

DEVELOPMENT OF LABOR PROTECTION RULES WHEN CARRYING OUT WELDING WORKS

Mamadaliyev Adkhamjon Tukhtamirzaevich

*Namangan Engineering Construction Institute, 160103, Republic of Uzbekistan,
Namangan, I. Karimov st.,12*

Abstract: *This article provides information on the development of labor protection rules during welding. It provides information on the requirements for electric welding and gas welding and cutting operations, as well as the harmful factors that occur during the welding process.*

Key words: *Labor protection, methane, propane, acetylene, free hydrochloric acid vapor, TZS brand tinted glass, electrical safety, electric welding, gas welding, metalworking*

One of the main directions of the social policy in our country is to improve the working conditions of workers. Human work and ensuring its safety in the process of this work should be one of the priority areas of every society. Work is the basis of human formation and social development, creation of material wealth. Properly organized work leads to physical, intellectual and spiritual development of people. Steel pipes required for gas and water are mainly joined by electric and gas welding. Various methods of metal processing are widely used in the construction of buildings and structures

Welding works are mainly divided into types of electric welding and gas welding, metal fusion or contact welding is performed. Metal electrodes are used in electric welding. The main point of this is that it pays special attention to electrical safety. Welding works are carried out in workshops that prepare separate construction materials or directly at the construction site itself, that is, metal processing works that are installed on the building itself. At this point, we will first talk about the types of welding - gas or electric welding, and it will be explained that there are mainly electric welding works in construction.

Taking into account the presence of various harmful and dangerous factors in the performance of electric welding, it is necessary to train and explain the rules of safety techniques for construction plumbers.

In electric welding, UONI-13/ 55U, OZS-4 and other electrodes are used. One of the main features of these electrodes is that it is a metal rod of the Sv-08GS, Sv-08G2S, Sv-18XGSA brand covered with a flux containing manganese, which rises to the atmospheric air in the form of dust under the influence of high temperature during welding. If the workers are not provided with a side breeze, i.e. air movement speed in the range of 0.5-1.2 m/s, it affects the respiratory organs and causes mutagenicity in humans. Creation of comfortable working conditions for workers, regulation of harmful substances in the air of workplaces is carried out in accordance with the requirements of

Uz.RST30108-95. If necessary, the eyes are protected by a special sheet of the «E» brand, with a tinted glass of the TZS brand. In addition, the respiratory organs are protected using gauze masks or respirators.

Two types of wires are connected to the electric welding machine, the first is the input wire and the second is the output wire. The voltage on the incoming wires is mainly 220 V, and the voltage on the outgoing wires is 100 B. For incoming wires, multi-wire, strong insulated conductors made of non-ferrous metals such as aluminum and copper are used, the diameter of which is 3 mm according to the diameter of the electrode, for outgoing wires, only strong insulated copper wires are used, in general, all wires are without wires.

Full compliance with electrical safety in electric welding work, use of unauthorized, unmarked electric points is not allowed. The electrode handle must be plastic or rubber coated, and the welder must wear special protective gloves. In addition, it is recommended to use hose gas masks when performing any welding operations involving large closed items.

Oil and fuel tanks of vehicles are allowed to be welded after emptying the tank completely, washing it with detergents and drying it in carbon dioxide gas with a temperature of 250-300°C.

It is necessary to wear special boots for the feet during electric welding, and to use overalls made of densely woven canvas. Above, open-air operation is not allowed in precipitation and 5 m sec wind conditions.

Gas welding uses methane, propane, and acetylene gases as fuel. Acetylene gas is mainly used in cases where high heat is required. Together with these, oxygen gas is used against the formation of soot during combustion. Extraction of acetylene gas from carbide is carried out, and special equipment is used for this purpose. Safety valves are used to ensure safe use of this equipment. If this valve does not work normally, the use of the device is prohibited.

A special grate container is used for placing carbide in a water apparatus. Before doing this, the hoses attached to the device, cover gaskets are checked for tightness. At the point of connection of the hoses to the burner, it is necessary to clearly distinguish whether it is acetylene or oxygen.

Since the acetylene-generating apparatus and oxygen cylinders are among the vessels operating at high pressure, it is necessary to protect them from mechanical impact, heat, and sunlight. Because these vessels can burst due to pressure increase.

Gas welding devices and oxygen cylinders must have special reducers. The set of reducers should have manometers indicating high pressure. Gas cylinders should be at least 5 m away from open flames and 1.5 m away from room heating devices. It is allowed to transport gas cylinders on soft trolleys in an upright position within the territory of the enterprise, in specially equipped vehicles. During transportation, it should be ensured that their faucets are closed and the lids are tightly closed.

Fire safety requirements must be fully met in gas welding. Accordingly, there should be fire extinguishers equipped with carbon dioxide, air-foam-chemical extinguishing agents. One of the main requirements for them in terms of explosion safety is not to leave it unattended, and besides, it is necessary not to allow people without special permission to work with gas welding. If possible, they should be reviewed every three months. It is prohibited to touch the faucets of oxygen cylinders with oily objects and hands.

After the work is completed, the reducers should be removed from the oxygen cylinders, the gas hoses should be collected in a package, the excess carbide should be carefully removed from the apparatus, the water should be drained and thoroughly rinsed, and all items should be locked in a predetermined place where they can be controlled. Workers should be allowed to wash in washrooms and get dressed in utility rooms after work.

When fusion welding with electric or fuel heaters is used in the repair of radiators, first of all, rosin, borax ($\text{Na}_2\text{B}_2\text{O}_7$) or salt in an acidic medium, used to clean the welding surfaces, for example, more zinc chloride solution is used for this purpose, various harmful and toxic gases, free hydrochloric acid are used during welding. steam is released. Therefore, at such a time, it is recommended to carry out welding work in the open air, in the conditions of a side breeze, or in a room with a chimney.

In hot seasons, according to Chapter XIII of the Labor Code, workers must be provided with drinking water - carbonated water or salt water, tea. The head of the enterprise and relevant engineers are responsible for the implementation of these works.

When creating standard working conditions, it is necessary to take into account meteorological indicators based on the requirements of GOST 12.1.005-81. The temperature in the rooms for welding materials should not be lower than 180°C and not higher than 220°C . Relative humidity should be 60-40%. The speed of air movement should be 0.2-0.3 m/s, in any case it should not exceed 0.5 m/s.

LITERATURE:

1. Sadriddinovich, B. N., & Tukhtamirzaevich, M. A. (2023). Lighting and Ventilation for Teaching Rooms. *Web of Synergy: International Interdisciplinary Research Journal*, 2(4), 634-642.

2. Мамадалиев, А. Т. (2021). Теоретическое обоснование параметров чашеобразного дражирующего барабана. *Universum: технические науки*, (6-1 (87)), 75-78.

3. Tuxtamirzaevich, M. A. (2021). Presowing Treatment of Pubescent Cotton Seeds with a Protective and Nutritious Shell, Consisting of Mineral Fertilizers in an Aqueous Solution and a Composition of Microelements. *Design Engineering*, 7046-7052.

4. Rosaboev, A., & Mamadaliyev, A. (2019). Theoretical substantiation of parameters of the cup-shaped coating drums. *International Journal of Advanced Research in Science, Engineering and Technology*, 6(11), 11779-11783.
5. Tukhtamirzaevich, M. A. (2022). Naturally occurring carbonate minerals and their uses. *Scientific Impulse*, 1(5), 1851-1858.
6. Мамадалиев, А. Т. (2022, December). Инженерлик геологияси фани мавзусини янги педагогик технология асосида ўқитиш. In *Proceedings of International Educators Conference (Vol. 1, No. 3, pp. 494-504)*.
7. Tukhtamirzaevich, M. A. (2024). CAUSES OF AIR POLLUTION IN TASHKENT CITY AND PREVENTION MEASURES. *JOURNAL OF INNOVATIONS IN SCIENTIFIC AND EDUCATIONAL RESEARCH*, 7(2), 1-9.
8. Tukhtamirzaevich, M. A. (2022, December). Results of laboratory-field testing of hairy seeds coated with mineral fertilizers. In *Proceedings of International Educators Conference (Vol. 1, No. 3, pp. 528-536)*.
9. Мамадалиев, А. Т. (2022). Уруғлик чигитларни макро ва микроўғитлар билан қобиқловчи қурилманинг ўлчамлари ва иш режимларини асослаш. In *МИРОВАЯ НАУКА 2022. ПРОБЛЕМЫ И ПЕРСПЕКТИВЫ РАЗВИТИЯ. МЕЖДУНАРОДНЫЕ КОММУНИКАЦИИ* (pp. 54-57).
10. Mamadaliyev, A. (2012). Тукли чигитларни қобиқлаш барабанининг параметрларини назарий асослаш. *Scienceweb academic papers collection*.
11. Mamadaliyev, A. (2014). ТУКЛИ ЧИГИТЛАРНИ МИНЕРАЛ ЎҒИТЛАР БИЛАН ҚОБИҚЛОВЧИ ҚУРИЛМАНИНГ КОНУССИМОН ЁЙГИЧИ ПАРАМЕТРЛАРИНИ АСОСЛАШ. *Scienceweb academic papers collection*.
12. Mamadaliyev, A. (2002). УРУҒЛИК ЧИГИТЛАРНИ МАКРО ВА МИКРОЎҒИТЛАР КОМПОЗИЦИЯЛАРИ БИЛАН ҚОБИҚЛАШ ТЕХНОЛОГИЯСИ ВА ҚУРИЛМАЛАРИ. *Scienceweb academic papers collection*.
13. Tukhtamirzaevich, M. A. THEORETICAL STUDY OF THE MOVEMENT OF MACRO AND MICRO FERTILIZERS IN AQUEOUS SOLUTION AFTER THE SEED FALLS FROM THE SPREADER. *SCIENTIFIC AND TECHNICAL JOURNAL OF NAMANGAN INSTITUTE OF ENGINEERING AND TECHNOLOGY*.
14. Мамадалиев, А. Т. (2022). Карбонатли минераллар ва уларнинг халқ хўжалигидаги аҳамияти. *PRINCIPAL ISSUES OF SCIENTIFIC RESEARCH AND MODERN EDUCATION*, 1(10).
15. Tukhtamirzaevich, M. A. (2022). Naturally occurring carbonate minerals and their uses. *Scientific Impulse*, 1(5), 1851-1858.
16. Tukhtamirzaevich, M. A. (2023). Interactive educational methods in teaching the subject of physicochemical properties of minerals. *Scientific Impulse*, 1(6), 1718-1725.

17. Tukhtamirzaevich, M. A. (2020). Study of pubescent seeds moving in a stream of water and mineral fertilizers. *International Journal on Integrated Education*, 3(12), 489-493.

18. Mamadaliyev, A. T. (2024). TEACHING WITH THE SUPPORT OF INTERACTIVE METHODS AS AN EXAMPLE OF INTRUSIVE AND EFFUSIVE ROCKS. *Экономика и социум*, (1 (116)), 280-284.

19. Tukhtamirzaevich, M. A. (2022). Dimensions and justification of operating modes for panning device of haired cotton seeds with macro and micro fertilizers. *International scientific-practical conference on "Modern education: problems and solutions"* (Vol.1, No.5)

20. Mamadaliyev, A. (2003). ҚИШЛОҚ ХЎЖАЛИК ЭКИНЛАРИ УРУҒЛАРИНИНГ ЮЗИНИ ХИМОЯ-ОЗУҚА ҚОБИҒИ БИЛАН ҚОПЛАШ УСУЛИ ВА УНИ АМАЛГА ОШИРИШ УЧУН ҚУРИЛМА. *Scienceweb academic papers collection*.

21. Мамадалиев, А. Т. (2023). МИНЕРАЛЛАРНИНГ ФИЗИК КИМЁВИЙ ХУСУСИЯТЛАРИ МАВЗУСИНИ ИНТЕРФАОЛ ТАЪЛИМ МЕТОДЛАРИ АСОСИДА ЎҚИТИШ. *STUDIES IN ECONOMICS AND EDUCATION IN THE MODERN WORLD*, 2(4).

22. Tukhtamirzaevich, M. A. (2023). PLANTING SEEDS WITH NITROGEN PHOSPHORUS FERTILIZERS. *PRINCIPAL ISSUES OF SCIENTIFIC RESEARCH AND MODERN EDUCATION*, 2(1).

23. Мамадалиев, А. Т. (2023). ФАВҚУЛОДДА ВАЗИЯТЛАР ВА ФУҚАРО МУҲОФАЗАСИ ФАНИНИ ЎҚИТИШДА ИНТЕРФАОЛ УСУЛЛАРДАН ФОЙДАЛАНИШ ИМКОНИАТЛАРИ. *Экономика и социум*, (1-2 (104)), 365-372.

24. Tukhtamirzaevich, M. A. (2023). Possibilities of Using New Pedagogical Technologies in Teaching the Subjects of Emergency Situations and Civil Protection. *Web of Synergy: International Interdisciplinary Research Journal*, 2(2), 451-457.

25. Мамадалиев, А. Т. (2023). ФАВҚУЛОДДА ВАЗИЯТЛАРДА АҲОЛИНИ МАЪНАВИЙ-РУҲИЙ ТАЙЁРЛАШ. *JOURNAL OF INNOVATIONS IN SCIENTIFIC AND EDUCATIONAL RESEARCH*, 6(12), 98-107.

26. Мамадалиев, А. Т. (2023). ПРЕПОДАВАНИЕ ТЕМЫ “ФИЗИКО-ХИМИЧЕСКИЕ СВОЙСТВА МИНЕРАЛОВ” НА ОСНОВЕ ИНТЕРАКТИВНЫХ ОБРАЗОВАТЕЛЬНЫХ МЕТОДОВ. *Экономика и социум*, (2 (105)), 789-794.

27. Мамадалиев, А. Т. (2023). ОКСИДЛИ МИНЕРАЛЛАРНИНГ ТАБИАТДА УЧРАШИ ВА ХАЛҚ ХЎЖАЛИГИ УЧУН АҲАМИЯТИ. *О'ЗБЕКISTONDA FANLARARO INNOVATSIYALAR VA ILMIY TADQIQOTLAR JURNALI*, 2(18), 470-478.

28. Tukhtamirzaevich, M. A. (2023). Occurrence of Oxide Minerals in Nature and Importance for the National Economy. *Web of Semantic: Universal Journal on Innovative Education*, 2(3), 189-195.

29. Tukhtamirzaevich, M. A. (2023). PREPARING THE POPULATION OF THE REPUBLIC OF UZBEKISTAN FOR EMERGENCY SITUATIONS. *Scientific Impulse*, 2(16), 396-405.

30. Tukhtamirzaevich, M. A. (2023). Landslide occurrence in the territory of our republic and measures to prevent them. *PEDAGOG*, 6(2), 372-381.

31. Tukhtamirzaevich, M. A. (2023). The flood phenomenon observed in the territories of our republic and the fight against this phenomenon. *PEDAGOG*, 6(2), 333-342.

32. Мамадалиев, А. Т. (2023). ОБЕСПЕЧЕНИЕ ЭЛЕКТРОБЕЗОПАСНОСТИ В ПРОЦЕССЕ РАБОТЫ С КОМПЬЮТЕРОМ. *Scientific Impulse*, 1(10), 1676-1685.

33. Tukhtamirzaevich, M. A. (2023). PRINCIPLES OF FORMATION OF ECOLOGICAL EDUCATION AND UPBRINGING. *PEDAGOG*, 6(5), 460-469.

34. Мамадалиев, А. Т. (2023, January). Ўзбекистон республикаси хуудларларида сел келиши ва унда аҳолининг ҳаракати. In *Proceedings of International Conference on Scientific Research in Natural and Social Sciences (Vol. 2, No. 1, pp. 211-220)*.

35. Tukhtamirzaevich, M. A. (2023). SPIRITUAL PREPARATION OF THE POPULATION WHEN EMERGENCY SITUATIONS OCCUR. *PEDAGOG*, 6(6), 84-93.

36. Tukhtamirzaevich, M. A. (2023). DEVELOPMENT OF SAFETY TECHNIQUE REQUIREMENTS FOR THE USE OF PRESSURE WORKING EQUIPMENT. *World of Science*, 6(6), 362-370.

37. Мамадалиев, А. Т. (2023). КАРБОНАТНОЕ МИНЕРАЛЬНОЕ СЫРЬЕ И ИХ ЗНАЧЕНИЕ В НАРОДНОМ ХОЗЯЙСТВЕ. *Modern Scientific Research International Scientific Journal*, 1(4), 46-57.

38. Tukhtamirzaevich, M. A. (2023). Theoretical Study of Macro and Micro Fertilizer Compositions in the Water Solution of Mobile Seeds after Dropping from the Spreader. *Web of Synergy: International Interdisciplinary Research Journal*, 2(6), 357.

39. Tukhtamirzaevich, M. A. (2023). LABOR PROTECTION IN MAINTENANCE AND REPAIR OF AGRICULTURAL MACHINES. *World of Science*, 6(6), 63-72.

40. Tukhtamirzaevich, M. A. (2023). FORMS AND METHODS OF ORGANIZATION OF CIVIL PROTECTION PROMOTION. *PEDAGOG*, 6(6), 74-83.

41. Tukhtamirzaevich, M. A. (2022). Flooding in the territory of the republic of Uzbekistan and the movement of the population therein. *Scientific Impulse*, 1(5), 2285-2291.

42. Мамадалиев, А. Т. (2023). ЧЎКИНДИ ТОҒ ЖИНСЛАРИ МАВЗУСИНИ РИВОЖЛАНТИРУВЧИ ТАЪЛИМ ТЕХНОЛОГИЯЛАРИ АСОСИДА ЎҚИТИШ. *SO 'NGI ILMIY TADQIQOTLAR NAZARIYASI*, 6(7), 57-67.

43. Tukhtamirzaevich, M. A. (2022). THE MOVEMENT OF THE POPULATION WHEN A FLOOD HAPPENS. *Scientific Impulse*, 1(5), 1859-1866.
44. Mamadaliev, A. (2021). Theoretical study of the movement of macro and micro fertilizers in aqueous solution after the seed falls from the spreader. *Scienceweb academic papers collection*.
45. Tukhtamirzaevich, M. A. (2023). ROLE AND TASKS OF CIVIL PROTECTION CAMPAIGN. *Scientific Impulse*, 2(16), 406-414.
46. Tukhtamirzaevich, M. A. (2023). DEVELOPMENT OF RULES OF SAFETY TECHNIQUES DURING PRELIMINARY TILLAGE. *Научный Фокус*, 1(6), 91-98.
47. Tukhtamirzaevich, M. A. (2023). CREATING COMFORTABLE WORKING CONDITIONS FOR COMPUTER WORKERS. *Новости образования: исследование в XXI веке*, 2(14), 301-309.
48. Мамадалиев, А. Т. (2023). ЧАНГНИ КЕЛИБ ЧИҚИШИ ВА УНИНГ ОЛДИНИ ОЛИШ ЧОРА ТАДБИРЛАРИ. *SO'NGI ILMIY TADQIQOTLAR NAZARIYASI*, 6(12), 316-326.
49. Мамадалиев, А. Т. (2023). МАГМАТИК ТОҒ ЖИНСЛАРИ МАВЗУСИНИ РИВОЖЛАНТИРУВЧИ ТАЪЛИМ ТЕХНОЛОГИЯЛАРИ АСОСИДА ЎҚИТИШ. *WORLD OF SCIENCE*, 6(12), 136-144.
50. Tukhtamirzaevich, M. A. (2023). NOISE AND VIBRATION IN THE PROCESS OF WORKING WITH A COMPUTER AND THE REQUIREMENTS APPLIED TO THEM. *Научный Фокус*, 1(8), 516-524.
51. Tukhtamirzaevich, M. A. (2023). ELECTRICAL SAFETY IN THE PROCESS OF REPAIRING COMPUTER EQUIPMENT. *JOURNAL OF INNOVATIONS IN SCIENTIFIC AND EDUCATIONAL RESEARCH*, 6(12), 183-192.
52. Tukhtamirzaevich, M. A. (2023). MOVEMENT OF THE POPULATION WHEN A LANDSLIDE OCCURS. *Scientific Impulse*, 2(16), 630-640.
53. Tukhtamirzaevich, M. A. (2023). PROVIDING ENVIRONMENTAL EDUCATION AND TRAINING TO YOUNG PEOPLE. *Scientific Impulse*, 2(16), 641-649.
54. Бахриддинов, Н. С., & Мамадалиев, А. Т. (2022). Преимущество отделения осадков, образующихся при концентрировании экстрагируемых фосфорных кислот. *Scientific Impulse*, 1(5), 1083-1092.
55. Мамадалиев, А. Т., & Мамаджанов, З. Н. (2022). Фавқулодда вазиятлар ва аҳоли муҳофазаси. *Дарслик*. Тошкент, 2.
56. Мамадалиев, А. Т., & Мамаджанов, З. Н. (2022). Минерал ўғитлар ва микроэлементли композицияларни сувдаги эритмаси билан қобиқланган тукли чигитларни лаборатория-дала шароитида синаш натижалари. *Экономика и социум*, (2-1 (93)), 382-387.
57. Мамадалиев, А. Т., & Ахунов, Д. Б. (2023). Действие населения при наводнении. *PEDAGOG*, 6(3), 147-157.

- 58.Бахриддинов, Н. С., & Мамадалиев, А. Т. (2023). Компьютер хоналари учун ёритиш ва шамоллатишни хисоблаш. *Scientific Impulse*, 1(8), 995-1003
59. Мамадалиев, А. Т., & Ахунов, Д. Б. (2023). Минералогия, кристаллография ва кристаллокимё фани мавзусини интерфаол таълим методлари асосида ўқитиш. *PEDAGOG*, 6(3), 63-73.
60. Tukhtamirzaevich, M. A. (2024). MEASURES TO MAINTAIN WORKABILITY AND PREVENT FATIGUE. *JOURNAL OF INNOVATIONS IN SCIENTIFIC AND EDUCATIONAL RESEARCH*, 7(3), 47-55.
- 61.Вафакулов, В. Б., & Мамадалиев, А. Т. (2023). ТРЕБОВАНИЯ К СНЕГОЗАЩИТНЫМ БАРЬЕРАМ НА ГОРНЫХ ДОРОГАХ. *Universum: технические науки*, (2-1 (107)), 25-28.
- 62.Бахриддинов, Н. С., & Мамадалиев, А. Т. (2023). РАСЧЕТ ОСВЕЩЕНИЯ И ВЕНТИЛЯЦИИ ДЛЯ КОМПЬЮТЕРНЫХ АУДИТОРИИ. *Journal of innovations in scientific and educational research*, 6(5), 635-644.
63. Бахриддинов, Н. С., & Мамадалиев, А. Т. (2023). СОЗДАНИЕ КОМФОРТНЫХ УСЛОВИЙ ТРУДА ДЛЯ КОМПЬЮТЕРНЫХ РАБОТНИКОВ. *Modern Scientific Research International Scientific Journal*, 1(8), 45-58.
- 64.Sadriddinovich, B. N., & Tukhtamirzaevich, M. A. (2022). Development of production of building materials in the republic of uzbekistan through innovative activities. *Scientific Impulse*, 1(4), 213-219.
- 65.Абдуллаев, М. Т., & Мамадалиев, А. Т. (2022). ИЗУЧЕНИЕ ЭФФЕКТИВНОСТИ ДРАЖИРОВАНИЯ СЕМЯН ХЛОПЧАТНИКА В ВОДНОМ РАСТВОРЕ МИНЕРАЛЬНЫХ УДОБРЕНИЙ И КОМПОЗИЦИИ МИКРОЭЛЕМЕНТОВ. *Экономика и социум*, (1-1 (92)), 270-275.
- 66.Tukhtamirzaevich, M. A., & Akhmadjanovich, T. A. (2022). CAUSES OF THE OCCURRENCE OF LANDSLIDES AND MEASURES FOR ITS PREVENTION. *Scientific Impulse*, 1(5), 2149-2156.
- 67.Tukhtamirzaevich, M. A., & Gulomjonovna, Y. Y. (2022, December). Use of new pedagogical technologies in teaching the subjects of industrial sanitation and labor hygiene. In *Proceedings of International Conference on Modern Science and Scientific Studies (Vol. 1, No. 3, pp. 378-386)*.
- 68.Vafakulov, V. B. (2023). QAMCHIQ DOVONIDAGI XIMOYA INSHOOTLARIGA QOR KO 'CHKISI TA'SIRINITAHLILQILISH. *Экономика и социум*,(2(105)),172-177.
- 69.Tukhtamirzaevich, M. A., & Bakhramovich, V. V. (2023). JUSTIFY THE REQUIREMENTS FOR THE PARAMETER OF AVALANCHE IMPACT ON PROTECTIVE STRUCTURES OF MOUNTAIN ROADS. *Scientific Impulse*,1(7),678-
- 70.Бахриддинов, Н. С., & Мамадалиев, А. Т. (2023). ИСПОЛЬЗОВАНИЯ ИНТЕРАКТИВНЫХ МЕТОДОВ В ОБУЧЕНИИ ТЕМЫ «ПРОМЫШЛЕННАЯ ПЫЛЬ» И «ПРОМЫШЛЕННЫЕ ЯДЫ». *World of Science*, 6(7), 32-40.

71.Sadriddinovich, B. N., & Tukhtamirzaevich, M. A. (2023). ELUCIDATION OF THE TOPIC OF DANGEROUS AND HARMFUL FACTORS IN PRODUCTION BASED ON NEW PEDAGOGICAL TECHNOLOGIES. Научный Фокус, 1(6), 346-354.

72.Бахриддинов, Н. С., & Мамадалиев, А. Т. (2023). КОМПЬЮТЕР БИЛАН ИШЛОВЧИЛАР УЧУН ҚУЛАЙ МЕҲНАТ ШАРОИТЛАРИНИ ЯРАТИШ. SO 'NGI ILMIY TADQIQOTLAR NAZARIYASI, 6(10), 34-43.

73.Sadriddinovich, B. N., & Tukhtamirzaevich, M. A. (2023). USE OF “GAMING TECHNOLOGY” IN TEACHING THE SCIENCE OF LIFE ACTIVITY SAFETY. Scientific Impulse, 2(15), 879-887.

74.Мамадалиев, А. Т. (2024). СОФ ТУҒМА ЭЛЕМЕНТЛАРИНИНГ ХОССАЛАРИ ВА УЛАРИНИНГ ҚЎЛЛАНИШИ. JOURNAL OF INNOVATIONS IN SCIENTIFIC AND EDUCATIONAL RESEARCH, 7(3), 68-77.

75.Мамадалиев, А. Т. (2024). ПРИЧИНЫ ЗАГРЯЗНЕНИЯ ВОЗДУХА В ГОРОДЕ ТАШКЕНТА И МЕРЫ ПО ПРЕДОТВРАЩЕНИЮ. Экономика и социум, (2 (117)).

76.Мамадалиев, А. Т. (2024). САМОРОДНЫЕ МИНЕРАЛЫ И ИХ ЗНАЧЕНИЕ В НАЦИОНАЛЬНОЙ ЭКОНОМИКЕ. Экономика и социум, (2 (117)).

77. Бахриддинов, Н. С., & Мамадалиев, А. Т. (2023). ОКСИДНЫЕ МИНЕРАЛЫ И ИХ ЗНАЧЕНИЕ В НАРОДНОМ ХОЗЯЙСТВЕ. Modern Scientific Research International Scientific Journal, 1(4), 168-180.