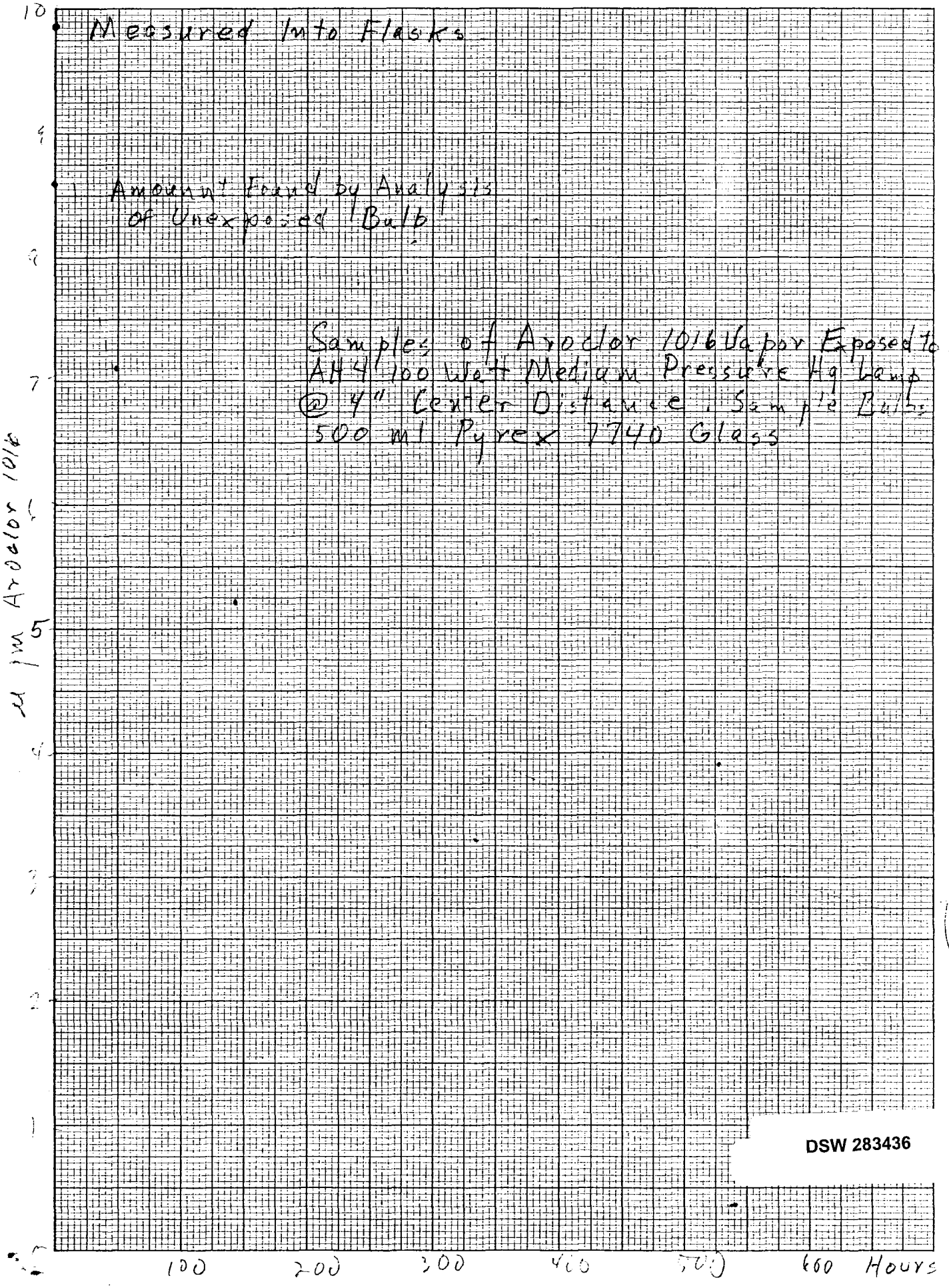

K+E 10 X 10 TO 1/2 INCH 46 1320
7 X 10 INCHES MADE IN U.S.A.
KEUFFEL & ESSER CO.

DSW 283436

STLCOPCB4064852

Photodegradation of Arochlor 1016

	Exp. Period (hrs)	µg found
# 1	48	7.1
2	144	5.2
3	336	5.3
4	528	3.9
5	528 (stored in dark)	8.6

theo. amt added 9.86 µg

No isomeric alteration noted.

Arochlor 1016

S. E. AH 4 100 Watt medium pressure glass envelope Hg vapor lamp

Samples enclosed in Pyrex 7740 glass flasks @

DSW 283437

$h = 6.624 \times 10^{-27}$ erg sec

C-H	99 kcal/mol
C=C	147
C-Cl	79
H-Cl	102

$c = \nu \lambda$

$$\nu = \frac{c}{\lambda} = \frac{3 \times 10^{10} \text{ cm/sec}}{3 \times 10^{3} \times 10^{-8} \text{ cm}} = 10^{15} \text{ sec}^{-1}$$

$$\epsilon = h\nu = 6.624 \times 10^{-27} \times 10^{15} = 6.624 \times 10^{-12} \text{ ergs}$$

$$\text{ergs/mol} = 6.624 \times 10^{-12} \times 6.02 \times 10^{23} = 37.6 \times 10^{11} \text{ ergs/mol}$$
$$= 3.76 \times 10^{12}$$

1 joule $= 10^{7}$ ergs

$= 3.76 \times 10^{5}$ joules/mol

4.184 joules/cal

$$\frac{3.76 \times 10^{5}}{4.184} = .9 \times 10^{5} \text{ cal/mol} = 9 \times 10^{4} = 90 \text{ K cal/mol}$$

$3000 \text{ Å} = 90 \text{ kcal/mol}$

DSW 283438

STLCOPCB4064854