

KIMYOVIIY HOLATNI BAHOLASH VA TAXLIL QILISH

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Annotatsiya. Ushbu maqolada, kimyoviy holatni baholash, taxlil qilish usullari hamda sano'at obektlarida REMni aniqlash, kimyoviy holatni baholashda havoning turg'unlik darajasi belgilari haqida muallifning nazariy, umumlashtiruvchi fikrlari keltirilgan. Maqola mehnat muhoazasi va texnika xavfsizligi yunalishlari talablari, mehnat muhofazasi va xavfsizlik mutaxassislari hamda keng izlanuvchilar uchun muljallangan.

Kalit so'zlar va iboralar: "Kimyoviy holat, kimyoviy holatni baholash, xavfsizlik, KTZM, izotermiya, konveksiya, sanoat korxonalarini, agressiv moddalar".

CHEMICAL STATUS ASSESSMENT AND ANALYSIS

Abstract. In this article, the author's theoretical and general opinions about chemical state assessment, analysis methods and determination of REM in industrial facilities, signs of air stagnation level in chemical state assessment are presented. The article is intended for the requirements of labor protection and technical safety directions, labor protection and safety specialists, and general readers.

Key words and phrases: "Chemical state, assessment of chemical state, safety, KTZM, isotherm, convection, industrial enterprises, aggressive substances"

ОЦЕНКА И АНАЛИЗ ХИМИЧЕСКОГО СОСТОЯНИЯ

Аннотация. В статье изложены теоретические и общие взгляды автора об оценке химического состояния, методах анализа и определения РЗМ в промышленных объектах, признаках уровня застоя воздуха при оценке химического состояния. Статья предназначена для требований направлений охраны труда и технической безопасности, специалистов по охране труда и технике безопасности, а также широкого круга читателей.

Ключевые слова и фразы: «Химическое состояние, оценка химического состояния, безопасность, KTZM, изотерма, конвекция, промышленные предприятия, агрессивные вещества».

Kirish. Kimyoviy holat deb- dushman tomonidan kimyoviy qurollar ishlatilganda, yoki kimyoviy obyektlarda halokat yuz berganda atrof-muhitga kuchli ta'sir etuvchi zaharli moddalar (KTZM) tarqalganligi natijasida hosil bo'lgan sharoitga aytiladi.

Kimyoviy holatni baholash deganda – kuchli ta'sir etuvchi zaharli moddalarni odamlarga, hayvonlarga, suv va boshqa obyektlarga ta'sir etish darajasini aniqlash hamda kimyoviy hujum yoki ishlab chiqarish tarmoqlaridagi falokat oqibatlarini tugatish uchun eng maqbul uslubni tanlash tushuniladi.

Tadqiqot metodlari. Tadqiqot jarayonida ilmiy va o'quv-uslubiy adabiyotlar tahlili, pedagogik-tarixiy kuzatuv, umumlashirish, metodlaridan foydalanildi.


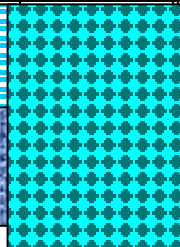
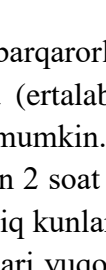
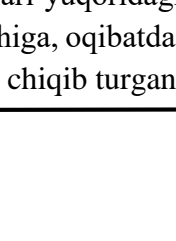
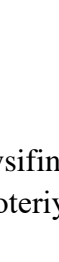
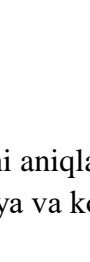
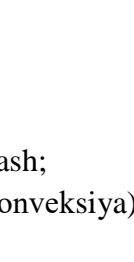
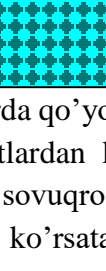
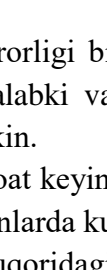
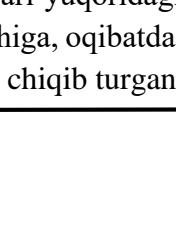

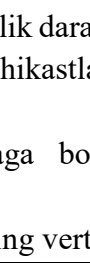
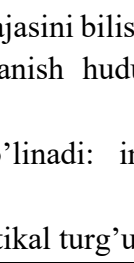
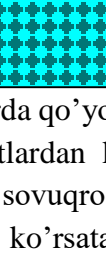
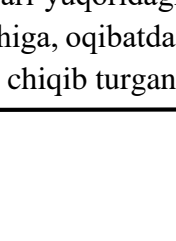
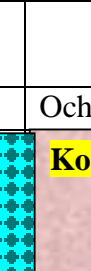
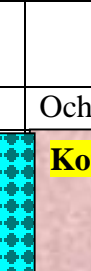
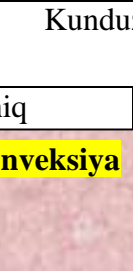
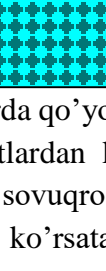
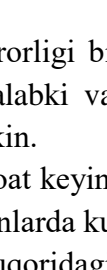
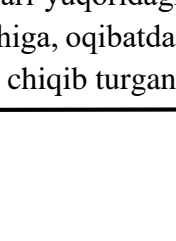
Tadqiqot natijalari va muhokamalar. Kimyoviy holatni baxolashda bashorat usuli bo'yicha zaxarlangan xavoning tarqalishi uchun qulay bo'lgan sharoitda (inversiya, shamol tezligi 1m/s. da) ob'ektdagi barcha KTZM zaxiralarining tashqariga chiqib ketishi (to'qilish) oqibatlarini o'rganish orqali aniqlanadi. Kimyoviy holatni baholashda quyidagi ma'lumotlarga tayaniladi:

- zaharli moddalarning turi va uning ishlatilgan vaqti;
- zaharli moddaning ishlatilish vositasi;
- zaharli moddaning ishlatilgan joyi;
- Shamolning tezligi va yo'naliShi;
- havo va yerning harorati;
- kimyoviy shikastlanishning miqyosi va tavsifini aniqlash;
- havoning turg'unlik darajasi (inversiya, izoteriya va konveksiya);
- fuqarolarning himoyalaniSh darajasi.

Kimyoviy holatni baholashda havoning turg'unlik darajasini bilish muhim ahamiyatga ega, chunki aynan havoning holatiga ko'ra kimyoviy shikastlanish hududining miqyosi, hamda talofotlanish hajmi sarhisob qilinadi.

Havoning vertikal turg'unligi uchta darajaga bo'linadi: inversiya, izoteriya va konveksiya (1-rasm).

1-rasm Ob-havo ma'lumotlariga ko'ra havoning vertikal turg'unlik darajasini baholash

Shamol tezligi, m/s	Kechqurun			Kunduzi		
	Ochiq	Yarim ochiq	Bulutli	Ochiq	Yarim ochiq	Bulutli
0,5	Inversiya			Konveksiya		
0,6...2						
2,1...4					Izotermiya	
4 dan yuqori						

Izoteriya odatda kechqurungi vaqtlarda qo'yosh botiShiga taxminan 1 soatlar qolganda vujudga keladi va qo'yiSh botgandan 1 soatlardan keyin u parchalanib ketadi. Inversiyada havoning pastki qatlami yuqori qatlamidan sovuqroq bo'ladi hamda bu holat zaharlangan havoning balandlikka tarqaliShiga qarShilik ko'rsatadi va zaharlangan havo uzoqroq vaqt saqlaniShiga qulay Sharoit yaratib beradi.

Izotermiya - havoning muvozanatini barqarorligi bilan tavsiflanadi. U ko'proq bulutli havoga xos, lekin inversiyadan konveksiyaga (ertalabki vaqtlarda) va aksincha (kechqurungi vaqtlarda) o'tiSh soatlari ham vujudga keliShi mumkin.

Konveksiya odatda, quyosh chiqiShidan 2 soat keyin hosil bo'ladi va quyosh botiShidan 2-2,5 soat oldin buziladi. Bu ko'proq yozgi ochiq kunlarda kuzatiladi.

Konveksiyada havoning pastki qatlamlari yuqoridagilaridan ko'ra ancha issiq bo'ladi va bunday holat zaharlangan havoning tez tarqaliShiga, oqibatda zaharlanish ta'sirining kamayiShiga olib keladi. SHuning uchun havo ochiq, quyosh chiqib turgan vaqtda zararlangan bulutlarni xavfli

konsentratsiyada tarqaliSh chuqurligi ikki marta kamayadi, inversiya holatlarida (havo oqimi yer yuzasi bo'ylab harakat qilayotgan vaqtda) zaharlovchi moddadan zararlangan bulutlar xavfli konsentratsiyasini tarqaliSh chuqurligi 1,5-2 marta ortadi, u taxminan 50 kmni tashkil qilishi mumkin.

Kimyo zavodlari joylashgan Shaharlardagi ba'zi-bir KTZM larning fuqarolarga bo'ladigan xavfi

Shahar	Obyekt	KTZM	ZaharlaniShi mumkin bo'lgan mintaqadagi odamlar soni
Navoiy	Navoiy azot I.Ch.B.	ammiak, xlor	99250
Samarqand	Mineral o'g'it I.Ch. zavodi	ammiak, xlor	55130
Olmaliq	Kimyo zavodi	ammiak, xlor	1710
Angren	Tillo koni	ammiak, xlor	450
Chirchiq	Elektroximprom I.Ch.B.	ammiak, xlor	39400
Farg'ona	Farg'ona azot	ammiak, xlor	607300

Xulosa. Kimyoviy sharoitni baholash quydagicha o'tkaziladi:

1. Razvedka ma'lumotlariga qarab kimyoviy zararlanish o'chog'i chiziladi va unda zaharlovchi moddalar bulutining taxminiy chuqurligi hamda uning turg'unligi ko'rsatiladi.

2. Zararlangan bulutning harakat tezligi Shamolning tezligiga bog'liq bo'ladi, chuqurligi esa zaharlovchi moddaning turiga, fizik-kimyoviy xossaga, shamol tezligiga, joylarning xususiyatiga va atmosferaning turg'unlik darajasiga bog'liq.

3. Kimyoviy zararlaniSh o'chog'ida qo'llanilgan zaharlovchi moddaning turg'unligi aniqlanadi. Zaharlovchi moddaning turg'unligi fizik-kimyoviy xossalriga, havo va yerdagi tuproqning haroratiga, shamolning tezligiga, yog'ingarchilik va joylarning xususiyatiga bog'liq bo'ladi.

4. Aholini yoki shaxsiy tarkibning himoya vositalarida bo'lish vaqti zaharlovchi moddaning turg'unligiga qarab taxminan belgilanadi. kimyoviy zararlanish chog'ida turlicha uzoqlikda bo'lgan shaxsiy tarkibning gazniqobda taxminiy bo'lish vaqtini jadvaldan topiladi. inversiya holatlarida gazniqobda bo'lish muddati ko'rsatilgan muddatdan 2 barobar ko'p bo'ladi. Konveksiya holatida esa gazniqobda bo'lish vaqtini 2 barobar kamaytiriladi.

5. Zaharlovchi modda bug'lari va aerezollari tarqalgan hududlarda hamda zararlanish o'choqlarida shaxsiy tarkib tomonidan sanitar yo'qotishlar ehtimoli aniqlanadi.

REFERENCES

1. Xidirova Dildora, Muradov Sirojiddin. O'zbekiston respublikasi hududida seysmoaktiv hududlar va zilzilaning xavfliligi//Innovative Development in Educational Activities. 2024. 167-172
2. Muradov S. ECONOMIC ANALYSIS OF PROFITS IN THE FIELD OF LABOR PROTECTION //Modern Science and Research. – 2024. – T. 3. – №. 1. – C. 1239-1245.

3. Мурадов, С. (2024). PRINCIPLES OF ENSURING THE SAFETY OF USING LIFTING CRANES IN CONSTRUCTION-ASSEMBLY WORKS. MODERN SCIENCE AND RESEARCH, 3(2), 933–939. <https://doi.org/10.5281/zenodo.10684936>
4. МУРАДОВ СИРОЖИДДИН учитель-стажер. Каршинский инженерно-экономический институт кафедра «Охрана труда и техника безопасности» Республики Узбекистан. (2024). НЕКОТОРЫЕ АСПЕКТЫ БЕЗОПАСНОСТИ ПРИМЕНЕНИЯ ГРУЗОПОДЪЕМНЫХ КРАНОВ В СТРОИТЕЛЬНО-МОНТАЖНЫХ РАБОТАХ. Zenodo. <https://doi.org/10.5281/zenodo.10684166>
5. Muradov Sirojiddin. Mehnatni muhofaza qilishning tashkiliy-psixologik asoslaridagi mavjud muammolar//“Ekologiya, aholi xavfsizligi va mehnat muhofazasining hozirgi kundagi dolzarb masalalari va istiqbollari”. 2023. 133-137.
6. Muradov Sirojiddin. Mehnat sharoitlari va muhitini “kaizen” usuli yordamida takomillashtirishning innovatsion yechimlari//“Ekologiya, aholi xavfsizligi va mehnat muhofazasining hozirgi kundagi dolzarb masalalari va istiqbollari”.2023. 249-253.
7. Muradov Sirojiddin. Mehnatni muhofaza qilish sohasida yuk ortish va tushirish ishlaridagi yukchilar uchun ishlarning xavfsizligi kategori va qoidalari tahlili//“Ekologiya, aholi xavfsizligi va mehnat muhofazasining hozirgi kundagi dolzarb masalalari va istiqbollari”. 2023. 232-242
8. Muradov Sirojiddin. Mehnatni muhofaza qilishning rivojlanish tarixiy bosqichlarini o‘rganish//“Ekologiya, aholi xavfsizligi va mehnat muhofazasining hozirgi kundagi dolzarb masalalari va istiqbollari”. 2023. 243-248
9. Muradov Sirojiddin. Sanoat korxonalarini rahbar va mutaxassislarining mehnat muhofazasi bo‘yicha bilimlarini tekshirishni raqamli texnologiyalar asosida tashkil etishning ahamiyati//“Ekologiya, aholi xavfsizligi va mehnat muhofazasining hozirgi kundagi dolzarb masalalari va istiqbollari”. 2023. 146-150
10. Muradov Sirojiddin. Xavfli sanoat korxonalarida ishchilarni xavfli gaz va zaxarli moddalar ta’siridan himoya qilishga qaratilgan inovatsion yechimlar//“Ekologiya, aholi xavfsizligi va mehnat muhofazasining hozirgi kundagi dolzarb masalalari va istiqbollari”. 2023. 402-405
11. Muradov Sirojiddin Husan o‘g‘li. Sanoat korxonalarini rahbar va mutaxassislarining mehnat muhofazasi bo‘yicha bilimlarini tekshirishni raqamli texnologiyalar asosida tashkil etishning ahamiyati// Aholi bandligi sohasidagi davlat siyosatining amalga oshirishning dolzarb masalalari. 2023/10/26. 180-183
12. Мурадов Сирожиддин. Определение отдыха и отпусков на основании нового трудового кодекса// Aholi bandligi sohasidagi davlat siyosatining amalga oshirishning dolzarb masalalari. 2023/10/26. 17-21
13. MURADOV SIROJIDDIN HUSAN O‘G‘LI. Mehnatni muhofaza qilishning rivojlanish tarixiy bosqichlarini o‘rganish// Aholi bandligi sohasidagi davlat siyosatining amalga oshirishning dolzarb masalalari. 2023/10/26. 8-16
14. Muradov, S. (2023). ISHLAB CHIQARISHDAGI AVARIYALARNI O‘RGANISH VA TAHLIL QILISH. Educational Research in Universal Sciences, 2(16), 474–477. Retrieved from <http://erus.uz/index.php/er/article/view/5015>

15. Muradov Sirojiddin. Ishlab chiqarishdagi avariyalarni o'rganish va tahlil qilish// Educational Research in Universal Sciences, 2(16), 474–477.
16. Muradov S. ISHLAB CHIQRISHDAGI AVARIYALARNI O'RGANISH VA TAHLIL QILISH //Educational Research in Universal Sciences. – 2023. – T. 2. – №. 16. – C. 474-477.
17. Sirojiddin M., Umurzoq E. INNOVATIVE SOLUTIONS FOR IMPROVEMENT OF WORKING CONDITIONS AND ENVIRONMENT THROUGH THE KAIZEN METHOD //International journal of advanced research in education, technology and management. – 2023. – T. 2. – №. 12. – C. 42-47.
18. Sultonova D. N., & Siddiqova , M. A. qizi. (2023). COLOR SCHEME IN THE FORMATION OF THE ARTISTIC ENVIRONMENT OF THE INTERIOR OF MODERN EDUCATIONAL CENTERS. Educational Research in Universal Sciences, 2(14), 109–115. Retrieved from <https://erus.uz/index.php/er/article/view/4394>
19. Sultonova D. N., qizi Siddiqova M. A. COLOR SCHEME IN THE FORMATION OF THE ARTISTIC ENVIRONMENT OF THE INTERIOR OF MODERN EDUCATIONAL CENTERS //Educational Research in Universal Sciences. – 2023. – T. 2. – №. 14. – C. 109-115.
20. Muradov Sirojiddin Husan o'g'li, Xakimov Xurshid Hamidulla o'g'li, & Siddiqova Madinabonu Asatilla qizi. (2021). NEW INNOVATIVE ENGINEERING SOLUTIONS TO THE PROBLEMS OF SIGNALIZATION AND SECURITY SYSTEMS. European Journal of Life Safety and Stability (2660-9630), 2, 28-30. Retrieved from <http://www.ejlss.indexedresearch.org/index.php/ejlss/article/view/13>
21. Muradov S. H. o'g'li, & Zayniyev , U. U. o'g'li. (2023). PRINCIPLES OF PASSING AND DOCUMENTING INSTRUCTIONS ON SAFETY TECHNIQUES. Educational Research in Universal Sciences, 2(14), 116–119. Retrieved from <http://erus.uz/index.php/er/article/view/4395>
22. Muradov Sirojiddin Husan o'g'li, Zayniyev Ulfat Utkir o'g'li. PRINCIPLES OF PASSING AND DOCUMENTING INSTRUCTIONS ON SAFETY TECHNIQUES. Educational Research in Universal Sciences. 2023-11
23. Sirojiddin M., Umurzoq E. INNOVATIVE SOLUTIONS FOR IMPROVEMENT OF WORKING CONDITIONS AND ENVIRONMENT THROUGH THE KAIZEN METHOD //International journal of advanced research in education, technology and management. – 2023. – T. 2. – №. 12. – C. 42-47.
24. Muradov Sirojiddin; Egamberdiyev Umurzoq. INNOVATIVE SOLUTIONS FOR IMPROVEMENT OF WORKING CONDITIONS AND ENVIRONMENT THROUGH THE KAIZEN METHOD//International journal of advanced research in education, technology and management. – 2023. – T. 2. – №. 12. – C. 42-47.
25. Husan o'g'li M. S., Hamidulla o'g'li X. X. Siddiqova Madinabonu Asatilla qizi. NEW INNOVATIVE ENGINEERING SOLUTIONS TO THE PROBLEMS OF SIGNALIZATION AND SECURITY SYSTEMS //European Journal of Life Safety and Stability (2660-9630). – 2021. – T. 2. – C. 28-30.

26. Husan o'g'li M. S., Shavkat o'g'li E. D. INNOVATIVE SOLUTIONS TO PROTECT WORKERS FROM DANGEROUS GAS AND TOXIC SUBSTANCES IN HAZARDOUS INDUSTRY ENTERPRISES //Educational Research in Universal Sciences. – 2023. – С. 11-17.
27. Muradov S. H. o'g'li, & Egamov, D. S. o'g'li. (2023). INNOVATIVE SOLUTIONS TO PROTECT WORKERS FROM DANGEROUS GAS AND TOXIC SUBSTANCES IN HAZARDOUS INDUSTRY ENTERPRISES. Educational Research in Universal Sciences, 2(14), 340–342. Retrieved from <http://erus.uz/index.php/er/article/view/4443>
28. O'G'LI L. A. A. et al. PHYSIOLOGICAL AND HYGIENE BASIS OF HUMAN LABOR ACTIVITY //International journal of advanced research in education, technology and management. – 2023. – Т. 2. – №. 11.
29. MURADOV SIROJIDDIN HUSAN O'G'LI; ESHPO'LATOV AZIZBEK ADHAM O'G'LI. PHYSIOLOGICAL AND HYGIENE BASIS OF HUMAN LABOR ACTIVITY// International journal of advanced research in education, technology and management.2023.266-273.
30. Rakhimov, O. D., and S. H. Muradov. "Digitalization of Instructions on Labor Protection and Safety Techniques." European journal of life safety and stability (EJLSS) 24 (2022): 80-86.
31. O.D. Rakhimov, Muradov S.H. Digitalization of Instructions on Labor Protection and Safety Techniques. // European journal of life safety and stability (EJLSS). 2022. №24. P.80-86.
32. O'G'LI M. S. H. ANALYSIS OF “MEASURES TO ENSURE OCCUPATIONAL SAFETY IN THE FIELD OF CARGO TRANSPORTATION AND LOADING.” //International journal of advanced research in education, technology and management. – 2023. – Т. 2. – №. 9.
33. MURADOV SIROJIDDIN HUSAN O'G'LI. ANALYSIS OF “MEASURES TO ENSURE OCCUPATIONAL SAFETY IN THE FIELD OF CARGO TRANSPORTATION AND LOADING.”// INTERNATIONAL JOURNAL OF ADVANCED RESEARCH IN EDUCATION, TECHNOLOGY AND MANAGEMENT. Vol. 2 No. 9 (2023). 127-133
34. ЎҒЛИ Р. Х. Ф., СИРОЖИДДИН М. ИЗУЧЕНИЯ УСЛОВИЯ ТРУДА В КОМПАНИИ ЕВРОПЫ. МУРАДОВ СИРОЖИДДИН //International journal of advanced research in education, technology and management. – 2023. – Т. 2. – №. 10.
35. ЎҒЛИ, РАЖАБОВ ХУРШИД ФАХРИДДИН, and МУРАДОВ СИРОЖИДДИН. "ИЗУЧЕНИЯ УСЛОВИЯ ТРУДА В КОМПАНИИ ЕВРОПЫ. МУРАДОВ СИРОЖИДДИН." International journal of advanced research in education, technology and management 2.10 (2023).
36. ЎҒЛИ, Р. Х. Ф., & СИРОЖИДДИН, М. (2023). ИЗУЧЕНИЯ УСЛОВИЯ ТРУДА В КОМПАНИИ ЕВРОПЫ. МУРАДОВ СИРОЖИДДИН. International journal of advanced research in education, technology and management, 2(10).
37. Rayimkulov A., Murodov S. Some Issues of Safety in the Use of Tower Cranes Used in Construction Projects //JournalNX. – С. 301-308.
38. Rayimkulov A., Murodov S. Some Issues of Safety in the Use of Tower Cranes Used in Construction Projects //JournalNX. – С. 301-308.

39. Мурадов, Сирожиддин. "ПРОБЛЕМЫ ТУШЕНИЯ ПОЖАРОВ КЛАССА Е ЛИЧНЫМ СОСТАВОМ ПОЖАРНОЙ ОХРАНЫ В МИРЕ." *International journal of advanced research in education, technology and management* 2.5 (2023).
40. Мурадов С. ПРОБЛЕМЫ ТУШЕНИЯ ПОЖАРОВ КЛАССА Е ЛИЧНЫМ СОСТАВОМ ПОЖАРНОЙ ОХРАНЫ В МИРЕ // *International journal of advanced research in education, technology and management*. – 2023. – Т. 2. – №. 5.
41. Мурадов, С. (2023). ПРОБЛЕМЫ ТУШЕНИЯ ПОЖАРОВ КЛАССА Е ЛИЧНЫМ СОСТАВОМ ПОЖАРНОЙ ОХРАНЫ В МИРЕ. *International journal of advanced research in education, technology and management*, 2(5).
42. Raximov O.D, Muradov S.H. SANOAT KORXONALARI RAHBARI VA MUTAXASSISLARINI MEHNAT MUHOFAZASI BO‘YICHA O‘QITISH VA BILIMLARINI SINOVDAN O‘TKAZISHNI RAQAMLASHTIRISH. MONOGRAFIYA.2023.1-96
43. Raximov O.D, Muradov S.H. SANOAT KORXONALARI RAHBARI VA MUTAXASSISLARINI MEHNAT MUHOFAZASI BO‘YICHA O‘QITISH VA BILIMLARINI SINOVDAN O‘TKAZISHNI RAQAMLASHTIRISH// INTELLEKT. MONOGRAFIYA.2023
44. Dustkabilovich, R. O. & o`g`li, M. S. H. (2021). Innovative Technologies in Teachingdirectors and Specialists of Industrial Enterprises on "Labor Protection". *European Journal of Life Safety and Stability* (2660-9630), 80-85. Retrieved from <http://ejlss.indexedresearch.org/index.php/ejlss/article/view/3>
45. Rakhimov Oktyabr Dustkabilovich; Muradov Sirojiddin Husan o`g`li. Innovative Technologies in Teachingdirectors and Specialists of Industrial Enterprises on "Labor Protection"// *European Journal of Life Safety and Stability* (2660-9630), 2021/12/29. 80-85.
46. Muradov S.H; Safarov Sh. O‘. MEHNAT SHAROITLARI VA MUHITINI “KAIZEN” USULI YORDAMIDA TAKOMILLASHTIRISHNING INNOVATSION YECHIMLARI// PAXTA TOZALASH, TO‘QIMACHILIK VA YENGIL SANOAT SOHALARINING TECHNOLOGIYASINI TAKOMILLASHTIRISH. 2023. 90-92
47. СИРОЖИДДИН МУРАДОВ. ИЗУЧЕНИЯ ОХРАНА ТРУДЫ НА ПРОИЗВОДСТВЕ КОРЕИ// ХӨДӨЛМӨР, НИЙГМИЙН ХАРИЛЦАА СУДЛАЛ. 2023. 242-247
48. Muradov Sirojiddin Husan ugli; Odilov Muzaffar. MAIN INDICATORS OF LABOR PROTECTION MEASURES EFFICIENCY// *INTERNATIONAL JOURNAL OF SCIENTIFIC RESEARCHERS* 2023. 201-206
49. Sultonova D. N., qizi Siddiqova M. A. COLOR SCHEME IN THE FORMATION OF THE ARTISTIC ENVIRONMENT OF THE INTERIOR OF MODERN EDUCATIONAL CENTERS // *Educational Research in Universal Sciences*. – 2023. – Т. 2. – №. 14. – С. 109-115.
50. Muradov, S., & Usmonov H. (2024). MEHNATNI MUHOFAZA QILISHNING RIVOJLANISH TARIXIY BOSQICHLARINI O‘RGANISH. *Interpretation and Researches*.
извлечено ОТ
<https://interpretationandresearches.uz/index.php/iar/article/view/1915>

51. МУРАДОВ СИРОЖИДДИН учитель-стажер. Каршинский инженерно-экономический институт кафедры «Охрана труда и техника безопасности» Республики Узбекистан. (2024). НЕКОТОРЫЕ АСПЕКТЫ БЕЗОПАСНОСТИ ПРИМЕНЕНИЯ ГРУЗОПОДЪЕМНЫХ КРАНОВ В СТРОИТЕЛЬНО-МОНТАЖНЫХ РАБОТАХ. Zenodo. <https://doi.org/10.5281/zenodo.10684166>
52. СИРОЖИДДИН М. НЕКОТОРЫЕ АСПЕКТЫ БЕЗОПАСНОСТИ ПРИМЕНЕНИЯ ГРУЗОПОДЪЕМНЫХ КРАНОВ В СТРОИТЕЛЬНО-МОНТАЖНЫХ РАБОТАХ //International journal of advanced research in education, technology and management. – 2024. – Т. 3. – №. 2. – С. 167-177.
53. Muradov S. CONSTRUCTION-INSTALLATION ISHLARIDA KUTARAMA KRANLARDAN USE FUNDAMENTAL SECURITY OF SUPPLY //Modern Science and Research. – 2024. – Т. 3. – №. 2. – С. 786-792.
54. Muradov, S. (2024). CONSTRUCTION-INSTALLATION ISHLARIDA KUTARAMA KRANLARDAN USE FUNDAMENTAL SECURITY OF SUPPLY. Modern Science and Research, 3(2), 786–792. Retrieved from <https://inlibrary.uz/index.php/science-research/article/view/29479>
55. Muradov, S. (2024). ASSESSMENT OF THE CHEMICAL SITUATION IN AN ACCIDENT IN FACILITIES USING KTZM. MODERN SCIENCE AND RESEARCH, 3(2), 1142–1152. <https://doi.org/10.5281/zenodo.10701651>
56. СИРОЖИДДИН, МУРАДОВ. "РАЖАБОВ ХУРШИД ФАХРИДДИН ЎҒЛИ. ИЗУЧЕНИЯ УСЛОВИЯ ТРУДА В КОМПАНИИ ЕВРОПЫ. МУРАДОВ СИРОЖИДДИН." *International journal of advanced research in education, technology and management* 10 (2023): 27.
57. Sirojiddin M., Umurzoq E. INNOVATIVE SOLUTIONS FOR IMPROVEMENT OF WORKING CONDITIONS AND ENVIRONMENT THROUGH THE KAIZEN METHOD //International journal of advanced research in education, technology and management. – 2023. – Т. 2. – №. 12. – С. 42-47.
58. Muradov S. PRINCIPLES OF ENSURING THE SAFETY OF USING LIFTING CRANES IN CONSTRUCTION-ASSEMBLY WORKS //Modern Science and Research. – 2024. – Т. 3. – №. 2. – С. 933-939.
59. Muradov S. ASSESSMENT OF THE CHEMICAL SITUATION IN AN ACCIDENT IN FACILITIES USING KTZM //Modern Science and Research. – 2024. – Т. 3. – №. 2. – С. 1142-1152.
60. Muradov S., Usmonov H. MEHNATNI MUHOFAZA QILISHNING RIVOJLANISH TARIXIY BOSQICHLARINI O'RGANISH //Interpretation and researches. – 2024.
61. СИРОЖИДДИН М. НЕКОТОРЫЕ АСПЕКТЫ БЕЗОПАСНОСТИ ПРИМЕНЕНИЯ ГРУЗОПОДЪЕМНЫХ КРАНОВ В СТРОИТЕЛЬНО-МОНТАЖНЫХ РАБОТАХ //International journal of advanced research in education, technology and management. – 2024. – Т. 3. – №. 2. – С. 167-177.
62. Muzaffar O. MAIN INDICATORS OF LABOR PROTECTION MEASURES EFFICIENCY Muradov Sirojiddin Husan ugli.

63. Muradov Sirojiddin Husan ugli; Odilov Muzaffar. MAIN INDICATORS OF LABOR PROTECTION MEASURES EFFICIENCY// [International journal of scientific researchers](#). 2023. 201-206