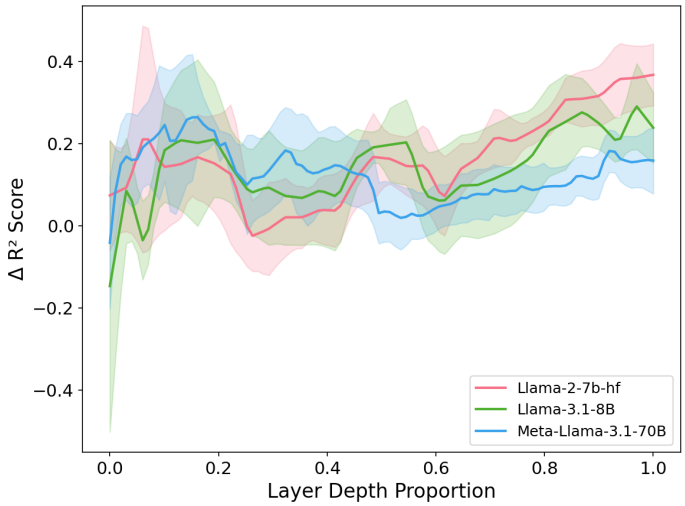

Figure 1: Average ΔR across five different attributes, with shaded error bands indicating ±1 standard deviation across attribute pairs. ΔR is defined as R^2(continuation prompt) minus R^2(question prompt)

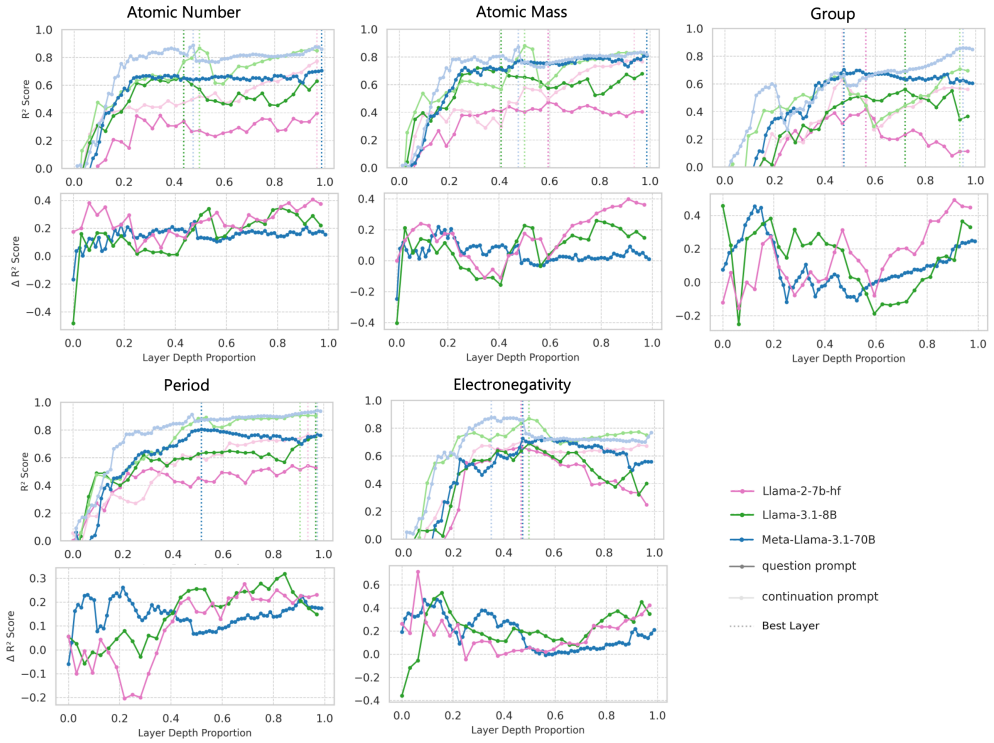

Figure 2: R^2 and ΔR scores for linear probes trained on target properties and evaluated on representations from question and continuation prompts. ΔR^2 is defined as R^2(continuation prompt) minus R^2(question prompt).

Table 1: p-values from the Mann-Kendall Trend Test on delta R^2 (difference between continuation and question prompt R^2) for each attribute-model combination across layer depths (0.5–1.0). Significant values ($p < 0.05$) are marked with *

Model	Electronegativity	Group	Atomic Number	Atomic Mass	Period
Llama-2-7b-hf	1.89e-05*	6.15e-05*	0.00343*	1.89e-05*	0.03434*
Llama-3.1-8B	0.00603*	0.00256*	0.30043	0.30043	0.82189
Meta-Llama-3.1-70B	3.94e-11*	0.0*	0.000184*	1.68e-06*	1.93e-14*

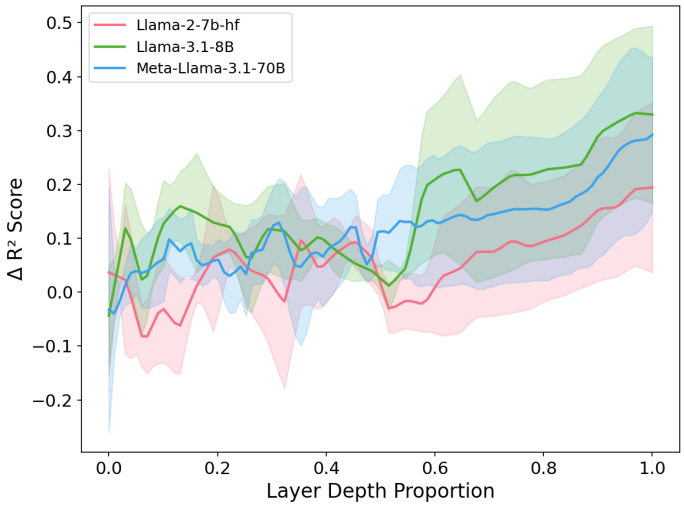

Figure 3: Average ΔR across five different attribute pairs, with shaded error bands indicating ±1 standard deviation across attribute pairs. ΔR is defined as R^2(continuation prompt) minus R^2(question prompt)

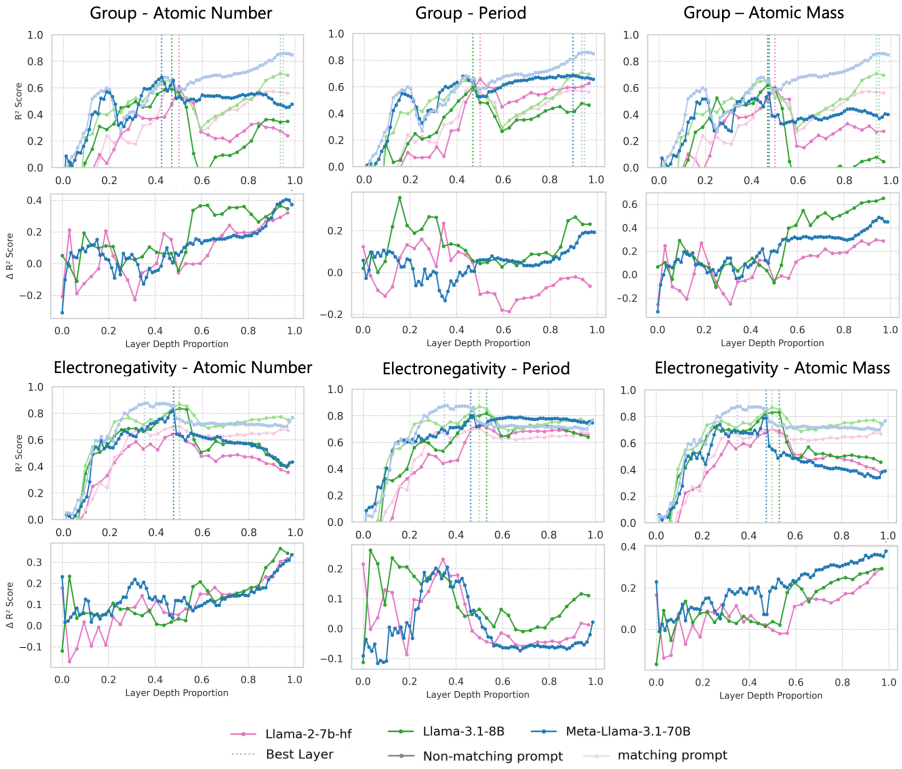

Figure 4: R^2 and ΔR scores for linear probes trained on target properties and evaluated on representations from matching and non-matching prompts. ΔR is defined as R^2(matching prompt) minus R^2(non-matching prompt).

Table 2: Mann-Kendall p-values computed across layer depths (0.6–1.0). Significant values ($p < 0.05$) are marked with *. Abbreviations: GP = Group Period, GAM = Group Atomic Mass, GAN = Group Atomic Number, EAN = Electronegativity Atomic Number, EAM = Electronegativity Atomic Mass, EP = Electronegativity Period.

Model	GP	GAM	EAN	EAM	EP	GAN
Llama-2-7b-hf	3.19e-04*	7.32e-05*	3.19e-04*	1.98e-04*	0.12720	4.36e-05*
Llama-3.1-8B	3.19e-04*	5.06e-04*	2.79e-03*	1.21e-04*	0.01734*	0.50216
Meta-Llama-3.1-70B	5.42e-07*	2.99e-04*	1.25e-13*	6.77e-13*	0.00112*	2.60e-13*