

Inclined plane

Name and surname:

Group: ...

Date of experiment:

Frictional force using the Equilibrium method.

Experimental results table

H	h	t	t _{moy}	σ	Δt	sin α	Δ(sin α)	f _d	Δf _d			
mm	mm	s	s	s	s			N	N			
	270	t ₁	cal	cal				cal	cal			
		t ₂										
		t ₃	≈	≈				≈	≈			
		t ₄										
		t ₅										
	250	t ₁	cal	cal				cal	cal			
		t ₂										
		t ₃	≈	≈				≈	≈			
		t ₄										
		t ₅										
	230	t ₁	cal	cal				cal	cal			
		t ₂										
		t ₃	≈	≈				≈	≈			
		t ₄										
		t ₅										
	210	t ₁	cal	cal				cal	cal			
		t ₂										
		t ₃	≈	≈				≈	≈			
		t ₄										
		t ₅										

	h	H	$\sin \alpha = \frac{h-H}{OO'}$
α ₁			
α ₂			

	F _s	ΔF _s
Cal		
≈		

Questions:

- 1) Fill in the experimental results table after ensuring that there are no outliers.
- 2) Draw five axes (one for the equilibrium friction force and four for the dynamic friction force with its uncertainties).
- 3) Are the dynamic friction forces identical to each other? Justify your answer.
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- 4) Are the dynamic friction forces identical to the equilibrium friction forces? Justify your answer.
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