

**TALABALARGA “YARIMO‘TKAZGICHLI DIODLARNING VAX INI  
OLISH” LABARATORIYA MASHG‘ULOTINI O‘QITISHDA AKT DAN  
UNUMLI FOYDALANISH**

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**Annotatsiya:** Biz bu ishimiz orqali talabalarga tajriba ishlarini tushuntirishda axborot kommunikatsiya texnologiyalari (AKT) dan ma’lum dasturlar asosida tajriba ishini mukammal o‘rgatishdan iborat.

**Kalit so‘zi:** yarimo‘tkazgich, diod, axborot kommunikatsiya texnologiyasi, CASSY LAB, volt-amper xarakteristikasi.

**EFFECTIVE USE OF ICT IN TEACHING STUDENTS THE LABORATORY  
LESSON “OBTAINING THE VAX OF SEMICONDAKTOR DIODES”**

**Annotation:** Through this work, we are able to explain the experiments to students through the use of specific applications from information and communication technologies (ICT).

**Keywords:** semiconductor, diode, information and communication technologies (ICT), CASSY LAB, volt-ampere characteristics.

Bugun yurtimizda buyuk bunyodkorlik jarayoni kechmoqda. Qay bir go‘shaga boqmang, zamonaviy andozalar asosida bunyod etilayotgan inshootlarga, o‘z

hayotidan mamnun zamondoshlarimizga duch kelasiz. Ayniqsa, kelajagimiz egalari bo‘lmish yoshlarning barkamol voyaga yetishlari uchun yaratib berilayotgan qulaylik va imkoniyatlarning ko‘lami shu qadar kengki, buni so‘z bilan ta’riflab bo‘lmaydi. Hatto chekka-chekka qishloqlarda ham barcha qulayliklarga ega, zamonaviy texnik jihozlar bilan jihozlangan umumta’lim maktablari, kollejlarda yoshlar ixtiyorida.

Ta’lim tizimi sifati va samaradorligini oshirishning asosiy usullaridan biri o‘quv jarayonida zamonaviy axborot kommunikasion texnologiyalarni, shu jumladan multimediyali o‘quv kurslarini qo‘llash, o‘qituvchi va o‘quvchining interfaol o‘zaro aloqalarini ta’minlash, multimediyali o‘quv kurslari va darsliklarini ishlab chiqishda yuqori malakali kadrlarni jalb etishdan iborat bo‘ladi.

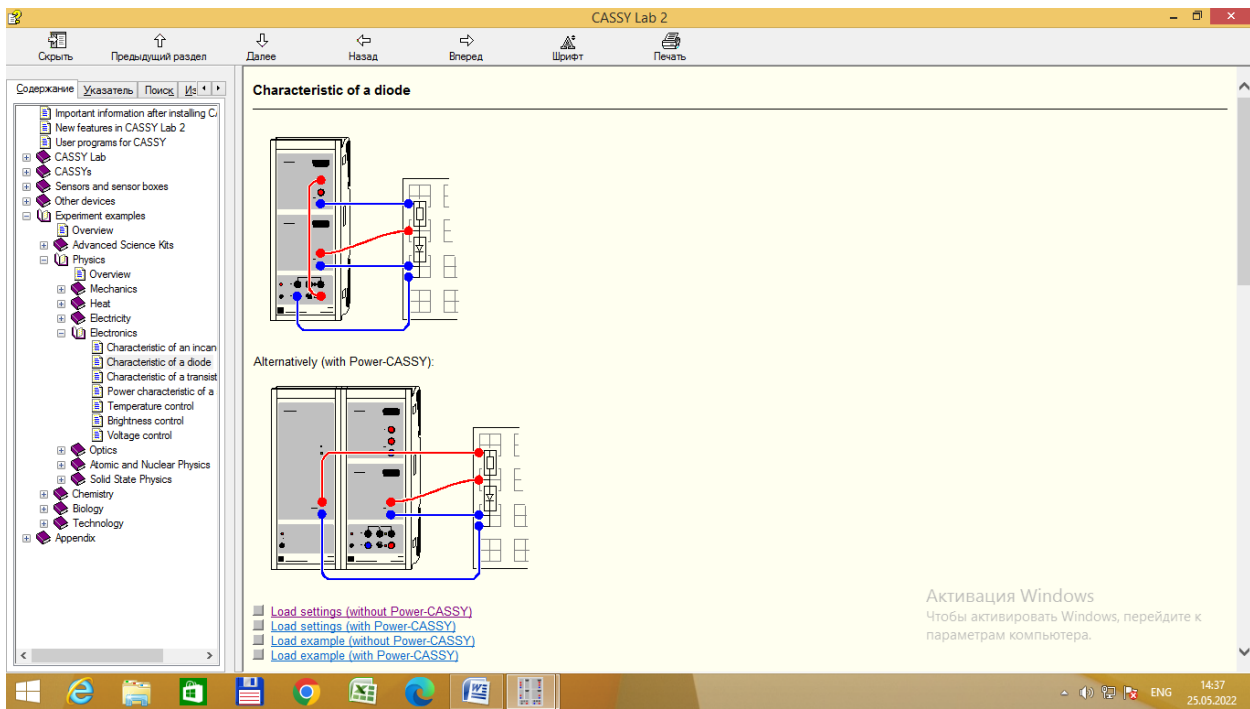
Ta’lim tizimida axborot texnologiyalari asosida masofadan o‘qitishning samaradorligini oshirish ko‘p jihatdan yaratilayotgan va qo‘llanilayotgan pedagogik dasturiy vositalar – o‘quv dastur, elektron o‘quv qo‘llanma, avtomatlashtirilgan o‘qitish kurslari va hokozalarning maqsadi, tarkibiy qismi, mazmuni va o‘qitish sifatiga bog‘liq bo‘ladi.

Shu jumladan laboratoriya mashg‘ulotlarida o‘tkazilayotgan tajribamiz eksperiment hissoylashlarini nazariy hissoylashlar birgalikda solishtirish imkonini beruvchi zamonaviy dasturlar foydalanish maqsadga muvofiq. Shunday zamonaviy dasturlardan biri CASSY LAB dasturi bo‘lib, u yordamida laboratoriya mashg‘ulotimizni nazariy jihatdan ham hissoylash imkonini beruvchi funksiyalari mavjud. Buni quyida tajriba ishi orqali ham ko‘rib chiqishimiz mumkin.

#### **Yarimo‘tkazgichli diodning VAX ni hissoylash**

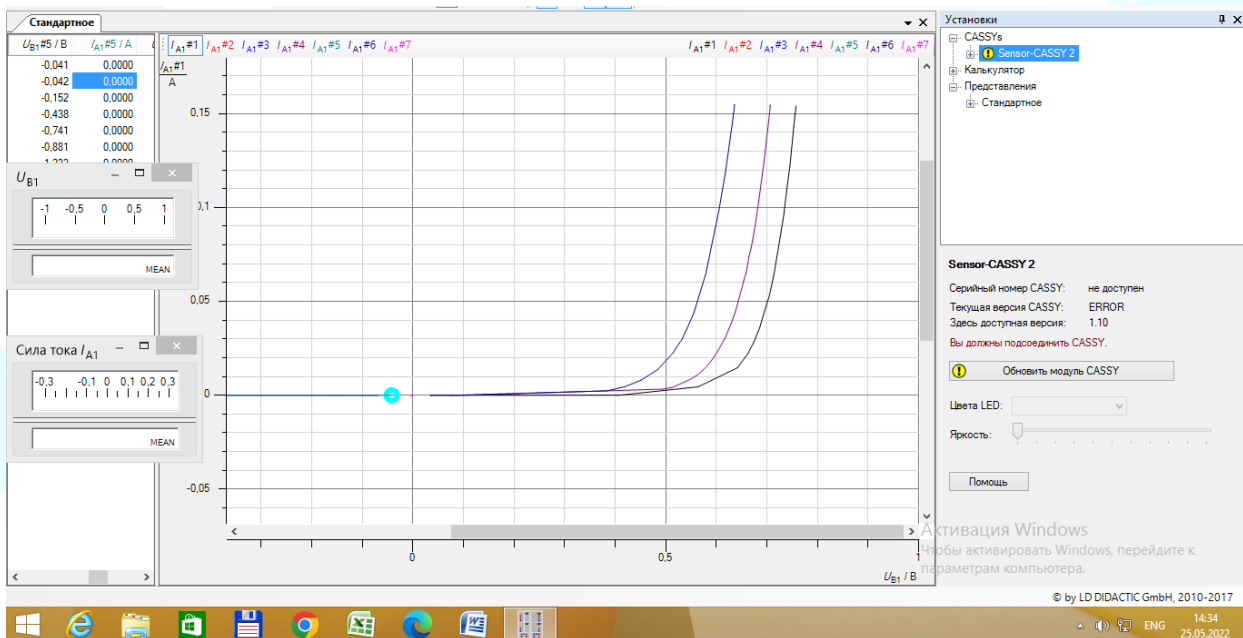
Buning uchun bizga Yarimo‘tkazgichli diod, ma’lum qarshiliklar, CASSY LAB qurilmasi, kompyuter, CASSY LAB dasturi, ulovchi simlar kk boladi.

- Zanjirni quyidagi ko‘rinishda yig‘amiz.



CASSY LAB dasturini ishga tushirib, kerakli laboratoriya ishini tanlaymiz.

- Ko‘rsatkichlarni nol holatga keltirib, asta sekin kuchlanishni ortirib boramiz
- Qiymatlarga mos ravishda quyidagi grafikni olishimiz mumkin.



Bu dastur yordamida talabalarga tajriba ishini tushuntirib berish va diodning volt-ampere harakteristikasini olishga qulaylik ham yaratib berishi mumkin. Bundan tashqari grafik aniqligiga ham erishamiz.

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