1. $I(\omega) \propto \dfrac{\hbar\omega^3}{c} \dfrac{1}{e^{\hbar\omega/k_B T} - 1}$

2. $\dfrac{\mathrm{d}P}{\mathrm{d}A} \propto T^4$

3. $\lambda_{\max} = (2.9 \times 10^{-3}\,\mathrm{K\,m})T^{-1}$