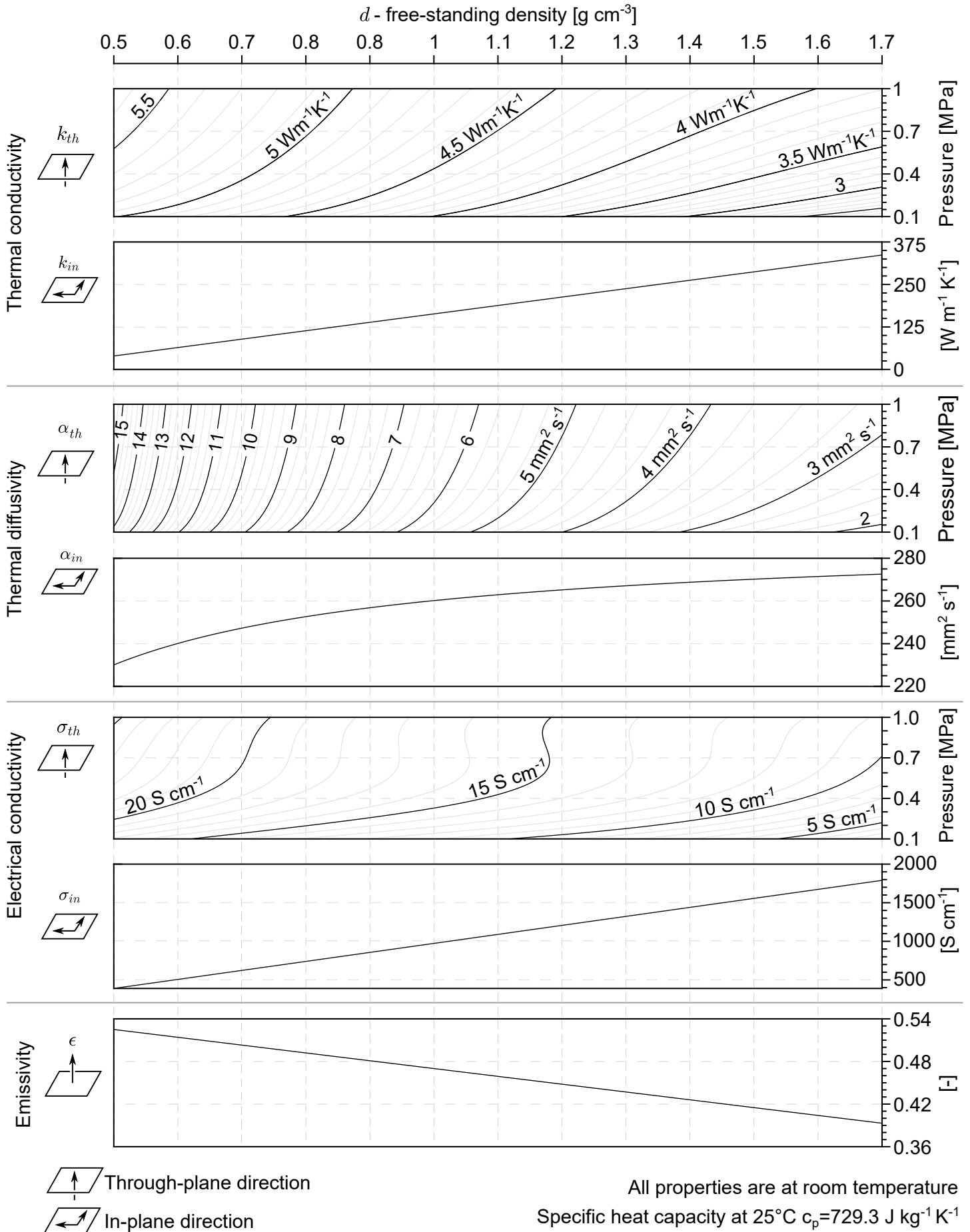
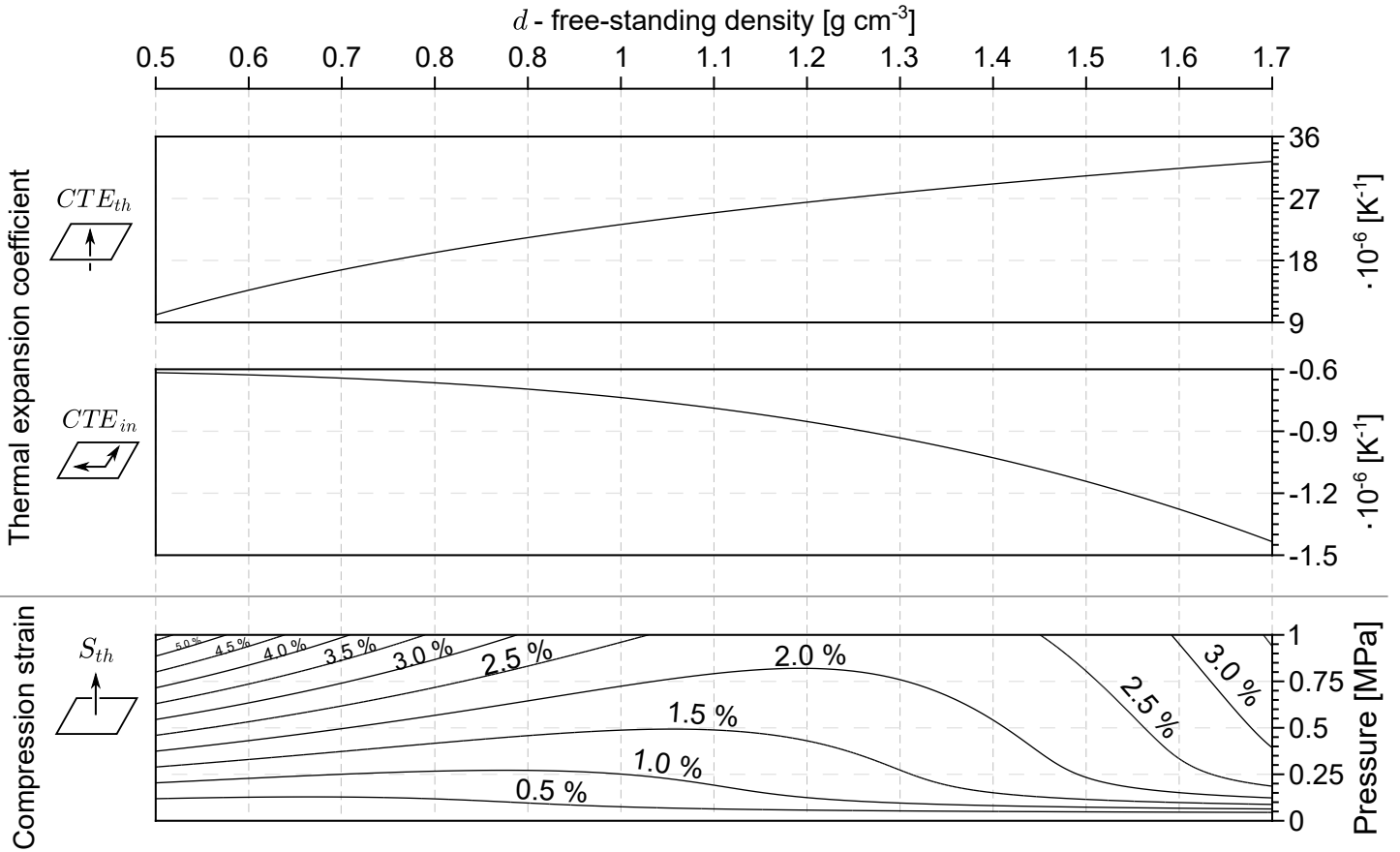


Summary of natural graphite sheet properties



Summary of natural graphite sheet properties



Thermal conductivity		$k_{th} = (34.63 - 34.44d + 29.61d^2)p^{0.01015 - 0.0008422d} - 30.59 + 34.99d - 31.75d^2$	± 0.4	$[\text{W m}^{-1} \text{K}^{-1}]$
		$k_{in} = 212d - 22$	± 15	
Electrical conductivity		$\sigma_{th} = 2667 - 3806d + 4.111p + 2945d^2 - 1.795dp - 0.004019p^2 - 992d^3 + 0.9967d^2p - 0.0003251dp^2 + 1.877 \cdot 10^6 p^3$	± 150	$[\text{S m}^{-1}]$
		$\sigma_{in} = 1.167 \cdot 10^5 d - 1.934 \cdot 10^4$	$\pm 10\%$	
Emissivity		$\epsilon = -0.11d + 0.58$	$\pm 5\%$	$[-]$
Thermal expansion		$CTE_{th} = -119d^{-0.151} + 142$	$\pm 18\%$	$\cdot 10^{-6} \text{ [K}^{-1}]$
		$CTE_{in} = -0.132d^{3.46} - 0.6$	± 0.2	
Strain		$S_{th} = (0.0026 - 0.014d + 0.0166d^2)(1 - e^{-(p-30)0.03d^{-1.6}}) + (0.00012 - 0.000147d + 4.8 \cdot 10^{-5}d^2)(p - 30)$	± 0.004	$[-]$
<p>d - density [g cm^{-3}], p - pressure [kPa], relationships valid for $0.5 \leq d \leq 1.7 \text{ g cm}^{-3}$ and $100 \leq p \leq 1000 \text{ kPa}$</p>				

Through-plane direction
 In-plane direction

All properties are at room temperature, CTE for the range 35 to 95 °C
 Specific heat capacity at 25°C $c_p = 729.3 \text{ J kg}^{-1} \text{K}^{-1}$