

BUXORO DAVLAT UNIVERSITETI
HUZURIDAGI ILMIY DARAJALAR BERUVCHI
DSc.03/2025.27.12.Fil.08.07 RAQAMLI ILMIY KENGASH

BUXORO DAVLAT UNIVERSITETI

XUSENOVA MEHRINISO O'KTAMOVNA

**INGLIZ VA O'ZBEK TILLARIDA ASTRONOMIYAGA OID
TERMINLARNING LEKSIKOGRAFIK-QIYOSIY TADQIQI**

10.00.13 – Qiyosiy va chog'ishtirma tilshunoslik

**FILOLOGIYA fanlari bo'yicha falsafa doktori (PhD) dissertatsiyasi
AVTOREFERATI**

UO‘K: [811.111’373.46:52+811.512.133’373.46:52]

**Filologiya fanlari bo'yicha falsafa doktori (PhD) dissertatsiyasi avtoreferati
mundarijasi**

**Оглавление автореферата диссертации доктора философии (PhD) по
филологическим наукам**

**Contents of the dissertation abstract for a Doctor of Philosophy (PhD) in
Philology**

Xusenova Mehriniso O'ktamovna

Ingliz va o'zbek tillarida astronomiyaga oid terminlarning leksikografik-qiyosiy
tadqiqi.....3

Khusenova Mehriniso Uktamovna

Lexicographic-comparative Study of Astronomical Terms in the English and
Uzbek Languages.....23

Хусенова Мехринисо Уктамовна

Лексикографическое и сравнительное исследование астрономических
терминов в английском и узбекском языках.....43

E'lon qilingan ishlar ro'yxati

Список опубликованных работ
List of published works.....47

BUXORO DAVLAT UNIVERSITETI
HUZURIDAGI ILMIY DARAJALAR BERUVCHI
DSc.03/2025.27.12.Fil.08.07 RAQAMLI ILMIY KENGASH

BUXORO DAVLAT UNIVERSITETI

XUSENOVA MEHRINISO O'KTAMOVNA

**INGLIZ VA O'ZBEK TILLARIDA ASTRONOMIYAGA OID
TERMINLARNING LEKSIKOGRAFIK-QIYOSIY TADQIQI**

10.00.13 – Qiyosiy va chog'ishtirma tilshunoslik

**FILOLOGIYA fanlari bo'yicha falsafa doktori (PhD) dissertatsiyasi
AVTOREFERATI**

Falsafa doktori (PhD) dissertatsiyasi mavzusi Oliy attestatsiya komissiyasida №B2024.3.PhD/Fil5158 raqam bilan ro'yxatga olingan.

Dissertatsiya Buxoro davlat universitetida bajarilgan.

Dissertatsiya avtoreferati uch tilda (o'zbek, ingliz, rus (rezyume)) Ilmiy kengashning veb-sahifasida (www.buxdu.uz) va "Ziyonet" Axborot ta'lim portalida (www.ziyonet.uz) joylashtirilgan.

Ilmiy rahbar:

Xodjayeva Dilafro'z Izatilloevna
filologiya fanlari doktori, dotsent

Rasmiy opponentlar:

G'aybullayeva Nafisa Izatilloevna
filologiya fanlari doktori, professor

Nasrullayeva Nafisa Zafarovna
filologiya fanlari doktori, professor

Yetakchi tashkilot:

Qarshi davlat universiteti

Dissertatsiya himoyasi Buxoro davlat universiteti huzuridagi DSc.03/2025.27.12.Fil.08.08 raqamli Ilmiy kengashning 2026-yil "26" avgust soat 13:00 dagi majlisida bo'lib o'tadi. (Manzil: 200118, Buxoro shahri, M.Iqbol ko'chasi, 11-uy. Tel.: (0 365) 221-29-14; faks: (0 365) 221-57-27; e-mail: buxdu_rektor@buxdu.uz)

Dissertatsiya bilan Buxoro davlat universitetining Axborot-resurs markazida tanishish mumkin (D-988 raqami bilan ro'yxatga olingan). (Manzil: 200118, Buxoro shahri, M.Iqbol ko'chasi, 11-uy. Tel.: (0 365) 221-25-87.)

Dissertatsiya avtoreferati 2026-yil "11" avgust kuni tarqatildi.

(2026-yil "11" avgust dagi 26 - raqamli reyestr bayonnomasi.)


B.E.Kilichev
Ilmiy darajalar beruvchi ilmiy kengash raisi,
filologiya fanlari doktori (DSc), professor

M.Y.Xojiyeva
Ilmiy darajalar beruvchi ilmiy kengash
ilmiy kotibi, filologiya fanlari bo'yicha falsafa
doktori (PhD), dotsent

G.I.Toirova
Ilmiy darajalar beruvchi ilmiy kengash
qoshidagi ilmiy seminar raisi, filologiya
fanlari doktori (DSc), professor

KIRISH (falsafa doktori (PhD) dissertatsiyasi annotatsiyasi)

Dissertatsiya mavzusining dolzarbligi va zarurati. Jahon tilshunosligida XX asrning soʻnggi va XXI asr boshlarida terminologiya hamda terminografiya sohalarida olib borilayotgan amaliy ishlar turli fan tarmoqlariga oid terminlarni tizimlashtirish, standartlashtirish va koʻp tilli terminologik lugʻatlarni yaratishga yoʻnaltirilmoqda. Xususan, astronomiya fanining jadal rivojlanishi, xalqaro kosmik va raqamli axborot texnologiyalarining kengayishi astronomik terminlarning turli tillarda izchil va yagona qoʻllanilishini taqozo etmoqda. Biroq amaliyotda astronomik terminlarning tarjimai, leksikografik talqini va lugʻatlarda berilishida tafovutlar, terminlarning semantik hamda strukturaviy tavsifi boʻyicha yagona yondashuvning yetarli darajada shakllanmaganligi kuzatilmoqda. Shu bois ingliz va oʻzbek tillarida astronomiyaga oid terminlarning semantik, strukturaviy va derivatsion xususiyatlarini aniqlash, izohli hamda terminologik lugʻatlarda aks etish tamoyillarini qiyoslash, milliy terminografiyani xalqaro standartlar asosida takomillashtirish hamda astronomik terminlarning izchil qoʻllanilishini taʼminlash dolzarb ahamiyat kasb etadi.

Dunyo tilshunosligida terminologiyaning oʻrni, umumiy va xususiy terminologiya muammolari, shuningdek, sohaviy terminlarni tartibga solish jarayoni bilan bogʻliq ilmiy tadqiqotlar olib borilmoqda. Mazkur ilmiy izlanishlar doirasida terminologiya va terminografiya yoʻnalishlarida olib borilayotgan ilmiy tadqiqotlarda fan sohalariga oid terminlarning konseptual tizimini yaratish, ularning semantik, strukturaviy hamda kognitiv xususiyatlarini aniqlash, koʻp tilli terminologik maʼlumotlar bazalari va elektron lugʻatlarni ishlab chiqish ustuvor ilmiy yoʻnalishlardan biri sifatida eʼtirof etilmoqda. Shu bilan birga, ingliz va boshqa tillar terminologiyasini qiyosiy-lingvistik hamda leksikografik aspektda oʻrganish, terminlarning ekvivalentlik darajasi, milliy-madaniy xususiyatlari, nominatsiya tamoyillari va termin yasash mexanizmlarini tadqiq etish fanlararo integratsiya hamda xalqaro ilmiy kommunikatsiya ehtiyojlari bilan bogʻliq holda tobora dolzarb ahamiyat kasb etmoqda. Mamlakatimizda soʻnggi yillarda davlat tilining ilm-fan tili sifatidagi mavqei mustahkamlash, milliy terminologiyani tartibga solish, sohaviy terminologik lugʻatlarni yaratish, raqamli leksikografiya tizimini rivojlantirish hamda xalqaro ilmiy standartlarga mos terminologik bazalarni shakllantirishga qaratilgan ilmiy-amaliy ishlar izchil amalga oshirilmoqda. “Oʻzbekiston ilm-fan, intellektual salohiyat sohasida, zamonaviy kadrlar, yuksak texnologiyalar borasida dunyo miqyosida raqobatbardosh boʻlishi shart”¹. Mazkur vazifalardan kelib chiqib, ingliz va oʻzbek tillarida astronomiyaga oid terminlarning leksikografik tavsifi, semantik hamda strukturaviy xususiyatlarini qiyosiy oʻrganish, ularni milliy va xalqaro terminografiya mezonlari asosida tizimlashtirish, zamonaviy elektron terminologik lugʻatlar bazasini takomillashtirish hamda ilmiy isteʼmolga izchil joriy etish bugungi tilshunoslikning dolzarb ilmiy-amaliy vazifalaridan biri hisoblanadi.

Oʻzbekiston Respublikasi Prezidentining 2019-yil 8-oktabrdagi PF-5847-son “Oʻzbekiston Respublikasi oliy taʼlim tizimini 2030-yilgacha rivojlantirish

¹ Mirziyoyev Sh.M. *Yangi Oʻzbekiston strategiyasi*. – Toshkent: Oʻzbekiston, 2021. – B. 222.

konsepsiyasini tasdiqlash to‘g‘risida”, 2022-yil 28-yanvardagi PF-60-son “2022-2026 yillarga mo‘ljallangan Yangi O‘zbekistonning Taraqqiyot strategiyasi to‘g‘risida”, 2023-yil 11-sentyabrdagi PF-158-son ““O‘zbekiston – 2030” strategiyasi to‘g‘risida”gi Farmonlari, 2017-yil 17-fevraldagi PQ-2789-son “Fanlar akademiyasi faoliyati, ilmiy tadqiqot ishlarini tashkil etish, boshqarish va moliyalashtirishni yanada takomillashtirish chora-tadbirlari to‘g‘risida”, 2018-yil 5-iyundagi PQ-3775-son “Oliy ta‘lim muassasalarida ta‘lim sifatini oshirish va ularning mamlakatda amalga oshirilayotgan keng qamrovli islohotlarda faol ishtirokini ta‘minlash bo‘yicha qo‘shimcha chora-tadbirlar to‘g‘risida”, 2021-yil 19-maydagi PQ-5117-son “O‘zbekiston Respublikasida xorijiy tillarni o‘rganishni ommalashtirish faoliyatini sifat jihatidan yangi bosqichga olib chiqish chora-tadbirlari to‘g‘risida”gi Qarorlari, shuningdek, Prezidentning 2020 yil 24 yanvardagi Oliy Majlis palatalariga Murojaatnomasi hamda boshqa tegishli normativ-huquqiy hujjatlar asosida belgilangan vazifalarni bajarishda ushbu dissertatsiya tadqiqoti muhim ahamiyat kasb etadi.

Tadqiqotning respublika fan va texnologiyalari rivojlanishining ustuvor yo‘nalishlariga mosligi. Ushbu tadqiqot, respublika fan va texnologiyalarining rivojlanishining I. “Axborotlashgan jamiyat va demokratik davlatni ijtimoiy, huquqiy, iqtisodiy, madaniy, ma‘naviy-ma‘rifiy rivojlantirishda innovatsion g‘oyalar tizimini shakllantirish va ularni amalga oshirish yo‘llari” ustuvor yo‘nalishiga muvofiq bajarilgan.

Muammoning o‘rganilganlik darajasi. Jahon tilshunosligida umumiy va xususiy terminologiyaga oid masalalar yuzasidan qator tadqiqotlar amalga oshirib kelinmoqda. Xususan, terminlarning lingvistik va leksikografik jihatdan o‘rganilishi masalasi tilshunoslikda muhim yo‘nalishlardan biri hisoblanadi. A.S.Gerd, A.A.Reformatskiy, V.P.Danilenko, S.V.Grinev-Grinevich, J.S. Sager, V.G.Gak, V.M.Leichik, Y.I.Golovanova kabi olimlarning terminologiya nazariyasiga oid ishlari umumiy terminologiya nazariyasi asoslarini belgilab bergan².

O‘zbek tilshunosligida tillarni qiyosiy o‘rganish sohasida o‘zbek tilshunos-olimlari Sh.Raxmatullayev, Sh.Safarov, M.T.Irisqulov, D.B.Buranov, M.D.Djusupovlar, terminologiya sohasining turli masalalari va xususiy terminologiya bo‘yicha P.P.Nishonov, X.Dadaboyev, O.S.Axmedov, X.D.Paluanova, D.X.Kadirbekova, X.V.Mirzaxmedova, D.I.Xodjayeva, O.O.Bobokalonov, M.R.Ochilova va boshqa qator olimlar tomonidan izlanishlar olib borilgan. I.R.Bazarov, G‘.M.Mahmudov, N.Mahmudov, Sh.R.Jo‘rayev, T.Hojiyev, G.I.Ergasheva va boshqa olimlar terminlarning shakllanishi, milliy xususiyatlari hamda sohalarga oid terminlarni o‘zlashtirish masalalarini yoritgan³.

² Реформатский А.А. Основы теории терминологии. – М.: Наука, 1977. – 234 с.; Гринев-Гриневич С.В. Терминология и коммуникация. – М.: Высшая школа, 1985. – 190 с.; Лейчик В.М. Язык и терминология. – Л.: Наука, 1980. – 210 с.

³ Буранов Дж. Сравнительная типология английского и тюркских языков. – М.: Высшая школа, 1983. – 367 с.; Джусупов М.Д. Звуковые системы русского и казахского языков. Слог. Интерференция. Обучение произношению. – Тошкент: Фан, 1991. – 240 с.; Сафаров Ш. Прагмалингвистика (Pragmalinguistics). – Тошкент: Ўзбекистон миллий энциклопедияси, 2008. – 300 б.; Дадабаев Х. Общественно-политическая и социально экономическая терминология в тюркоязычных письменных памятниках XI-XIV вв: Дис ... докт. филол.наук. – Т., 1991. – 185 с.; Axmedov O.S. Ingliz va o‘zbek tillarida soliq va bojxona terminlarining lingvistik tahlili va tarjima muammolari: Filol.fanl.dokt. ... diss. avtoref. – Т., 2016. – 28 б.; Paluanova X.D. Ekologik

O'zbek tilida astronomik terminlar tadqiqu-tahliliga bag'ishlangan tadqiqotlar cheklangan bo'lib, ayrim lingvistik ishlarda astronomik terminlarga epizodik tarzda to'xtalib o'tilgan yoki ular astronomik terminologiyaga bevosita bag'ishlanmagan. Ingliz va rus tillarida kosmosga oid terminlar tizimi bo'yicha bir nechta ilmiy izlanishlar olib borilgan. Jumladan, E.A.Ryabova, Yu.A.Karpenko, F.Yu.Ziegel, D.A.Bondaletov, G.G.Kuzmin, V.P.Afanasev kabi olimlar astronomiya sohasi terminlarining turli masalalari bo'yicha tadqiqot olib borishgan⁴.

Astronomiyaga oid inglizcha terminlar "Oxford Dictionary of Astronomy", "Cambridge Encyclopedia of Astronomy" kabi nufuzli izohli lug'atlar orqali hujjatlashtirilgan⁵. O'zbek tilida esa "Fizika-astronomiya lug'ati", "Ruscha-o'zbekcha fizik-astronomik lug'at" kabi manbalar mavjud bo'lsa-da, ularning ba'zilar eskirgan va hozirgi zamon astronomiyasiga oid terminlarni to'liq qamrab olmagan hisoblanadi⁶.

Mazkur mavzuga oid mavjud adabiyotlarni tahlil qilish shuni ko'rsatdiki, ingliz va o'zbek tillaridagi astronomik terminlarning leksikografik jihatdan qiyosiy tahlili alohida tadqiqot mavzusi sifatida chuqur o'rganilmagan. Bu esa mavzuning ilmiy yangiligini va dolzarbligini belgilaydi.

Dissertatsiya tadqiqotining dissertatsiya bajarilgan oliy ta'lim muassasasining ilmiy-tadqiqot ishlari rejalari bilan bog'liqligi. Dissertatsiya Buxoro davlat universitetining ilmiy-tadqiqot ishlari rejalariga muvofiq "Adabiyotshunoslik va tarjimashunoslikning dolzarb muammolari: adabiy jarayon, qiyosiy adabiyotshunoslik, uslubshunoslik va tilshunoslik masalalari" mavzusidagi ilmiy yo'nalish doirasida bajarilgan.

terminlarning derivatsion-semantik xususiyatlari (o'zbek, qoraqalpoq, ingliz va rus tillari misolida). Filol.fanl. dokt. (DS) ... diss. avtoref. – T., 2016. – 88 b.; Kadirbekova D.X. Inglizcha-o'zbekcha axborot-kommunikatsiyasi texnologiyalari terminologiyasi va uning leksikografik xususiyatlari: Filol. fanl. bo'yicha. fals. dokt. (PhD) ... diss. avtoref. – T., 2017. – 44 b.; Ergasheva G.I. Turli tizimdagi tillarda genderga oid terminologiyaning shakllanishida lingvistik va ekstralingvistik omillar: Filol. fanl. dokt. (DSc) ... disser. avtoref. – T., 2018. – 28 b.; Mirzaxmedova X.V. Fors va o'zbek tillarida termin yasash prinsiplari va muammolari (ijtimoiy-siyosiy terminlar misolida): Filol. fanl. dokt. ... disser. – T., 2022. – 235 b.; Xodjayeva D.I. Tilshunoslik terminlarining leksikografik tahlili (ingliz, rus va o'zbek tillari izohli lug'atlari materiallari misolida): Filol. fanl. bo'yicha. fals. dokt. (PhD)... disser. avtoref. – Toshkent, 2018. – 54 b. Xodjayeva D.I. Ingliz va o'zbek tillari lingvodidaktik terminlari: semantik va funksional xususiyatlar: Filol.fanl.dokt. (DSc)... disser. avtoref. – Buxoro, 2025. – 72 b.; Saidova M.U. Ingliz adabiyotshunoslik terminlarining tarkibiy-mazmuniy tahlili va tarjimasi (ingliz tili materiallari asosida): Filol. fanl. bo'yicha. fals. dokt. (PhD)... disser. avtoref – Buxoro, 2021. – 48 b.; Bobokalonov O.O. Fransuz va o'zbek tillarida shifobaxsh o'simliklar terminosistemasining lingvomadaniy va lingvokognitiv xususiyatlari: Filol. fanl. bo'yicha. fals. dokt. (PhD)... disser.avtoref – Buxoro, 2023. – 50 b.; Ochilova M.R. Ingliz va o'zbek tillarida raqs va musiqa terminlar electron lug'atini yaratishning lingvistik asoslari: Filol. fanl. bo'yicha. fals. dokt. (PhD)... disser. avtoref – Buxoro, 2023. – 51 b.

⁴ Рябова Е.А. Проблемы и принципы систематизации терминологии (на материале сопоставительного анализа ракетно-космической лексики английского и русского языков). Диссертация – Москва, 2009. – 180 с.; Карпенко Ю.А. Астрономическая номенклатура и терминология – М.: Наука, 1985. – 220 с.; Зигель Ф.Ю. Звёздное небо и его обозначения – СПб.: Издательство Санкт-Петербургского университета, 1997. – 180 с.; Кузьмин Г.Г. Динамика звездных систем – М.: Физматлит, 1998. – 300 с.; Афанасьев В. П. Астрономическая терминология и её развитие // Журнал «Вестник астрономии», 2005, №3. – С. 15-28;

⁵ Ridpath I. (ed.). Oxford Dictionary of Astronomy. – Oxford: Oxford University Press, 2018. – 640 p.; Mitton S. (ed.). Cambridge Encyclopedia of Astronomy. – New York: Crown Publishers, 1977. – 481 p.

⁶ Karimov A., Saidov B. Fizika-astronomiya lug'ati. Toshkent: Fan, 1983. – 136 b.; Karimov A., Saidov B. Ruscha-o'zbekcha fizik-astronomik lug'at. – Toshkent: O'qituvchi, 1984. – 214 b.

Tadqiqotning maqsadi ingliz hamda o'zbek tillarida qo'llaniladigan astronomik terminlarning leksikografik jihatlarini qiyosiy tahlillar asosida aniqlashdan iborat.

Tadqiqotning vazifalari:

tilshunoslikda termin, terminologiya, nomen va nomenklatura xususida ilmiy ma'lumotlarni o'rganish orqali terminografiya va leksikografiyaning tilshunoslik sohasidagi maqsad va vazifalarini aniqlash;

ingliz va o'zbek tillari izohli lug'atlarida berilgan astronomik terminlarni aniqlash va jamlash orqali lug'atlarda berilgan astronomik terminlarni ilmiy sohalar bo'yicha tasniflash;

har ikkala til astronomik terminlarning vujudga kelishi va manbalarini aniqlab, ularning tarkibiy tuzilmasini o'rganish;

ingliz va o'zbek tillari astronomik terminlarining leksik-semantik va funksional xususiyatlarini aniqlash va tahlil qilish;

ingliz va o'zbek tillaridagi astronomiyaga oid terminlarning leksikografik xususiyatlarini aniqlash hamda ularning ikki qiyoslanayotgan tillar doirasida leksikografik tahlilini amalga oshirish.

Tadqiqotning obykti sifatida ingliz va o'zbek tillaridagi astronomik terminlar tanlangan.

Tadqiqotning predmetini ingliz va o'zbek tillarida astronomiya sohasiga oid terminlarining leksikografik xususiyatlarini chog'ishtirma aspektidagi tahlili va tasnifi tashkil etadi.

Tadqiqotning usullari. Dissertatsiyada qiyosiy-chog'ishtirma, kontekstual-komponent, statistik tahlil kabi usullardan foydalanilgan.

Tadqiqotning ilmiy yangiligi quyidagilardan iborat:

ingliz tilidagi astronomik terminlarning shakllanishi G'arb ilm-fani, qadimgi yunon va lotin an'alariga tayansa, o'zbek tilida esa turkiy, islomiy, arab, forsiy madaniy manbali so'zlar ustunlik qilishi bilan birga rus tili vositasida qabul qilingan yoki o'zbekcha ekvivalentlar asosida tarjima qilinishi asosida hosil bo'lishi aniqlangan;

ingliz va o'zbek tillarida yangi terminlarning morfologik xususiyatlari affiksatsiya, abbreviatsiya, qo'shma so'zlar yasash, mavjud leksik birliklarning ma'nosini semantik kengaytirish, metaforik asosdagi terminlarning ilmiy-texnik mazmunda yangi semantik yuklama bilan qo'llanilishi negizida namoyon bo'lishi asoslangan;

ingliz tilida astronomik terminlar aniq ilmiy ma'noga ega, kundalik nutqda ko'chma, metaforik yoki kengaygan ma'nolarda faol qo'llansa, o'zbek tilida esa bu jarayon nisbatan kamroq rasmiylashtirilgan, kontekstga qarab anglanishi va kengaygan ma'nolar muayyan semantik birlik sifatida faol qo'llanilmasligi isbotlangan;

har ikkala til kommunikativ jarayonida voqelanadigan astronomik terminlarning leksik-semantik va funksional maydonda sinonimiya, antonimiya, polisemiya, giponimiya, meronimiya hodisalari kontekstda semantik zanjir uzilmagan holda boshqa ko'chma yoki poetik ma'nolarni voqelantirivchi ma'nolarini yuzaga chiqarishi dalillangan.

Tadqiqotning amaliy natijalari quyidagilardan iborat:

ingliz va o'zbek tillari astronomik terminlari qiyosiy tadqiqi amalga oshirilib, bu tahlillar natijasida terminlarning qo'llanish qamrovi, kontekstdagi birikmalari va tipik strukturalari aniqlangan;

ingliz va o'zbek tillarida amalda qo'llanilayotgan astronomik lug'atlar tahlil qilinib, terminlar izohlaridagi asosiy nomuvofiqliklar aniqlanib, qo'llanilishi mumkin bo'lgan muqobil yondashuvlar ishlab chiqilgan;

o'zbek tilida astronomik terminlarni normallashtirish, to'g'ri tanlash va ilmiy izohlash uchun zarur bo'lgan metodik tavsiyalar shakllantirilgan, zamonaviy ikki tilli astronomik terminlar lug'atini yaratishga asos bo'luvchi ilmiy va amaliy tavsiyalar ishlab chiqilgan va lug'at yaratilgan.

Tadqiqot natijalarining ishonchliligi tadqiqotdagi ilmiy-nazariy yondashuvlarning rasmiy manbalardan tanlab olingani, ilmiy xulosalar qiyosiy-chog'ishtirma, kontekstual-komponent, statistik kabi tahlil usullari vositasida asoslanganligi, tadqiqot yuzasidan chiqarilgan xulosalar tadqiqotchi tomonidan e'lon qilingan ilmiy ishlarda o'z aksini topganligi, taklif va tavsiyalarning terminologiya amaliyoti hamda ta'lim jarayoniga joriy qilinganligi, shuningdek, olingan natijalarning vakolatli tuzilmalar tomonidan tasdiqlanganligi bilan izohlanadi.

Tadqiqot natijalarining ilmiy va amaliy ahamiyati. Tadqiqot natijalarining ilmiy ahamiyati undagi ilmiy xulosalar va nazariy umumlashmalardan terminologiya nazariyasini rivojlantirish, xususan, astronomik terminlarga xos lingvistik xususiyatlarning qiyosiy-tipologik aspektda o'rganilganligi va tadqiqotning nazariy xulosalari soha terminlarining yasaliishi, takomillashuvi masalalariga doir kompleks yondashuvlarga asoslangan tadqiqotlar uchun ilmiy-nazariy manba bo'lishi bilan izohlanadi.

Tadqiqot natijalarining amaliy ahamiyati til o'qitish sifatini oshirishga, bo'lajak soha mutaxassislari uchun kasbiy ta'lim terminologiyasini egallashiga xizmat qilishi, astronomiya, terminologiya, lingvistika, leksikologiya, leksikografiya, terminografiya fanlari bo'yicha ma'ruza kurslari, seminar mashg'ulotlarini ishlab chiqishda hamda olib borishda, darslik, o'quv qo'llanmalari yozishda, terminologik lug'atlar tuzishda amaliy manba vazifasini bajarish imkoniyati bilan belgilanadi.

Tadqiqot natijalarining joriy qilinishi. Ingliz va o'zbek tillaridagi astronomik terminlarining leksikografik xususiyatlari tadqiqini amalga oshirish jarayonida erishilgan ilmiy natijalar asosida:

ingliz tilidagi astronomik terminlarning shakllanishi G'arb ilm-fani, qadimgi yunon va lotin an'analarga tayansa, o'zbek tilida esa turkiy, islomiy, arab, forsiy madaniy manbali so'zlar ustunlik qilishi bilan birga rus tili vositasida qabul qilingan yoki o'zbekcha ekvivalentlar asosida tarjima qilinishi asosida hosil bo'lishiga doir nazariy xulosalardan "Umrboqiy meros" O'zbekiston madaniyati va san'ati targ'ibot markazida 2024-2025 yillarda bajarilgan 90-01/38 - "Jadidlarning jamiyat huquqiy madaniyatini shakllantirishga ta'siri" mavzusidagi amaliy loyihasida foydalanilgan ("Umrboqiy meros" O'zbekiston madaniyati va san'ati targ'ibot Markazining 2025-yil 30-maydagi ML01/01-30-son ma'lumotnomasi). Natijada terminlarning

tillardagi mushtaraklik va o'ziga xosliklarini faollashuvini o'rganish imkoniyatlari kengaygan;

ingliz va o'zbek tillarida yangi terminlarning morfologik xususiyatlari affiksatsiya, abbreviatsiya, qo'shma so'zlar yasash, mavjud leksik birliklarning ma'nosini semantik kengaytirish, metaforik asosdagi terminlarning ilmiy-texnik mazmunda yangi semantik yuklama bilan qo'llanilishi negizida namoyon bo'lishiga oid nazariy xulosa va natijalardan Buxoro davlat universitetida Germaniya akademik almashinuv xizmati DAAD tomonidan moliyalashtirilgan ID-57663348- "European Perspectives in Dialogue: Central Asia and Western Research – Muloqotda Yevropa istiqbollari: Markaziy Osiyo va G'arb tadqiqotlari" mavzusidagi loyihada foydalanilgan (Buxoro davlat universitetining 2025-yil 03-iyundagi 06/3637-son ma'lumotnomasi). Natijada umumiy izohli, ensiklopedik, maxsus izohli lug'atlardagi astronomiyaga oid terminlar tahlil qilinib, lingvistik-qiyosiy yondashuvni amalga oshirishga xizmat qilgan;

ingliz tilida astronomik terminlar aniq ilmiy ma'noga ega, kundalik nutqda ko'chma, metaforik yoki kengaygan ma'nolarda faol qo'llansa, o'zbek tilida esa bu jarayon nisbatan kamroq rasmiylashtirilgan, kontekstga qarab anglanishi va kengaygan ma'nolar muayyan semantik birlik sifatida faol qo'llanilmasligi bilan bog'liq xulosa va natijalardan Buxoro viloyat teleradiokompaniyasida "Assalom, Buxoro", "Sayqal", "Najot bilimda" ko'rsatuvlari ssenariylarini tayyorlashda foydalanilgan (Buxoro viloyat teleradiokompaniyasining 2025-yil 19-iyundagi 01-401-son ma'lumotnomasi). Natijasida ushbu teleko'rsatuvlar uchun tayyorlangan materiallarning mazmuni mukammallashtirilib, ilmiy dalillarga boy bo'lishiga xizmat qilgan va ko'rsatuvning ilmiy-ommaboplik xususiyati oshirilgan.

Tadqiqot natijalarining aprobatyasi. Tadqiqot natijalari 5 ta ilmiy-amaliy anjumanda, shu jumladan, 2 ta respublika va 3 ta xorijiy ilmiy-amaliy konferensiyalarda aprobatyadan o'tkazilgan.

Tadqiqot natijalarining e'lon qilinishi. Dissertatsiya mavzusi bo'yicha jami 21 ta ish, jumladan, O'zbekiston Respublikasi Oliy attestatsiya komissiyasining doktorlik dissertatsiyalari asosiy ilmiy natijalarini chop etish tavsiya etilgan ilmiy nashrlarda 10 ta ilmiy maqola, jumladan, 6 tasi respublika va 4 tasi xalqaro jurnallarda e'lon qilingan.

Dissertatsiyaning tuzilishi va hajmi. Dissertatsiya kirish, uch asosiy bob, xulosa, foydalanilgan adabiyotlar ro'yxati va ilovalardan tashkil topgan bo'lib, umumiy hajmi 151 sahifadan iborat.

DISSERTATSIYANING ASOSIY MAZMUNI

Dissertatsiyaning kirish qismida mavzuning dolzarbligi asoslangan bo'lib, muammoning o'rganilganlik darajasi, tadqiqotning maqsad va vazifalari, obykti va predmeti aniq belgilangan. Shu bilan birga, tadqiqotda qo'llanilgan metodlar tavsifi, ishning ilmiy yangiligi, tadqiqot natijalarining nazariy va amaliy ahamiyati kabi masalalar yoritib berilgan.

Ishning birinchi bobi "**Termin lisoniy tadqiqotlar obykti sifatida**" deb nomlangan. Unda termin va terminologiya bo'yicha nazariy qarashlar tahlil qilinib, ingliz va o'zbek tilidagi astronomiyaga oid terminlar tadqiqot obykti sifatida

o'rganilganligi, shuningdek, terminlarni tasniflashning ilmiy asoslari haqida mulohaza yuritilgan.

Terminologiya fanining paydo bo'lishi va rivojlanishi bilan bog'liq turli fikrlar mavjud. Misol uchun, S.V.Grinev-Grinevichning fikricha, maxsuslashtirilgan so'zlar avvalgi davrlarda ham mavjud bo'lgan. Agar bu nuqtai nazarga e'tibor qaratilsa, maxsuslashtirilgan so'zning tarixi yarim million yil atrofida ekanligini va u ilm-fan rivojlanishidan ancha oldin paydo bo'lganini aytish mumkin. S.V.Grinev-Grinevichdan keyin esa 80-yillarda leksikologiya asosida terminologiya ilmi shakllanib, bu fan insoniyatning kelajakdagi rivojiga muhim ahamiyat kasb etishi ko'rsatilgan⁷.

Terminologiya – leksikaning muayyan sohaga oid tarmog'i bo'lib, u fan, texnika, ishlab chiqarish, san'at yoki ijtimoiy faoliyat yo'nalishlariga tegishli tushunchalarni ifodalovchi terminlar tizimidan iborat. Ushbu soha tilshunoslikda terminlarni chuqur o'rganishga yo'naltirilgan mustaqil ilmiy yo'nalish sifatida shakllangan. Ilmiy adabiyotlarda terminologiya quyidagicha izohlanadi: 1. Terminologiya [*lot.* terminus- chegara + *yun.* logos – fan, ta'limot] 1. Fan, texnika, kasb-hunarning biror sohasida qo'llanadigan terminlar majmuyi. *Texnika terminologiyasi...* 2. Tilshunoslikning terminlarni o'rganish, tartibga solish bilan shug'ullanuvchi sohasi. *Terminologiya mutaxassisi. Terminologiya bo'limi*⁸. Terminlar, odatda, umumxalq tilining leksikasi asosida shakllanadi va vaqt o'tishi bilan boyib boradi. Hozirgi zamon tadqiqotlarida terminlar, asosan, aniq ilmiy yoki texnik sohalarda ishlatiladigan tushunchalarni ifodalovchi so'zlar yoki so'z birikmalari sifatida ta'riflanadi. D.S.Lotte termini ma'lum ilm-fan sohasi tizimidagi tovush belgisi va unga aloqador tushuncha birligi sifatida ta'riflaydi. Bu ta'rifga ko'ra, termin nafaqat maxsus so'z yoki so'z birikmasi, balki ushbu so'zning o'zi orqali ifodalangan ilmiy yoki texnik tushuncha bilan chambarchas bog'liqdir⁹. V.P.Danilenko deskriptiv yondashuvning vakili sifatida, termini yakka, alohida va mustaqil nomlash birligi sifatida ta'riflaydi. Uning fikricha, termin maxsus lisoniy belgi xususiyatiga ega bo'lib, so'z yoki so'z birikmasi orqali ifodalanishidan qat'iy nazar, har doim ma'lum bir tushunchaga mos keladigan belgini ifodalaydi. Bu yondashuvda, terminning asosiy vazifasi aniq tushunchalarni ifodalashdir va u mustaqil bo'lib, boshqa so'zlardan yoki terminlardan farq qiladi. V.P.Danilenko o'z ta'rifida, terminlarning faqat ma'lum bir sohada ishlatilishini, ya'ni har bir termin o'ziga xos kontekstdagi aniq tushunchani anglatishini ta'kidlaydi. Bu terminlarning maxsus va aniqlangan ma'nolarini ajratib ko'rsatishga yordam beradi¹⁰. Demak, ikkinchi, ya'ni deskriptiv yondashuvda termin maxsus funksiya bajaruvchi so'z sifatida ta'riflanadi va bu yondashuvda terminologik birliklarning funksiyalariga alohida e'tibor qaratiladi. Bu yondashuvda terminlar faqat ma'lum bir tushunchani ifodalovchi lisoniy belgilar sifatida ko'rilib, o'zlarining texnik va ilmiy ahamiyatini

⁷ Гринев-Гриневи́ч С.В. Терминоведение: учеб. пособие для студ. высш. учеб. заведений. – М.: Издательский центр (Академия), 2008. – 304 с.

⁸ O'zbek tilining izohli lug'ati: 80 000 dan ortiq so'z va so'z birikmasi. J. V. L-P / Mas'ul muharrirlar A. Madvaliyev, D. Xudayberganova. – T.: G'afur G'ulom nomidagi nashriyot-matbaa ijodiy uyi, 2022. – B. 223.

⁹ Лотте Д.С. Основы построения научно-технической терминологии: вопросы теории и методики. – М.: Наука, 1961. – С. 73.

¹⁰ Барсукова Е.А. Научный термин в общем и терминологическом толковых словарях русского и английского языков: На материале медицинской и компьютерной терминологий. Дис. ... канд. филол. наук. – Москва, 2004. – С. 64.

oshirib boradi. Shunday qilib, terminlarning asosiy vazifasi aniq va mustaqil tushunchalarni ifodalashdan iboratdir. Terminni tadqiq etishdagi uchinchi yondashuvga asosan, termin zamonaviy adabiy til leksikasining muhim tarkibiy qismi bo'lib, termin va so'z bir-birini to'liq ochib bera olmaydi. Buning sababi shundaki, terminlar faqat texnik va ilmiy tushunchalar bilan bog'liq bo'lib qolmay, balki san'at, ilm-fan va boshqa bilim sohalari bilan ham chambarchas aloqadordir. Shunday qilib, terminlarni to'liq tushunish uchun, ularning faqat lug'aviy ma'nolarini emas, balki ular bilan bog'liq bo'lgan kengroq ilmiy, madaniy va texnik kontekstni ham hisobga olish zarur¹¹.

Tadqiqotning ikkinchi bobi **“Astronomik terminlarning shakllanishi va tarkibiy tuzilmasi”** deb nomlanib, u uch fasldan iborat. Ushbu bobda astronomiyaga oid terminlarning vujudga kelishi, morfemik tahlili hamda funksional xususiyatlarini tasniflashga qaratilgan tahlillar bayon etilgan.

Insoniyat vujudaga kelgandan boshlab tabiat hodisalariga va osmon jismlariga bo'lgan qiziqishlar ham paydo bo'ladi. Ilm-fan hali rivojlanmagan paytlarda ham insonlar yulduzlarning harakatiga qarab ayrim hodisalarni o'rganib tahlil qila boshlaydilar. Jumladan, yulduzlarning harakatiga qarab dengiz xaritalari tuziladi, kecha-kunduz teng kunlari, fasllar almashinuvi bilan aloqador ilmiy ma'lumotlar to'planadi. Tabiiy fanlarning eng qadimiysi hisoblanmish astronomiya fani miloddan avvalgi bir necha ming yillar kishilarning hayotiy ehtiyojlarini qondirish yo'lidagi sa'y-harakatlari oqibatida vujudga kelgan bo'lib, Koinotning ming yillik sirlaridan ogoh qiladi. *Astronomiya* yunoncha so'z bo'lib, “astro” - yulduz, “nomos” - qonun degan ma'noni bildiradi. Astronomiya osmon jismlari va ularning sistemalari harakatini, tuzilishini va rivojlanishini o'rganadigan soha hisoblanadi¹².

Tabiiy fanlar yo'nalishida nafaqat G'arbda, balki sharqda ham, jumladan astronomiya sohasida ham ko'p izlanishlar qilindi. Xususan, Al-Battoniy, Al-Farg'oniy, Al-Xorazmiy, Abul-Vafo Buzjoni, Abu Mahmud Xo'jandiy, Abdurahmon as-So'fiy va Ibn Yunus, Abu Rayhon Beruniy kabi mashhur olimlar bu sohada ijod qildilar. Mirzo Ulug'bekning koinot sirlarini o'rganish bo'yicha olib borgan izlanishlari nafaqat sharq olamida, balki butun dunyo astronomiya sohasida chuqur iz qoldirgani va hanuzgacha jahon olimlari undan ilmiy manba sifatida foydalanishlari uning ahamiyatini oshiradi. Mirzo Ulug'bekning astronomiyaga oid ishlari Samarqanddagi observatoriyada olib borilgan kuzatishlarga asoslangan bo'lib, 1018 yulduz koordinatasini o'z ichiga olgan katalogdir. Astronomiyaga oid ilk terminlar ham mana shu asarlarda o'z ifodasini topa boshlagan.

Biz tadqiqot davomida astronomik terminlarni tadqiq qilish uchun turli manbalardan foydalandik. Xususan, ingliz tilida quyidagi lug'atlar asosiy manba vazifasini bajardi¹³:

1. “Oxford” lug'atining 2006-yilda chop etilgan 7-nashri (keyinchalik Oksford lug'ati);

¹¹ Xodjayeva D.I. Tilshunoslik terminlarining leksikografik tahlili (ingliz, rus va o'zbek tillari izohli lug'atlari materiallari misolida). PhD. diss avtoref... – Toshkent, 2018. – B. 12.

¹² Mamadazimov M. Umumiy astronomiya. – Toshkent: Yangi asr avlodi, 2008. – B. 4.

¹³ Oxford advanced learner's dictionary. 7th edition. – Oxford: Oxford University Press, 2006. – 1796 p.; Macmillan English dictionary for advanced learners. 2nd edition. – Oxford: Macmillan Education, 2012. – 1724 p.; Ridpath I. Oxford dictionary of astronomy. – Oxford: Oxford University Press, 2012. – Revised 2nd ed. – [Electronic app].; <https://www.merriam-webster.com/>.

2. “Macmillan English dictionary for advanced learners” lugʻatining 2012-yilda nashr qilingan 2-nashri (keyinchalik Makmillan lugʻati);

3. “Oxford Dictionary of Astronomy” lugʻatining qayta ishlangan 2-nashrining elektron ilova shakli (keyinchalik ODA);

4. Merriam-Webster onlayn shakldagi umumiy izohli lugʻati (keyinchalik Merriam-Webster lugʻati).

Oʻzbek tilida quyidagi manbalardan foydalanildi:

1. Oʻzbek tilining izohli lugʻati (keyinchalik OʻTIL) – 80000 dan ortiq soʻz va soʻz birikmalarini oʻz ichiga olgan, lotin alifbosiga asoslangan 6 jildlik, 2023 yilda nashr qilingan. Bundan tashqari, aynan shu lugʻat asosida yaratilgan *izohli.uz* veb-saytidan ham foydalanildi. Ushbu sayt rasmiy maqomda boʻlib, Vazirlar Mahkamasining Davlat tilini rivojlantirish departamenti hamda Oʻzbek tilini rivojlantirish jamgʻarmasi tomonidan ishlab chiqilgan.

2. 2006-2008 yillarda kirill alifbosida nashr etilgan, 12 jildlik “Oʻzbekiston milliy ensiklopediyasi” (keyinchalik OʻME).

Tadqiqotlarimiz davomida oʻzbek tilida astronomik terminlar tarkibi va yasalishi tahlil qilinganda, asosan, quyidagi holatlar uchradi:

1. Oʻzbek tilidagi soʻzlarning katta qismini arab va forsha soʻzlar tashkil qilgan boʻlib, ular lugʻat boyligini sezilarli darajada oshirgan. Bu soʻzlar har xil sohalarida, jumladan, din, fan, adabiyot, sanʼat va shu kabi boshqa sohalarida ham ishlatiladi. Arab va forsh tillari ilm-fan va texnologiya sohalarida keng qoʻllaniladi. Ular orqali biz yangi tushuncha, texnologiya va ilmiy kashfiyotlarni oʻzlashtira olamiz. Masalan: *sayyora, yulduz, quyosh, oy*. Ularning lugʻatdagi izohlariga eʼtibor qaratamiz. Masalan:

QAMAR [a. – oy; yoʻldosh (sayyoralarda)] 1 kt. ayn. oy 1. *Bukun koinotda Shams – podsho, Qamar – vazirdir (Oybek, Navoiy)*¹⁴.

Keyinchalik ayrim arab-forsh tilidan kirib kelgan soʻzlarga ekvivalent sifatida rus va ingliz tilidan soʻzlar oʻzlashtirib olingan. Biroq, aksariyat holda ikkala variant ham soʻzlashuvda saqlanib qolgan. Masalan, *sayyora – planeta, burj – zodiak*.

2. Astronomiya sohasida arabcha va forsha terminlarga sinonim sifatida hind-yevropa tillaridan, xususan, yevropa tillaridan terminlarni oʻzbek tiliga oʻzlashtirish masalasi dolzarb ahamiyat kasb etadi. Biroq bu jarayonga ehtiyotkorlik bilan yondashish zarur, chunki arab-forsh tilidan kirib kelgan koʻplab soʻzlar oʻzbek tilining tarixiy shakllanishi va milliy xususiyatlari bilan chambarchas bogʻliq boʻlib, tilimizning madaniy qatlamini tashkil etadi.

3. Astronomiyaga oid yangi terminlarni yaratishda affiksatsiya, yaʼni asosga prefiks yoki suffiks qoʻshish orqali soʻz yasash usuli keng qoʻllaniladi. Masalan: *astronavtika, ekvatorial, ekzosayyora, astrobiologiya, astrobotanika, astrodinamika, astroгноziya, kosmogoniya, kosmografiya, kosmologiya, kosmonavtika, nurlanish, orbital, perigeliy, planetar, planetariy, planetologiya* va boshqalar. Mazkur terminlarning aksariyati oʻzbek tiliga rus tili vositasida kirib kelgan boʻlsa-da, ularning etimologik ildizi koʻpincha lotin va qadimgi yunon tillariga borib taqaladi. Shu sababli, bu terminlarning morfem tarkibini tahlil qilish murakkablik tugʻdiradi va ayrim holatlarda munozarali boʻlishi mumkin.

¹⁴Oʻzbek tilining izohli lugʻati: 80 000 dan ortiq soʻz va soʻz birikmasi. J. IV. L-P / Masʼul muharrirlar A.Madvaliyev, D. Xudayberganova. – Toshkent: Gʻafur Gʻulom, 2022. – B. 39

O'zbek tilidagi ilmiy terminlar morfem tarkibini aniqlashda biz quyidagi ikki asosiy manbaga tayanamiz¹⁵.

Mazkur manbalarda ba'zi so'zlarning morfem tarkibi har xil tarzda berilgan. Quyidagi jadvalda biz ularning ayrim farqli tahlillarini qiyosiy ravishda taqdim etamiz.

Jadval 1. O'zbek tili manbalaridagi astronomik terminlar qiyosiy tahlili

O'zbek tilining morfem lug'ati	O'zbek tilining so'z yasalishi o'quv lug'ati
Astro/botanika	-
Astro/log	-
Astro/log/ik	-
Astro/log/iya	-
Astro/navt/ika	astronavt-ika
Astro/nom	-
Astro/nom/ik	astronom-ik
Astro/nom/iya	astronom-iya
-	fazo-gir
Kometa	-
Kosm/ik	-
Kosmo/navt	-
Kosmos	-
meredian	-
Meteor/it	-
Orbita	-
Osmon, osmon/iy	osmon, osmon-iy
-	samo-viy
-	yulduz

Ko'plab tillarda, jumladan ingliz tilida ham astronomiyaga oid terminlarning morfem tarkibini tahlil qilishda til oilasi va so'zlarning etimologik manbalarini aniqlash muhim ahamiyat kasb etadi. Tilshunoslikda bu omillar terminlarning kelib chiqishini tushunishda, ularning shakllanish qonuniyatlarini aniqlashda va to'g'ri tarjima qilishda muhim vosita hisoblanadi.

Xususan, ingliz tilida shakllangan astronomik terminlarning aksariyati qadimgi yunon va lotin tillaridan olingan ildizlarga asoslanadi. Masalan, *galaxy*, *planet*, *asteroid*, *nebula* kabi terminlar o'z etimologiyasi jihatidan qadimgi yunon tiliga borib taqaladi. Bu terminlar nafaqat ilmiy sohada, balki ommaviy axborot vositalari va ta'lim tizimida ham keng qo'llaniladi.

Masalan, Merriam-Webster lug'atida *Galaxy* so'zining etimologiyasi quyidagicha berilgan: *Middle English galaxias, galaxie, borrowed from late Latin galaxias, borrowed from Greek galaxias (probably originally conjoined with kēklos "wheel"), from galakt-, stem of gōla "milk" (going back to Indo-European *glkt-, attested elsewhere only in Latin lact-, lac "milk,"*

¹⁵A.G'ulomov, A.Tixonov, R.Qo'ng'irov. O'zbek tilining morfem lug'ati. – Toshkent: O'qituvchi, 1977. – 463 b.; B.Mengliyev, B.Bahriddinova, O'.Xoliyorov. O'zbek tilining so'z yasalishi o'quv lug'ati. – Toshkent, 2007. – 142 b.

Armenian kat'n) + *-ias*, noun suffix, especially of natural phenomena. Tarjimasi (bizniki): O'rta asrlardagi inglizcha *galaxias*, *galaxie* shakllari kechki lotincha *galaxias* so'zidan olingan bo'lib, u esa qadimgi yunoncha *galaxias* (ehtimol dastlab *kēklos* – “g'ildirak” so'zi bilan qo'shib ishlatilgan) so'zidan kelib chiqqan. Yunoncha *galakt-* (ildiz shakli *gala* – “sut”) qadimgi hind-yevropa *glkt-* ildiziga borib taqaladi. Mazkur ildiz boshqa tillarda, xususan, lotincha *lact-*, *lac* (“sut”) hamda armancha *kat'n* shakllarida uchraydi. *-ias* esa, asosan, tabiiy hodisalarni ifodalovchi ot yasovchi qo'shimcha hisoblanadi.¹⁶

Astronomy terminining kelib chiqish tarixiga e'tibor qaratadigan bo'lsak, *Merriam-Webster* onlayn izohli lug'atida uning etimologiyasi quyidagicha izohlangan: Middle English *astronomie* “study of celestial bodies, including their possible influence on human affairs,” borrowed from Anglo-French & Latin; Anglo-French *astronomie*, borrowed from Latin *astronomia*, borrowed from Greek *αστρονομία* “study of the stars, especially their movements,” from *astro-* ASTRO- + *-nomia* -NOMY¹⁷.

Berilgan ta'rifni tahlil qilar ekanmiz, *astronomy* so'zining morfologik usul bilan yasalgan yasama so'z ekanligi lug'atlarda alohida ta'kidlab o'tilgan. Bu termin ikki asosiy morfemadan tarkib topgan bo'lib, ularning har biri alohida semantik yuklamaga ega.

Birinchi komponent *astro-* qadimgi yunon tilidagi *astron* so'zidan kelib chiqqan bo'lib, u “yulduz” ma'nosini bildirgan. Hozirgi zamonaviy ingliz tilida esa bu unsur ko'proq so'z yasalishiga xizmat qiluvchi old qo'shimcha (prefiks) sifatida ishlatiladi va, asosan, osmon jismlari yoki koinot bilan bog'liq ilmiy terminlarda qo'llaniladi (masalan: *astrophysics*, *astrobiology*, *astronautics* va boshqalar). *Astro-* elementi Oksford lug'atida ham prefiks sifatida qayd etilgan bo'lib, u koinot, osmon jismlari yoki yulduzlar bilan bog'liq tushunchalarni ifodalovchi so'zlarda ishlatilishi ko'rsatilgan.

Ikkinchi komponent *-nomy* (qadimgi yunon tilidagi *nomos* so'zidan kelib chiqqan) esa tarixan “ma'lum bir sohani tartibga soluvchi qonunlar tizimi” yoki “bilimlar majmui” ma'nosini bildirgan. Hozirgi ingliz tilida esa bu unsur yangi so'zlar yasashda produktiv affiks sifatida xizmat qiladi. U ko'plab fan sohalari nomlarida uchraydi, masalan: *economy*, *taxonomy*, *gastronomy*.

Shunday qilib, *astronomy* so'zining tarkibiy qismlarini morfologik tahlil qilish orqali biz bu termin nafaqat semantik, balki strukturaviy jihatdan ham qanday shakllanganini anglashimiz mumkin. Bu esa astronomik terminlarning ilmiy tasnifini va ularning o'zbek tiliga to'g'ri tarjima qilinishini ta'minlashda muhim poydevor vazifasini bajaradi¹⁸.

Astronomiya sohasida lotincha ilmiy nomlar keng qo'llaniladi. Jumladan, *Sol* (Quyosh), *Terra* (Yer), *Mars* (Mars sayyorasi) kabi terminlar hozirgi kungacha ilmiy matnlarda o'z ahamiyatini yo'qotmagan. Bugungi kunda koinotga oid yangi kashfiyotlar va ilmiy izlanishlar natijasida yangi terminlar paydo bo'lmoqda.

¹⁶ <https://www.merriam-webster.com/dictionary/galaxy>

¹⁷ <https://www.merriam-webster.com/dictionary/astronomy>

¹⁸ Oxford advanced learner's dictionary. – Oxford: Oxford University Press, 2006. (7-ed.) – P. 72.

Masalan, *dark matter* (qorong'i modda) va *dark energy* (qorong'i energiya) kabi terminlar zamonaviy astronomiya diskursining ajralmas qismiga aylangan.

Tadqiqotning uchinchi bobi "**Astronomik terminlarning leksik-semantik xususiyatlari**" deb nomlanadi. Mazkur bobda ingliz va o'zbek tillaridagi astronomiyaga oid terminlarning leksik-semantik hamda leksikografik xususiyatlari tahlil qilingan.

Terminlarda, jumladan, astronomiyaga oid terminlarda leksik-semantik xususiyatlar muhim rol o'ynaydi, chunki ular terminlarning aniq ma'nolarini belgilashga va ularning o'ziga xos xususiyatlarini tushunishga xizmat qiladi. Terminlarga berilgan ta'rif va tasniflar asosida, terminlarning asosiy leksik-semantik xususiyatlari quyidagilarni o'z ichiga oladi:

- Monosemiya (bir ma'nolilik);
- Xususiylilik (maxsuslik);
- Denotativlik (belgilash xususiyati);
- Xususiyatlarning aniqligi;
- Metaforiklik;
- Terminlarning shakl va ma'no o'rtasidagi munosabati.

Astronomiyaga oid terminlardagi leksik-semantik xususiyatlarni anglash bu sohadagi aniqlik, tushunarlilik va ilmiy muloqot samaradorligini ta'minlaydi. Shuningdek, bu xususiyatlar astronomiya faniga xos terminologiyaning shakllanishi va rivojlanishini, yangi tushunchalarning nomlanish jarayonini o'rganishda muhim vosita bo'lib xizmat qiladi. Quyida ayrim misollarga to'xtalib o'tmoqchimiz. "O'TIL"da Oy so'ziga quyidagicha ta'rif berilgan:

OY 1. (O - katta) *astr.* Quyoshdan nur olib, yog'du sochuvchi samoviy jism, Yerning tabiiy yo'ldoshi. *O'n to'rt kunlik oy. To'lin oy. Oy nuri. Oy chiqdi. Oy botdi. Oyning yuzidagi dog'lar. Oyning Yer atrofida aylanishi. Oyni etak bilan yopib bo'lmaydi.* Maqol. – *Kechki gullar ochilib turibdi...*

2. Astronomik yilning o'n ikkidan biriga – Oyning Quyosh atrofidan bir marta aylanib chiqish muddatiga yaqin vaqt oralig'i; o'lchov birligi: 28, 29, 30 yoki 31 kunlik davr. Oy boshi. May oyi. Bir yil – o'n ikki oy. Bu orada uch oy o'tdi. Yoz oylari ham o'tib ketdi. Oyning o'n beshi qorong'i bo'lsa, o'n beshi yorug'. Maqol.

3. Uch-to'rt kunlik oy shaklidagi bezak yoki belgi. Mezana ustidagi oy.

4. Ayollar ismi tarkibiga kiradi yoki ayollar nomiga qo'shilib, erkalash, hurmatni bildiradi. Oyposhsha, Oyqiz, Oyto'ti, Oynisa; Tursunoy, Shirmonoy, Qunduzoy. Oy borib, omon kel. *Safarga ketayotgan kimsaga yaxshilik tilab aytiladigan ibora, oq yo'l tilash.* U [Elmurod] yo'lda ketar ekan... Kumushning oyi to'lmasdanoq, [onasi] beshik yasatish bilan mashg'ul edi. A.Qodiriy, O'tgan kunlar¹⁹.

O'TILda oy so'ziga berilgan ta'riflarni tahlil qilar ekanmiz, uning ko'p ma'nolilik (polisemiya) xususiyatiga ega ekanini kuzatish mumkin. Ushbu lug'atda oy so'zining o'zaro bog'liq to'rt xil ma'nosi izohlangan bo'lib, ular orasidan birinchi va ikkinchi ma'nolarni bevosita astronomiya sohasi bilan bog'lash mumkin. Keltirilgan ta'rif va misollar bu holatni yaqqol tasdiqlaydi.

¹⁹ O'zbek tilining izohli lug'ati: 80 000 dan ortiq so'z va so'z birikmasi. J. III. L-P / Mas'ul muharrirlar A.Madvaliyev, D.Xudayberganova. – Toshkent: G'afur G'ulom nomidagi nashriyot-matbaa ijodiy uyi, 2022. – B.563-564.

Birinchi ma'no – *Yerning tabiiy yo'ldoshi bo'lgan osmon jismi* bo'lib, bu so'z bu ma'noda atoqli ot sifatida qo'llanadi va yozuvda bosh harf bilan yozilishi lozim. Mazkur ma'no oy so'zining asosiy va markaziy ma'nosi sifatida e'tirof etiladi, chunki bu ma'no tarixan ham, semantik turg'unlik nuqtayi nazaridan ham asosiy leksik birlik hisoblanadi.

Ikkinchi ma'no esa *astronomik yilning o'n ikkidandan bir qismi* – *kalendar oy* ma'nosini bildiradi. Bu holatda oy so'zi atoqli otdan turdosh otga o'tgan bo'lib, semantik kengayish yuz bergan. Ushbu ikki ma'no o'rtasida semantik zanjir mavjud, ya'ni ularning o'zaro bog'liqligi shubhasizdir. Chunki kalendar oy tushunchasi aynan astronomik Oyning Quyosh atrofida bir to'liq sikl davomida aylanishi asosida shakllangan. Shunday qilib, yuqorida keltirilgan har ikki ma'no astronomiya sohasiga taalluqli bo'lib, ular orasidagi semantik aloqadorlik ko'p ma'nolilik hodisasi bilan izohlanadi.

Uchinchi ma'no esa oy so'zining *oy shaklidagi bezak* ma'nosida qo'llanishini bildiradi. Bu holatda ma'no metaforik yo'l bilan ko'chgan bo'lib, shakliy o'xshashlik asosida yangi semantik birlik hosil bo'lgan.

To'rtinchi ma'no esa antroponimiyaga, ya'ni shaxs ismlarining shakllanishiga taalluqlidir. Bu yerda oy so'zi ko'proq chiroy, poklik, latofat ramzi sifatida qabul qilinadi. Shu asosda u ayol ismlarining tarkibiy qismi sifatida qo'llanadi: *Oyposhsha, Oyqiz, Oyto'ti, Oynisa* kabi. Ushbu shakllarda oy komponenti samoviy jismlarning estetik xususiyatlari asosida obrazli ma'no kasb etadi. Lug'atda ta'kidlanishicha, bunday nomlarda oy so'zining qo'shilishi erkalash, hurmat ifodasi sifatida xizmat qiladi.

Shu o'rinda qo'shimcha izoh keltirish o'rinlidir: o'zbek tilshunosligida -oy, -jon, -xon, -gina kabi qo'shimchalar erkalovchi, iliqlik ifodalovchi affiksalar sifatida qaraladi²⁰. Ammo oy so'zi bunday ismlarda oddiy affiks emas, balki u Oy osmon jismiga oid obrazli belgining ko'chirilgan ifodasi sifatida ishlatiladi. Ya'ni bu holatda oy shakli ma'no jihatidan asosiy astronomik ma'no bilan bog'langan holda, erkalash va estetik yondashuv asosida semantik kengayishga uchragan.

Izohlar so'ngida keltirilgan "*Oy borib, omon kel*", "*Oy-kuni yaqin*", "*Oy ko'rmoq*", "*Oyi to'ldi*" kabi iboralar metafora yoki metonimiya asosida ma'no ko'chish hodisasi orqali shakllangan bo'lib, ularning semantik tahlili oy so'zining bosh (asosiy) leksik ma'nosidan ko'chma ma'noga o'tganini ko'rsatadi. Bu ifodalarda oy so'zining ilk astronomik ma'nosi saqlanib qolgan bo'lsa-da, u obrazli va konnotativ ma'nolarni ham anglatishga xizmat qilmoqda. Keltirilgan misollar ushbu semantik o'zgarishlarni amaliy jihatdan isbotlab turibdi.

Yana bir misol sifatida yer so'zini ko'rib chiqish mumkin. O'zbek tili izohli lug'atida yer so'zining 11 ta o'zaro bog'liq leksik-semantik ma'nolari berilgan bo'lib, ulardan faqat dastlabki ikki ma'no bevosita astronomiya sohasiga tegishlidir. Qolgan ma'nolar esa metaforik, ijtimoiy yoki ko'chma ifodalar orqali yuzaga kelgan bo'lib, bu holat ham yer so'zining ko'p ma'nolilik xususiyatiga ega ekanligini ko'rsatadi.

²⁰ Ona tili: Umumiy o'rta ta'lim maktablarining 6-sinfi uchun/N.Mahmudov, A.Nurmonov, A.Sobirov, D.Nabiyeva, I.Mahmudov va boshq. – Toshkent: Tasvir, 2017. – B.131.

Astronomik terminlar koinotdagi obyektlar, hodisalar yoki jarayonlarni obyektiv asosda belgilaydi. Ya'ni, ularning semantik mazmuni subyektiv yoki konnotativ talqinlarga bog'liq bo'lmay, aniq kuzatuv va ilmiy tasniflar asosida shakllangan bo'ladi. Bunday terminlar universalligi bilan ajralib turadi va turli xalqlarda deyarli bir xil semantik mazmun bilan qo'llanadi. Masalan, yulduz turkumlarining nomlanishi bu holatning yaqqol dalilidir. Ularning nomi osmondagi yulduzlarning geometrik yoki shakliy ko'rinishiga asoslangan holda berilgan bo'lib, bu jarayonda insonlarning obrazli-tasviriylar qarashlari emas, balki kuzatuv asosida aniqlangan tashqi shakl asosiy mezon bo'lgan. Quyidagi misollar bunga dalil bo'la oladi:

- *Asad* (Arslon) – ingliz tilida: *Leo* (The Lion);
- *Aqrab* (Chayon) – ingliz tilida: *Scorpio* (The Scorpion);
- *Qisqichbaqa* – ingliz tilida: *Cancer* (The Crab).

Bu nomlar shakl jihatidan har xil tilda ifodalangan bo'lsa-da, ular bildirayotgan tushuncha, obyekt va semantik belgi jihatidan to'liq mos keladi. Bu esa shuni ko'rsatadiki, astronomik terminologiya xalqlararoq tafovutlardan mustaqil, obyektiv haqiqatlarga asoslanadi.

Izlanishlarimiz natijasida astronomiyaga oid terminlarda ham sinonimiya hodisasi mavjud ekanligining guvohi bo'ldik va quyidagilarni misol sifatida keltirish mumkin: *aqrab* – *chayon*, *asad* – *arslon*, *hut* – *baliq*, *planeta* – *sayyora*, *ufq* – *gorizont*, *Venera* – *Zuhra* va h.k.z.

Misol sifatida *planeta* va *sayyora* so'zlarini tahlilga tortamiz. Ularning izohi O'TILda quyidagicha berilgan: PLANETA [*lot.* planete, *yun.* (aster) planetes - adashib yuruvchi (yulduz)] *astr.* Quyosh atrofida aylanuvchi va undan yorug'lik va issiqlik olib, ularni qaytaruvchi elliptik yoki sharsimon osmon jismi; sayyora. Planetalar g'oyat katta sharlardir, ular o'lchamlari va yorug'lik nuri chiqarmasligi jihatidan Yerga o'xshaydi. "Astronomiya"²¹. SAYYORA [*a.* - planeta; avtomobil; karvon] 1 Muqim turar joyi yo'q, darbadar kezuvcchi, darbadar. Sayding qo'ya ber, sayyod, Sayyora ekan mendek. Furqat. Bu shundoq asrdir, qoqquncha kiprik Ovozing yangragay sayyoralarda. A.Oripov, Everest va ummon. 2 *astr.* Quyosh atrofida aylanuvchi va undan nur oluvchi sharsimon osmon jismi, mas., Merkuriy, Venera, Yer, Mars. Ma'lumki, zamin – Yer sayyorasi Quyosh sistemasida koinotning bir kichik bo'lagi sifatida paydo bo'ldi va taraqqiy etdi. Gazetadan²². Berilgan ta'riflar ularning sinonimligini ko'rsatadi. Asosiy farq ularning qaysi tildan kirib kelganligida, ya'ni *Planeta* so'zi lotin tilidan olingan bo'lib, bizning tilga rus tili orqali kirib kelgan bo'lsa, *Sayyora* so'zi arab tilidan olingan. E'tiborli yana bir jihati shundaki, har ikkala terminning ma'nosi *adashib yuruvchi*, *darbadar kezuvcchi* degan ma'noni bildiradi. Bu shuni anglatadiki, astronomik obyektlar, hodisalar aniq bo'lib, yer yuzining har qaysi qit'asidan qaralganda ham bir xil xususiyatni ifodalaydi. Shu sababdan, turli millat olimlari kuzatuvlari natijasida osmon jismlarini nomlashda shu belgilarni inobatga olishgan. Natijada, bir xil ma'noni

²¹O'zbek tilining izohli lug'ati: 80000 dan ortiq so'z va so'z birikmasi. J. III. L-P / Mas'ul muharrirlar A.Madvaliyev, D.Xudayberganova. – Toshkent: G'afur G'ulom nomidagi nashriyot-matbaa ijodiy uyi, 2022. – B. 751.

²²O'zbek tilining izohli lug'ati: 80 000 dan ortiq so'z va so'z birikmasi. J. IV. L-P / Mas'ul muharrirlar A. Madvaliyev, D. Xudayberganova. - T.: G'afur G'ulom nomidagi nashriyot-matbaa ijodiy uyi, 2022. – B. 578.

ifodalovchi ikki xil soʻz paydo boʻlgan. Ushbu oʻxshashliklarni yulduz turkumlarining nomlanishida ham koʻrishimiz mumkin.

Ingliz tilida ham quyidagilarni sinonimik juftlik sifatida keltirish mumkin: *astrobiology* – *exobiology*, *extrasolar planet* – *exoplanet*, *lunar phase* – *Moon phase*, *meteor* – *shooting star* or *falling star* va b.

Quyidagi misollarning chuqur tahlili orqali fikrimizni dalillamoqchimiz. *Astrobiology* – the scientific study of the possibility of life elsewhere in the Universe; also known as *exobiology*. *Astrobiology* embraces branches of biology (for example microbiology, biochemistry, and ecology) in addition to astronomy. Considerations include assessment of the likely conditions required for the origin and development of life, and the means of detecting such life...²³. *Exobiology* - noun *exo·bi·ol·o·gy* ,*ek-sō-bī-ˈd-lə-jē*: a branch of biology concerned with the search for life outside the earth and with the effects of extraterrestrial environments on living organisms²⁴. Berilgan taʼriflarni tahlil qilar ekanmiz, *astrobiology*ga berilgan taʼrifning oʻzida *exobiology* deb ham atalishi aytib oʻtilgan (also known as *exobiology*). Biroq, *astrobiology* hozirgi davrda kengroq qoʻllanadigan va fanlararo yondashuvni qamrab oluvchi tushuncha boʻlsa, *exobiology* tarixan avval paydo boʻlgan, koʻproq Yer tashqarisida hayotni izlash va kosmik muhitning tirik organizmlarga taʼsirini tadqiq etishga yoʻnaltirilgan torroq yoʻnalish sifatida qaraladi. Shunday qilib, ikki termin sinonim tarzida ishlatilishi mumkin, ammo *astrobiology* zamonaviy ilmiy diskursda asosiy termin hisoblanadi.

Ingliz tilida ayrim maʼnosi bir-biriga yaqin soʻzlar har doim ham bir xil maʼnoni anglatmaydi. Misol uchun, *astronaut* va *cosmonaut* soʻzlari umumiy bir tushunchani ifodalasa-da, ular orasida muayyan farqli jihatlar mavjud. Quyidagi lugʻatlarda berilgan taʼrifga eʼtibor qaratamiz. Makmillan lugʻatida ushbu terminlarga quyidagicha izoh berilgan: *astronaut* /ˈʃstrə,nɔ:t/ noun [C] someone who travels and works in space²⁵. *Cosmonaut* /ˈkɒzmə,nɔ:t/ an ASTRONAUT in the Russian space programme²⁶. Ushbu soʻzlarga Oksford lugʻatida quyidagi taʼrif keltirilgan: *astro·naut* /ˈʃstrənɔ:t/ noun a person whose job involves travelling and working in a SPACECRAFT²⁷. *Cosmonaut* /ˈkɒzmənɔ:t NAMÉ ˈkɑ:z-/ noun an ASTRONAUT from the former Soviet Union²⁸. Koʻrinib turibdiki, har ikkala soʻz ham koinotga parvoz qiluvchi insonni anglatasa-da, *cosmonaut* termini milliy-madaniy konnotatsiyaga ega boʻlib, aynan Rossiya kosmik dasturlariga xos ekani taʼkidlanadi. Shunday qilib, *astronaut* soʻzi, asosan, AQSH va Gʻarb mamlakatlarida, *cosmonaut* esa Rossiya va sobiq Sovet Ittifoqi mamlakatlarida qoʻllaniladi.

²³ Oxford dictionary of astronomy. – Oxford: Oxford University Press, 2012. – Revised 2nd ed. –[Electronic app].

²⁴ <https://www.merriam-webster.com/dictionary/exobiology>

²⁵ Macmillan English dictionary for advanced learners. 2nd edition. – Oxford: Macmillan Education, 2012. – P. 79.

²⁶ Oʻsha manba – P. 353.

²⁷ Oxford advanced learner's dictionary. 7th edition. – Oxford: Oxford University Press, 2006. – P.78

²⁸ Oʻsha manba.– P.330.

Tadqiqotlarimiz davomida astronomiya sohasida qo'llanadigan terminlar orasida ayrim hollarda meronomiya hodisasidagi terminlar guruhini aniqladik. Meronomiya – tilshunoslikda shunday leksik munosabatki, bunda bir soʻz boshqa soʻzning bir qismi yoki tarkibiy elementini anglatadi. Bunda 2 qism mavjud: 1. meronim; 2. golonim. Oddiyroq qilib aytganda, meronim – golonimning qismidir. Masalan, *Quyosh sistemasini golonim deb hisoblasak, Quyosh, Yer, Mars, Venera, Yupiter, Saturn, Uran, Neptun, asteroidlar, kometalar meronimlar hisoblanadi.* Shuni ta'kidlab o'tish zarurki, astronomiyaga oid terminlar orasida meronomiyaga to'g'ridan-to'g'ri misol keltirish qiyin, chunki astronomiya, asosan, obyekt va hodisalarning o'zaro aloqalari va tuzilishini o'rganadi, qism va butun munosabatlarini emas. Yuqoridagi misolimizda ham *Quyosh, Yer, Mars, Venera, Yupiter, Saturn, Uran va Neptun* – bularning barchasi Quyosh sistemasining qismlaridir. Ammo shuni unutmaslik kerakki, bu meronomiyaning to'liq ta'rifi emas, chunki Quyosh sistemasi faqat shu elementlardan iborat emas, balki ularning o'zaro ta'siridan ham tashkil topgan.

Astronomiyaga oid terminlarda antonimik munosabatlar ham mavjudligi tahlillar natijasida aniqlandi. Bu antonimik munosabatlar tilshunoslikdagi antonimiya kabi emas, balki kontekstual antonimiya hodisasi sifatida namoyon bo'ldi. Quyida o'zbek tilida astronomik antonimlarga oid ba'zi misollarni keltirmoqchimiz: *Apogey – Perigey, Afeliy – Perigeliy, ichki sayyora – tashqi sayyora, Zenit – Nadir* va b. Xuddi shunday misollarni ingliz tilida ham kuzatish mumkin: *Apogee – Perigee, Aphelion – Periphelion, Inferior planet – Superior planet, Zenith – Nadir* va b.

Ingliz tilida kontekstual antonimlarni o'rganish maqsadida *Zenith* hamda *Nadir* terminlarini tahlil qilamiz. Ular ODAda quyidagicha izohlangan: *Zenith* – The point on the celestial sphere directly above an observer. A line to zenith is at right angles to the plane of the horizon. The zenith is in the opposite direction from the nadir. Strictly speaking, this definition refers only to the astronomical zenith; two other, slightly different forms of zenith may also be defined. The geocentric zenith is the direction indicated by a line from the centre of the Earth through the observer. The geodetic zenith is at right angles to the geoid at the observer's location. All three forms of zenith differ slightly because of the non-spherical shape of the Earth. If used without qualification, 'zenith' means as the astronomical zenith²⁹. Nadir termini shu manbada quyidagicha tariflangan: The point on the celestial sphere directly beneath an observer. It is the direction in which a plumb-line points. The nadir is 180° from the zenith³⁰. Berilgan izohlar shuni ko'rsatadiki, *zenith* va *nadir* terminlari osmon sferasida kuzatuvchining eng yuqori va eng quyi nuqtalarini bildiruvchi tushunchalar bo'lib, ular mutlaq qarama-qarshi yo'nalishlarni ifodalaydi. Shu jihatdan mazkur terminlar ingliz tilidagi astronomik terminlar tizimida kontekstual antonimlar sifatida alohida lingvistik va ilmiy ahamiyat kasb etadi.

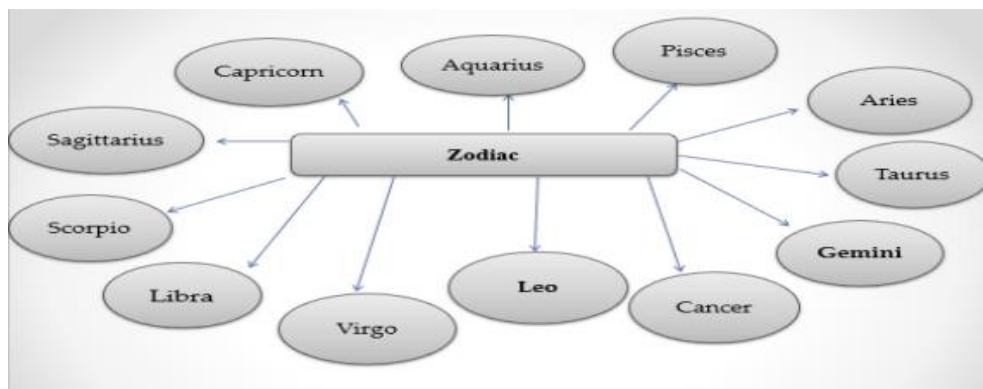
Tadqiqotlarimiz davomida ayrim o'rinlarda astronomiya sohasi doirasida gipero-giponomik munosabatdagi terminlarni ham aniqladik. Giponimiya – bu

²⁹ Oxford dictionary of astronomy. – Oxford: Oxford University Press, 2012. – Revised 2nd ed. –[Electronic app].

³⁰ O'sha manba – [Electronic app].

tilshunoslikda leksik munosabat bo‘lib, bunda bir so‘zning (giponimning) ma‘nosi boshqa so‘zning (giperonimning) ma‘nosiga kiritilgan bo‘ladi. Qisqacha qilib aytganda, giponim – bu giperonimning bir turi yoki misolidir. Misol uchun:

Rasm 1. Astronomik terminlarda gipero-giponimik munosabat



Ushbu misolimizda *Zodiac* giperonim, *Aquarius*, *Aries*, *Capricorn*, *Cancer*, *Gemini*, *Leo*, *Libra*, *Pisces*, *Taurus*, *Scorpio*, *Sagittarius*, *Taurus*, *Virgo* giponimlar, ya'ni *Zodiac* turlaridir.

Tadqiqotimiz, asosan, deskriptiv yondashuv asosida olib borilgani va terminlarni maxsus leksik birlik sifatida emas, balki leksik birlikning alohida funktsiya ekanligi nuqtai nazaridan ularning semantik munosabatini chuqur tahlilga tortdik va tadqiqot natijalari ishning xulosaviy qismida to'liq aksini topdi.

XULOSA

1. Ingliz va o‘zbek tillarida astronomik terminlarning shakllanishi muayyan umumiyliklarga ega bo‘lib, bu jihatlar har ikki tilning ilmiy diskursdagi taraqqiyoti va terminologik tizimining rivojlanganligini ko‘rsatadi. Avvalo, har ikki tilda qo‘llanilayotgan astronomik terminlar ilmiy manbalarga tayanadi hamda xalqaro ilmiy hamjamiyatda shakllangan terminologik me‘yorlarga mos keladi.

2. Ingliz va o‘zbek tillarida astronomiyaga oid terminlarning shakllanishi umumiy qonuniyatlarga asoslansa-da, har bir tilning tarixiy rivojlanishi, etimologik manbalari va ilmiy uslubdagi o‘rni bu terminologiyaning milliy xususiyatlarini belgilab beradi. Shu bois, yangi terminlarni yaratishda ushbu umumiylik va farqlarga alohida e‘tibor qaratish lozim.

3. Ingliz tilidagi astronomik terminlarning ko‘pchilik qismi qadimgi sivilizatsiyalar tili – yunon va lotin tilidan kelib chiqqan bo‘lib, bu holat ularning ilmiy asosga egaligini va xalqaro terminologiyada barqaror o‘rin tutganini ko‘rsatadi. Shu sababli astronomiya terminlarini o‘zbek tiliga tarjima qilish yoki yangi terminlar yaratishda ularning etimologik asoslarini inobatga olish, morfem tarkibini chuqur tahlil qilish muhim ahamiyatga ega. O‘zbek tilida terminlar, asosan, rus tili vositasida qabul qilingan yoki o‘zbekcha ekvivalentlar asosida tarjima qilinadi (*koinotshunoslik* – bu so‘z *koinot* + *shunos* + *lik*).

4. Ingliz va o‘zbek tillarida astronomiyaga oid terminlarning shakllanishi va qo‘llanishi muayyan umumiyliklarga ega bo‘lsa-da, ularning etimologik manbalari,

ilmiy nomlarning ishlatilish darajasi hamda terminologik boylik hajmida sezilarli farqlar mavjud. Ingliz tili astronomik terminlarni shakllantirishda qadimgi yunon va lotin tillariga tayansa, o'zbek tilida arabcha va forschaga manbali so'zlar nisbatan ustunlik qiladi. Bundan tashqari, ingliz tilida astronomik terminlarning soni va semantik ko'lami kengroq bo'lib, bu holat uning xalqaro ilmiy kommunikatsiyadagi yetakchi til maqomi bilan bog'liqdir.

5. Yangi terminlarni yaratishda har ikkala tilda ham affiksatsiya – ya'ni qo'shimchalar qo'shish orqali so'z yasash keng qo'llaniladi. Bunga *astrobiology*, *cosmonautics*, *orbital* kabi terminlar misol bo'la oladi. Shuningdek, qo'shma so'zlar yasash orqali ham yangi terminlar hosil qilinmoqda (*star system* – *yulduz tizimi*). Bundan tashqari, mavjud leksik birliklarning ma'nosini semantik kengaytirish asosida ham yangi terminlar shakllantirilmoqda. Ayniqsa, metaforik asosdagi terminlar bu jarayonda muhim o'rin tutmoqda. Masalan, *black hole* (*qora tuynuk*) termini ilmiy-texnik mazmunda yangi semantik yuklama bilan qo'llanilmoqda.

6. Ingliz tilida qisqartmalar keng va tizimli asosda qo'llaniladi (masalan: *NASA*, *ISS*, *HST*). O'zbek tilida esa abbreviatsiyalar ko'proq rus tilidan o'zlashgan shaklda yoki to'liq tarjima qilinmagan holda qo'llaniladi.

7. Astronomiyaga oid terminlar har ikki tilda ham atoqli va turdosh otlar sifatida tasniflanadi. Xususan, sayyora nomlari, yulduz turkumlari va burj nomlari atoqli otlar sifatida qo'llaniladi va doimo bosh harf bilan yoziladi. Masalan: *Oy* (*The Moon*), *Venera* (*Venus*), *Mars* (*Mars*), *Aries* (*Hamal*) va boshqalar.

8. Tadqiqotlarimiz natijasida har ikkala tilda astronomik terminlar tarkibida sinonimlik va ko'p ma'nolilik hodisalari mavjudligi tasdiqlandi. Masalan, ba'zi burj nomlarining ikki xil shakli mavjud (*Qavs/Sagittarius*, *Aqrab/Scorpio* kabi. Shuningdek, *Oy* (*The Moon*), *Quyosh* (*The Sun*), *Yer* (*The Earth*)) bo'lib, ular polisemantik birliklar hisoblanadi. Bunday so'zlar o'zining asosiy ilmiy ma'nosida astronomik termin bo'lsa-da, kontekstda semantik zanjir uzilmagan holda boshqa ko'chma yoki poetik ma'nolarda ham ishlatiladi.

9. Ingliz tilidagi astronomik terminlarning aksariyati G'arb ilm-fani, xususan, qadimgi yunon va lotin an'alariga tayangan: *Orion*, *Andromeda*, *Ptolemaic system* kabi. O'zbek tilida esa turkiy, islomiy va forsiy madaniy manbalarga tayanilgan terminlar uchraydi: *Zuhra* (*Venera*), *Mirrix* (*Mars*), *Qavs burji* (*Sagittarius*) va boshqalar.

10. Ingliz tilida ayrim astronomik terminlar aniq ilmiy ma'noga ega bo'lgan holda, kundalik nutqda ko'chma, metaforik yoki kengaygan ma'nolarda ham faol qo'llaniladi. O'zbek tilida esa bu jarayon nisbatan kamroq rasmiylashtirilgan bo'lib, kontekstga qarab anglanadi va kengaygan ma'nolar muayyan semantik birlik sifatida uncha faol qo'llanilmaydi.

11. Ingliz tilida astronomiyaga oid terminlarning hajmi va qamrovi o'zbek tiliga nisbatan kengroqdir. Bu holat ingliz tilining global ilmiy til sifatidagi mavqeini yaqqol ko'rsatib, ilmiy-texnik terminlar shakllanishida ham uning yetakchi o'rinni egallashini tasdiqlaydi.

**SCIENTIFIC COUNCIL DSc.03/2025.27.12.Fil.08.07 AWARDING
SCIENTIFIC DEGREES AT BUKHARA STATE UNIVERSITY**

BUKHARA STATE UNIVERSITY

KHUSENOVA MEHRINISO UKTAMOVNA

**LEXICOGRAPHIC-COMPARATIVE STUDY OF ASTRONOMICAL
TERMS IN THE ENGLISH AND UZBEK LANGUAGES**

10.00.06 – Comparative and contrastive linguistics

**DISSERTATION ABSTRACT
for a Doctor of Philosophy Scientific Degree (PhD) in PHILOLOGY**

Bukhara – 2026

The theme of the dissertation for a Doctor of Philosophy (PhD) was registered under No. B2024.3.PhD/Fil5158 by the Supreme Attestation Commission.

The dissertation has been accomplished at Bukhara State University.

The dissertation abstract in three languages (Uzbek, English, Russian (resume)) has been placed on the website of the Scientific Council at Bukhara State University (www.buxdu.uz) and “Ziyonet” Information-educational portal (www.ziyonet.uz).

Scientific supervisor: **Khodjaeva Dilafruz Izatilloevna**
Doctor of Science in Philology, Associate Professor

Official opponents: **Gaybullayeva Nafisa Izatilloevna**
Doctor of Science in Philology, Professor

Nasrullaeva Nafisa Zafarovna
Doctor of Science in Philology, Professor

Leading organization: **Karshi State University**

The dissertation defense will be held on “26” August 2026 at 1:00 pm at the meeting of the Scientific Council DSc.03/2025.27.12.Fil.08.08 at Bukhara State University (Address: 200118, Bukhara, M.Iqbol street, 11. Phone: (0 365) 221-29-14; Fax: (0 365) 221-57-27; e-mail: buxdu_rektor@buxdu.uz).

The dissertation is available at the Information-resource center of Bukhara State University, (registration number D-988). Address: 200118, Bukhara, M.Iqbol street, 11. Phone: (0 365) 221-25-87

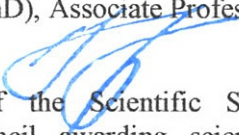
The dissertation abstract is distributed on “11” August 2026.

(Mailing report № 26 on “11” August 2026)



B.E.Kilichev
Chairperson of the Scientific Council awarding scientific degrees, Doctor of Science in Philology (DSc), Professor

M.Y.Xojiyeva
Scientific Secretary of the Scientific Council awarding scientific degrees, Doctor of Philosophy in Philology (PhD), Associate Professor



G.I.Toirova
Chairperson of the Scientific Seminar under Scientific Council awarding scientific degrees, Doctor of Science in Philology (DSc), Professor

INTRODUCTION (PhD thesis annotation)

Topicality and necessity of the thesis. The development of terminology as an independent field in world linguistics at the end of the 20th and beginning of the 21st centuries led to the creation of dictionaries in different languages, as well as the expansion of the scope of comparative research in the field of national terminology and terminography. Today, terminology serves as a source of information in the process of communication, a means of mastering various specialties and accelerating scientific and technological progress. Therefore, it makes possible to draw scientific conclusions and scientifically evaluate theories based on comparing terminology related to the conceptsphere of astronomy within the framework of linguistic thinking, analyzing the derivational patterns of terms, their functionality based on national patterns, systematizing industry terms and bringing them to uniform standards, comparing explanatory dictionaries in English and Uzbek languages.

At the current stage of rapid development of our country, “Uzbekistan must be competitive on a global scale in the field of science, intellectual potential, modern personnel, high technologies”¹ has set a priority task for Uzbek linguistics to raise fundamental research to the level of world standards. This determined the need for a contrastive study of the linguistic and cultural features, historical foundations of astronomical terms in our language with Western languages based on advanced foreign experience.

The present scientific study serves to a certain degree to achieve the objectives set out in the following legal documents: the Decree of the President PF-5847 “On Approval of the Concept for the Development of the Higher Education System of the Republic of Uzbekistan until 2030” dated October 8, 2019; the Decree of the President PF-60 “On the development strategy of New Uzbekistan for 2022-2026” dated January 28, 2022; the Decree of the President PF-158 “On the Strategy “Uzbekistan – 2030” dated September 11, 2023; the Resolution of the President PQ-2789 “On measures to further improve the activities of the Academy of Sciences, the organization, management and financing of scientific research work” dated February 17, 2017; the Resolution of the President PQ-3775 “On additional measures to improve the quality of education in higher educational institutions and ensure their active participation in the comprehensive reforms carried out in the country” dated June 5, 2018; the Resolution of the President PQ-5117 “On measures to bring the activities of popularization of foreign languages in the Republic of Uzbekistan to a qualitatively new level” dated May 19, 2021 as well as the President’s Address to the chambers of the Oliy Majlis of January 24, 2020 and other regulatory legal documents related to this activity.

Relevant research priority areas of science and developing technology of the Republic. This research was carried out in the line with the priority directions of Science and Technology Development of the Republic I. “Developing the Democratic and Legal Society Spiritually-Morally and Culturally, Forming Innovative Economics”.

¹ Address of the President of the Republic of Uzbekistan Sh.Mirziyoyev to the Oliy Majlis of December 22, 2017 // People’s Word, December 23, 2017. – № 258 (6952).

Problem development status. In world linguistics, a number of studies are being conducted on issues related to general and specific terminology. In particular, the issue of linguistic and lexicographical study of terms is one of the important directions in linguistics. The works of such scientists as A.S. Gerd, A.A.Reformatsky, V.P. Danilenko, S.V.Grinev-Grinevich, V.M.Leichik, J.S. Sager, V.G. Gak, V.M. Leichik, Y.I. Golovanova on the theory of terminology have defined the foundations of general terminology theory².

In Uzbek linguistics, in the field of comparative language studies, research has been conducted by Uzbek linguist scholars Sh. Rakhmatullaev, Sh. Safarov, M.T. Irisqulov, D.B. Buranov, M.D. Djusupov, and in the field of various issues of terminology and specialized terminology by P.P. Nishonov, Kh. Dadaboyev, O.S. Akhmedov, Kh.D. Paluanova, D.K. Kadirbekova, Kh.V. Mirzakhmedova, D.I.Khodjayeva, and a number of other scholars. I.R. Bazarov, G.M. Mahmudov, N. Mahmudov, Sh.R. Jurayev, T. Hojiyev, G.I. Ergasheva and other scientists covered the form, ation of terms, national characteristics, and issues of assimilation of field-specific terminology³.

Research devoted to the study and analysis of astronomical terms in the Uzbek language is limited, and in some linguistic works astronomical terms are touched upon episodically or they are not directly devoted to astronomical terminology. Several scientific studies have been conducted on the system of space terms in English and Russian. In particular, such scientists as E.A.Ryabova, Yu.A.Karpenko, F.Yu.Ziegel, D.A.Bondaletov, G.G.Kuzmin, V.P.Afanasyev conducted research on various issues of terminology in the field of astronomy⁴.

English astronomical terms are documented in authoritative explanatory dictionaries such as the “Oxford Dictionary of Astronomy” and the “Cambridge

² Реформатский А.А. Основы теории терминологии. – М.: Наука, 1977. – 234 с.; Гринев-Гриневич С.В. Терминология и коммуникация. – М.: Высшая школа, 1985. – 190 с.; Лейчик В.М. Язык и терминология. – Л.: Наука, 1980. – 210 с.

³ Буранов Дж. Сравнительная типология английского и тюркских языков. – М.: Высшая школа, 1983. – 367 с.; Джусупов М.Д. Звуковые системы русского и казахского языков. Слог. Интерференция. Обучение произношению. – Тошкент: Фан, 1991. – 240 с.; Сафаров Ш. Прагмалингвистика (Pragmalinguistics). – Тошкент: Ўзбекистон миллий энциклопедияси, 2008. – 300 б.; Дадабаев Х. Общественно-политическая и социально экономическая терминология в тюркоязычных письменных памятниках XI-XIV вв: Дис ... докт. филол.наук. – Т., 1991. – 185 с.; Axmedov O.S. Ingliz va o'zbek tillarida soliq va bojxona terminlarining lingvistik tahlili va tarjima muammolari: Filol.fanl.dokt. ... diss. avtoref. – T., 2016. – 28 b.; Paluanova X.D. Ekologik terminlarning derivatsion-semantik xususiyatlari (o'zbek, qoraqalpoq, ingliz va rus tillari misolida). Filol.fanl. dokt. (DS) ... diss. avtoref. – T., 2016. – 88 b.; Kadirbekova D.X. Inglizcha-o'zbekcha axborot-kommunikatsiyasi texnologiyalari terminologiyasi va uning leksikografik xususiyatlari: Filol. fanl. bo'yicha. fals. dokt. (PhD) ... diss. avtoref. – T., 2017. – 44 b; Ergasheva G.I. Turli tizimdagi tillarda genderga oid terminologiyaning shakllanishida lingvistik va ekstralingvistik omillar: Filol. fanl. dokt. (Dsc) ... disser. avtoref. – T., 2018. – 28 b.; Mirzaxmedova X.V. Fors va o'zbek tillarida termin yasash prinsiplari va muammolari (ijtimoiy-siyosiy terminlar misolida): Filol.fanl.dokt. ... disser. – T., 2022. – 235 b; Xodjayeva D.I. Tilshunoslik terminlarining leksikografik tahlili (ingliz, rus va o'zbek tillari izohli lug'atlari materiallari misolida): Filol. fanl. bo'yicha. fals. dokt. (PhD)... disser. avtoref. – Toshkent, 2018. – 54 b.

⁴ Рябова Е.А. Проблемы и принципы систематизации терминологии (на материале сопоставительного анализа ракетно-космической лексики английского и русского языков). Диссертация – Москва, 2009. – 180 с.; Карпенко Ю.А. Астрономическая номенклатура и терминология – М.: Наука, 1985. – 220 с.; Зигель Ф.Ю. Звёздное небо и его обозначения – СПб.: Издательство Санкт-Петербургского университета, 1997. – 180 с.; Кузьмин Г.Г. Динамика звездных систем – М.: Физматлит, 1998. – 300 с.; Афанасьев В. П. Астрономическая терминология и её развитие // Журнал «Вестник астрономии», 2005, №3. – С. 15-28;

Encyclopedia of Astronomy”⁵. In the Uzbek language, there are such sources as “Physics-Astronomy Dictionary”, “Russian-Uzbek Physics-Astronomy Dictionary”, some of which are considered outdated and do not fully cover the terms of modern astronomy⁶.

Analysis of the available literature on this topic showed that the lexicographic comparative analysis of astronomical terms in English and Uzbek has not been thoroughly studied as a separate research topic. This determines the scientific novelty and relevance of the topic.

Relevance of the dissertation research with the plans of the scientific-research works of the higher educational institution where the dissertation has been conducted. The dissertation was carried out within the framework of the scientific research plan of Bukhara State University on “Current problems of literary studies and translation studies: issues of the literary process, comparative literary studies, stylistics and linguistics”.

The aim of the research work is to determine the lexicographical features of astronomical terms in the English and Uzbek languages.

The tasks of the research work are as follows:

determining the goals and objectives of terminography and lexicography in the field of linguistics by studying scientific data on terms, terminology, nomen and nomenclature in linguistics;

classifying astronomical terms given in dictionaries by scientific fields by identifying and compiling astronomical terms presented in explanatory dictionaries of the English and Uzbek languages;

identifying the emergence and sources of astronomical terms in both languages and examining their structural composition;

identifying and analyzing the lexical-semantic and functional features of astronomical terms in the English and Uzbek languages;

identifying the lexicographic features of astronomical terms in the English and Uzbek languages and conducting a lexicographic analysis of these terms within the framework of the two languages being compared.

The object of the research work is astronomical terms in the English and Uzbek languages.

The subject of the research work is the lexicographical features of astronomical terms in the English and Uzbek languages.

Methods of the research. Comparative-contrastive, contextual-component, and statistical analysis methods were used in the dissertation.

Scientific novelty of the research work includes the following:

it has been determined that the formation of astronomical terms in the English language is based on Western science, ancient Greek and Latin traditions, while in the Uzbek language, words with Turkic, Islamic, Arabic, Persian cultural sources

⁵ Ridpath I. (ed.). Oxford Dictionary of Astronomy. – Oxford: Oxford University Press, 2018. – 640 p.; Mitton S. (ed.). Cambridge Encyclopedia of Astronomy. – New York: Crown Publishers, 1977. – 481 p.

⁶ Karimov A., Saidov B. Fizika-astronomiya lugʻati. Toshkent: Fan, 1983. – 136 b.; Karimov A., Saidov B. Ruscha-oʻzbekcha fizik-astronomik lugʻat. – Toshkent: Oʻqituvchi, 1984. – 214 b.

prevail, and they are formed on the basis of adoption through the Russian language or translation based on Uzbek equivalents;

it has been substantiated that the morphological features of new terms in the English and Uzbek languages are manifested on the basis of affixation, abbreviation, compound word formation, semantic expansion of the meaning of existing lexical units, and the use of metaphor-based terms with a new semantic load in scientific and technical content;

it has been proven that astronomical terms in the English language have a clear scientific meaning, are actively used in everyday speech in figurative, metaphorical, or expanded meanings, while in the Uzbek language this process is relatively less formalized, understood depending on the context, and expanded meanings are not actively used as a specific semantic unit;

it has been established that the phenomena of synonymy, antonymy, polysemy, hyponymy, meronymy in the lexical-semantic and functional field of astronomical terms occurring in the communicative process of both languages are a force that realizes other figurative or poetic meanings without breaking the semantic chain in the context.

Practical results of the research work are as follows:

it has been carried out a comparative study of astronomical terms of the English and Uzbek languages, as a result of which the scope of use of the terms, their contextual combinations and typical structures have been determined;

it has been analyzed astronomical dictionaries used in practice in the English and Uzbek languages, the main discrepancies in the interpretation of terms have been identified, and alternative approaches that can be applied have been developed;

it has been formed methodological recommendations necessary for the normalization, correct selection, and scientific interpretation of astronomical terms in the Uzbek language, and based on the research, scientific and practical recommendations have been developed and a dictionary has been created, which will serve as the basis for creating a modern bilingual dictionary of astronomical terms.

Authenticity of the research results is ensured by the fact that the scientific-theoretical approaches applied in the study were selected from reliable and official sources, the scientific conclusions were substantiated using methods such as comparative-contrastive, descriptive, contextual-component, semantic, statistical, and structural analysis, the findings of the research have been published in the author's scholarly works, the proposals and recommendations have been implemented into the practice of terminology and the educational process, and the results obtained have been confirmed and validated by authorized institutions.

Scientific and practical value of the research results. The scientific significance of the research results primarily lies in the fact that the conclusions and theoretical generalizations put forward contribute to the further development of terminology theory. Of particular importance is the analysis of the linguistic features of astronomical terms from a comparative-typological perspective. Furthermore, the theoretical conclusions obtained during the study provide a solid foundation for comprehensive investigation into the formation of domain-specific terms and their

refinement. These aspects further enhance the research's scientific and theoretical value.

The practical significance of the research results is that they contribute to improving the quality of language education and facilitate the efficient and thorough acquisition of professional terminology by future specialists. Additionally, this study serves as a valuable resource for organizing lectures and seminars within the fields of astronomy, terminology, linguistics, lexicology, lexicography, and terminography. Moreover, it provides a practical basis for the preparation of textbooks and teaching aids, as well as for the compilation of terminological dictionaries.

Implementation of the research results. Based on the scientific results obtained in the process of studying the lexicographical features of astronomical terms in the English and Uzbek languages:

theoretical conclusions based on the fact that the formation of astronomical terms in the English language is based on Western science, ancient Greek and Latin traditions, while in the Uzbek language, words with Turkic, Islamic, Arabic, Persian cultural sources prevail, and they are formed on the basis of adoption through the Russian language or translation based on Uzbek equivalents were used in the practical project 90-01/38 – “The influence of the Jadids on the formation of the legal culture of society” carried out at the Center for the Promotion of Culture and Art of Uzbekistan “Umrboqiy meros” (Immortal Heritage) in 2024-2025 (Reference No. ML01/01-30 of the Center for the Promotion of Culture and Art of Uzbekistan “Umrboqiy meros” (Immortal Heritage) dated May 30, 2025). As a result, the possibilities of studying the activation of commonalities and specific peculiarities of terms in languages have expanded;

theoretical conclusions and results concerning the fact that the morphological features of new terms in the English and Uzbek languages are manifested on the basis of affixation, abbreviation, compound word formation, semantic expansion of the meaning of existing lexical units, and the use of metaphor-based terms with a new semantic load in scientific and technical content were used in the project ID-57663348 “European Perspectives in Dialogue: Central Asia and Western Research” funded by the German Academic Exchange Service DAAD at Bukhara State University (Reference No. 06/3637 of Bukhara State University dated June 3, 2025). As a result, the terms related to astronomy in general explanatory, encyclopedic, special explanatory dictionaries were analyzed and served to implement a linguistic-comparative approach;

conclusions and results related to the fact that astronomical terms in the English language have a clear scientific meaning, are actively used in everyday speech in figurative, metaphorical, or expanded meanings, while in the Uzbek language this process is relatively less formalized, understood depending on the context, and expanded meanings are not actively used as a specific semantic unit were used in the preparation of scripts for the programs “Hello, Bukhara”, “Refinement”, “Salvation in knowledge” of the Bukhara Regional Television and Radio Company (Reference No. 01-401 of the Bukhara Regional Television and Radio Company dated June 19, 2025). As a result, the content of the materials prepared for these

television programs was improved, served to be rich in scientific evidence, and the scientific and popular nature of the program was increased.

Approbation of the research results. The research results were discussed in 5 conferences, including 2 national and 3 international scientific-practical conferences.

Publication of the research results. In total, 21 scientific papers on the topic of the dissertation have been published, as well as 10 articles in the scientific publications recommended for publication of the main results of doctoral dissertations of the Higher Attestation Commission of the Republic of Uzbekistan, including 6 were published in the national and 4 in the foreign journals included in international databases.

The outline of the thesis. The dissertation consists of an introduction, three chapters, a conclusion, a list of used literature and appendices, the total volume is 151 pages.

THE MAIN CONTENT OF THE DISSERTATION

In the introduction of the dissertation, the topicality and necessity of the thesis has been substantiated, the degree of study of the problem, the aims and tasks of the research, the object and subject of the research have been clearly defined. At the same time, issues such as the description of the methods used in the research, the scientific novelty of the work, and the theoretical and practical significance of the research results have been highlighted.

The first chapter of the work is entitled “**Term as an Object of Linguistic Research**”. It analyzes theoretical views on terms and terminology, discusses the study of astronomical terms in English and Uzbek as an object of research, as well as the scientific basis for the classification of terms.

There are various opinions regarding the emergence and development of the science of terminology. For example, according to S.V.Grinev-Grinevich, specialized words existed in earlier periods. If we pay attention to this point of view, it can be said that the history of the specialized word is about half a million years, and it appeared long before the development of science. After S.V.Grinev-Grinevich, in the 80s, the science of terminology was formed on the basis of lexicology, and it was shown that this science is of great importance for the future development of humanity⁷.

Terminology is a branch of lexicon related to a specific field, consisting of a system of terms expressing concepts related to science, technology, production, art, or social activities. This field has been formed as an independent scientific direction in linguistics, aimed at the in-depth study of terms. In the scientific literature, terminology is interpreted as follows: 1. Terminologiya [*lot. terminus- chegara +yun. logos – fan, ta’limot*] 1. Fan, texnika, kasb-hunarning biror sohasida qo’llanadigan terminlar majmuyi. *Texnika terminologiyasi*... 2. Tilshunoslikning terminlarni o’rganish, tartibga solish bilan shug’ullanuvchi sohasi. *Terminologiya*

⁷ Гринев-Гриневи́ч С.В. Терминоведение: учеб. пособие для студ. высш. учеб. заведений. – М.: Издательский центр (Академия), 2008. – 304 с.

*mutaxassisi. Terminologiya bo'limi*⁸. Terms are usually formed on the basis of the lexicon of the national language and are enriched over time. In modern research, terms are mainly defined as words or phrases denoting concepts used in specific scientific or technical fields. D.S.Lotte defines the term as a sound sign in the system of a certain field of science and a unit of related concepts. According to this definition, a term is closely related not only to a special word or phrase, but also to a scientific or technical concept expressed through this word itself⁹. V.P.Danilenko, as a representative of the descriptive approach, defines the term as a unit of individual, separate, and independent naming. In his opinion, the term has the property of a special linguistic sign and represents a sign that always corresponds to a certain concept, regardless of whether it is expressed through a word or phrase. In this approach, the main function of the term is to express specific concepts, and it is independent and differs from other words or terms. In his definition, V.P.Danilenko emphasizes that terms are used only in a certain field, that is, each term means a specific concept in a specific context. This helps to distinguish between specific and defined meanings of terms¹⁰. Thus, in the second, descriptive approach, the term is defined as a word performing a special function, and in this approach, special attention is paid to the functions of terminological units. In this approach, terms are considered only as linguistic signs representing a certain concept, increasing their technical and scientific significance. Thus, the main function of terms is to express clear and independent concepts. According to the third approach to the study of the term, the term is an important component of the lexicon of the modern literary language, and the term and the word cannot fully reveal each other. The reason for this is that terms are not only related to technical and scientific concepts, but are also closely related to art, science, and other fields of knowledge. Thus, to fully understand terms, it is necessary to take into account not only their lexical meanings, but also the broader scientific, cultural, and technical context associated with them¹¹.

The second chapter of the research is entitled **“The Formation and Structural Composition of Astronomical Terms”** and consists of three paragraphs. This chapter describes the emergence of astronomical terms, morphemic analysis, and analysis aimed at classifying their functional features.

From the moment of humanity's emergence, interest in natural phenomena and celestial bodies also arose. Even before the development of science, people began to study and analyze certain phenomena based on the movement of stars. In particular, sea maps are compiled based on the movement of stars, and scientific data related to the equinoxes and the change of seasons are collected. The science of astronomy, considered the oldest of the natural sciences, arose as a result of human efforts to

⁸ O'zbek tilining izohli lug'ati: 80 000 dan ortiq so'z va so'z birikmasi. J. V. L-P / Mas'ul muharrirlar A. Madvaliyev, D. Xudayberganova. – T.: G'afur G'ulom nomidagi nashriyot-matbaa ijodiy uyi, 2022. – B. 223.

⁹ Лотте Д.С. Основы построения научно-технической терминологии: вопросы теории и методики. – М.: Наука, 1961. – С. 73.

¹⁰ Барсукова Е.А. Научный термин в общем и терминологическом толковых словарях русского и английского языков: На материале медицинской и компьютерной терминологий. Дис. ... канд. филол. наук. – Москва, 2004. – С. 64.

¹¹ Xodjayeva D.I. Tilshunoslik terminlarining leksikografik tahlili (ingliz, rus va o'zbek tillari izohli lug'atlari materiallari misolida). PhD. diss avtoref... – Toshkent, 2018. – B. 12.

satisfy life's needs several thousand years before our era and reveals the thousand-year-old secrets of the Universe. *Astronomy* comes from the Greek words "astro" - star, "nomos" - law. Astronomy is the field that studies the movement, structure, and development of celestial bodies and their systems¹².

In the field of natural sciences, much research has been conducted not only in the West, but also in the East, including in the field of astronomy. In particular, such famous scholars as Al-Battani, Al-Farghani, Al-Khwarizmi, Abul-Wafa Buzjani, Abu Mahmud Khujandi, Abdurrahman as-Sufi, and Ibn Yunus, Abu Rayhan Beruni worked in this field. In the 15th century, another great representative of Eastern astronomy, Mirzo Ulugbek, opened the world's largest astronomical observatory in Samarkand. Over several decades of the observatory's activity, a school of astronomy was formed, consisting of such renowned scientists as Qazizada Rumi, Ghiyasuddin Jamshid Kashi, and Ali Kushchi. The fact that Mirzo Ulugbek's research on the secrets of the universe has left a deep mark in the field of astronomy not only in the Eastern world, but also throughout the world, and that scientists around the world still use it as a scientific source, increases its significance. Mirzo Ulugbek's astronomical works are based on observations made at the observatory in Samarkand and constitute a catalog containing the coordinates of 1018 stars. The first terms related to astronomy also began to find their expression in these works.

During the research, we used various sources for the study of astronomical terms. In particular, the following dictionaries in English served as the main source¹³:

1. The 7th edition of the "Oxford Dictionary", published in 2006 (later the Oxford Dictionary);
2. The 2nd edition of the "Macmillan English dictionary for advanced learners" (later the Macmillan dictionary), published in 2012;
3. The electronic supplementary version of the revised 2nd edition of the "Oxford Dictionary of Astronomy" (hereinafter ODA);
4. Merriam-Webster online general explanatory dictionary (later Merriam-Webster dictionary).

The following sources were used in the Uzbek language:

1. Explanatory Dictionary of the Uzbek Language (O'zbek tilining izohli lug'ati - O'TIL) (hereinafter - EDUL) - 6 volumes based on the Latin alphabet, containing more than 80,000 words and phrases, published in 2023. In addition, the website *izohli.uz*, created on the basis of this dictionary, was also used. This site has official status and was developed by the Department for the Development of the State Language of the Cabinet of Ministers and the Uzbek Language Development Fund.

¹² Mamadazimov M. Umumiy astronomiya. – Toshkent: Yangi asr avlodi, 2008. – B. 4.

¹³ Oxford advanced learner's dictionary. 7th edition. – Oxford: Oxford University Press, 2006. – 1796 p.; Macmillan English dictionary for advanced learners. 2nd edition. – Oxford: Macmillan Education, 2012. – 1724 p.; Ridpath I. Oxford dictionary of astronomy. – Oxford: Oxford University Press, 2012. – Revised 2nd ed. – [Electronic app].; <https://www.merriam-webster.com/>.

2. The 12-volume “National Encyclopedia of Uzbekistan”, published in 2006-2008 in the Cyrillic alphabet (O‘zbekiston milliy ensklopediyasi - O‘ME) (hereinafter referred to as NEU).

In the course of our research, when analyzing the composition and formation of astronomical terms in the Uzbek language, the following patterns were encountered:

1. Most of the words in the Uzbek language were Arabic and Persian words, which significantly increased the vocabulary. These words are used in various fields, including religion, science, literature, art, and so on. Arabic and Persian are widely used in the fields of science and technology. Through them, we can master new concepts, technologies, and scientific discoveries. For example: *sayyora*, *yulduz*, *quyosh*, *oy*. We will pay attention to their explanations in the dictionary. For example:

QAMAR [a. – oy; yo‘ldosh (sayyoralarda)] 1 kt. ayn. oy 1. *Bukun koinotda Shams – podsho, Qamar – vazirdir (Oybek, Navoiy)*¹⁴.

Later, words from Russian and English were borrowed as equivalents to some words borrowed from Arabic-Persian. However, in most cases, both versions are preserved in colloquial speech. For example, *sayyora – planeta*, *burj – zodiak*.

2. In the field of astronomy, the issue of borrowing terms from Indo-European languages, in particular from European languages, into the Uzbek language as synonyms for Arabic and Persian terms is of current importance. However, it is necessary to approach this process with caution, since many words borrowed from the Arabic-Persian language are closely related to the historical formation and national characteristics of the Uzbek language and constitute the cultural layer of our language.

3. In the creation of new terms related to astronomy, affixation, that is, the method of word formation by adding a prefix or suffix to the stem, is widely used. For example: *astronavtika*, *ekvatorial*, *ekzosayyora*, *astrobiologiya*, *astrobotanika*, *astrodinamika*, *astroгноziya*, *kosmogoniya*, *kosmografiya*, *kosmologiya*, *kosmonavtika*, *nurlanish*, *orbital*, *perigeliy*, *planetar*, *planetariy*, *planetologiya* and others.

Although most of these terms entered the Uzbek language through the Russian language, their etymological roots often go back to Latin and ancient Greek. Therefore, the analysis of the morphemic composition of these terms is complex and, in some cases, can be controversial.

In determining the morphemic composition of scientific terms in the Uzbek language, we rely on the following two main sources¹⁵.

In these sources, the morphemic composition of some words is given differently. In the table below, we present some of their different analyses in a comparative approach.

¹⁴ O‘zbek tilining izohli lug‘ati: 80 000 dan ortiq so‘z va so‘z birikmasi. J. IV. L-P / Mas‘ul muharrirlar A.Madvaliyev, D. Xudayberganova. – Toshkent: G‘afur G‘ulom, 2022. – B. 39

¹⁵ A.G‘ulomov, A.Tixonov, R.Qo‘ng‘irov. O‘zbek tilining morfem lug‘ati. – Toshkent: O‘qituvchi, 1977. – 463 b.; B.Mengliyev, B.Bahriddinova, O‘.Xoliyrov. O‘zbek tilining so‘z yasalishi o‘quv lug‘ati. – Toshkent, 2007. – 142 b.

Table 1. Comparative analysis of astronomical terms in Uzbek language sources

Morphemic Dictionary of the Uzbek Language	Word Formation Educational Dictionary of the Uzbek Language
Astro/botanika	-
Astro/log	-
Astro/log/ik	-
Astro/log/iya	-
Astro/navt/ika	astronavt-ika
Astro/nom	-
Astro/nom/ik	astronom-ik
Astro/nom/iya	astronom-iya
-	fazo-gir
Kometa	-
Kosm/ik	-
Kosmo/navt	-
Kosmos	-
meredian	-
Meteor/it	-
Orbita	-
Osmon, osmon/iy	osmon, osmon-iy
-	samo-viy
-	yulduz

In many languages, including English, when analyzing the morphemic composition of astronomical terms, it is important to determine the etymological sources of the language family and words. In linguistics, these factors are an important tool in understanding the origin of terms, determining the patterns of their formation, and correct translation.

In particular, most astronomical terms formed in the English language are based on roots borrowed from ancient Greek and Latin. For example, terms such as *galaxy*, *planet*, *asteroid*, *nebula*, in terms of their etymology, go back to the ancient Greek language. These terms are widely used not only in the scientific field, but also in the media and the education system.

For example, the etymology of the word *Galaxy* is given in the Merriam-Webster dictionary as follows: *Middle English galaxias, galaxie, borrowed from late Latin galaxias, borrowed from Greek galaxhas (probably originally conjoined with kēklos “wheel”), from galakt-, stem of gōla “milk” (going back to Indo-European *glkt-, attested elsewhere only in Latin lact-, lac “milk,” Armenian kat’n) + -ias, noun suffix, especially of natural phenomena.* Translation (ours): The medieval English forms *galaxias*, *galaxie* are derived from the late Latin word *galaxias*, which comes from the ancient Greek word *galaxhas* (possibly originally combined with the word *kēklos* – “wheel”). The Greek *galakt-* (root form *gala* – “milk”) traces back to the ancient Indo-European root *glkt*. This root is found in other languages, in particular, in the

Latin forms *lact-*, *lac* (“milk”) and Armenian *kat’n*. *-ias* is mainly a noun-forming suffix denoting natural phenomena.¹⁶

Looking at the history of the origin of the term *astronomy*, the online explanatory dictionary *Merriam-Webster* explains its etymology as follows: Middle English *astronomie* “study of celestial bodies, including their possible influence on human affairs,” borrowed from Anglo-French & Latin; Anglo-French *astronomie*, borrowed from Latin *astronomia*, borrowed from Greek *astronómhē* “study of the stars, especially their movements,” from *astro-* [ASTRO-](#) + *-nomia* [-NOMY](#)¹⁷.

Analyzing the given definition, it is emphasized in dictionaries that the word *astronomy* is a derivative word formed by the morphological method. This term consists of two main morphemes, each of which has a separate semantic load.

The first component, *astro-*, comes from the ancient Greek word *astron*, which means “star”. In modern English, this element is more often used as a prefix for word formation and is mainly used in scientific terms related to celestial bodies or the universe (for example: *astrophysics*, *astrobiology*, *astronautics*, etc.).

The element *astro-* is also mentioned as a prefix in the Oxford Dictionary, which indicates its use in words expressing concepts related to the universe, celestial bodies, or stars.

The second component *-nomy* (derived from the ancient Greek word *nomos*) historically meant “a system of laws regulating a certain field” or “a set of knowledge”. In modern English, this element serves as a productive affix in the formation of new words. It appears in the names of many fields of science, for example: *economy*, *taxonomy*, *gastronomy*.

Thus, by morphologically analyzing the components of the word *astronomy*, we can understand how this term was formed not only semantically, but also structurally. This serves as an important basis for ensuring the scientific classification of astronomical terms and their correct translation into the Uzbek language¹⁸.

In the field of astronomy, Latin scientific names are widely used. In particular, terms such as *Sol* (Sun), *Terra* (Earth), *Mars* (Planet Mars) have not lost their significance in scientific texts to this day. Today, as a result of new discoveries and scientific research related to the Universe, new terms are appearing. For example, terms such as *dark matter* and *dark energy* have become an integral part of modern astronomical discourse.

The third chapter of the research is titled “**Lexical-Semantic Features of Astronomical Terms**”. This chapter analyzes the lexical-semantic and lexicographic characteristics of astronomical terms in the English and Uzbek languages.

In terms, including astronomical terms, lexical-semantic features play an important role, as they serve to define the exact meanings of terms and understand

¹⁶ <https://www.merriam-webster.com/dictionary/galaxy>

¹⁷ <https://www.merriam-webster.com/dictionary/astronomy>

¹⁸ Oxford advanced learner’s dictionary. 7th edition – Oxford: Oxford University Press, 2006. (7-ed.) – P. 72.

their specific features. Based on the definitions and classifications of terms, the main lexical-semantic features of terms include:

- Monosemy (having a single meaning);
- Specificity (particularity, specialization);
- Denotativeness (the characteristic of denoting or designating);
- Clarity of characteristics;
- Metaphorical nature;
- The relationship between form and meaning of terms.

Understanding the lexical-semantic features of astronomical terms ensures clarity, comprehensibility, and the effectiveness of scientific communication in this field. Also, these features serve as an important tool in the study of the formation and development of terminology specific to the science of astronomy, the process of naming new concepts. Below we would like to focus on some examples. The word *Oy* (moon) is defined in the “O‘TIL (EDUL)” as follows:

OY 1. (O - *katta*) *astr.* Quyoshdan nur olib, yog‘du sochuvchi samoviy jism, Yerning tabiiy yo‘ldoshi. *O‘n to‘rt kunlik oy. To‘lin oy. Oy nuri. Oy chiqdi. Oy botdi. Oyning yuzidagi dog‘lar. Oyning Yer atrofida aylanishi. Oyni etak bilan yopib bo‘lmaydi.* Maqol. – *Kechki gullar ochilib turibdi...*

2. Astronomik yilning o‘n ikkidan biriga – Oyning Quyosh atrofidan bir marta aylanib chiqish muddatiga yaqin vaqt oralig‘i; o‘lchov birligi: 28, 29, 30 yoki 31 kunlik davr. Oy boshi. May oyi. Bir yil – o‘n ikki oy. Bu orada uch oy o‘tdi. Yoz oylari ham o‘tib ketdi. Oyning o‘n beshi qorong‘i bo‘lsa, o‘n beshi yorug‘. Maqol.

3. Uch-to‘rt kunlik oy shaklidagi bezak yoki belgi. Mezana ustidagi oy.

4. Ayollar ismi tarkibiga kiradi yoki ayollar nomiga qo‘shilib, erkalash, hurmatni bildiradi. Oyposhsha, Oypqiz, Oyto‘ti, Oynisa; Tursunoy, Shirmonoy, Qunduzoy. Oy borib, omon kel. *Safarga ketayotgan kimsaga yaxshilik tilab aytiladigan ibora, oq yo‘l tilash.* U [Elmurod] yo‘lda ketar ekan... Kumushning oyi to‘lmasdanoq, [onasi] beshik yasatish bilan mashg‘ul edi. A.Qodiriy, O‘tgan kunlar¹⁹.

Analyzing the definitions given to the word “oy” in EDUL, it can be observed that it has the property of polysemy. This dictionary explains four interrelated meanings of the word moon, among which the first and second meanings can be directly linked to the field of astronomy. The given definitions and examples clearly confirm this point.

The first meaning is *Yerning tabiiy yo‘ldoshi bo‘lgan osmon jismi* (a celestial body that is Earth’s natural satellite), and this word is used as a proper noun in this sense and should be written with a capital letter in writing. This meaning is recognized as the main and central meaning of the word *oy*, since this meaning is the main lexical unit both historically and from the point of view of semantic stability.

The second meaning refers to *astronomik yilning o‘n ikkidan bir qismi – kalendar oy* (one-twelfth of the astronomical year – the calendar month). In this case, the word *oy* was transferred from a proper noun to a common noun, and semantic

¹⁹ O‘zbek tilining izohli lug‘ati: 80 000 dan ortiq so‘z va so‘z birikmasi. J. III. L-P / Mas‘ul muharrirlar A.Madvaliyev, D.Xudayberganova. – Toshkent: G‘afur G‘ulom nomidagi nashriyot-matbaa ijodiy uyi, 2022. – B.563-564

expansion occurred. There is a semantic chain between these two meanings, that is, their interdependence is undeniable. Because the concept of the calendar month was formed on the basis of the rotation of the astronomical Moon around the Sun for one full cycle. Thus, both of the above meanings relate to the field of astronomy, and the semantic connection between them is explained by the phenomenon of polysemy.

The third meaning refers to the use of the word *oy* in the sense of *oy shaklidagi bezak* (a moon-shaped ornament). In this case, the meaning was transferred metaphorically, and a new semantic unit was formed on the basis of formal similarity.

The fourth meaning relates to anthroponymy, that is, the formation of personal names. Here the word *oy* is more often perceived as a symbol of beauty, purity, and grace. On this basis, it is used as a component of female names: Like *Oyposhsha*, *Oyqiz*, *Oyto'ti*, *Oynisa*. In these forms, the component *oy* acquires a figurative meaning based on the aesthetic properties of celestial bodies. According to the dictionary, the addition of the word *oy* to such names serves as an expression of endearment and respect.

At this point, it is appropriate to give an additional explanation: in Uzbek linguistics, suffixes such as *-oy*, *-jon*, *-xon*, *-gina* are considered as affectionate, warm-expressing affixes²⁰. However, the word *oy* is not a simple affix in such names, but it is used as a transferred expression of the figurative sign of the celestial body Moon. That is, in this case, the form of *oy* is semantically connected with the main astronomical meaning, undergoing semantic expansion based on endearment and an aesthetic approach.

The phrases "*Oy borib, omon kel*", "*Oy-kuni yaqin*", "*Oy ko'rmoq*", "*Oyi to'ldi*" given at the end of the comments are formed by the phenomenon of semantic transfer based on metaphor or metonymy, and their semantic analysis shows that the word *oy* has moved from its main lexical meaning to its figurative meaning. Although the original astronomical meaning of the word *oy* is preserved in these expressions, it also serves to convey figurative and connotative meanings. The given examples practically prove these semantic changes.

As another example, we can consider the word *yer*. In the explanatory dictionary of the Uzbek language, 11 interrelated lexical-semantic meanings of the word *yer* are given, of which only the first two meanings are directly related to the field of astronomy. The remaining meanings are formed through metaphorical, social, or figurative expressions, which also indicates the polysemy of the word *yer*.

Astronomical terms define objects, phenomena, or processes in the Universe on an objective basis. That is, their semantic content does not depend on subjective or connotative interpretations, but is formed on the basis of specific observations and scientific classifications. Such terms are distinguished by their universality and are used by different peoples with almost the same semantic content.

For example, the naming of constellations is clear evidence of this. Their names were given based on the geometric or formal appearance of stars in the sky, and in

²⁰ Ona tili: Umumiy o'rta ta'lim maktablarining 6-sinfi uchun/N.Mahmudov, A.Nurmonov, A.Sobirov, D.Nabiyeva, I.Mahmudov va boshq. – Toshkent: Tasvir, 2017. – B.131.

this process, the main criterion was not the figurative-descriptive views of people, but the external form determined on the basis of observation. The following examples illustrate this:

- *Asad* (Arslon) – in English: *Leo* (The Lion);
- *Aqrab* (Chayon) – in English: *Scorpio* (The Scorpion);
- *Qisqichbaqa* – in English: *Cancer* (The Crab).

Although these names are expressed in different languages in terms of form, they fully correspond in terms of the concept, object, and semantic sign they represent. This indicates that astronomical terminology is based on objective truths, independent of intercultural differences.

As a result of our research, we witnessed the phenomenon of synonymy in astronomical terms, and the following can be cited as examples: *aqrab* – *chayon*, *asad* – *arslon*, *hut* – *baliq*, *planeta* – *sayyora*, *ufq* – *gorizont*, *Venera* – *Zuhra*, etc.

As an example, let's analyze the words *planeta* and *sayyora*. Their explanation is given in EDUL as follows: PLANETA [*lot.* planete, *yun.* (aster) planetes - adashib yuruvchi (yulduz)] *astr.* Quyosh atrofida aylanuvchi va undan yorug'lik va issiqlik olib, ularni qaytaruvchi elliptik yoki sharsimon osmon jismi; sayyora. Planetalar g'oyat katta sharlardir, ular o'lchamlari va yorug'lik nuri chiqarmasligi jihatidan Yerga o'xshaydi. "Astronomiya"²¹. SAYYORA [*a.* - planeta; avtomobil; karvon] 1 Muqim turar joyi yo'q, darbadar kezuvchi, darbadar. Sayding qo'ya ber, sayyod, Sayyora ekan mendek. Furqat. Bu shundoq asrdir, qoqquncha kiprik Ovozing yangragay sayyoralarda. A.Oripov, Everest va ummon. 2 *astr.* Quyosh atrofida aylanuvchi va undan nur oluvchi sharsimon osmon jismi, mas., Merkuriy, Venera, Yer, Mars. Ma'lumki, zamin – Yer sayyorasi Quyosh sistemasida koinotning bir kichik bo'lagi sifatida paydo bo'ldi va taraqqiy etdi. Gazetadan²². The given definitions show their synonymy. The main difference is in which language they came from, that is, the word *Planeta* comes from Latin and entered our language through Russian, while the word *Sayyora* comes from Arabic. Another noteworthy aspect is that the meaning of both terms means *a wanderer, a vagrant*. This means that astronomical objects and phenomena are precise and represent the same characteristic when viewed from any continent of the Earth's surface. For this reason, scientists of different nationalities, as a result of their observations, took these signs into account when naming celestial bodies. As a result, two different words appeared, expressing the same meaning. We can also see these similarities in the naming of constellations.

Ingliz tilida ham quyidagilarni sinonimik juftlik sifatida keltirish mumkin: *astrobiology* – *exobiology*, *extrasolar planet* – *exoplanet*, *lunar phase* – *Moon phase*, *meteor* – *shooting star* or *falling star*, etc.

We want to substantiate our point with a deep analysis of the following examples. Astrobiology – the scientific study of the possibility of life elsewhere in the Universe; also known as exobiology. Astrobiology embraces branches of biology

²¹O'zbek tilining izohli lug'ati: 80 000 dan ortiq so'z va so'z birikmasi. J. III. L-P / Mas'ul muharrirlar A.Madvaliyev, D.Xudayberganova. – Toshkent: G'afur G'ulom nomidagi nashriyot-matbaa ijodiy uyi, 2022. – B. 751.

²²O'zbek tilining izohli lug'ati: 80 000 dan ortiq so'z va so'z birikmasi. J. IV. L-P / Mas'ul muharrirlar A. Madvaliyev, D. Xudayberganova. - T.: G'afur G'ulom nomidagi nashriyot-matbaa ijodiy uyi, 2022. – B. 578.

(for example microbiology, biochemistry, and ecology) in addition to astronomy. Considerations include assessment of the likely conditions required for the origin and development of life, and the means of detecting such life...²³. Exobiology - noun *exo·bi·ol·o·gy* ,ek-sō-bī-'d-lə-jē: a branch of biology concerned with the search for life outside the earth and with the effects of extraterrestrial environments on living organisms²⁴. As we analyze the definitions given, the definition of *astrobiology* itself states that it is also known as *exobiology*. However, while *astrobiology* is a concept that is now more widely used and encompasses an interdisciplinary approach, *exobiology* is historically viewed as a narrower direction that emerged earlier, focusing more on searching for life outside Earth and studying the effects of the cosmic environment on living organisms. Thus, the two terms can be used synonymously, but *astrobiology* is the main term in modern scientific discourse.

In English, some words with similar meanings do not always have the same meaning. For example, although the words *astronaut* and *cosmonaut* represent a common concept, there are certain differences between them. Let's focus on the definition given in the following dictionaries. The Macmillan dictionary defines these terms as follows: *astronaut* /'jstrə,nɔ:t/ noun [C] someone who travels and works in space²⁵. *Cosmonaut* /'kɒzmə,nɔ:t/ an ASTRANAUT in the Russian space programme²⁶. The Oxford Dictionary defines these words as follows: *astro·naut* /'ʌstrənɔ:t/ noun a person whose job involves travelling and working in a SPACECRAFT²⁷. *Cosmonaut* /'kɒzmənɔ:t NAMÉ 'kɑ:z-/ noun an ASTRONAUT from the former Soviet Union²⁸. As can be seen, although both words denote a person flying into space, the term *cosmonaut* has a national-cultural connotation and is characteristic of Russian space programs. Thus, the word *astronaut* is mainly used in the USA and Western countries, while *cosmonaut* is used in Russia and the countries of the former Soviet Union.

In the course of our research, among the terms used in the field of astronomy, in some cases, we identified a group of terms in the phenomenon of meronymy. Meronymy is a lexical relationship in linguistics in which one word denotes a part or constituent element of another word. There are two parts: 1) meronyms; 2) holonyms. Simply put, a meronym is a part of a holonym. For example, if we consider the *Solar System* as a holonym, then the *Sun*, *Earth*, *Mars*, *Venus*, *Jupiter*, *Saturn*, *Uranus*, *Neptune*, *asteroids*, and *comets* are meronyms. It should be noted that among astronomical terms, it is difficult to give a direct example of meronymy, since astronomy mainly studies the interrelationships and structure of objects and phenomena, and not the relationships of part and whole. In our example above, the *Sun*, *Earth*, *Mars*, *Venus*, *Jupiter*, *Saturn*, *Uranus*, and *Neptune* are all parts of the solar system. However, it should be remembered that this is not a complete definition of meronymy, since the solar system consists not only of these elements, but also of their interaction.

²³ Oxford dictionary of astronomy. – Oxford: Oxford University Press, 2012. – Revised 2nd ed. –[Electronic app].

²⁴ <https://www.merriam-webster.com/dictionary/exobiology>

²⁵ Macmillan English dictionary for advanced learners. 2nd edition. – Oxford: Macmillan Education, 2012. – P. 79.

²⁶ O'sha manba – P. 353.

²⁷ Oxford advanced learner's dictionary. 7th edition. – Oxford: Oxford University Press, 2006. – P.78

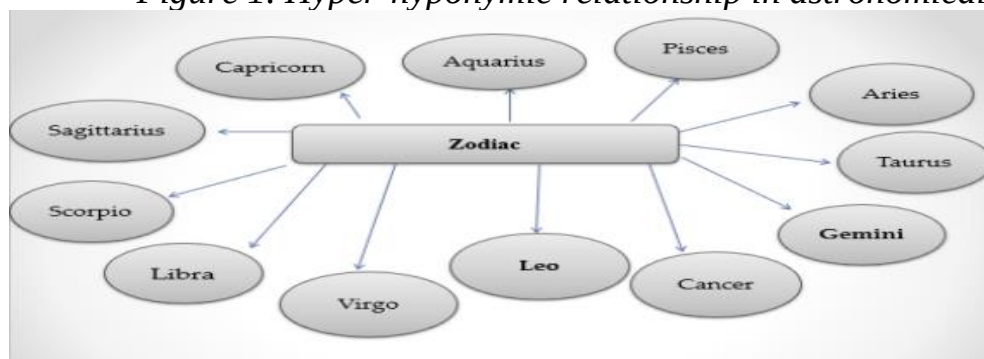
²⁸ O'sha manba – P. 330

As a result of the analysis, it was revealed that there are also antonymic relations in astronomical terms. These antonymic relations manifested themselves not as antonymy in linguistics, but as a phenomenon of contextual antonymy. Below we want to give some examples of astronomical antonyms in the Uzbek language: *Apogey – Perigey*, *Afeliy – Perigeliy*, *ichki sayyora – tashqi sayyora*, *Zenit – Nadir*, etc. Similar examples can be observed in English: *Apogee – Perigee*, *Aphelion – Perihelion*, *Inferior planet – Superior planet*, *Zenith – Nadir*, etc.

In order to study contextual antonyms in the English language, we will analyze the terms *Zenith* and *Nadir*. They are explained in the ODA as follows: *Zenith* – The point on the celestial sphere directly above an observer. A line to zenith is at right angles to the plane of the horizon. The zenith is in the opposite direction from the nadir. Strictly speaking, this definition refers only to the astronomical zenith; two other, slightly different forms of zenith may also be defined. The geocentric zenith is the direction indicated by a line from the centre of the Earth through the observer. The geodetic zenith is at right angles to the geoid at the observer's location. All three forms of zenith differ slightly because of the non-spherical shape of the Earth. If used without qualification, 'zenith' means as the astronomical zenith²⁹. The term *nadir* is defined in this source as follows: The point on the celestial sphere directly beneath an observer. It is the direction in which a plumb-line points. The nadir is 180° from the zenith³⁰. The given explanations show that the terms *zenith* and *nadir* are concepts denoting the highest and lowest points of the observer in the celestial sphere, and they represent absolutely opposite directions. In this regard, these terms have special linguistic and scientific significance as contextual antonyms in the system of astronomical terms in the English language.

In the course of our research, we also identified terms in a hyper-hyponymic relationship within the framework of the field of astronomy. Hyponymy is a lexical relation in linguistics, in which the meaning of one word (hyponym) is included in the meaning of another word (hypernym). In short, a hyponym is a type or example of a hypernym. For example:

Figure 1. Hyper-hyponymic relationship in astronomical terms



In this example, the *Zodiac* hypernym, *Aquarius*, *Aries*, *Capricorn*, *Cancer*, *Gemini*, *Leo*, *Libra*, *Pisces*, *Taurus*, *Scorpio*, *Sagittarius*, *Taurus*, *Virgo* are hyponyms, that is, types of *Zodiac*.

²⁹Oxford dictionary of astronomy. – Oxford: Oxford University Press, 2012. – Revised 2nd ed. –[Electronic app].

³⁰O'sha manba.[Electronic app].

Since our research was mainly conducted on the basis of a descriptive approach and the terms were not considered as a special lexical unit, but as a separate function of a lexical unit, we conducted a deep analysis of their semantic relationship, and the research results were fully reflected in the conclusion of the work.

CONCLUSION

1. The formation of astronomical terms in English and Uzbek has certain commonalities, which indicate the development of both languages in scientific discourse and the development of the terminological system. First of all, astronomical terms used in both languages are based on scientific sources and comply with terminological norms formed in the international scientific community.

2. Although the formation of astronomical terms in English and Uzbek is based on general laws, the historical development of each language, etymological sources, and place in the scientific style determine the national characteristics of this terminology. Therefore, when creating new terms, special attention should be paid to these commonalities and differences.

3. The majority of astronomical terms in the English language originate from the languages of ancient civilizations - Greek and Latin, which indicates their scientific basis and a stable place in international terminology. Therefore, when translating astronomical terms into Uzbek or creating new terms, it is important to take into account their etymological basis, to conduct a thorough analysis of their morphemic structure. In the Uzbek language, terms are mainly adopted through the Russian language or translated based on Uzbek equivalents (*koinotshunoslik* - this word is *koinot* + *shunos* + *lik*).

4. Although the formation and use of astronomical terms in English and Uzbek have certain commonalities, there are significant differences in their etymological sources, the level of use of scientific names, and the volume of terminological richness. If the English language relies on ancient Greek and Latin in the formation of astronomical terms, then in the Uzbek language, words with Arabic and Persian sources are relatively dominant. In addition, the number and semantic scope of astronomical terms in the English language are broader, which is due to its status as a leading language in international scientific communication.

5. Word formation through affixation – that is, the addition of suffixes - is widely used in both languages when creating new terms. Examples of this are such terms as *astrobiology*, *cosmonautics*, *orbital*. New terms are also formed by forming compound words (*star system* – *yulduz tizimi*). In addition, new terms are formed on the basis of semantic expansion of the meaning of existing lexical units. In particular, metaphorical terms play an important role in this process. For example, the term *black hole* (*qora tuynuk*) is used with a new semantic load in scientific and technical content.

6. Abbreviations in English are used on a broad and systematic basis (for example: *NASA*, *ISS*, *HST*). In the Uzbek language, abbreviations are more often used in the form of borrowings from Russian or in the form of incomplete translation.

7. Astronomical terms are classified in both languages as proper and common nouns. In particular, the names of planets, constellations, and signs of the zodiac are used as proper nouns and are always capitalized. For example: *Oy* (*The Moon*), *Venera* (*Venus*), *Mars* (*Mars*), *Aries* (*Hamal*) and others.

8. As a result of our research, it was confirmed that there are phenomena of synonymy and polysemy in the structure of astronomical terms in both languages. For example, there are two forms of some zodiac names (e.g., (*Qavs/Sagittarius*, *Aqrab/Scorpio*). Also, *Oy* (*The Moon*), *Quyosh* (*The Sun*), *Yer* (*The Earth*)) are polysemantic units. Although such words are astronomical terms in their main scientific meaning, they are also used in other figurative or poetic meanings without breaking the semantic chain in the context.

9. Most astronomical terms in the English language are based on Western science, in particular, on ancient Greek and Latin traditions: like *Orion*, *Andromeda*, *Ptolemaic system*. In the Uzbek language, there are terms based on Turkic, Islamic, and Persian cultural sources: *Zuhra* (*Venera*), *Mirrix* (*Mars*), *Qavs burji* (*Sagittarius*), etc.

10. In the English language, some astronomical terms, having a clear scientific meaning, are also actively used in everyday speech in figurative, metaphorical, or expanded meanings. In the Uzbek language, however, this process is relatively less formalized, is understood depending on the context, and expanded meanings are not very actively used as a specific semantic unit.

11. The volume and scope of astronomical terms in English is broader than in Uzbek. This situation clearly shows the position of the English language as a global scientific language and confirms its leading role in the formation of scientific and technical terms.

**НАУЧНЫЙ СОВЕТ DSc.03/2025.27.12.Fil.08.07
ПО ПРИСУЖДЕНИЮ УЧЕНЫХ СТЕПЕНЕЙ ПРИ
БУХАРСКОМ ГОСУДАРСТВЕННОМ УНИВЕРСИТЕТЕ**

БУХАРСКИЙ ГОСУДАРСТВЕННЫЙ УНИВЕРСИТЕТ

ХУСЕНОВА МЕХРИНИСО УКТАМОВНА

**ЛЕКСИКОГРАФИЧЕСКОЕ И СРАВНИТЕЛЬНОЕ ИССЛЕДОВАНИЕ
АСТРОНОМИЧЕСКИХ ТЕРМИНОВ В АНГЛИЙСКОМ И
УЗБЕКСКОМ ЯЗЫКАХ**

10.00.13 – Сравнительное и сопоставительное языкознание

АВТОРЕФЕРАТ
диссертации на соискание учёной степени доктора философии (PhD) по
ФИЛОЛОГИЧЕСКИМ НАУКАМ

Бухара – 2026

Тема диссертации доктора философии (PhD) зарегистрирована под номером №B2024.3.PhD/Fil5158 в Высшей Аттестационной комиссии.

Диссертация выполнена в Бухарском государственном университете.

Автореферат диссертации на трех языках (узбекском, английском, русском (резюме)) размещён на веб-странице Научного совета (www.buxdu.uz) и на информационно-образовательном портале «Ziyonet» (www.ziyonet.uz).

Научный руководитель: **Ходжаева Дилафруз Изатилловна**
доктор филологических наук, доцент

Официальные оппоненты: **Гайбуллаева Нафиса Изатилловна**
доктор филологических наук, профессор

Насруллаева Нафиса Зафаровна
доктор филологических наук, профессор

Ведущая организация: **Каршинский государственный университет**

Защита диссертации состоится « 26 » августа 2026 г. в 13.00 часов на заседании Научного совета DSc.03/2025.27.12.Fil.08.08 при Бухарском государственном университете. (Адрес: 200118, город Бухара, улица М.Икбол, 11. Тел.: (0 365) 221-29-14; факс: (0 365) 221-57-27, e-mail: buxdu_rektor@buxdu.uz).

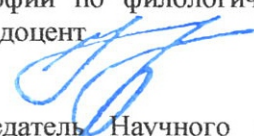
С диссертацией можно ознакомиться в Информационно-ресурсном центре Бухарского государственного университета (зарегистрировано за № D-988). (Адрес: 200118, город Бухара, улица М.Икбол, 11. Тел.: (0 365) 221-25-87.)

Автореферат диссертации разослан « 11 » августа 2026 года.

(Протокол рассылки за № 26 от « 11 » августа 2026 года).

**Киличев Б.Э.**
Председатель Научного совета по
присуждению учёных степеней, доктор
филологических наук (DSc), профессор

Хожиева М.Ю.
Научный секретарь Научного совета по
присуждению учёных степеней, доктор
философии по филологическим наукам
(PhD), доцент

**Тоирова Г.И.**
Председатель Научного семинара при
Научном совете по присуждению учёных
степеней, доктор филологических наук
(DSc), профессор

ВВЕДЕНИЕ (аннотация диссертации доктора философии (PhD))

Целью исследования является определение лексикографических особенностей астрономических терминов в английском и узбекском языках.

Объектом исследования являются астрономические термины в английском и узбекском языках.

Научная новизна исследования заключается в следующем:

определено, что формирование астрономических терминов в английском языке основано на западной науке, древнегреческих и латинских традициях, в то время как в узбекском языке преобладают слова с тюркскими, исламскими, арабскими, персидскими культурными источниками, и они формируются на основе заимствования через русский язык или перевода на основе узбекских эквивалентов;

обосновано, что морфологические особенности новых терминов в английском и узбекском языках проявляются на основе аффиксации, аббревиатуры, составного словообразования, семантического расширения значения существующих лексических единиц и использования метафорических терминов с новой семантической нагрузкой в научно-техническом содержании;

доказано, что астрономические термины в английском языке имеют четкое научное значение, активно используются в повседневной речи в переносном, метафорическом или расширенном значении, в то время как в узбекском языке этот процесс относительно менее формализован, понимается в зависимости от контекста, а расширенные значения не используются активно как специфическая семантическая единица;

установлено, что феномены синонимии, антонимии, полисемии, гипонимии, меронимии в лексико-семантическом и функциональном поле астрономических терминов, происходящие в коммуникативном процессе обоих языков, являются силой, реализующей другие переносные или поэтические значения без разрыва семантической цепи в контексте.

Внедрение результатов исследования. На основе научных результатов, полученных в процессе изучения лексикографических особенностей астрономических терминов в английском и узбекском языках:

теоретические выводы относительно того, что формирование астрономических терминов в английском языке основано на западной науке, древнегреческих и латинских традициях, в то время как в узбекском языке преобладают слова с тюркскими, исламскими, арабскими, персидскими культурными источниками, и они формируются на основе заимствования через русский язык или перевода на основе узбекских эквивалентов были использованы в практическом проекте 90-01/38 – «Влияние джадидов на формирование правовой культуры общества» выполненного в Центре продвижения культуры и искусства Узбекистана «Umrboqiy meros» (Вечное наследие) в 2024-2025 годах (Справка № ML01/01-30 Центра продвижения культуры и искусства Узбекистана «Umrboqiy meros» (Вечное наследие) от 30

мая 2025 года). В результате расширились возможности изучения активации общности и специфических особенностей терминов в языках;

теоретические выводы и результаты, связанные с тем, что морфологические особенности новых терминов в английском и узбекском языках проявляются на основе аффиксации, аббревиатуры, составного словообразования, семантического расширения значения существующих лексических единиц и использования метафорических терминов с новой семантической нагрузкой в научно-техническом содержании были использованы в проекте ID-57663348 «Европейские перспективы в диалоге: Центральная Азия и западные исследования», финансируемом Германской службой академического обмена DAAD при Бухарском государственном университете (Справка № 06/3637 Бухарского государственного университета от 3 июня 2025 года). В результате термины, относящиеся к астрономии в общих толковых, энциклопедических, специальных толковых словарях, были проанализированы и послужили реализации лингвистико-сопоставительного подхода;

выводы и результаты на основе того, что астрономические термины в английском языке имеют четкое научное значение, активно используются в повседневной речи в переносном, метафорическом или расширенном значении, в то время как в узбекском языке этот процесс относительно менее формализован, понимается в зависимости от контекста, а расширенные значения не используются активно как специфическая семантическая единица были использованы при подготовке сценариев программ «Здравствуй, Бухара», «Совершенствование», «Спасение в знании» Бухарской областной телерадиокомпании (Справка № 01-401 Бухарской областной телерадиокомпании от 19 июня 2025 года). В результате содержание материалов, подготовленных для этих телепередач, было улучшено, послужило обогащению научными доказательствами, а также повысился научный и популярный характер программы.

Структура и объем диссертации. Диссертация состоит из введения, трех глав, заключения, списка использованной литературы и приложений, общий объем составляет 151 страниц.

E'LON QILINGAN ISHLAR RO'YXATI
СПИСОК ОПУБЛИКОВАННЫХ РАБОТ
LIST OF PUBLISHED WORKS

I bo'lim (I часть; Part I)

1. Khusenova M.U. Lexical-Semantic Features of Astronomical Terminology in the English Language // American Journal of Language, Literacy and Learning in STEM Education. ISSN (E): 2993-2769. – Volume 02, Issue 11. – USA, 2024. – P. IF: 10.23. (Crossref). <https://grnjournal.us/index.php/STEM/article/view/6213/5821>
2. Khusenova M.U. Functional Features of Astronomical Terms in English and Uzbek Languages // American Journal of Education and Evaluation Studies. E-ISSN: 2997-9439. – Volume 2, Issue 1. – The USA, 2025. – P. 138-143. IF: 12.51. (ResearchBib). <https://semantjournals.org/index.php/AJEES/article/view/931/794>
3. Khusenova M.U. Comparative typology of the English and Uzbek languages // International journal of literature and languages. ISSN(E): 2660-6828. – Volume 03, Issue 06. – USA, 2023. – P. 44-48 (Impact Factor SJIF – 6.997). <https://theusajournals.com/index.php/ijll/article/view/1390/1344>
4. Khusenova M.U. About term and terminology // Til va adabiyot. – № 4. – Toshkent, 2024. – B.162-163. (O'zbekiston Respublikasi OAK Rayosatining 2023 yil 31 martdagi 335-son qarori) https://uniwork.buxdu.uz/resurs/13615_1_FFCB3AD5B3C3397D6F17E2F3D7425942E87E017B.pdf
5. Khusenova M.U. The goals and objectives of terminology and lexicography as a field of linguistics // Til va adabiyot. – Toshkent, 2024. – №11. – B. 211-212. (OAK Rayosatining 2023 yil 31 martdagi 335-son qarori) https://uniwork.buxdu.uz/resurs/13615_1_80D8886F0F12D5E7F44DA76D17741FB7E3905DB8.pdf
6. Xusenova M.O'. Termin va terminologiya xususida // Buxoro ilmiy axborotnomasi. – Buxoro, 2024. – № 3. – B. 85-88. (10.00.00; №1) https://uniwork.buxdu.uz/resurs/13615_1_8571469C09A47277A3191A52C6408919BB0631C4.pdf
7. Khusenova Mehriniso. Lexico-semantic features of Uzbek astronomical terminology // Til va adabiyot. – Toshkent, 2025. – № 5. – B. 121-122. (OAK Rayosatining 2023 yil 31 martdagi 335-son qarori) https://uniwork.buxdu.uz/resurs/13615_1_63924E280AA381EC5E2A9149DC340F335118A95C.pdf
8. Khusenova Mehriniso. Linguistic features of zodiac terminology in Uzbek and English // Til va adabiyot. – Toshkent, 2026. – № 8. – B. 202-203. (OAK Rayosatining 2023 yil 31 martdagi 335-son qarori) https://uniwork.buxdu.uz/resurs/13615_1_8C5537B90D94E194785F475DF5117FD030BEA0F7.pdf
9. Xusenova M.O'. Ingliz va o'zbek tillarida astronomiyaga oid terminlarning morfemik tahlili va strukturaviy xususiyatlari // Ayniy vorislari. – Buxoro, 2026. – № 2 (12). – B. 153-156. (OAK Rayosatining 2024 yil 7 iyundagi 355-son qarori)

https://uniwork.buxdu.uz/resurs/13615_1_FD99126AFB771A85BAB2438BCE05267D2C1A276C.pdf

II bo'lim (II часть; Part II)

10. Khusenova M.U. Lexicography, types of dictionaries // Topical issues of teaching foreign languages // Uzbekistan Republican scientific-practical online conference. – Bukhara, 2021. – P. 130-135. https://uniwork.buxdu.uz/resurs/13615_1_E5D27BA2B3857F63E8EA41F48659C9A88D7514F1.pdf

11. Khusenova M.U. Terminology and Features of Terminological Metafora // Central Asian Journal of Literature, Philosophy and Culture. ISSN(E): 2771- 2834. – Volume 03, Issue 11. – Spain, 2021. – P. 37-41 (Impact Factor SJIF – 5.63). <https://cajlp.casjournal.org/index.php/CAJLPC/article/view/247/227>

12. Khusenova M.U. Dictionary structure theory and stages of development // Actual problems of modern science, education and training. ISSN 2181-9750. – Volume 2, Issue 1. – Uzbekistan, 2021. – P. 70-75 (Impact Factor SJIF – 5.517). https://uniwork.buxdu.uz/resurs/13615_1_287B3BF1F6063A8C97D9399A64305F9139969EE8.pdf

13. Khusenova M. U. Appearance of astronomical terms // Adabiyotshunoslik va tarjimashunoslikning dolzarb muammolari: adabiy jarayon, qiyosiy adabiyotshunoslik, uslubshunoslik va tilshunoslik masalalari. Xalqaro ilmiy-amaliy anjuman. – Buxoro, 2024. – P. 65-69. https://uniwork.buxdu.uz/resurs/13615_1_70E35F19BF89F8ADDE8876DD461923B83D198F3B.pdf

14. Khusenova M.U. The importance of dictionaries and its types //Academy. ISSN: 2412-8236. №. 1 (64). – Russia, 2021.– P. 61-63. (Impact Factor SJIF 0.19). <https://academicjournal.ru/images/PDF/2021/64/the-importance-of-diction.pdf>

15. Khusenova M.U. The origin and development of astronomical terminology // Adaptive Learning Technologies. Spain International conference. – Canary Island, 2025. – №17. – P. 57-59. <https://top-conferences.us/index.php/ICALT/article/view/1765/1451>

16. Khusenova M.U. Uzbek terminology // Excellencia. Multi-disciplinary Journal of Education. ISSN (E): 2994-9521. – Volume 02, Issue 05. – Middletown, USA, 2024. – P. 293-296. (Crossref). https://uniwork.buxdu.uz/resurs/13615_1_C0532408FEEBCDB28B5E638C15A39A51C06EBCC5.pdf

17. Khusenova M.U. The structural composition of astronomical terms in English//Jahon sivilizatsiyasida Buxoroning o'rne: boy meros, barqaror rivojlanish, yorqin kelajak. Xalqaro ilmiy-amaliy anjuman. – B., 2025. – P. 438-440. https://uniwork.buxdu.uz/resurs/13615_1_3DEFF85834C35F7DC923FE9C55A28EBF54BF8AC0.pdf

18. Khusenova M. U. Classification of astronomical termsin English and uzbek based on their formal and semantic features // Adabiyotshunoslik va tarjimashunoslikning dolzarb muammolari: adabiy jarayon, qiyosiy

adabiyotshunoslik, uslubshunoslik va tilshunoslik masalalari. Xalqaro ilmiy-amaliy anjuman. – Buxoro, 2025. – P. 25-27.
https://uniwork.buxdu.uz/resurs/13615_1_E1E4A8C35AC883E50D2EE1C972408CE4C1F31563.pdf

19. Khusenova M. U. The functional characteristics of terms and their stylistic expression. // Hozirgi globallashuv davrida filologiyaning dolzarb masalalari. Xalqaro ilmiy-amaliy Anjuman. – Buxoro, 2025, – P. 187-189.
https://uniwork.buxdu.uz/resurs/13615_1_98B4AC88F45DB58969BABEFCBFC5A8C0C404CB48.pdf

20. Khusenova M. U. From myth to science: cultural narratives and modern astronomical knowledge. // Bridging cultural diversity and environmental sustainability in the 21st century. Xalqaro ilmiy-amaliy anjuman. – Buxoro, 2026, – P. 183-186.

https://uniwork.buxdu.uz/resurs/13615_1_A753ACF81837A08C445AD1089C02000F943D7900.pdf

21. Xusenova M.O'. Ingliz va o'zbek tillaridagi astronomiyaga oid terminlar izohi. O'quv qo'llanma. – Buxoro: Bukhara hamd print, 2025. – 144 b.
https://uniwork.buxdu.uz/resurs/13615_2_086DAFF2D0570748754BABD71737C01018CE562F.pdf

Avtoreferat “Durdona” nashriyotida tahrirdan o‘tkazildi hamda o‘zbek, rus va ingliz tillaridagi matnlarning mosligi tekshirildi.



Bosishga ruxsat etildi: 03.08.2026-yil. Bichimi 60x84 1/16, «Times New Roman» garniturada raqamli bosma usulida bosildi. Shartli bosma tabog‘i 3,2.

Adadi: 100 nusxa. Buyurtma №585

