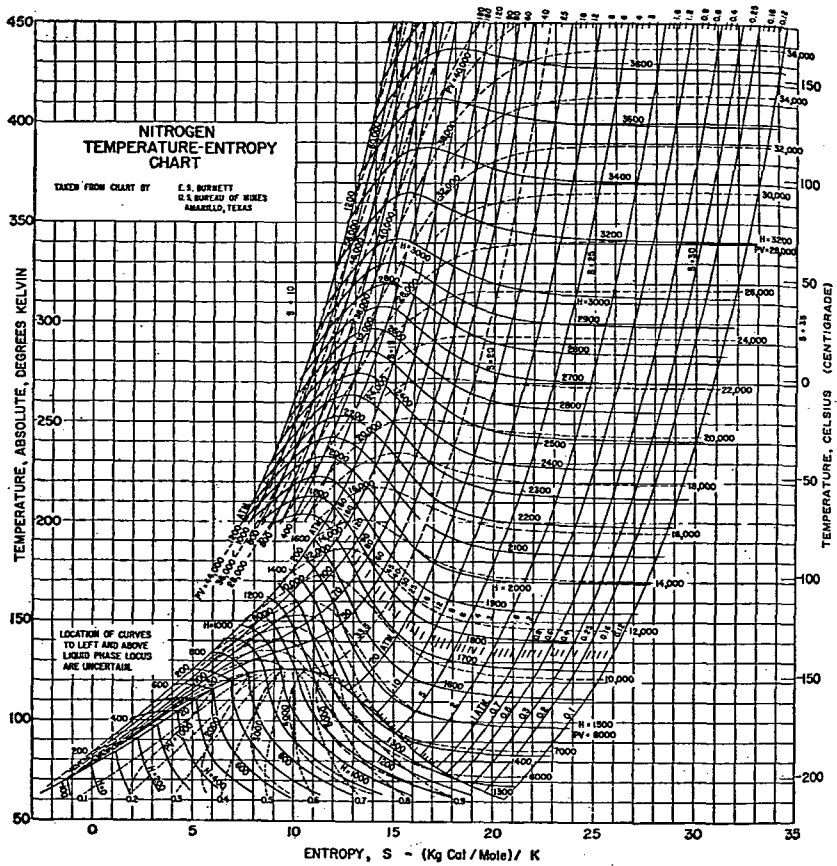


CHART UNITS

P - PRESSURE	ABSOLUTE - ATMOSPHERES
T - TEMPERATURE	ABSOLUTE - K (KELVIN)
V - VOLUME	LITERS PER KG MOL
PV - PRODUCTS	(LTR-ATM) / KG MOL
H - ENTHALPY	KG CAL / KG MOL
S - ENTROPY	(KG CAL / KG MOL) / K

NOTE: ZERO OF ENTHALPY AND OF ENTROPY TAKEN AT BOILING POINT OF LIQUID NITROGEN
P = 1 ATM T = 77.35 K (-195.8 C)

PV/J = PV/41.3 = PV IN ENTHALPY UNITS
U = INTERNAL ENERGY = H - PV/J KG CAL / KG MOL
PV/P = VOLUME IN (LITER-ATM) / KG MOL

CONVERSIONS

H - (KG CAL / KG MOL) x 1.8 = BTU / LB MOL
PV/J = " " " x 1.8 = " "
U " " " " x 1.8 = " "
S - (KG CAL / KG MOL) / K x 1.0 = (BTU / LB MOL) / R
V - (LITERS / KG MOL) x 0.0160$_2$ = (CU FT / LB MOL)
PV - (LITER-ATM) / KG MOL x 33.9 = (FT LB / LB MOL)

DIVIDE VALUES "PER MOL" BY 28.016, THE MOLECULAR WEIGHT OF NITROGEN, TO GET CORRESPONDING VALUES PER KG OR PER POUND OF NITROGEN.

Fig. 20 .... Temperature-Entropy Diagram for Nitrogen

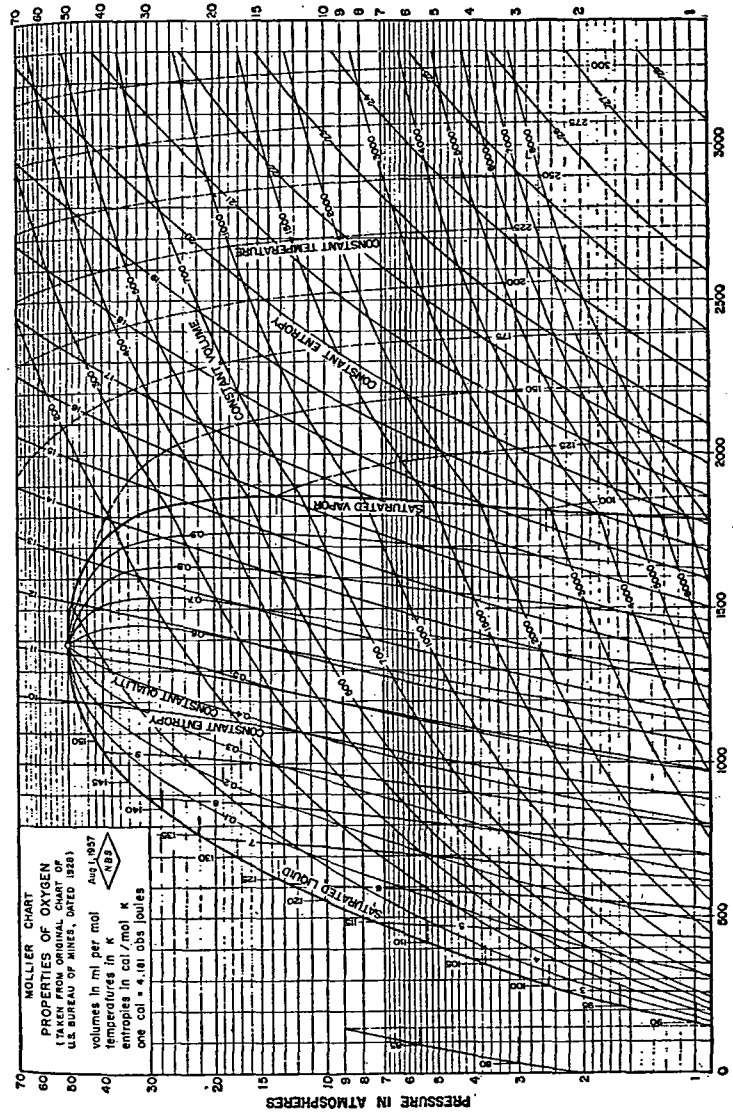


Fig. 21 .... Temperature-Entropy Diagram for Oxygen