyzes research trends, collaboration networks, and the impact of publications in the field of drug delivery contact lenses using Scopus and Web of Science (WOS) databases. The number of publications has consistently grown over the years, with the United States and China being the top contributors. Additionally, China has made the most contribution to the study of drug delivery contact lenses in the past five years. Articles and reviews were the most common document types, and the National Institute of Health (US) and Fundação para a Ciência e a Tecnologia (Portugal) were the leading funding agencies. The International Journal of Pharmaceutics and Investigative Ophthalmology & Visual Science were the most prolific publication sources. The primary research areas were pharmacology, toxicology, pharmaceutics, and materials science. Co-occurrence analysis of keywords revealed clusters related to drug delivery systems, materials, and therapeutic applications, with timolol being a prominently used drug. Co-authorship analysis identified key researchers, organizations, and countries involved in collaborative networks. The review provides valuable insights into the evolution and current state of drug delivery contact lenses research.

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Conflict of Interest

There is no conflict of interest.

Supporting Information

Not applicable.

CRedit Statement

Novan Rifky Lutfhyansyah: Conceptualization, Methodology, Formal analysis, Visualization, Writing - Original draft, Review & editing. **Andreas Schiffer:** Writing - Review & editing, Supervision. **Haider Butt:** Writing - Review & editing, Supervision, Conceptualization.

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