

moqlari, yirik to'qimachilik korxonalari, yirik qurilish materiallari sanoati korxonalari tuman hududida qurish imkoniyatiga ega.

Ammo, tumanning qishloq xo'jaligiga, asosan dehqonchilikka ixtisoslashgan xo'jaliklarga ega bo'lishiga qaramasdan oziq-ovqat va yengil sanoat tarmoqlarini xomashyo bilan ta'minlash to'liq amalga oshmagan. Shu sababdan tuman sanoat kompleksining rivojlantirish masalalarini tahlil qilganda asosiy e'tiborni xomashyo resurslari bilan to'liq ta'minlanish darajasiga qaratish maqsadga muvofiqdir.

Ellikqal'a tumani Qoraqalpog'iston Respublikasi agrosanoat majmuasining ham muhim tarmog'i hisoblanadi. Tuman iqtisodiyotining eng asosiy tarmog'i qishloq xo'jaligidir.

Tuman xo'jaligining tarmoqlararo tizimida qishloq xo'jaligi, asosan paxtachilik, chorvachilik, meva, poliz ekinlari muhim o'rin egallaydi. Shundan qishloq xo'jaligi ishlab chiqarishiga, asosan paxtachilik tarmog'ini rivojlantirishga katta e'tibor berilmoqda [3].

Ellikqal'a tumani Qoraqalpog'iston Respublikasida yetishtirilgan paxtaning 10-12% ini yetkazib beradi. Lekin paxtadan olingan mahsulot hosildorlikning o'sishi hisobidan emas, ekin maydonlari ko'payishi hisobidan ko'paygan. Paxtachilikning bunday ekstensiv yo'l bilan rivojlanishining sababi Orol dengizi suvining kamayishi natijasida dengizdan ko'tarilgan tuzli changlar evaziga tuproqning sho'rlanishiga, iqlim sharoitining o'zgarishiga olib kelishidir. Chunki, tuman qishloq xo'jaligini rivojlantirishda yer va suv resurslari muhim omil sanaladi. Sababi, dehqonchilikning barcha turlari asosan sug'orilib ekiladigan ekinlar hisoblanadi.

Qishloq xo'jaligini sifat tomondan yuqori rivojlantirish uchun qishloq xo'jaligida bor bo'lgan imkoniyatlardan to'la foydalanishning ahamiyati yuqori. Dehqonchilikda paxta, g'alla va boshqa ekin turlarining hosildorligini ko'paytirish talab etadi. Tuman xo'jaliklari so'nggi yillari qishloq xo'jaligini rivojlantirish uchun qishloq xo'jaligi mashinalari, qo'shimcha texnika vositalari, qishloq xo'jaligini boshqarish va yuritish uchun malakali mutaxassislar, kadrlar bilan ta'minlanmoqda. Qishloq xo'jaligini rivojlantirishning hozirgi bosqichida yerning hosildorligini oshirish, agrosanoat tizimini intensiv rivojlantirishda iqtisodiy resurslardan unumli foydalanish strategiyasini ishlab chiqish va amalga oshirish ahamiyatli tadbirlardan biri hisoblanadi [2].

Shuning uchun tumanda qishloq xo'jaligi mahsulotlarini qayta ishlovchi o'rta va kichik korxonalarni qurish, tumanning ichki imkoniyatlarini e'tiborga olib, qishloq xo'jaligida ekin strukturasi qayta ko'rib chiqish, poliz va sabzavot, uzumchilik, bog'dorchilikni rivojlantirish hamda tumanda yetarli bog'dorchilik tajribasiga ega aholining va mehnat resurslarining mavjudligini e'tiborga olish lozim.

Bundan tashqari, tuman qishloq xo'jaligida tuproq unumdorligini oshirishda mahalliy o'g'itlardan keng foydalanish, dehqonchilikda almashlab ekishni ilmiy asosda olib borish, shuningdek, yerlarning meliorativ holatini oshirish kabi chora tadbirlarni amalga oshirish lozim. Bu esa tumandagi ortiqcha mehnat resurslarini ish bilan ta'minlanishiga, ya'ni ishsizlik muammasining hal bo'lishiga, bu esa o'z navbatida aholining turmush sharoitining yaxshilanishiga, tuman ijtimoiy-iqtisodiy rivojlanishiga zamin yaratadi.

Adabiyotlar

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Maqolada Ellikqal'a tumani ishlab chiqarishi tarmoqlari va qishloq xo'jaligi sohalarining hududiy joylashuvi va ayrim yillardagi qiyosiy ko'rsatkichlari keltirilgan. Qishloq xo'jaligi sohalarining rivojlanishidagi masalalar va ularni hal etish yo'llari ko'rsatilgan.

В статье говорится о расположении производственных отраслей промышленности и сельского хозяйства в Элликалинском районе и приводятся сравнительные показатели за несколько лет. Рассматриваются также вопросы развития сельского хозяйства и пути их решения.

The article is devoted to the study of manufacturing branches of industry and agriculture in Ellikala region and the author shows the comparative indicators in these fields for several years. The author also studies the issues of the development of agriculture and ways of their decision.

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THE INFLUENCE OF MICROWAVE RADIATION TO THE ELECTROPHYSICAL CHARACTERISTICS OF AU-TIB_x-GAAS DIODE STRUCTURE

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Таянч сўзлар: диодли структура, электрофизик характеристика, микро тўлқин нурланиши, деградация механизми, ички механик кучланиш (ИМК), ЖИЧ нурлантириш, Шоттки диодлари, эгрилик радиуси, планар технология, кенгайтириш параметри.

Ключевые слова: диодная структура, электрофизическая характеристика, микроволновые излучения, деградационный механизм, внутреннее механическое напряжение (ВМН), СВЧ излучения, диоды Шоттки, радиус кривизны, планарная технология, параметр уширений.

Key words: diode structure, electro physical characteristics, micro wave radiation, degradational mechanism, internal mechanic stress, JYCh radiation, Schottky diodes, curvature radius, planar technology, broadening parameters.

Increasing the qualities and belief (warrantees) of semiconductor devices is one of the main tasks which have been put in front of the technologies recently. Researching the external effects to the device structures and devices made from Arsenide gallium, gives opportunity to manage

first of all, the researching the degradation mechanism of these devices and their electro physical parameters.

In this work we learn the electro physical features of Au-TiB_x-GaAs diode structure the effect of microwave radiation.

Recently the interest on the microwave effects to the semiconductor materials, device structures and devices has been increased in considerable degree [1,2,3]. And this is connected with the finding the new technologies of researching the degradation mechanisms formed in the results of internal effects of semiconductor devices (temperature, powerful electr and magnet areas, radiation, microwave radiate, etc). One of the reasons of the changes of semiconductor materials and the device parameters made in the base of them internal mechanical stress (IMS), it [3] can not become to the degradation of semiconductor devices in all times as shown in work.

But in spite of the widely researching of relaxation process on crystals and semiconductor devices, (among them TiB_x-n-n^+GaAs barrier structure), the widely written works by scientists like professor U.A.Thkorik, R.V.Konakova and Q.I.Ismaylovs, the relaxation of stimulated IMS by microwave radiating in these words wasn't researched [4,5,6]. So, the purpose of our article consists of learning the relaxation of IMS in the result of short wave effect to Schottky diodes.

In this purpose the flexibility radius R of TiB_x-n-n^+GaAs structure on profilometer-profilographs is measured before and after the short wave effect. The thickness of TiB_x metal is 0,14mlm, this is taken as electron-radiation method. In this structure after measuring every flexibility radius the sphere amount of metallization is measured with the help of X-ray diffractometer on "x'PertPROMRD" diffractometer. Also with using planar technology with the help of photolithographic the volt-ampere characteristic is measured. Profilogrammsare recorded on a film.

After short wave radiation with $f=2,45GHz$ jiyilik and 160W exit power (comparative power $\sim 1,5W/cm^2$) during 1-5sc broadening radius changed 3-4 times than before in different examples. As sown in [3] work the parameters of diode structure were improved.

The changes of TiB_x-n-n^+GaAs Schottky barrier diode structure parameters before and after the JJJ reproducing.

Structure parameters	Radiation time, sc					
	0	10	20	30	40	50
R, m	2.72	4.32	5.43	4.86	8.91	8.89
$\sigma \times 10^9, Pa$	11.70	7.41	5.89	6.58	3.60	3.59
n	1.15	1.1	1.1	1.1	1.1	1.1
ϕ_B, V	0.74	0.78	0.78	0.8	0.8	0.8

The dependence of internal mechanical stress of structure on microwave effect time in example shows that the relaxation processes are the same size. One of the reasons is that real structure has appeared which includes itself the high doped substrate, epitaxial film and its passing film-metal zone and TiB_x zone. This in its turn is explained with multilayered package.

Having researched the effect of microwave radiation to the electro physical characteristic of TiB_x-GaAs diode structure we could get the following results.

1. It's found out that the during 0-20 sc time distance at the microwave radiation TiB_x-GaAs diode structure parameters have improved.

2. The border of hardness to the temperature of TiB_x-GaAs diode structure in the result of microwave is defined.

3. In the result of external effects the change of TiB_x-GaAs diode structure parameters and flexibility radius is defined.

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РЕЗЮМЕ

Au- TiB_x -GaAs диодли структурасига 0-20 с вақт оралиғида микро тўлқин нурлантириши билан таъсир этиш вақтидаги структуранинг параметрларининг яхшиланганлиги аниқланди. Микро тўлқин таъсири натижасида ушбу диодли структуранинг температурага чидамлилиқ соҳалари кўрсатилди. Ушбу таъсирлардан кейинги юзанинг эрилик радиуси ўзгариши аниқланди.

РЕЗЮМЕ

Структура диода AU- TiB_x -GaAs определила улучшение параметров структур микроволновых излучений на промежуток времени 0-20 с и времени влияния. В результате воздействия микроволн была показана отраслевая температурная устойчивость данных диодовых структур. Под воздействием этих факторов были определены изменения внешнего радиуса кристаллы.

SUMMARY

It is defined that during the effecting time of microwave radiation to the Au- TiB_x -GaAs diode structure for 0-20sc the structure parameters have improved. In the result of microwave the branchis temperature stability of this diode structure is shown. In the result of these factors the change of external curvature radius has been determined.