Mixed Convection from Downward Facing Plate, 1mm Roughness, $\Delta T=11K$

$\tilde{f}^4$ Mixed Exp. Uncertainty

Forced Turbulent

Laminar Asymptote

Measured

Measured over time split into 2 intervals

$N_u$ vs $Re$

$Re=3552$
Mixed Convection from Downward Facing Plate, 1mm Roughness, $\Delta T=11K$

$l^4$ Mixed Exp. Uncertainty
Forced Turbulent
Laminar Asymptote
Measured
Measured over time split into 4 intervals

$\text{Re} = 3552$
20171029T184617Z - mixed Convection - Roughness=1.00mm; T=17.6+10.8°C; +90.00°
32±4r/min, V=0.116m/s, Re=2295, Ra_D=3735218, h=1.66W/(K.m^2), U=0.154W/K, Nu=19.5
2017003T193842Z - mixed Convection - Roughness=1.00mm; T=18.5+10.5°C; +90.00°
41±3r/min, V=0.147m/s, Re=2984, Ra_D=3786039, h=1.79W/(K.m^2), U=0.166W/K, Nu=21.0
20171004T215845Z - mixed Convection - Roughness=1.00mm; T=18.5+10.6°C; +90.00° 80±2r/min, V=0.288m/s, Re=5761, Ra_D=3682912, h=2.77W/(K.m^2), U=0.258W/K, Nu=32.6
20171004T122726Z - mixed Convection - Roughness=1.00mm; T=18.7+10.0°C; +90.00°
113±3r/min, V=0.406m/s, Re=8181, Ra_D=3563099, h=4.25W/(K.m^2), U=0.396W/K, Nu=50.1
20170324T231511Z - mixed Convection - Roughness=1.00mm; T=11.3+11.7°C; +90.00° 160±1r/min, V=0.573m/s, Re=11883, Ra_D=4484102, h=5.83W/(K.m^2), U=0.542W/K, Nu=69.9
20170324T120149Z - mixed Convection - Roughness=1.00mm; T=10.7+11.5°C; +90.00°
320±1r/min, V=1.138m/s, Re=23982, Ra_D=4560597, h=11.6W/(K.m^2), U=1.08W/K, Nu=139.5
20170324T030616Z - mixed Convection - Roughness=1.00mm; T=10.9+11.1°C; 90.00°
640±4r/min, V=2.211m/s, Re=46699, Ra_D=4425681, h=21.1W/(K.m²), U=1.96W/K, Nu=253.4
20170601T235336Z - mixed Convection - Roughness=1.00mm; T=17.8+09.9°C; +90.00°
980±21r/min, V=3.226m/s, Re=64273, Ra_D=3456456, h=28.1W/(K.m^2), U=2.61W/K, Nu=331.6