解： *W*= −70kg×3000m= −2.1×105 kg⋅m= −2.1×105×9.8J= −2.1×103kJ

Δr*H*θ= −2.1×103kJ/30%= −7.0×103kJ

Δ r *H*θm=11×(−285.830 kJ⋅mol−1)+12×(−393.509 kJ⋅mol−1) −(−2222 kJ⋅mol−1)

= −5644kJ⋅mol−1

*ξ* = Δr*H*/Δr*H*θm= (−7.0×103)kJ/(−5644)kJ⋅mol−1=1.2mol

*m*(C12H22O11)= *n*(C12H22O11)/*M*(C12H22O11)=1.2mol×342.3g⋅mol−1= 4.2×102g