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THERMAL SENSING OF HIGHORI TEMPERATURE SOLAR INSTRUMENTS, SOLAR PHOTOELECTRIC ENERGY

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A B S T R A C T	K E Y W O R D S
This concertation in the article the sun water heater heat sensitive high temperature the sun of devices feel the heat. the sun photoelectric energy about data seeing developed.	Water heater, focus distance, concentration, half conductor, current density.

Introduction

Uzbekistan economic development , market to relations transition , agro-industry in networks energetic resources saving complex technologies apply and them scientific the basics by creating is determined . Republic of Uzbekistan _ _ _ _ the first Pr e zid e ntining 2013 1 _ No. PF-4512 of March « Alternative energy sources further development measures "about". in the decree " From solar energy in practice use for in Uzbekistan created conditions and there is opportunities this from the region this advanced in the field technologies not only in our republic , maybe nose in Central Asia experience as current reach area as basis for use being service ", it is said . Also an alternative energy sources - sun , wind and from biogas use in our republic enough scientific and technical potential and experiences noting that there is passed . The same at the time 80 of the world near in countries alternative energy from sources use programs based on conducting scientific research is going The sun from devices buildings heating and cooling, sweet water get , electricity energy harvest to do and different technological in the implementation of processes is being used . Our country in the south in the regions one yearly sunny days 280-300 days _ organize does _ summer days average the temperature is 44-45 o C organize does _ Such happy the sun people from energy in the farm use current is considered

Problem : Sun its rays collect the one who gives his intention in different concentrations _ _ _ _ _ there is is in college _ _ _ _ _ design and manufacture of parabolic cylindrical concentrators _ _ _ _ _ _ _ _ _ _ _ and to try the intention of imk o there is

These types of concentrates _ _ _ _ _ power svni to boil to the intention of the imk o to feel that he has o lib sun water boiler and heater making and test t ex n o l o gical processes work released and from sin o v was conducted . The basis of the device parts of light refocusing _ _ _ _ surface and is the source to be placed in focus . _ _ _ From the math course known with a certain focus parab o la t e ngram as follows :

$$y=4Fx$$

this where F is the focus distance

L o yihaal device return and feel the ease of positioning the boiler _ _ _ _ _ o lib o lib focus mas o fani _ choose can _

The above formula _ _ _ _ _ _ back _ of the function graph to build y and x values pointer table is prepared . The obtained values are based on a 1:1 scale centim e tr his o bida millimeter in the country _ _ _ _ graph will be killed . Get rid of it has been graph The fat is transferred in three stages _ curve line a rail is placed along it and a base is made . _ _ Ta x tachas by sawing in parallel _ _ are placed side by side . T o r e s and along the parab o la thin tin or DVP is installed . He had tuberculosis _ parab o lacylindrical surface over Aluminum foil is used . _ _ _ Copper , aluminum _ _ _ or nick e llan from the pipe is prepared . Parab o la f o kusi along q o z o nni installation for h o sil made returner surface to the box supports is installed .

At the bases what 's up _ _ installation and from him die _ for all arrows _ is installed . What 's new _ _ from water by filling It is used in all areas and c o ns e ntrat o r to the sun is directed . Water boiled it is divided . Hot water to die _ and do n't shut up and from him faucet to the back _ _ _ _ looking water flow rate faucet the back is released . _ Hot the water storage iz o lated for see is used from the battery . _

Oylar	Kun soatlari						
	12	11, 13	10, 14	9, 15	8, 16	7, 17	6, 18
Dekabr	840	800	745	640	370	-	-
Yanvar, Noyabr	860	840	780	675	460	-	-
Fevral, Oktyabr	910	890	840	760	600	180	-
May, Sentyabr	930	910	880	830	705	550	500
Aprel, Avgust	940	935	910	865	780	630	300
May, Iyun	940	930	910	865	800	620	465
Iyul	930	925	910	865	800	700	520

Consetration the sun water heater feel the heat . **Earth falling on the surface the sun energy right and scattered white radiations are felt in the body . _ _ _ _ Concentrations are falling _ _ _ _ _ _ _ _ right radiation**

sense _ _ work reach back _ in case of death _ of the device seeing the feeling of heat we go out In the territory of Uzbekistan _ fall possible that's right the sun radiation in W / m2 mentioned in the table . It is shown in Table 1 numbers a lot yearly mean of observations amount _ _ is the real one with difference to do can _ In this that the error does not exceed 5-7 % hims o bga if so , in practical experiences _ this use of certain herbs _ _ can _

C o ns e ntrat o rli the sun the device causing a feeling of heat _ _ release for we use the procedural s xe : P e rp e nikular on the surface coming down bright

to

$$Q_1 = J_1 S\tau$$

2) Qaytaruvchi sirtdan qaytgan yorug'lik energiyasi:

$$Q_k = K_F J_F S\tau$$

3) Qabul qiluvchi sirtni yutgan nur energiyasi:

$$Q_{yu} = K_2 Q_k$$

4) Qozondagi suvning olgan nur energiyasi:

$$Q_{ol} = mc(t_2 - t_1)$$

5) Qozonni yo'qotadigan nur energiyasi:

$$Q_{yo'q} = K_3 S_2 (t_k - t_1)$$

6) Konsetrasiya darajasi:

$$n = \frac{S_1}{S_2}$$

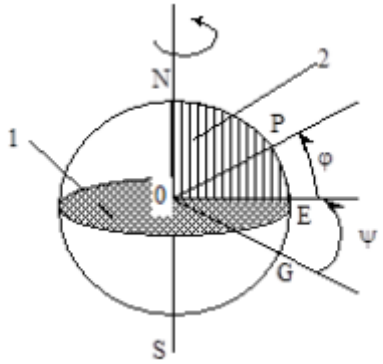
7) Qurilmaning FIK

$$\eta = \frac{Q_f}{Q} \cdot 100\% = \frac{mc(t_2 - t_1)}{J_f S\tau}$$

formulas _ incoming physical sizes . J 1 - To the light upright has been unity surface coming down light en e rgy (W/m2); K f - the surface the light return coefficient (unitless) ; _ _ _ S 1- concentration surface (m2) ; _ _ K 2-q o z o nni light swallow coefficient e nti (unitless); m - in q o z o n water quantity (kg); C - water temperature _ _ heat capacity-4200 kggrad J t 2- o lining Hot water temperature (degrees) ; _ t 1-atr o f environment t e mp e rature (degree); K 3 - q o z o nni heat transmission coefficient (W / m2grad) is 5-8 W / m2grad in practical tests _ possible ; S ks - ground surface (m2) ; S 2 - of the qo z o n bullet across k e wire face (m2); tq - ground surface temperature (degrees) . _ _ _ _

To the earth falling the sun radiation what is it ? the most big density 0.3-2.5 μm wave lengths in the range is about 1 kW

/ m2 does _ This is radiation short a wavy sensation is felt and visible spec _ _ own into he will _ Places where people live _ _ _ for j o yga , of the day on time and o b- hav o ga b o glik to the ground _ the setting sun en e rgy o values day varies from 3 to 10 MJ/m2 . The sun radiation the sun when there is 60000K har o rat on the surface defined spread photons at its maximum _ _ energy (about 2 eV) . _ _ x acts . _ _ It connects the Earth 's surface with the atmosphere _ _ _ _ _ _ radiation en e rgy currents are about 1 kW / m2 , but they are 10 μm _ _ in attr o fi maximum , long 5-25 μm thick wave d e flexible _ _ sp e ctral diapause o nni closed puts _ Sp e ktr according to short wavy and long wavy radiations different from each other located on the far side _ and them o s o n separate can _ Known at times known in jobs _ known way the sun attached to the device most energy _ as the sun radiation .



1 - drawing:φ **k e ngliness and** ψ **length determination s xe masi** device .

use of energy _ _ _ show as much as possible _ _ for Y e r and Solar geometries _ _ _ _ imagination it is useful to do will be 1 - place it in the drawing the structure is raised . The land is its own arrow 24 hours a day _ _ _ turning around comes out (arrow N and S northwest and southern points goes back and forth). Arrow p e rp e nicular to equ o t o rial t e smallness direction _ Points P, E and G on the Earth 's surface φ k e ngliness and ψ length the back x aract e r . Here , the 1st equatorial climate , the 2nd meridional climate . _ _ _ _ _ _ _ _ _ _ at point ωR s o atli corner sunny half from day to day _ _ _ _ _ the turning angle is felt . Y e r 1 s o at 3600 /24 = 150 angles turns , in which case it is correct corner with the following if o _ defined as :

$$\omega=(15^o \cdot s\text{-}1)\cdot(t_{solar} - 12\ s)=(15^o \cdot s\text{-}1) - (t_{zone} - 12\ s) = \omega eq = (\psi - \psi_{zone})$$

this here _ tsola and tzone -m o s _ local the sun and d e c r e t time (in hours) ; ψ_{zone}- tzone time half when mos k e to the day the space where the sun shines (local _ the sun and when the d e c r e t times are m o s c e , i.e. $t_{solar} = t_{zone}$ when). Earth is the sun atr o fida per year one times becomes _ The direction of the Earth 's axis rotation rate is normal _ _ _ to the line $_0$ =23.50 angle at δphase o in his style when installed _ _ is stored . To the sun direction and

equat o rial t e kiss in o corner δ o gish d e will cry and Seasonal changes are felt . _ _ _ _ _ _ Oh my gosh the sun time according to is the latitude of the point where the sun is located on the horizon . Pants o liy half in the ball δ summer sun stand up from the era δWinter from $_0$ =+23.50 the sun stand up to the period δ_0 = -23.50 s starts to change , _ _ _

$$\delta = \delta 0 \cdot \text{Sin} [\ 360\ 0 \cdot (284=n)/365]$$

this n- years on earth on (n=1 to January 1 suitable will come)

All to the parties spreadable the sun light energy 4 ·1020 mln . kW the organize does _ From this amount to the ground _ from a billion one part falls and it is 1.78 ·1017 W is enough Energy used on earth _ _ _ _ _ and 3 ·1011 MJ organize does _ Earth _ _ to the surface a lot of energy part of it of falling reasons :

➢ Earth rotation _ _ read on o _ because of from the horizon height of the sun ;

➢ the state of the atmosphere ;

_ _ ➢ of surfaces optical _ x features .

Acceptable shar o dogs , that is back to back in the near future the sun is high is , hav o while get out radiation up to 1 kW per 1 m2 surface en e rgy fall can _ The sun energy _ _ change two method available :

1. The sun to save energy _ _ _ to energy direct conversion (photo converters _ _ using).
2. The sun radiation heat to en e rgy change (sun c o l l e c t o r s using).

The sun radiation straight away change for semiconductor materials are used . _ _ _ _ The sun batteries _ _ all wide range of radio electrical equipment _ _ _ _ _ is used . Environment _ _ _ to the effect stability _ _ for they are get out from + 800C to -1500C at room temperature _ in shar o dogs that are can work . Half conductive of solar elements external surface radiation from the effect and protect from heat _ _ _ optical _ layer with q o plans .

Summary : This in my article Again recoverable energy from your sources use about information giving I passed . Exactly again recoverable alternative energy of sources the sun energy about data I collected and my experiences to the result based on I wrote Current of the day to our house coming the sun to the panels need to be light and light time how much to be need about more complete I tried to explain . Acceptable shar o dogs , that is back to back in the near future the sun in the corner is , hav o while get out up to 1 kW per 1 m2 surface radiation energy fall can _ **Earth falling on the surface**

the sun en e rgy right and scattered radiations are felt in the body . _ _ _ _ _ Concentrations are falling _ _ _ _ _ _ _ _ right radiation sense _ _ work reach back _ in case of death _ of the device seeing the feeling of heat we went out

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