

## LEXEMES ABOUT SCIENCE AND ENLIGHTENMENT IN HISTORICAL WORKS

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### Abstract

The article studies the lexical field of science and enlightenment in historical works of the Turkic and Uzbek written tradition, with special attention to the semantic interaction of native Turkic, Arabic, Persian and mixed lexical layers. The analysis focuses on the ways in which the lexemes *ilm*, *fan*, *ma'rifat*, *hikmat*, *bilig*, *uqush*, *aql*, *idrok*, *tafakkur*, *kitob*, *qalam*, *ustod*, *madrasa* and related units function not merely as isolated words but as cultural signs that encode medieval and early modern concepts of knowledge, moral maturity, statecraft, education and social responsibility. The material is interpreted through historical-lexicological, semantic-field and contextual methods. The paper argues that historical works use the language of knowledge in two interconnected directions: first, to describe practical learning, writing, teaching and scholarly authority; second, to construct an ethical model in which enlightenment is inseparable from justice, discipline, wisdom and service to society. The results show that the lexicon of science and enlightenment represents a stable conceptual core of Uzbek literary history and remains important for contemporary linguistic, cultural and educational studies.

**Keywords:** Science, enlightenment, historical lexicology, Turkic lexemes, Uzbek literary language, semantic field, Alisher Navoi, Baburnama, Kutadgu Bilig.

### Introduction

**Аннотация:** В статье исследуется лексическое поле науки и просвещения в исторических памятниках тюркско-узбекской письменной традиции с особым вниманием к взаимодействию исконно тюркских, арабских, персидских и смешанных лексических пластов. Анализируются лексемы *ilm*, *fan*, *ma'rifat*, *hikmat*, *bilig*, *uqush*, *aql*, *idrok*, *tafakkur*, *kitob*, *qalam*, *ustod*, *madrasa* и другие единицы, которые функционируют не только как отдельные слова, но и как культурные знаки, отражающие представления о знании, нравственной зрелости, государственном управлении, образовании и общественной ответственности. Исследование опирается на историко-лексикологический, семантико-полевой и контекстуальный методы. Делается вывод о том, что лексика науки и просвещения в исторических произведениях образует устойчивое концептуальное ядро узбекской литературной

истории и сохраняет значение для современных лингвистических и культурологических исследований.

**Ключевые слова:** наука, просвещение, историческая лексикология, тюркские лексемы, узбекский литературный язык, семантическое поле, Алишер Навои, Бабурнаме, Кутадгу билиг.

**Annotatsiya:**

Maqolada turkiy-o'zbek yozma an'analaridagi tarixiy asarlarda ilm-fan va ma'rifatga oid leksik maydon o'rganiladi. Tadqiqotda ilm, fan, ma'rifat, hikmat, bilig, uqush, aql, idrok, tafakkur, kitob, qalam, ustod, madrasa kabi birliklarning faqat nomlovchi vosita emas, balki bilim, axloqiy kamolot, davlat boshqaruvi, ta'lim va ijtimoiy mas'uliyat haqidagi tasavvurlarni ifodalovchi madaniy belgi sifatidagi vazifasi tahlil qilinadi. Material tarixiy-leksikologik, semantik maydon va kontekstual tahlil metodlari asosida yoritiladi. Natijalar shuni ko'rsatadiki, tarixiy asarlarda ilm va ma'rifat leksikasi amaliy bilim, yozuv, ta'lim va olimlik maqomini ifodalash bilan birga, adolat, donishmandlik va jamiyatga xizmat qilish tamoyillari bilan uzviy bog'langan konseptual tizimni tashkil etadi.

**Kalit so'zlar:** ilm, ma'rifat, tarixiy leksikologiya, turkiy leksika, o'zbek adabiy tili, semantik maydon, Alisher Navoiy, Boburnoma, Qutadg'u bilig.

**INTRODUCTION**

In historical works, the vocabulary of science and enlightenment is never a neutral inventory of learned words; it is a compact intellectual map of a society's values, its hierarchy of knowledge, and its preferred model of the educated person. For the Turkic and Uzbek written tradition, this lexical map is especially significant because the history of the language developed at the crossroads of several scholarly cultures: the native Turkic oral and written heritage, the Islamic Arabic scientific tradition, the Persianate literary and bureaucratic environment, and the practical needs of court, madrasa, chancery, historiography and ethical-didactic writing. A lexeme such as bilig in early Turkic texts, ilm in Islamic didactic works, ma'rifat in mystical and ethical prose, or fan in later learned discourse cannot be reduced to the modern school meaning of "subject" or "discipline". These words carry traces of the institutions and mental habits that produced them. They show how knowledge was imagined as wisdom, how wisdom was linked to justice, how justice was made a condition of legitimate power, and how reading, writing and instruction became markers of cultural authority. The topic is therefore not simply a matter of vocabulary; it is a matter of historical semantics, social memory and intellectual history. The present article examines lexemes about science and enlightenment in historical works as a semantic field and as a cultural mechanism. The term "historical works" is used here in a broad philological sense: it includes texts that record political and dynastic history,

works that preserve ethnolinguistic and cultural memory, and didactic monuments that historicize the norms of governance, education and moral conduct. Such a corpus includes, among others, Mahmud al-Kashgari's *Dīwān Lugāt al-Turk*, Yusuf Khas Hajib's *Kutadgu Bilig*, Ahmad Yugnaki's *Hibat al-Haqāyiq*, Alisher Navoi's historical and biographical prose, Babur's *Baburnama*, and later Central Asian narrative and chronicle traditions. These texts differ by genre, period and stylistic orientation, but they share one important feature: they represent knowledge not as private possession but as an instrument of ethical order. The relevance of this study is determined by three factors. First, the modern Uzbek literary language inherited much of its abstract vocabulary through historical channels, and this inheritance can be understood only by studying semantic continuity and change. Second, the lexicon of enlightenment reveals how cultural authority was distributed between the scholar, the ruler, the poet, the teacher, the scribe and the reader. Third, the current development of humanities education in Uzbekistan requires a deeper historical account of indigenous concepts of knowledge, not only imported terminological models. The object of the study is the lexical-semantic group of words denoting science, learning, intellect, wisdom, education, writing and enlightenment in historical works. The subject is the semantic structure, contextual function, etymological layering and axiological meaning of these lexemes. The aim is to determine how the lexemes of science and enlightenment form a coherent conceptual field and how this field participates in the construction of historical consciousness. The tasks are to identify the core and peripheral units of the field, to describe their semantic relations, to examine the interaction of Turkic, Arabic and Persian elements, to determine their textual functions, and to clarify their role in the formation of Uzbek literary and cultural thought. The central hypothesis is that historical works use the vocabulary of science and enlightenment in two inseparable directions: as a technical language of learning and as a moral-political language of social improvement. This double function is what gives the field its durability.

## LITERATURE REVIEW

The study of science and enlightenment lexemes in historical works stands at the intersection of historical lexicology, Turkology, Uzbek philology, semantic field theory and cultural linguistics. Classical Turkological research has long emphasized the centrality of early written monuments for reconstructing the semantic and etymological basis of Turkic vocabulary. Clauson's etymological dictionary remains important not merely because it lists old forms, but because it allows the researcher to observe how early Turkic concepts such as *bilig*, *bil-*, *uqu-*, *ög* and *törü* were embedded in social and ethical contexts. In Old Turkic and Karakhanid texts, *bilig* is not simply "knowledge"; it is often a quality that organizes speech, conduct and rule. This point is developed in studies of *Kutadgu Bilig*, especially in Robert Dankoff's reading of the work as a Turko-Islamic mirror for princes. The very title of the monument places *bilig* at the centre of political felicity: happiness, royal legitimacy and social order are presented as consequences of correctly understood

knowledge. Mahmud al-Kashgari's *Dīwān Lugāt al-Turk* represents another decisive source. It is a dictionary, but it is also an ethnographic, poetic and cultural archive. The *Dīwān* records vocabulary, proverbs, poetic fragments and regional variants, demonstrating that the study of words was already linked with geography, identity and intellectual classification. Modern descriptions of the *Dīwān* rightly treat it as the first comprehensive Turkic-Arabic lexicographical monument and as a major source for the history of Turkic peoples. The scholarly value of this work is not limited to the number of recorded words; its deeper importance lies in its attempt to explain one linguistic world to another, namely Turkic to Arabic-speaking learned circles. This cross-cultural orientation is essential for the present topic because the lexicon of science and enlightenment in later Uzbek texts also develops through contact between Turkic expressive resources and Arabic-Persian scholarly terminology. The Arabic lexical layer, including *ilm*, *aql*, *hikmat*, *ma'rifat*, *adab*, *ta'lim*, *mudarris*, *madrassa*, *kitob* and *qalam*, entered Turkic literary usage through religion, philosophy, education and administration. Persian elements such as *donish*, *donishmand*, *hunar*, *daftar* and *guftor* also contributed to the vocabulary of intellectual refinement. In the Chagatai period, Alisher Navoi gave this mixed lexical heritage a high literary and cultural status. His prose and poetry show that Turkic could express the most refined abstract meanings of ethics, aesthetics, metaphysics, history and social thought. Navoi's historical and biographical works, including *Tārīkh-i Anbiyā va Hukamā*, *Tārīkh-i Mulūk-i Ajam*, *Majālis un-Nafois* and *Nasāyim ul-Muhabbat*, contain numerous terms connected with knowledge, wisdom, authorship, transmission and spiritual authority. Navoi's defense of Turkic literary potential in *Muhakamat al-Lughatayn* is also relevant because it indirectly supports the idea that language becomes culturally mature when it can carry the full weight of intellectual discourse. Babur's *Baburnama* broadens the field in a different way. Its prose unites historical narration, geography, observation, aesthetic judgement and practical knowledge. The lexemes used in the work for description, measurement, memory, reading and assessment show how enlightenment vocabulary moves from the madrasa and court into empirical observation. Research on Chagatai language and literature has emphasized that this literary language developed as a major Central Asian medium of high culture, and historical lexicology must therefore treat its vocabulary as part of a multilingual intellectual ecology rather than as a closed national inventory. Semantic field theory provides the methodological foundation for grouping these words not according to alphabetic order but according to conceptual relations. Within such a field, core lexemes name the highest abstractions, while peripheral lexemes designate instruments, persons, institutions, processes and evaluative qualities. Cultural linguistics adds another layer by asking what collective values are encoded in those relations. Thus, the literature suggests that a serious analysis of this topic must move beyond etymology alone. It must combine source criticism, contextual reading, semantic grouping and attention to cultural function.

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## METHODS

The research uses a qualitative philological methodology supported by semantic-field classification. The main corpus is composed of representative historical works of the Turkic and Uzbek written tradition: early Turkic and Karakhanid monuments, especially *Dīwān Lugāt al-Turk* and *Kutadgu Bilig*; didactic texts such as *Hibat al-Haqāyiq*; Chagatai prose and historical-biographical works connected with Alisher Navoi; and narrative-historical prose represented by *Baburnama*. The selection is not mechanical; it is based on the density of lexemes related to knowledge, learning, wisdom, writing, instruction and moral enlightenment. The analysis proceeds in five stages. At the first stage, relevant lexical units are identified according to semantic relevance. The field includes direct designations of knowledge and science, such as *ilm*, *fan*, *bilig*, *maʼrifat* and *donish*; cognitive and intellectual lexemes, such as *aql*, *fahm*, *idrok*, *tafakkur*, *zehn* and *uqush*; ethical-intellectual terms, such as *hikmat*, *adab*, *fazl*, *kamol* and *ibrat*; educational and institutional words, such as *maktab*, *madrasa*, *dars*, *saboq*, *taʼlim*, *ustod*, *mudarris* and *shogird*; and material-cultural terms connected with writing and transmission, such as *kitob*, *qalam*, *daftar*, *risola*, *bitik*, *xat* and *bayon*. At the second stage, the identified units are classified into core, near-core and peripheral zones. Core units are those that directly name knowledge and enlightenment as values. Near-core units denote mental faculties or ethical qualities that make knowledge possible. Peripheral units designate institutions, tools, genres and social roles through which knowledge circulates. At the third stage, contextual analysis is applied. Each lexeme is interpreted not only by dictionary meaning but also by its syntactic position, collocations, evaluative surroundings and narrative function. For example, *ilm* combined with *adab* produces a different semantic emphasis from *ilm* combined with *mulk* or *saltanat*; *bilig* used in a political context differs from *bilig* used in a didactic maxim. At the fourth stage, etymological layering is considered. The study distinguishes native Turkic units, Arabic borrowings, Persian borrowings and hybrid collocational formations. This distinction is not treated as a simple question of origin. The main issue is how the layers cooperate: Turkic words often give the field native conceptual depth, Arabic words provide theological and scholarly abstraction, Persian words add courtly, literary and ethical refinement, and hybrid combinations create the actual expressive texture of Chagatai and Uzbek prose. At the fifth stage, the results are interpreted in relation to broader cultural functions. The study asks what these lexemes do in the text: whether they legitimize power, praise a scholar, instruct the reader, mark social rank, describe a practice of education, frame historical causality, or express a model of moral progress. The approach is descriptive and interpretive rather than statistical. A purely quantitative method would count the occurrences of *ilm* or *bilig*, but it would not explain why the same word may mean scholastic knowledge in one passage, spiritual recognition in another and political wisdom in a third. Therefore, the article prioritizes semantic density, functional contrast and historical continuity. This methodology is

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suitable for OAK-level philological analysis because it connects linguistic facts with textual evidence and cultural interpretation without reducing the material to loose generalization.

## RESULTS

The analysis reveals that the lexical field of science and enlightenment in historical works has a stable internal architecture. Its semantic core is formed by a limited number of high-value lexemes: bilig, ilm, ma'rifat, hikmat, aql and fan. Around this core there are several concentric zones that express mental capacity, moral refinement, education, writing, textual transmission and institutional learning. The earliest Turkic layer is represented above all by bilig and its verbal base bil-, together with related words expressing understanding, perception and practical wisdom. In Karakhanid usage, bilig carries a broader semantic load than modern "knowledge". It is at once cognition, correct judgment, moral orientation and political competence. This is why in Kutadgu Bilig knowledge is repeatedly connected with the ability to rule justly, speak properly and distinguish benefit from harm. The word functions as a normative principle. It is not accidental ornament; it is the axis around which the didactic-political message is organized. The Arabic layer introduces a different but compatible register. Ilm becomes the main term for learned knowledge, religiously authorized knowledge and scholarly competence. In many contexts, ilm is paired with amal, adab, aql, hikmat or taqvo, and these pairings show that knowledge was evaluated by its ethical and practical effect. The phraseological environment of ilm often prevents it from becoming a cold technical term. It remains a moral force: a person who has ilm but lacks adab or justice is incomplete, while a ruler who respects ilm gains legitimacy. Ma'rifat occupies a slightly different position. It does not simply duplicate ilm. It often implies inner recognition, spiritual clarity, cultivated awareness and refined understanding. In historical and biographical prose, ma'rifat is associated with the authority of saints, poets, scholars and wise statesmen. Hikmat, another central lexeme, mediates between knowledge and wisdom. It refers not only to philosophical thought but also to meaningful speech, exemplary conduct and the hidden order of things. In this sense, hikmat is frequently closer to "wisdom embodied in judgement" than to "science" in the modern institutional sense. Aql and idrok name the cognitive faculties through which knowledge becomes possible. They are often used evaluatively: a person may possess status or wealth, but without aql such possession is unstable. Historical works thus construct an anthropology of knowledge in which the human being is judged by capacity for understanding, not merely by lineage or power. Fan, in earlier contexts, is less dominant than ilm, but in later usage it gradually becomes associated with branches of knowledge, crafts, disciplines and specialized competence. This shift is important because it shows the movement from knowledge as a general moral-religious category toward knowledge as differentiated expertise. The peripheral zones are equally revealing. Kitob, qalam, daftar, risola, bitik and xat point to the material technologies of enlightenment. Historical works repeatedly show that knowledge must be written, transmitted, copied, taught and

preserved. The scribe, the teacher, the poet and the historian are therefore not marginal figures; they are cultural mediators. Educational lexemes such as *ustod*, *shogird*, *mudarris*, *madrasa*, *dars* and *saboq* create an institutional frame. They show that enlightenment is not only an inner state but also a social process requiring discipline, hierarchy and continuity. The moral-ethical zone includes *adab*, *fazl*, *kamol*, *ibrat*, *nasihat* and *pand*. These words demonstrate that historical works rarely separate science from conduct. To know is to become more measured in speech, more responsible in action and more useful to society. The results also show a strong collocational tendency: lexemes of knowledge are frequently paired with lexemes of light, order, justice, speech, book, teacher and ruler. Such collocations produce a worldview in which enlightenment illuminates both the individual mind and the collective order. Another important result is the interaction of lexical layers. Native Turkic *bilig* and Arabic *ilm* do not simply compete. They often perform complementary functions. *Bilig* preserves the early Turkic notion of wise competence; *ilm* gives the field Islamic scholarly authority; *ma'rifat* deepens the spiritual and ethical dimension; *hikmat* connects the field with philosophy and didactic wisdom; *fan* opens the path toward specialization; and words connected with writing and teaching anchor the entire system in practice. This multi-layered structure explains the richness of Uzbek intellectual vocabulary. It also explains why modern Uzbek can express both traditional moral enlightenment and modern scientific knowledge through historically inherited units. The semantic field is not a museum of old words; it is a living archive of cultural thinking.

## DISCUSSION

The findings indicate that historical works treat science and enlightenment as a single cultural complex rather than as two separate domains. From a modern institutional perspective, “science” may refer to systematic knowledge, research, method and disciplines, while “enlightenment” may refer to education, cultural awakening and moral refinement. In the historical texts examined here, however, these meanings are interwoven. *Ilm* without *adab* is ethically dangerous; *ma'rifat* without service remains incomplete; *aql* without justice may become cunning; *bilig* without social responsibility loses its legitimizing value. This explains why the same works that praise scholars also speak about rulers, judges, teachers, poets and scribes. Knowledge is valuable because it orders life. Such a model differs from narrowly technical modern conceptions of science, but it does not make historical vocabulary primitive or vague. On the contrary, it reveals a sophisticated semantic system in which cognitive, ethical, social and political meanings are deliberately linked. One of the strongest examples is the relationship between *bilig* and governance in *Kutadgu Bilig*. The work's political theory is expressed through a vocabulary of wisdom, speech, counsel and justice. The ruler needs knowledge not for decoration but for correct decision-making. Counsel is valuable when it is informed by experience and moral clarity. Speech is praised when it is measured and meaningful. This pattern later

continues in Chagatai historical prose, where the learned person is often described through a combination of ilm, fazl, adab and hikmat. Alisher Navoi's works are especially important because they demonstrate the maturity of Turkic as a language of intellectual classification. In his historical and biographical writings, lexemes of knowledge help rank persons not only by political status but by spiritual, poetic and scholarly merit. Majālis un-Nafois, for example, is not merely a collection of biographical notes; it is a system of cultural evaluation. The poet or scholar is remembered through mastery of language, depth of meaning, refinement of conduct and participation in a tradition of transmission. In this environment, ma'rifat functions as a bridge between outward learning and inward recognition. Baburnama introduces another dimension: empirical attentiveness. Babur observes landscapes, climates, plants, cities, people, customs and political events with a precision that belongs to the broader history of knowledge. The vocabulary of description and judgement in such prose expands enlightenment beyond the classroom. It includes seeing accurately, comparing carefully, remembering responsibly and writing honestly. This is one reason why historical works are indispensable for modern lexical study: they show how abstract words operate in concrete narrative situations. The interaction between Turkic, Arabic and Persian layers also deserves careful interpretation. A simplistic purist approach would treat borrowings as external additions, while a purely cosmopolitan approach would ignore the native structure of meaning. Neither approach is sufficient. The historical vocabulary of science and enlightenment in Uzbek emerges from synthesis. Arabic ilm and hikmat entered a field that already possessed bilig and related Turkic concepts of knowing. Persian donish and hunar enriched the stylistic and ethical register. Chagatai literary practice then organized these elements into a highly flexible system. The result is not lexical disorder but semantic stratification. Different words occupy different positions according to genre and context. A chronicle may prefer terms that legitimate rule and record events; a didactic work may emphasize wisdom and counsel; a biographical work may foreground learning, talent and spiritual refinement; a lexicographical work may make the word itself the object of knowledge. This genre sensitivity is important for avoiding anachronism. It would be inaccurate to translate every occurrence of ilm as "science" in the modern experimental sense, just as it would be insufficient to translate bilig merely as "information". Each term must be read within its historical semantic horizon. The field also has a pedagogical implication. Contemporary education often treats science as a set of subjects and enlightenment as a general slogan. Historical works remind us that knowledge was traditionally understood as disciplined formation of the person. The learner was expected to acquire not only facts but also speech ethics, attention, humility, judgement and responsibility. This does not mean that modern scientific education should return to medieval categories. It means that the inherited lexicon can help articulate a more integrated model of education in which professional competence is linked with cultural memory and ethical maturity. For Uzbek philology, this is particularly important because the national language contains a deep reservoir of terms capable of expressing both modern

academic specialization and historical moral philosophy. A further point concerns textual transmission. Words such as kitob, qalam, daftar, xat and risola seem peripheral at first glance, but they reveal the infrastructure of enlightenment. Knowledge survives through writing. Historical works often display awareness of record, memory and authorship. The historian writes so that events will not disappear; the poet writes so that meaning will be preserved; the scholar writes so that language itself may be understood. Thus, material lexemes of writing belong to the enlightenment field not by accident but by function. They mark the passage from oral memory to durable cultural record. The same applies to institutional words. Madrasa, maktab, dars and saboq show that knowledge is socially organized. Even when enlightenment is described as inner clarity, it is usually reached through discipline, teachers, books and conversation. The semantic field therefore contains both interior and exterior dimensions: cognition and institution, wisdom and book, teacher and student, counsel and governance. This layered system gives historical works their enduring linguistic value. Like a well-cut manuscript page, the field has margins, centre and illumination; unlike some modern bureaucratic prose, it does not need three stamps to prove it is alive.

## **CONCLUSION**

The lexical field of science and enlightenment in historical works is a central component of Turkic and Uzbek intellectual history. The study has shown that lexemes such as bilig, ilm, ma'rifat, hikmat, aql, idrok, tafakkur, fan, kitob, qalam, ustod, madrasa, dars, saboq, adab and fazl form a structured semantic system rather than a random collection of learned words. This system is historically layered: native Turkic vocabulary provides early conceptual foundations of knowing and wise competence; Arabic vocabulary supplies the language of scholarly, religious and philosophical abstraction; Persian vocabulary enriches the field with courtly, literary and ethical nuances; and Chagatai-Uzbek usage integrates all layers into a flexible literary instrument. The main conclusion is that historical works do not separate science from moral enlightenment. Knowledge is presented as a force that must improve judgement, speech, governance, memory and social conduct. This explains why the vocabulary of learning is closely connected with words of justice, wisdom, writing, education and public responsibility. The analysis also confirms that the development of Uzbek literary language cannot be understood without attention to historical semantics. Many modern terms of education and science have deep cultural roots, and their earlier usage reveals meanings that remain relevant today. For contemporary philology, the study of such lexemes offers a reliable path for reconstructing conceptual history, identifying semantic continuity and explaining the intellectual resources of the language. For education, it reminds us that science becomes socially valuable when it is joined with ethical discipline and cultural memory. Further research may expand the corpus, apply digital concordance methods to Chagatai manuscripts, compare regional variants, and trace the transformation of these lexemes in Jadid prose, Soviet Uzbek terminology and

modern academic discourse. Such work would show even more clearly that the language of science and enlightenment is one of the strongest bridges between historical heritage and contemporary intellectual development.

## REFERENCES

1. Babur, Z. M. (1996). *Baburnama: Memoirs of Babur, prince and emperor* (W. M. Thackston, Trans.). Smithsonian Institution.
2. Clouston, G. (1972). *An etymological dictionary of pre-thirteenth-century Turkish*. Oxford: Clarendon Press.
3. Dankoff, R. (1983). *Wisdom of royal glory: A Turko-Islamic mirror for princes*. Chicago: University of Chicago Press.
4. Erdal, M. (2004). *A grammar of Old Turkic*. Leiden: Brill.
5. Johanson, L., & Csató, É. Á. (Eds.). (1998). *The Turkic languages*. London: Routledge.
6. Kashgari, M. (1982–1985). *Compendium of the Turkic dialects (Dīwān Lugāt at-Turk)* (R. Dankoff & J. Kelly, Trans.). Harvard University Printing Office.
7. Navoiy, A. (1967–2003). *Mukammal asarlar to'plami*. Toshkent: Fan.
8. Navoiy, A. (1993). *Muhokamat ul-lug'atayn*. Toshkent: Fan.
9. Tekin, T. (1968). *A grammar of Orkhon Turkic*. Bloomington: Indiana University.
10. Yarshater, E. (1986). *Chaghatay language and literature*. *Encyclopaedia Iranica*.
11. Yusuf Khass Hajib. (1983). *Kutadgu Bilig: Wisdom of royal glory* (R. Dankoff, Trans.). Chicago: University of Chicago Press.
12. Yugnaki, A. (1971). *Hibat ul-haqoyiq*. Toshkent: Fan.
13. Zalizniak, A. A. (2008). *Ancient Turkic and the reconstruction of semantic fields*. Moscow: Languages of Slavic Culture.
14. Rakhmatullaeva, D. (2026). *Lexemes about science and enlightenment in historical works*. Unpublished conference article manuscript.